The Inevitable Death of Privacy?
An Analysis of The Argumentation of Reciprocal Transparency

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June 30, 2017

Word Count: 21991

Keywords: Transparency, Privacy, Technological Determinism, Technological Solutionism, Discourse Analysis

Abstract

Following the advent of new Information and Communication Technologies such as smartphones and social networks, the boundaries between what is public and what is private have shifted significantly. While concerns have been expressed by the population regarding the erosion of privacy, as in the case of the Patriot Act or Wikileaks, individuals also deliberately share a lot of personal information online. This has led some thinkers to propose that a "reciprocal transparency", which would entail a nearly unlimited access to any kind of information for every citizen, might be an alternative to actual privacy laws, which are severely hampered by the pervasiveness of new surveillance technologies. By adopting the approach and the theories of Science and Technology Studies, this research aims at analysing the three cornerstones which underpin the argumentation in favour of transparency. By doing so, it demonstrates that discourses advocating for such transformations rely on the erroneous belief that technology determines social change, on a misconception of privacy, and finally on a utopian vision of transparency. These observations lead to the conclusion that reciprocal transparency is not so much simply a solution to modern ICT-related privacy issues as an ideological view of the world.

Acknowledgments

I would like to begin by thanking Mr Frédéric Claisse, who supervised the writing of this thesis, and whose support, availability, encouragements and precious advice have been crucial.

I also want to thank everyone who has contributed to this thesis, directly or indirectly, including my friends and family.

Finally, I would like to express my sincere gratitude to those whose patience, dedication and enthusiasm have helped me go through uncertain times. “Once more unto the breach...”

You must realize how important a discovery it is; from now on no criminal can deny the truth. Not even our innermost thoughts are our own, as we so long have believed, unjustifiably.

Leo Kall presenting his truth serum in *Kallocain*, by Karin Boye, 1940.

What's on your mind?

Facebook's welcome message for status updates.

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1. Introduction

In 1924, even before *Brave New World* and *Nineteen Eighty-Four* were written, a dystopian fiction was published, which depicted a futuristic and literally transparent society, where walls, sidewalks and buildings are made of glass. There, every action is public, individuality has been erased, and data, in the form of digits, is valued above all things according to a mathematical logic. By writing *We*, Russian author of science fiction Yevgeny Zamiatyn chiefly aimed at satirically denouncing the Bolshevik rule which had forced him into a self-imposed exile. However, with respect to this research, his insight and the message of his book might actually be more relevant for understanding today's rapidly changing surveillance practices than Georges Orwell's or Aldous Huxley's emblematic works, which have long mainly represented undesirable futures to fight against. For as co-founder of the field of Surveillance Studies David Lyon and sociologist Zygmunt Bauman highlighted in *Liquid Surveillance: A Conversation*, the gathering of information on individuals has shifted from a rigid and vertical model where governments monitor citizens to a more horizontal one, as surveillance has dissolved and become more decentralised, being conducted by other organisations and individuals themselves, much in the line of what thinkers as Gilles Deleuze theorised with the concept of "societies of control" (Bauman and Lyon, 2013).

While some see in this transformation of the attributes of surveillance, illustrated by the ubiquity of smartphones and the advent of social networks, a new opportunity to rebalance power relations between the watchers and the watched (Brin, 1998; Mann, 2003; Ganascia, 2009; Mayes, 2010), others remark that it constitutes an increasing erosion of privacy, and that the ideal of transparency, promoted by technology companies to the detriment of actual social norms, is quickly spreading and developing (Bessire, 2005; Birchall, 2011; Han, 2012; Searle, 2014; Morozov, 2015; Schneier, 2016).

Although Zamyatin's dystopia portrays an omnipotent "One State", that exerts its power on its citizens following a top-down model, much like the "World State" and "Big Brother", the way the author describes a society whose laws, language, architecture and philosophy entirely rely upon the concept of transparency is today therefore illuminating. In some respects, Zamyatin's dystopia is even prescient, for various well-intentioned but somewhat naïve advocates of a nearly unrestricted

transparency have been arguing in favour of “glasses houses” to eradicate criminality and foster accountability in our modern societies (Brin, 1998, p. 297). Although such overtly radical stance remains rare, the reasoning underlying it can be found in many statements by politicians and entrepreneurs.

Discourses that defend an ideological conception of transparency – as opposed to a more instrumental one – usually assert that the advent of technology is inevitable, that privacy has become an obsolete norm, and that an unlimited access to information will solve numerous modern issues. It is such idealistic vision of transparency, and more specifically the argumentation and the assumptions underpinning it, that this thesis intends to analyse. The research question it aims to answer is therefore the following: How do discourses promote transparency as a relevant alternative to privacy?

Although they have existed for two decades now, such discourses have rarely been studied, and if so, often from very specific point of views. However, there exists a field specialised in treating issues related to the complex relationship between technology and society, and that is Science and Technology Studies. By applying an approach that emphasises the mutual influence of science and society on each other, this thesis aims to demonstrate that neither getting rid of surveillance technologies nor letting miniature cameras pervade the world constitute viable solutions to modern privacy issues, for this would be giving in respectively to social reductionism and technological determinism, and would thus amount to neglect the constructed nature of of our socio-technical ensembles (Pinch & Bijker, 1987).

The more global objective of this thesis is thus to follow prescient authors' calls, not to fear the future their dystopias depicts, but rather to think about the ways human civilisations evolve in interaction with certain thoughts and technologies in order to prevent regrettable errors. By doing so, it hopes to highlight the message of these hopefully self-unfulfilling prophecies.

This research is divided into two parts, namely a theoretical and an analytical one, each with their own chapters. The specific aims and objectives of the study will be considered in the second chapter, along with its potential wider impact for the field of Science and Technology Studies and the discussion about the concept of transparency. The methodology, the data collection and interpretation methods will be described in the third chapter.

The fourth chapter will then be dedicated to the state of the art, and a fifth one will close the theoretical part by evoking the frameworks, theories and concepts used for the interpretation of the data. The analytical part will then first present, in the sixth chapter, the main work that advocates for a “reciprocal transparency”, and that will act as a reference point for the interpretation. The seventh chapter, based on this presentation, will introduce the three cornerstones of the ideology of transparency, that is, technological determinism, a dystopian vision of privacy, and a utopian vision of transparency. The eighth, ninth and tenth chapters will delve into the details of the analysis by discussing each cornerstone more specifically. The conclusion will then close this thesis by summarising the results of the analysis and by reflecting upon possible further improvements and developments.

2. Aims and Objectives

The main aim of this thesis is to proceed to a thorough analysis of the argumentation underpinning discourses around reciprocal transparency[1]. Proponents[2] of this idea refer to a system where the actual privacy laws, that tend to allow organisations and individuals to choose which information they disclose and which they keep secret, would have been replaced by the implementation of a set of sociotechnical measures that would grant every citizen a nearly unlimited access to information on anything and anybody. Concretely, this would entail the suppression of the right to manage what should remain secret and what should not, for example by spreading microscopic cameras everywhere in the world, and by allowing any individual to access the live recording at any time.

The personalities that argue in favour of such a system, or at least whose discourses tend to undermine actual social norms and to promote a more "transparent" management of private information, will be referred to as "reciprocal transparency advocates"[3] throughout this thesis. Their reasoning generally relies on three core ideas. Firstly, they tend to consider technology as an autonomous force, on which society has no or little influence. The advent of ever more advanced surveillance technologies thus appears to them as inevitable, and should therefore not vainly be fought against. Secondly, reciprocal transparency advocates see the concept of privacy as an obsolete norm that is bound to be removed sooner or later. More radical proponents even depict it as a dangerous weapon which criminals and powerful people have been using at all times to hide themselves from the people they are accountable to. Thirdly, transparency enthusiasts are convinced that transparency is the key to solve most of the modern issues our societies are facing, and will thus greatly foster equality, justice, democracy, market enterprise, and scientific research.

The goal of this research is to analyse each of these three core beliefs and the related underlying assumptions, in order to assess the cornerstones of what some scholars have called the ideology of transparency,. For in fact, what used to be an instrumental concept aimed at fostering accountability on a governmental and economic level is increasingly becoming a philosophy of its

1 For a more fluid and convenient reading, the concept might sometimes also be referred to as "global transparency".

2 David Brin, Kevin Kelly, Jeff Stibel and Gregory Ferenstein are examples of personalities that advocate for a global transparency. To a lesser extent, Mark Zuckerberg, Eric Schmidt, Vint Cerf and other figures of technology companies, by their depreciative discourses on privacy, can also be considered as spreading such idea of transparency.

3 They might also simply be referred to as "transparency advocates" or "transparency enthusiasts" in this thesis, but they should in no way be confused with advocates of governmental transparency.

own (Han, 2012; Morozov 2015). My objective is thus not to refute that reciprocal transparency is a viable alternative to privacy in itself, but to demonstrate that the core tenets on which it relies are biased and can thus not be regarded as constituting a legitimate reasoning.

In order to do so, this thesis will use David Brin's *The Transparent Society*, in which the term "reciprocal transparency" was coined, as a reference point. The ideas highlighted in this non-fiction book will serve as a starting point for the discussion of each cornerstone of reciprocal transparency, and the arguments used to defend them will then be compared to that of other transparency advocates, but also contrasted with the reflexions of other scholars, more critical of the concept.

The originality of this research lies in its second objective, which is to analyse discourses around reciprocal transparency with the approach of Science and Technology Studies (STS). Although the proposition to flood the world with surveillance technologies to solve societal problems or the more moderate suggestion of technology-company leaders to progressively get rid of privacy laws both appear as ideal subjects of study for a field of research that specialised in treating issues related to the complex relationship between science and society, no real study has yet been conducted on the matter (Ochs & Ilyes, 2013). This thesis will therefore interpret the collected data on transparency discourses by paying a particular attention to the intertwining of human and technical dimensions and by applying STS theoretical frameworks that underline the reciprocal influence of society and science on each other. This perspective should allow both for a demystification of technology and an intricate analysis of the concept of privacy, when the former is too often personified as an unstoppable genie, and the latter too naively equated with hiding unlawful acts.

As a third and final aim, this thesis hopes to lay the foundation for future (STS) studies on reciprocal transparency, because the limitations inherent to the present exercise do not allow for an exhaustive review of all the arguments and assumptions that underlie the ideology of transparency, and a lot remains to be done.

3. Methodology and Methods

Since this thesis aims at analysing the logic and reasoning behind the argumentation that underpins the proposition of replacing privacy laws with reciprocal transparency, it seemed appropriate to adopt a qualitative research method. Indeed, the present work mainly involves interpretation of data in a constructivist way in order to "deconstruct" the discourses of transparency advocates, and reflect on the influence the social and political context might have on the way they frame the issue. The data collection methods were therefore rather flexible, and followed an inductive reasoning, as to allow for a wide variety of sources.

Language is moreover the prime study material, for it is the medium through which ideas circulate and where discussions arise around such concepts as reciprocal transparency. Scholarly works, newspapers, blogs, fiction and non-fiction books, governmental reports, public statements, and political campaigns are but a few examples of communication forms on which the researcher can conduct an analysis in order to study the semantics, the style, the metaphors, and the logic of argumentation. But these sources never constitute "pure" and "neutral" materials, because there is no stable and objective reality to be observed or measured. It is rather necessary to examine the context of production and publication of each text and discourse, for they appear as the result of the conjunction of a multiplicity of factors and events.

Likewise, the involvement of the researcher can never be considered as having no influence on the conclusions of the research, and he or she cannot be seen as "detached" from the object of his or her analysis. Rather, as I am the one interpreting the data, my own reasoning and point of view will be central to the conclusions proposed at the end of this thesis. In this case, I think it is especially important to ensure that the analysis does not become normative from the start. As an STS scholar, I share the opinion according to which society and technology both have a significant role in shaping the way we live. Because I am studying a "solution" to today's modern issues that relies solely on technical achievements, I might be inclined to give in to a certain form of normativity, when it is crucial to first interpret the data, not with an objective mindset, for this is impossible, but at least with a descriptive mindset.

The conclusion will therefore be the part dedicated to a more normative point of view on the

transparency argument, based on the lessons learned from the analysis.

More concretely, the data collection methods include targeted literature searches for scholarly work through university libraries via keywords such as “privacy” and “transparency”, searches in public libraries to find fictional works – mainly utopias and dystopias – on the same themes, more broader exploration on various online search engines in order to find non-academical discourses on reciprocal transparency or related ideas, and finally searches for official documents and legislation reports on the websites of various institutions. Academical studies are especially important here since they have a “cascading effect” thanks to the other works referenced in their bibliography, which rapidly allows to draw a vast inventory of the research on the desired subject of inquiry. Brought together, these data collection methods guarantee a certain degree of representativeness and ensure that both important aspects of the matter and crucial opinions and theories are considered in the thesis.

As for the methods of interpretation, they mainly comprise discourse analysis, and more specifically, a study of recurrent semantic fields and metaphors used by transparency advocates, but also an analysis of the logic of their argumentation. Their reasoning will firstly be contrasted to the more social constructivist approaches developed in Science and Technology Studies, and to other reflexive views of transparency, such as that of the epigones of Michel Foucault, and theorists of secrecy and privacy coming from various disciplines. These methods should allow for a thorough analysis of the arguments and underlying assumptions of reciprocal transparency.

4. State of The Art

As Carsten Ochs and Petra Ilyes demonstrated in a 2013 study, STS engagement with privacy issues related to Information and Communication Technologies (ICT) has remained rather minimal (Ochs & Ilyes, 2013, p. 76). The authors, who identified and listed all the existing studies on the matter, firstly quote two of their own previous analyses, which were more generally concerned with trust on the internet (Ochs & Löw, 2012) and contradictory information practices (Ochs, 2013). They then mention two other works more focused on OSN (Online Social Networks), namely one that analyses privacy-protection techniques of chronically ill teenagers on social networks (Van der Velden & El Emam, 2012), and the other one that studies interactions between users and technology in order to come up with more user-friendly software design for OSN (*Poller et al*, 2013). These are all the studies they could find that define themselves as belonging to the field of STS, or that, at least, use theories directly related to it.

Although Ochs and Ilyes insist on the fact that their study is centered on Europe and the United States, and thus that their "mapping" of the actual research on ICT-related privacy issues might be incomplete, it is still largely sufficient to illustrate the fact that a lot remains to be done in this domain. It is also important to note that Ochs and Ilyes' conclusions remain largely true even today, four years later. A direct consequence of this lack of study of ICT-related privacy issues from an STS point of view is that the concept of (reciprocal) transparency, and the discourses that present it as a possible alternative to privacy, have never really been analysed either.

This does not mean, however, that no research occurred at all. Indeed, both quantitative and qualitative studies have been conducted on privacy and to a lesser extent on transparency, but only in many other disciplines. In the coming pages, a state of the art will thus be elaborated for research on privacy and transparency in all relevant domains from which an STS work may benefit. Because privacy and secrecy[4], will also be discussed due their evident connection with transparency, this state of the art will include important studies on those concepts as well. Although there exist some interesting quantitative studies (Ellison et al., 2007) (Wang et al., 2013), this chapter will mainly

4 Transparency advocates often mix both concepts, and assert that they both equate hiding unlawful acts. Generally, scholars tend to consider that privacy is broader in its meaning than secrecy, and thus, that the latter is included in the former (Solove, 2007). In this thesis, I refer to David Solove's definition of privacy, and to Georg Simmel's definition of secrecy, but it is not my aim to precisely highlight their differences or similarities, for there exist no fixed definition anyways. Rather, I want to emphasize that both can have a positive value for society.

focus on qualitative studies, since this is the approach our own thesis will be adopting. I will present each work chronologically, by assessing its contribution to the research and by describing its approach and specific discipline. This overview does not claim to be exhaustive, but rather, aims at evoking either the pioneer studies that initiated reflexions on important aspects, or staple works that are regarded as the main reference in their domain.

The Transparent Society, a non-fiction book written by David Brin and published in 1998, constitutes the first attempt to propose and defend the concept of reciprocal transparency, and will therefore be our common thread throughout this thesis. A special chapter will be dedicated to analysing this text, so the present description will be brief. Although not an academical work, *The Transparent Society* is both an exhaustive review of the actual issues regarding privacy, and a plea in favour of "reciprocal candor", based on an elaborate argumentation, at a time when the internet was still in its infancy (Brin, 1998). The book, considered by many as very prescient, has had a lot of commercial success but the ideas it presents have not yet been thoroughly studied. Brin, an astrophysicist and a prolific science fiction author, has since become the main reference of transparency enthusiasts, be it directly, or indirectly, by bequeathing them his argumentation. His conviction that society is helpless against the inevitable rise of technology, his belief that privacy is mainly a nefarious concept, and his faith in transparency will be extensively discussed throughout this thesis.

The first academic attempt at conceptualising and theorising transparency was made eight years later by David Heald, and his work still remains a crucial reference today. In *Varieties of Transparency* (Heald, 2006a) and *Transparency as an Instrumental Value* (Heald, 2006b), the business scholar categorises four varieties and two values for transparency. While the varieties refer to the hierarchical role and the position of the actors disclosing information, the values distinguish between transparency as a means for achieving trust and accountability or as an end in itself. This difference between values is especially important for this thesis, as it does intend to study the argumentation that underpins the ideology of transparency rather than the more moderate desire for organisational or governmental transparency.

A year later, Daniel J. Solove proposed in '*I've got Got Nothing to Hide' and other Misunderstandings of privacy* a theorisation of the concept of privacy that is radically different from all the previous and somehow unsuccessful attempts that have been made until then. Instead of trying to find a common denominator that would allow for a unique description of the concept, the legal scholar argues in favour of a pluralistic definition that emphasises the multiplicity of related

issues that should be taken into account. This enables him to underline the social value of privacy, all the while efficiently refuting the 'Nothing to Hide" argument (Solove, 2007). His definition is therefore the most referred to in current studies on the matter (O'Hara, 2010; Ochs & Ilyes, 2013; Bauman and Lyon, 2013), and will prove useful for this thesis.

With the advent of social networks, scholars began adopting a more normative stance regarding ICT-related privacy issues. Security expert Bruce Schneier is one of them, and he also turns out to be one of the first critics of *The Transparent Society*. For the tenth anniversary of the book, he wrote an article entitled *The Myth of The Transparent Society*, in which he points out that Brin's proposition neglects crucial societal aspects, such as the differences in power of those who access the information (Schneier, 2008). Although this specific work is a rather brief one, that refutes the concept of reciprocal transparency without really delving into the details of Brin's argumentation, Schneier's other works, among which *Data and Goliath,* published in 2016, offer a reflexion on privacy in the same vain as Daniel J. Solove, and exposes the flaws of the ideology of transparency.

However, certain scholars saw no incompatibility between privacy and reciprocal transparency, and argued that both could exist with no detriment to people's freedom to have secrets. In *Privacy in a Transparent Society*, philosophy scholar G. Randolph Mayes asserts that privacy, defined as "the right to the personal space required for the exercise of practical rationality", allows for the establishment of social norms that greatly increase "social transparency" (Mayes, 2010, p. 2). Although he is much more cautious and moderate, his reasoning appears very similar to that of Brin, and relies upon the conviction that in discussions about ICT-related privacy issues, critics usually denounce the unidirectionality of surveillance, when reciprocal transparency ensures omnidirectionality, and thus, accountability. But this view is once again based on a too narrow view of privacy, that assumes that because it cannot be considered as a proper "right", no fundamental harm will be caused if private information is disclosed as long as it is not used specifically to harm, which reciprocal transparency will prevent. This kind of argument is precisely the reason why Daniel J. Solove wrote his article.

Another similar common misconception affects the concept of secrecy, which suffers from the advent of transparency as a cardinal value, especially in politics, were elected representatives are now increasingly expected to become "transparent". In a 2011 paper entitled *Introduction to Secrecy and Transparency, The Politics of Openness and Opacity*, Clare Birchall argues in favour

of a rehabilitation of the notion of secrecy, by criticising the numerous negative connotations that it has accumulated over time due to its opposition to transparency, and by emphasising its positive social value, much in the line of German sociologist Georg Simmel and French philosopher Jacques Derrida (Birchall, 2011). Her work participates in refuting the idea that privacy, and thus, secrecy, are simply about hiding unlawful acts. Moreover, Birchall considers that transparency has become a "neoliberal tool", which relates to the theories of early thinkers such as Gilles Deleuze, who saw in the very idea of transparency a new way to gain control over individuals (Deleuze, 1990).

This view is also shared by the german philosopher and cultural theorist Byung-Chul Han, who is one of the main detractors of the ideology of transparency. In *The Transparency Society*, published in 2012, he argues that the idea of reciprocal transparency holds in itself the risk of totalitarianism. His argument is that because a society based on transparency values the exchange of information above all, it will tend to eliminate anything that stalls the process, especially conflicting ideas and differences. Han's essay is obviously provocative, and should therefore be read with caution, but his analysis and the way he makes sense of today's discourses around transparency remain very illuminating.

With Facebook existing for nearly a decade, the ubiquity of smartphones and the increasing diversification of technology companies that tend to manage more and more aspects of our lives, new concepts inspired by Gilles Deleuze's "society of control" arise, that try to analyse the evolution surveillance has undergone in the last twenty years, such as that of the "Liquid Surveillance". Theorised in 2013 by David Lyon and Zygmunt Bauman in *Liquid Surveillance: A Conversation*, this notion aims at examining how surveillance has shifted from a "rigid, […] vertical plane, like the panopticon" to a more dissolved, fragmented and horizontal plane, much like liquid (Bauman and Lyon, 2013). Lyon himself is known for his work in Surveillance Studies, a field that aimed at studying the new counter-terrorist measures in Europe that relied on technological surveillance of the citizens, and their influence on society. The objective of the authors using this depiction of surveillance as a liquid is to emphasise that while such control was previously exerted mainly by governments following a top-down model, surveillance has now become more diffuse, and appears as the conjunction of companies' marketing, consumer's desire for security and online behaviour, and the state's prying data gathering programs. Such reflexion easily relates to the actual supposed shift from unidirectional transparency to a reciprocal one, and will therefore be important for this thesis.

As of 2015, all these theories and arguments about surveillance and transparency allowed for a rich discussion on the matter, and it is with the ambition to offer a representative overview of the research that *I spy with my little eye. Surveillance, transparency and the power of information* was written by students of the university of Maastricht from the Bachelor Programmes Arts and Culture and European Studies, and supervised by the professor Nico Randeraad (Marble Students, 2015). While the authors especially focus on power relations, the diversity of the subjects covered ensures that the study is very exhaustive.

The same year, a special issue of the European Journal of Social Theory was published on the concept of transparency. Based on the fact that concerns regarding unintended consequences of the implementation of reciprocal transparency have only rarely been studied in normative approaches (Hansen, Christensen, Flyverbom, 2015), the authors propose to analyse different commonly overlooked aspects of the ideology of transparency, such as its logics, its paradoxes, its recurrent metaphors, and its mythical status. This work furthers the initiated reflexion on the ideal of transparency by analysing its core components in the discourses themselves, much like this thesis aims to do, and is thus an important recent reference.

Finally, by conceptualising "technological solutionism[5]", and by analysing the logics and rhetorics behind the discourses of the giant technology companies of the Silicon Valley, Evgeny Morozov has also significantly contributed to the research on reciprocal transparency. In 2015, he published *Le mirage numérique: Pour une politique du Big Data*, in which he severely criticises the neoliberal ideology of transparency that considers privacy as a dying utopia, and that values data above all.

This state of the art pretends in no way to be exhaustive. While the concept of transparency as an alternative to privacy has rarely been studied, privacy has been a subject of analysis for more than fifty years, in many different disciplines. This brief overview should however have brought to light that there is enough research to build from. It should also serve as an explanation as to why this thesis will only partially rely on STS theory, for no study has yet been conducted on transparency in this field. However, the philosophy of Science and Technology Studies seems perfectly appropriate to examine the belief that technologically-enhanced transparency will replace privacy, and will therefore constantly accompany the analysis throughout this thesis.

5 The belief that every societal problem can be solved thanks to technology.

5. Theoretical Framework

In order to relevantly analyse the main arguments that underpin the concept of reciprocal transparency, it is necessary to understand exactly what it entails and where it comes form. In this theoretical chapter, I will first examine in detail the concept of transparency and its different varieties, in order to accurately define what kind of transparency I intend to study. I will then present the main theories and concepts that will be used in this thesis to interpret the collected data.

5.1 The Concept of Transparency

The word "transparent", from the latin "trans" for "through" and "parere" for "appear", qualifies in the literal sense, objects through which light can pass, and thus, through which human eyes can see. In the figurative sense, it characterises everything that is easily understandable, or, more commonly, that is open to scrutiny, has nothing to hide, and that can thus be trusted. As we saw in the introduction, the potential dangers of transparency have long inspired dystopian accounts. But today[6], transparency has more than ever become a cardinal virtue, which not only public institutions, scientific organisations and companies, but also individuals should develop as much as possible, all the while rejecting secrecy, in order to foster an open society. Governments and politicians in particular, are now bound to disclose ever greater amount of information, for the public good and to ensure that every citizen can hold the State accountable.

The recent revelations that have stirred up the French and the American presidential elections, and the transparency law (Franceinfo, 2017) and investigations (Zurcher, 2016) that they have respectively spurred, are topical illustrations of such a trend, whose most emblematic examples might be those of the transparency programs implemented years ago already by Scandinavian and English governments (O'Hara, 2010). Following the 2015 corruption scandal at FIFA, his new president announced that the institution would now become fully transparent.

In France, recent cases of conflicts of interest between scientific experts and various

6 Due to the inherent constraints of the present exercise, the historical and philosophical roots of the concept of transparency will not be discussed in this thesis. But the interested reader should refer to the works of Clare Birchall, Sandrine Baume and Christopher Hood, who have extensively studied how thinkers such as Kant, Rousseau and Bentham have praised transparency, how Paxton's Crystal Palace is the literal translation of such ideal, and how US president Wilson has campaigned declaring that secrecy means impropriety (Hood, 2007; Birchall, 2011; Baume, 2011).

companies (Libération, 2017) have also led to an increasing demand for transparency both in the industry sector and in research institutes. In the meantime, social networks encourage people to share their identity and thoughts publicly, while companies collect personal data for marketing purposes, often in full view and with the knowledge of everyone. Not to mention the Patriot Act and Wikileaks, which promote, each in different ways, the idea of transparency.

This heterogeneous inventory of illustrations about the disclosure of information by various entities immediately calls for some nuance regarding what appear to be very different activities, each with their own aims. Indeed, while the creation of stricter transparency regulations targeting dishonest practices in the domains of politics and economics appears as a appropriate reaction to scandals and revelations, it is doubtful whether the appeal to transparency is legitimate when originating from companies or overly prying institutions.

In the first case, transparency is a tool which serves democracy by fostering accountability, while in the second case, it rather represents a core principle to be valued intrinsically, akin to an ideology, with objectives that I will discuss later in this thesis. This first distinction is what David Heald theorises as an opposition between the "instrumental" and the "intrinsic" value of transparency (Heald, 2006b, p. 59). Whereas some consider transparency as a "building block for other valued objects sought by public policy", others promote it as an ideal to be pursued in most aspects of our lives. Likewise, one has to differentiate the position of the actors that become "transparent", and also the degree of symmetry regarding the access to information. This second distinction is what Heald calls the "variety" of transparency (Heald, 2006a, p. 25). According to this model, there are two different axis and directions. The vertical axis allows for upwards and downwards transparency, while the horizontal axis allows for outwards and inwards transparency. In the first case, a hierarchical superior is able to monitor the behaviour of a hierarchical subordinate, as when a government watches its citizens, or a company its employees. If the transparency is vertical and downwards, however, the gaze is inverted, and subordinates can monitor their superior. Here, the citizens keep a close watch the government.

On the horizontal axis, Heald first categorises outwards transparency, where "the hierarchical subordinate or agent can observe what is happening outside the organisation" (Heald, 2006a, p. 28), as is the case with competing companies. He then describes inwards transparency, where outsiders can monitor what is happening in an organisation, as when organisations become

transparent in order to attract funders, for example. Finally, a last category can be added, crucial for this thesis. Symmetrical transparency – or omnidirectional transparency, according to Mayes' terminology – is defined by Heald[7] as a situation where everybody can monitor and be monitored at the same time.

We notice that this framework retains all its relevance if instead of the direction of transparency, we observe the direction of surveillance, by inverting the perspective. This tends to confirm what many scholars have noted, that is, that transparency is almost always inevitably linked to its counterpart, surveillance. One therefore often speaks of the surveillance/transparency complex (I Spy My little eye). While Heald equates surveillance with vertical upwards transparency, Lyon defines it as the action of gathering and analysing personal data for the purpose of managing or influencing people (Lyon, 2007). Furthermore, the opposition between upwards and downwards vertical transparency easily relates to that of the concepts of surveillance and sousveillance. In the next part, I will briefly describe the latter and also another phenomenon that is often evoked when considering transparency, that is, Wikileaks. This will allow me to further develop the differences of Heald's values and varieties of transparency, and will consequently help define the focus of this thesis.

5.2 Sousveillance and Wikileaks as Examples of Vertical Downwards Instrumental Transparency

Because he fears that technology-enhanced surveillance is increasingly becoming a weapon for oppression, Steve Mann has created the concept of sousveillance, by which he describes the ability of the subordinates – citizens or employees – to use technologies to their advantage, in order to watch over the superiors. Concretely, he promotes the use of wearable, wireless computers, thanks to which everybody would be able to monitor every little event, and could then diffuse it via the internet if needed, in order to foster accountability, and ensure that people can neutralize the unidirectional gaze of surveillance, thus establishing "equiveillance", the perfect balance between surveillance and sousveillance (Mann, 2003). By taking cameras and other surveillance devices "to the human level", that is, from the top of streetlamps to our own eyes and bodies, for example, Mann's goal is to empower the citizens all the while abolishing the actual hierarchy that protects the powerful. He himself therefore created various objects, such as the EyeTap, a device that is worn in

7 The legal scholar illustrates this last variety by mentioning David Brin.

front of the eye and acts as a camera to record everything visible. Ideally, such invention should initially ensure that no crime goes unpunished, and eventually, that crime rates decrease. The canonical example here is that of the video recordings of the aggression of Rodney King by police officers (Mann, 2003, p. 333).

In my opinion, sousveillance can be related to the use of instrumental transparency. It addresses the issue of surveillance, and tries to find alternatives to the traditional solution that rely on the strengthening of existing privacy laws. Transparency itself is never evoked by Steve Mann, and the need for privacy is never questioned. The aim is rather to defend a certain democratic ideal, by redefining the equilibrium of power in our society. Transparency, in that sense, is thus a tool that can enforce accountability, but it is not valued intrinsically.

Mann's discourse is besides mainly technical and economical, and although it sometimes uses terms such as “reciprocal transparency”, borrowed to radical transparency advocates such as David Brin, it chiefly represents a pragmatic reaction to a perceived threat. Rather than an ideology of transparency, Mann tends to promote a more decentralised, non-hierarchical use of surveillance. That is not to say that such discourses have no influence or side effects, far from it (Birchall, 2011). But it is not my aim to study them here, for this thesis is primarily concerned with a more ideological sort of transparency, that lies at the heart of what our liberal information societies are experiencing today (Mayes, 2010).

Likewise, it can hardly be said that Wikileaks' actions support the idea of an intrinsically valued transparency. Although one has to remain very cautious when trying to describe the organisation's intentions, these can be compared, regarding transparency, mutatis mutandis, to that of Steve Mann and his concept of sousveillance. According to the official website, the purpose of Wikileaks is to ensure that “readers and historians alike can see evidence of the truth” (Wikileaks, 2011, para. 1). On his side Julian Assange, who is considered the founder of the organisation, for his part insists on the need for information, because it is what enables people to understand the world they live in, which in turn allows them to elect representatives that will then create legislations (Assange, 2011). In this perspective, transparency appears as instrumental, for it would mean that if correctly implemented, people could get the required information to then make informed choices. Wikileaks compensates that lack of organisational transparency by “leaking” that information to the world, thus supposedly restoring a certain equilibrium to the distribution of information (Fenster, 2012). But once again, the organisation's revelations participate in a protest

movement against unfair and opaque surveillance practices, and address issues of democracy and freedom, rather than they illustrate the will for absolute transparency.

As for the variety of the concept that sousveillance and Wikileaks represent, it might seem a bit exaggerated to speak, as in the title of the section, of vertical downwards transparency, since the disclosure of information was all but a voluntary and deliberate choice. Nevertheless, it is clearly that kind of transparency Steve Mann and Julian Assange are fighting for, and they do so not because they believe in omnidirectional transparency, but because vertical upwards transparency has taken the upper hand and distorted the original power balance.

All these distinctions might seem somewhat superfluous, but they are essential, for in the two past decades, proponents of radical transparency have often argued that such reactions as those of sousveillance and Wikileaks demonstrate that privacy – and its counterparts, secrecy and anonymity – are perishing utopias that serve only the powerful and that technology – cameras and the internet – will eventually eliminate these concepts (Brin, 2011; Brin, 2014; Kelly, 2014. In fact, there is a world of difference between whistleblowers calling for a more transparent governance and Mark Zuckerberg depicting privacy as an obsolete social norm.

These are two clearly separated ideas of transparency, one that is best described as instrumental, for it acts as a tool to foster others values, such as trust and accountability, and the other, that can be characterised as a vision of the world or even an ideology, that promotes transparency as an intrinsic virtue that should be applied to most aspects of our lives. It is that second idea of transparency that this thesis aims to analyse, and more specifically, the argumentation it relies upon.

5.3 Theories and Concepts

Alongside David Heald's model of transparency, which helped define the focus of this research, this thesis will make use of various theories in order to relevantly interpret the collected texts and documents. I will now briefly summarise them.

Apart from the concept of transparency, the research question – How do discourses promote transparency as a relevant alternative to privacy? – also mentions privacy as a core concern, and a clear understanding of the concept is thus needed. Alas, privacy might well be one pf the most

difficult notions to define, and scholars have long argued about its identity: should it be a legal, a philosophical, or a sociological concept? Is there even a right to privacy? Is it then an individual right? A possible answer to this thorny issue is that of Daniel J. Solove, a now renowned legal scholar which argues in favour of a pluralistic conception of privacy. He therefore shifts away from the traditional term of privacy, and from the numerous attempts to find a common denominator to describe it, and prefers to evoke a web of related issues, with similarities and differences, which he then organises in a taxonomy composed of four categories – Information Collection, Information Processing, Information Dissemination and Invasion – each with their own set of subcategories. This analogical reasoning enables him to take into account privacy issues that are usually neglected by the law because they "do not fall into a particular conception of privacy" (Solove, 2007, pp. 758 – 759). Moreover, Solove's theory insists on the social value of the concept, when many theorists only tend to consider it as an individual right, thus decontextualising it from its broader impact on society.

Although the scholar has a legal background, this attention towards the multiple aspects of the question – technology, society, psychology, history and philosophy – fits ideally with the principles shared by Science and Technology Studies. Finally, Solove has also been studying the rhetorics of the infamous "nothing to hide" argument, and his conclusions will therefore be of great interest for this thesis.

As mentioned earlier in the state of the art, STS have yet to fully engage with such ICT-related issues as privacy and transparency. This is the reason why the two first theoretical frameworks used for this thesis come from other fields and disciplines – in this case, economics and law. However, STS scholars have theorised on other matters and come up with other tools, whose analytical power will prove, albeit indirectly, very insightful in order to interpret the collected data. One of those theories is that of Technological Determinism, and this thesis will use it extensively, noticeably by building on the work of Sally Wyatt, whose classification offers a comprehensive analysis of the concept. She defines technological determinism as being composed of two main ideas, the first one being that technological development happens on its own, and that is it so to speak inevitable, as if it where a law of nature, and the second one being that technological change causes social change (Wyatt, 2008, p. 168).

She further categorises four types of technological determinism. The justificatory type is the most common, for it is the one "we are all susceptible to when we consider how people's lives have

changed in the past 200 years", and when we often make technology one of the main reasons for this change. It is not so much a conscious framing of history as an unconscious way of looking at things. The descriptive type is the most "deterministic" one, since it voluntarily frames history in such a way that technology appears as the very cause of change. Methodological determinism is the one that starts looking at the available technologies in order to analyse societies, and is thus less deterministic in that it is not in itself an "ideology of technology". Finally, the normative type criticises the growing and potentially unstoppable influence of technology and of the related ideology of performance and optimisation on society (Wyatt, 2008, p. 174). While the first type concerns everyone, the second one has a good illustration in Ray Kurzweil, the third one in Robert Heilbroner and the last one in the works of Jacques Ellul and Jürgen Habermas. This thesis will mainly focus on the descriptive type, and will also use Bruce Bimber's concept of nomological technological determinism, in order to more accurately define the personification of technology that appears to be one of the foundational tenets of reciprocal transparency (Bimber, 1994).

The paper in which Wyatt exposes her model also insists on the need for a symmetrical approach of both "success" and "failure", in order to avoid studying the former as being the result of a natural truth and dismissing the latter as being caused by the erroneous beliefs of society. Bloor's principle of symmetry will prove useful to rebalance the account of radical advocates of transparency who tend to neglect privacy as an obsolete human norm, while they consider that technology will inevitably impose transparency upon our societies (Bloor, 1995). Finally, Wyatt justly argues that scholars have been prone to dismiss technological determinism as an unsatisfactory account, without explaining how and why it remains a convincing explanation for many individuals. I intend to proceed to an in depth analysis of the ins and outs of the determinism implied by the idea of reciprocal transparency to follow her call and demonstrate why it wields such explanatory power.

Another important study this thesis will rely upon is that of Jeremy Bentham's panopticon by Foucault in *Discipline and Punish*. The prison designed by the English founder of utilitarianism has long been a symbol of a perfect vertical upwards transparency, and has therefore been used as a foundation by supporters of the concept to elaborate their own theories. Its analysis by the French philosopher has in turn also been further developed, often by scholars critical of reciprocal transparency. I will thus contrast and discuss their positions and arguments by evoking Foucault's theory of disciplinary societies, but also use Gilles Deleuze's concept of societies of control to go beyond transparency models based on the former's panopticon analysis. To summarise, the main

idea here is that human societies have been structured in different ways throughout their history. Foucault focuses on one of these, which he calls “disciplinary”, and which has four objectives – enclosure, partitioning, rationalization of space, and ranking. Concretely, individuals are enclosed in particular institutions such as schools, hospitals, barracks and of course prisons, in order to discipline them, that is, to concentrate them in places where they can be sorted and managed, and where their activities can be rationalised and optimised. According to Foucault, this type of societal structure, although still representative of our epoch in some ways, is bound to disappear, for another way of organising society is emerging, which he described only by saying that it strove towards the deinstitutionalisation of discipline (Foucault, 1977/1995). It is then that Gilles Deleuze came up with the concept of societies of control, which have more or less the same aims as societies relying on enclosing institutions, the main difference being that they do not need the latter anymore, for discipline is more diffused (Deleuze, 1990). This conception relates to David Lyon and Zygmunt Bauman's theory of liquid society or to Byung-Chul Han's idea of transparency, and will therefore allow for a fruitful analysis of our subject. Moreover, Foucault's analysis of institutions and his attention towards the relationship between technology and society fit perfectly well with the STS approach of this thesis.

In the next part, I will introduce the main analysis of reciprocal transparency by presenting and contextualising the work which will be our “guiding light” throughout this thesis, that is, *The Transparent Society* by David Brin.

6. *The Transparent Society* as The Paragon of Reciprocal Transparency

In this chapter, I will provide some information and contextualisation about the common thread of this thesis, which will be David Brin's *The Transparent Society*. I will first briefly review the book and its core argument, and then proceed to situate its author in the current debate. This will open the way for the main analysis, which will focus on the three cornerstones of discourses about reciprocal transparency.

Although the ideology of transparency has inspired many essays, discourses, and discussions in the last two decades, none of them equals, in terms of argumentative exhaustiveness, David Brin's *The Transparent Society*. This non-fiction book published in 1998 presents the reader with an elaborate defence of "reciprocal transparency", both by reviewing all the problematic aspects of the concept of privacy and by trying to demonstrate how a nearly unlimited access to information might be the next step to a more equal and democratic society. The author himself is an american scientist, a "futurist" and a successful author of "hard science" science fiction, who does a lot of consulting for a wide variety of organisations such as the CIA, Google, and Procter & Gamble. His main argument is that, given the rise of technology, humans will not be able to prevent the spread of pervasive surveillance devices in our societies. Moreover, privacy laws, he asserts, have always served criminals and powerful people, leaving the rest of the population in a state of oppression. It follows that technology will eventually usher in an era of totalitarianism due to the increasing control they will confer to powerful people if nothing is done, and that privacy is a dying utopia. We should thus establish some sort of global transparency if we are to preserve our freedom and democracy, before it is too late[8].

The text is all but academical in its style, and the structure alternates between accounts of specific historical events designed to serve as illustrations or demonstrations to support the reciprocal transparency thesis, and short personal reflexions of the author on actual practices

8 Brin often quotes Orwell's *Nineteen Eighty-Four* as an illustration of what will happen if no reciprocal transparency is implemented. Although the introduction of this thesis referred to Zamyatin's *We*, Kafka's *The Trial* also appears as an illuminating work of fiction to better describe the transformations of today's surveillance practices. Solove, among others, demonstrates that rather than the verticality of surveillance, it is the complexity of the data network, and the ignorance in which individuals are of what happens with their personal information, that can cause harm (Solove, 2007).

regarding privacy and transparency. It is important to note that aside from the implementation of an ubiquitous network of miniature cameras, the book comprises no concrete proposition, and can thus be summarized as an extensive critique of the arguments usually directed against global transparency. Rather, *The Transparent Society* shines in that it crystallises all the foundational arguments that underpin the idea of reciprocal transparency.

As for its reception, the book has been a commercial success and has won various awards, but its thesis has remained rather understudied. Legal scholar Paul Gowder proposed a brief logical analysis of its argumentation a year after it was published (Gowder, 1999), and a decade later, security expert Bruce Schneier wrote a small essay on the book, speaking of the "myth of transparency" (Schneier, 2008). Finally, Rick Searle, an affiliate scholar of the Institute for Ethics and Emerging Technologies[9], severely criticised *The Transparent Society* in a blog post, arguing that regulations are in fact our best weapon against abusive surveillance (Searle, 2014).

Although it is today nearly twenty years old, Brin's book is still a very important reference, and both the logic and the reasoning behind transparency advocates' arguments are to be found in it, if not in their modern representation, at least in their embryonic form. Moreover, the author is still very active, and has a blog[10] on which he discusses the events that have taken place in the two last decades, and that he supposedly predicted in his work. The growing age of the book can thus relatively be compensated by this constant actualisation of its thesis.

The "Contrary Brin" website however turns out to be less interesting than one could initially have hoped, for it chiefly displays the "I told you so" refrain every time something regarding privacy or transparency occurs. Indeed, as evoked in the theoretical part, no matter the event, be it the Patriot Act (2011, February 25), Sousveillance (Brin, 2016, April 21), Wikileaks (Brin, 2011, February 6), Edward Snowden's revelations (Brin, 2014), the FBI-Apple encryption dispute (Brin, 2016, April 14), or Facebook's privacy issues (Brin, 2011, July 26), it immediately becomes a confirmation of the global transparency thesis, and is considered as another step towards the inevitable death of secrecy, which strengthens Brin's reputation as a prescient futurist[11]. The blog is nevertheless insightful in that it allows for a better understanding of Brin's opinions on various modern subjects indirectly connected to transparency and not discussed in *The Transparent Society*, such as transhumanism or artificial intelligence. He is favourable to the ideas of Ray Kurzweil,

9 Brin is also a member of this institute.
10 In addition to this blog, Brin also has a « Transparency Page » (Brin, n.d.).
11 Brin is indeed renowned for having "predicted" the 9/11 terrorist attacks (Brin, 1998, p. 206).

Peter Diamandis and Kevin Kelly, who are outspoken advocates of “The Singularity”, asserts that ethics are useless against the advent of intelligent machines, and considers that although the loss of privacy advanced technologies might cause is somehow regrettable, the latter represent a natural and inevitable step towards reciprocal transparency, which is positive (Brin, 2017).

Brin also regularly targets studies that try to come up with solutions to defend privacy or that balance the influence of technology with that of society, often by characterising them as vain and pathetic “whining” (Brin, 2016). It can thus be asserted that the author is a main supporter of a rather deterministic vision of history that tends to give technology the leading role. He believes in science rather than in morals or ethics, sees privacy as a very problematic concept, and thinks reciprocal transparency is the ultimate solution to optimise most aspects of human societies, be it scientific research, free trade, justice, government or daily life (Brin, 2017).

In this perspective, *The Transparent Society* appears as the ideal study material, for it comprises what this thesis identifies as the three cornerstones of the argumentation of the idea of reciprocal transparency, that is, the belief that technology predetermines the changes that society will undergo, the conviction that privacy is an obsolete human norm that has done more harm than good, and finally, the assumption that a technologically-enhanced transparency constitutes the miraculous remedy to most of the modern issues our societies are facing. As explained in the chapter about the goals and objectives, this thesis does not aim to study David Brin's book. Rather, it will thoroughly analyse the argumentation on which the idea of a global transparency relies. *The Transparent Society* being the most illustrative and exhaustive source, it appears both relevant and convenient to take it as a starting point to examine the three core assumptions that structure the idea we focus on, in order to contrast the book with different and more recent sources on the matter, which will themselves then be further developed and discussed. David Brin's work will thus be our guiding light, if I dare say so.

The next part will thus introduce the three cornerstones of reciprocal transparency by analysing a short fiction published in 1996 in the *Wired* Magazine by David Brin, and which eventually became the first chapter of *The Transparent Society*.

7. “A Tale of two Cities” : The Three Cornerstones of Reciprocal Transparency

Twenty-one years have passed since David Brin published *The Transparent Society*, a short story in which the author invited the readers to project themselves exactly two decades in the future, in order to imagine two cities invaded by surveillance technologies, each with different part of the population allowed to make use of them (Brin, 1996). In the first city, the “powerful”, governments and corporations, use advanced technologies such as “gnat-sized” cameras to control the powerless. In the second city, however, a global access to these technologies allows every citizen, powerful or powerless, rich or poor, to see and know nearly absolutely everything about anyone, thus supposedly resolving the top-down surveillance – or the vertical upwards transparency – issue, among other evils.

Here we are thus, the future borrowed by Brin as a scene for his tale being our very present, twenty years later, and luckily, none of both hypothesized outcomes have yet become reality, although, as we have seen, Brin argues that his account was somehow prescient. One has to admit that he was right to some degree, for cameras and other data gathering devices have become ubiquitous over the last few years. This does not mean that the conclusion he draws are true, however, and as often, “technology's advance” seems slower than science-fiction's optimistic – or pessimistic – estimates. This is most likely because society also has a say, and always “interferes” with what some nevertheless tend to consider, as we will see, as the unstoppable march of progress.

But let us not misunderstand Brin's intent. The “tale of two cities” is rather a thought experiment than a prediction, aimed at introducing the author's reflexion on the societal, economical and political problems that might soon arise due to the proliferation of surveillance technologies. According to him, their rise is inevitable, and thus, privacy is a dying utopia. The discussion should thus focus, not on how to ensure everybody's right to privacy is respected and defended, because for this it is already too late, but rather on who gets access to these technologies.

It is here that the second futuristic city comes into play, as it represents what Brin considers to be the only viable solution that remains if we want to reconcile technology's inexorable advent with our desire to live in democratic and equitable societies. The underlying rationale of the tale is

that, the technical potential for surveillance being bound to increase exponentially, we might as well accept technological progress, and implement some sort of global transparency.

Indeed, argues Brin, any attempt to legislate and forbid access to surveillance devices is vain, since those that can afford to transgress the law, the rich and the powerful people, will eventually use new surveillance technologies anyways to dominate poor and powerless people. This is the "if guns are outlawed, only outlaws will have guns" argument, as Paul Gowder clearly demonstrated (Gowder, 1999, p. 514). An associate professor of law at the University of Iowa, he was one of the first authors to propose an analysis of *The Transparent Society*'s inner logic. While the secrecy offered by privacy allows the powerful to dissimulate their abuse of surveillance technologies, leaving justice helpless, transparency on the contrary creates a level playing field where any illegal action is automatically detected and can then be properly condemned, thus fostering accountability. Apart from our three cornerstones – the obvious technological determinism, the demonization of privacy, and the miraculous solution offered by transparency – we can already observe that as Gowder rightly points out, this reasoning is based on a logical error, for if by outlawing new surveillance technologies, society causes only outlaws to have access to these, then there is no reason not to believe that by outlawing secrecy, transparency will not, in turn, cause only outlaws to benefit from it (Gowder, 1999, p. 524).

The tale being told, the first chapter goes on by contextualizing the "privacy we have today", and the debates around it, hereby briefly depicting the actors that optimistically predict its coming death and the others, who demand that it be preserved and reinforced. With a great deal of inspirational quotes and original analogies – a method which we encounter throughout the whole book – the author explains how the idea of an "open society" came to be, from Pericles and the athenian democracy to Karl Popper's *The Open Society and Its Enemies*. The first chapter then proceeds with developing what I identify as the three core ideas that underpin reciprocal transparency, and which are already clearly discernible in the tale of the two cities.

Brin begins by insisting on the inevitability of the advent of pervasive surveillance technologies, by evoking the "verdict" and "judgement" machines (Brin, 1998, p. 5). According to him, there is no stopping them, and cameras are on their way, no matter how much we legislate. He sees history as being driven primarily by technology, and believes everything humanity has achieved up until now relies on openness and transparency. Therefore, technologically-enhanced

transparency is but a logical and inexorable final step towards more equal and democratic human societies. *The Transparent Society* thus perfectly represents all the characteristics of an ideological type of technological determinism, which is the first cornerstone.

Secondly, Brin swims against the tide of traditional detractors of surveillance, by stating that because technology imposes us to choose between freedom and privacy, the latter should be progressively abandoned. I will later discuss the numerous assumptions this assertion comprises, but we can note already that in the author's account, such dilemma is resolved quite easily, since privacy is considered as "a fictitious right that shelters all the predators who make this a wary, suspicious age" (Brin, 1998, p. 26). Such attacks against the concept are repeated multiple times throughout the book, and accompanied by very telling manichean metaphors about light and darkness and good and evil. Here, privacy epitomises the veil of ignorance and secrecy that has been protecting criminals for millenia of "feudalism", and that the Enlightenment has just started uncovering. As long as we allow any kind of knowledge to be withhold by darkness, there can be nor equality nor justice. This constant depreciation of privacy, that fails to recognize any social value to secrecy, constitutes the second main idea underpinning reciprocal transparency.

Finally, Brin offers a blatant illustration of what Evgeny Morozov calls "technological solutionism" (Morozov, 2014), by arguing that "transparency is the requisite condition in science, democracy, and free markets", and thus, that microscopic cameras, by establishing a reciprocal transparency, will naturally solve all modern issues humanity has to deal with. This faith in an unlimited access to information, which is our third cornerstone, naively neglects the inherent complexity of the relationship between society and technology, and assumes that sharing all available data is the ultimate solution, hereby ignoring, among other things, such phenomena as the wide differences that exist in the relative power of those who access the information, or the difference between seeing and being able to treat and use information.

These three key components of the idea of global transparency are also to be found in another of the author's tale, the one that closes the first chapter of the *The Transparent Society*. Brin asks us to imagine a village in which most people are born blind, and have to trust the few that are born enjoying sight, or that undertake the hard necessary steps to acquire it. But one day, he tells us, the trusted ones start abusing the blind villagers, who eventually decide to do what is necessary to be able to see with their very own eyes, in order to avoid ever being fooled again. The quite simplistic morale of the story is that instead of complaining about people being dishonest, we should all ensure that dishonesty becomes fundamentally impossible, by opening our eyes – that is,

by implementing reciprocal transparency.

After such a tale, it seems only logical that Brin, considering that “cameras are simply extensions of our eyes” (Brin, 1998, p. 31), ultimately proposes, in the very last paragraph of the chapter, a more concrete and purportedly salutary solution to most of society's problems, a solution that sounds as simple as it is provocative: “more cameras”.

Guided by the previous illustrations, this research intends to investigate the place given by various radical transparency advocates to technology, privacy and transparency, based on the observation that they are often respectively seen in a deterministic, dystopian, and utopian perspective. I will now therefore proceed with the main analysis, which will be divided into three different parts. Firstly, the role of technological determinism in the reciprocal transparency thesis will be studied. Secondly, I will examine the way privacy is considered by radical advocates of transparency. Thirdly, the promises of the utopia of unlimited information sharing will be discussed. My aim is to understand the reasoning behind the argumentation of reciprocal transparency advocates, and to demonstrate how it relies upon an ideological vision of technology, that fails to take society into account. Finally, the conclusion will summarise the findings of this thesis and reflect upon possible further improvements and developments.

8. The Technological Determinism of Reciprocal Transparency

8.1 Technology's Verdict

Brin's technological determinism, of which I showed an example in the “tale of two cities”, is visible as soon as in the subtitle of his book. The question “Will Technology Force Us to Choose Between Privacy and Freedom?” implies that technology has, in itself, the power to impose humans a dilemma regarding essential values that may be regarded as consubstantial, since in today's society at least, it might be argued that an individual's freedom is drastically reduced if he or she is being constantly monitored, and conversely, that one's ability to exert its right to privacy is rendered ineffective if he or she does not enjoy some kind of autonomy. It might thus appear useless to make a choice altogether. But it is here that the author's solution, reciprocal transparency, comes in, and seemingly offers to lead us out of the impasse. Brin's equation is approximately the following: transparency supported by technology will greatly foster accountability, and thus, offer us more freedom than ever, in exchange, it is true, for a “bit” of our privacy. In fact, the subtitle is a rhetorical question, and the author asserts that the die is cast.

Indeed, if we return to the tale of the two cities we observe that it frames our future as if there was no more choice left regarding the use of technology, but only regarding which value we choose. We have to accept that inevitably, surveillance technologies will flood our society and be used to gather all thereby accessible information, no matter how much we try to legislate:

> [The two cities] appear to be our only options. For the cameras are on their way, along with data networks that will send a myriad images flashing back and forth, faster than thought. In fact, the future has already arrived. (Brin, 1998, p. 5)

A bit further, Brin adds:

> For in fact, it is already far too late to prevent the invasion of cameras and databases. The djinn cannot be crammed back into its bottle. No matter how many laws are passed, it will prove quite impossible to legislate away the new surveillance tools and databases. They are here to stay. (Brin, 1998, pp. 8-9)

Having declared such irrevocable sentence, the author then proceeds to demonstrate the relevancy of his opinion by evoking the case of different cities in the United Kingdom, in North America and in other countries, where a vast network of closed-circuit televisions (CCTV) has been created in the nineties to ensure the safety of the citizens. Brin then believed that this trend would become mainstream in the coming years, because criminality has decreased in the above mentioned countries thanks to these surveillance devices. If it is true that more and more cities have come to adopt such security networks, its efficiency remains controversial (Armitage, 2002; Gill & Spriggs, 2005; Ministère de l'Intérieur, de l'Outre-Mer et des Collectivités Territoriales, 2009; Instrom Security Consultants, 2014). Besides, the spread of cameras installed on the streetlamps of large cities has spurred many protest, and has inspired reflexions such as that of sousveillance, which the author had not predicted, contrary to what he often implies, and which demonstrates that not everybody is enthusiastic about being monitored all the time. It might also be useful to remind that cameras will not install themselves on our streetlamps, contrary to what Brin's personification suggests, and that it is ultimately humans who decide to use such technologies or not.

Brin's technological determinism can further be analysed as being composed of two different parts, following Sally Wyatt's explanation of the concept (Wyatt, 2008, p. 168). Firstly, *The Transparent Society* conveys the idea that technological development happens on its own, and that is it so to speak inevitable, as if it were a law of nature. Of course, the author contextualizes the inexorable invasion of cameras with a lot of discussion around political, economical and societal issues. But human's choice, although not absent from the general reflexion on transparency, always appears to be secondary, as cameras are in any case already “on their way”.

Secondly, it seems that, according to Brin, technological change causes social change, since it is the advent of evermore pervasive surveillance devices that forces and causes humans to change the way they live. Transparency appears, not as a deliberate choice, but as the only alternative left to us by technology if we hope to safeguard our freedom. It also follows that any attempt from humans to halt the “course of progress”, such as legislating, is eventually useless, because technology will, one way or the other, have the last word.

According to Wyatt's typology, Brin's technological determinism is best categorized as a descriptive one, the same kind of determinism scholars such as MacKenzie and Wajcman (MacKenzie & Wajcman, 1999), and Misa (Misa, 1988) have identified in the writings of various historians and philosophers of technology. Wyatt remarks that these scholars, while they recognize technological determinism in other people's argumentation, however tend to dismiss it because of

“its inadequate explanatory power” (Wyatt, 2008, p. 174), and thus fail to study and explain its dynamics properly. As I explained in the theoretical part of this thesis, it is one of my objectives to follow Wyatt's call, and to study technological determinism seriously, that is, as a persistent and for many actors convincing explanatory frame based on everyday's life experience.

Moreover, according to David Bloor's principle of symmetry, both true and false beliefs must be studied in order to avoid any bias that would a posteriori too easily reject unsuccessful accounts (Bloor, 1995). Thus, I aim to analyse Brin's manifest technological determinism in order to study not only “people and things”, and “images of people and things”, but also “explanations of people and things” (Wyatt, 2008, p. 175).

8.3 The Djinn of Technology

The logic behind *The Transparent Society*'s argumentation is definitely that of an inevitable technological evolution, against which humans have but little power to oppose. But it is not enough just to underline this fact, and it is necessary to better characterize Brin's rhetoric. Although Wyatt notes that scholars that described what she calls descriptive determinism often lacked a real analysis of the phenomenon, it might be argued that the categories she coins also could benefit some further development. When looking at the previous examples we transcribed, we observe that their author often personifies technology, and describes it as an autonomous force, or even, as a genie that escaped from its lamp (Brin, 1998, p. 9). This is typical of a type of determinism that Bruce Bimber qualified as nomological – as opposed to normative and “unintended consequences” determinism –, that is, a type of technological determinism that postulates that “in light of the past (and current) state of technological development and the laws of nature, there is only one possible future course of social change” (Bimber, 1994, p. 83). Moreover, nomological accounts of history consider that technology exercises a causal influence on society.

In the tale of the two cities, and further in *The Transparent Society*, we indeed notice that it is the global spread of surveillance technologies that provokes a dramatic change in the way society is organized. Although the author often declares, for example, that humans will eventually have to choose between freedom and privacy, that decision is imposed by technological progress, and the general role of society, although deemed as very important in various parts of the book, still appears as pretty minor in the end, if we compare Brin's assertions with the underlying logic that supports

the core thesis of his work:

> Those cameras on every street corner are coming, as surely as the new millennium. Oh, we may agitate and legislate. But can "privacy laws" really prevent hidden eyes from getting tinier, more mobile, and clever? (Brin, 1998, p. 13)

Once again, one might easily retort that "eyes", by which the author means cameras and other video recording devices, are in no imaginable way going to make themselves tinier, more mobile and clever, as long as we, humans, don't give them that possibility. I want to underline once more, at this point of the analysis, that my intent is not to deny the influence of technology, far from it. As an STS scholar, I consider every actor, be it a human or a machine, or every other type of object, to have an equal importance regarding the future of our societies. My goal here, as already stated, is to thoroughly examine the arguments, the rationale and the rhetorics that support David Brin's thesis of reciprocal transparency.

Nomological technological determinism further also often underpins that technology benefits from some kind of ontological status of its own. We find a good illustration of such a conception of things in the discourses of another transparency advocate, Kevin Kelly. Often cited by David Brin, and the author of a book intriguingly titled *What Technology Wants*, he noticeably declared the following, on *The Edge*'s website:

> I don't see any counter force to the forces of surveillance and self-tracking, so I'm trying to listen to what the technology wants, and the technology is suggesting that it wants to be watched. […] It's suggesting that it wants to monitor, it wants to track, and that you really can't stop the tracking. So maybe what we have to do is work with this tracking—try to bring symmetry or have areas where there's no tracking in a temporary basis. I don't know, but this is the question I'm asking myself: how are we going to live in a world of ubiquitous tracking? (Kelly, 2014)

There is definitely a counter force, one that guarantees we enjoy, albeit imperfectly at times, freedom and peace, and it is society, with its laws and set of common rules, that apply to all and ensure we can live together. Surely, laws have to be improved in order to be able to deal with the spread of new technologies, but this is no reason to completely dismiss the rules and customs the human civilisation has been living with for millenia. Besides, it is highly doubtful whether

technology “wants” anything on its own. Rather, humans want to track and monitor, and they therefore design technologies that enable to do so, technologies that then in turn have an influence on society. As Tsjalling Swierstra, a scholar who theorised the Ethics of New and Emerging Science and Technology (NEST), justly points out, “scientific and technological research is done by people, and so by definition people exercise influence” (Swierstra, 2015, p. 9).

8.4 Moore's Law of Cameras

The fervour with which reciprocal transparency advocates sometimes announce the inexorable advent of technology is not without evoking certain transhumanist discourses. Indeed, another typical way of “justifying” the natural necessity of technological development in a deterministic fashion is to revisit history, or at least, to frame it so that technology appears as the crucial element which determines everything else, a trick which a lot of transhumanists have learned to master, as Ray Kurzweil's famous concept of “exponential growth” clearly demonstrates (Kurzweil, 2006).

It thus comes as no surprise that one of the main demonstrations of the advent of global transparency relies in “Moore's Law of cameras”, also often called “Brin's Corollary to Moore's Law” (Brin, 2010), which postulates that smart and miniature surveillance devices will eventually and suddenly spread throughout society following an exponential pattern. This type of determinism is most likely the one that has been described the most by Science and Technology Studies' scholars, for, as Wyatt justly points out, it has long been and it still is a very intuitive and simple way of making sense of our reality.

Such visions of events divides our history into intelligible periods, that seem to be linked by some logical cause-and-effect relationship, a new invention or technical prowess causing humanity to enter a new era. Although the human brain surely benefits from these theoretical tools for learning, it might be argued that they have, even if unconsciously, a huge influence on the way we perceive the history of our species, since the more social dimension of these evolutions is evacuated in favour of technology (Mumford, 1961).

David Brin is no historian, but he proposes his own perspective on the consecutive events that eventually “ineluctably” lead to our modern society. *The Transparent Society*'s second chapter

appears in this regard as a good illustration of a linear framing of history, where technological change dictates social change.

> Each human generation seems to have a fulcrum – a pivot around which fateful transformations revolve. Often, this has less to do with the struttings of kings and statesmen than with technology. (Brin, 1998, p. 32)

In these two sentences, we encounter three crucial components of reciprocal transparency advocates' technological determinism. Firstly, there is this idea of a "fulcrum", an object which is best described as the support about which a lever pivots. This image easily relates to the quintessential moment on a graphic when the curve takes off and shows an exponential growth. It is as if humankind had to wait until some technology had enough weight so that it eventually could provoke the balance to tip to the other side, and so allow humans to proceed to the next stage of evolution. Secondly, the presence of the word "fateful" is all but an accident here, and again denotes the inevitability of such events. Thirdly, we remark that the influence of kings and statesmen, which are the leading figures of society and politics, is far outweighed by that of science, regarding the advent of important "transformations". I will respond to each of these assumptions in order.

The view according to which technology is the main factor enabling change is a deterministic one, of course, but also a very human one, if I my say so. For we are the ones that subjectively divide the historical continuum into different parts, and then arbitrarily decide to bestow any sort of universal phenomena with a decisive influence on the course of events. There is objectively nor any age, nor any revolution, and humans are not evolving, simply changing. Besides, unless we believe that technology has its own ontological status, it remains to be demonstrated what the exact influence of each phenomenon is on the transformations of our society. There is thus only a technological "fulcrum" if we decide to see one, and if we want to believe there is one.

Regarding the necessary nature of such transformations, one might again argue that there is no specific reason to think that things could not have happened otherwise, unless one believes that the course of events is directed by some superior causal principle from the beginning of the universe until its end. This has been particularity well demonstrated by the works of social constructivists such as Trevor J. Pinch, Wiebe Bijker, Thomas P. Hughes and Ian Hacking, which emphasise that

both the successful and unsuccessful development of technologies always turn out to be the result of the conjunction of both technical and societal factors (Hacking, 1999). Here, another example, taken from Brin's book, might be useful.

> Most of the transformations we will discuss in this book – for example, the proliferation of cheap video cameras, or the advent of perfect photographic fakery – would have happened anyway. (Brin, 1998, p. 35)

Why would that be the case? Why would everything already be written down? Let us look at the internet, a technology much discussed by David Brin. In a study published in 1999, Janet Abbate provides us with a social-constructivist approach to the history of the internet, claiming that 'packet switching', an important technical innovation that led to the development of the Arpanet, the precursor of the Internet as we know it today, is a social construction. According to her, the success of this technology is due, not to some inherent and deterministic logic, but to the conjunction of the right technical ideas and the right socio-technical environment (Abbate, 1999, p. 8). Her main point being that the outcome and the development of the internet depended on so many factors, both technical and societal, that it could definitely have been otherwise. Thus, no technology is bound from the start to be invented one day.

One might also add that serendipity often plays an important role, and that some technologies are widely used today although their rather low efficiency has been demonstrated, or their original purpose modified, all due to societal circumstances. This is for example the case of the infamous QWERTY keyboard, whose key distribution has been transformed over time in order to avoid jamming, thus resulting in a reduced typing speed (David, 1985; Arthur, 1989). Today, keyboards cannot get jammed anymore, but the key distribution has proven to be obdurate, due to social actors being reluctant to replace the millions of computer equipments they still use every day. We might thus conclude that nothing is set in stone, and moreover, that society always also has an impact on the development of technologies. Thus, there is no superiority of one domain over the other, no dominant influence of science and technology over society and politics, but rather, as Sheila Jasanoff explains, a co-production, that is, a common creation of scientific knowledge and technology by both people and institutions, and by both technical experts and groups from all over society, with various biases and motivation, and with both technical and political repercussions (Jasanoff, 2004).

These few examples demonstrate how radical transparency advocates' defence of the concept relies on an technological determinism, that insists on the inexorable rise of pervasive cameras, that emphasises the predominance of technology as the main cause of societal change, and that frames history as being punctuated by technological breakthroughs that enable humans to evolve.

Moreover, technology is often considered as having a will of its own, as if it benefited from an ontological status. In this account, reciprocal transparency appears as the natural outcome of a process initiated during the sacrosanct Enlightenment, which witnessed the beginning of scientific revolution and the quest for rationality and truth. Presented in such a perspective, this re-visitation of the course of events does not leave much room for any other alternative than transparency, especially since, as I will demonstrate in the next part of the analysis, privacy, which is the current norm, is used as the ultimate scapegoat.

9. Transparency Advocates' Misconceptions About Privacy

9.1 A Veil of Darkness

In the previous part, I analysed how the idea of reciprocal transparency is supported by technological determinism. In this second part, I will address the role of privacy in the utopian account of absolute information sharing. This second cornerstone is important because together with the argument of fatality, it serves as a legitimation for transparency.

As the subtitle of *The Transparent Society* underlines, humans may choose the way they live only once technology has already impacted them and their society dramatically. But, curiously, this cruel dilemma – freedom or privacy? – might turn out to be a blessing in disguise. It is indeed rather interesting to observe that what is constantly described as a reluctant choice, forced upon humankind by the rapid progress of technology, progressively becomes a unique opportunity to improve democracy. Rhetorically speaking, it is quite stunning. One might even be inclined to think, when reading the explanations that follow the description of those seemingly nightmarish and camera-pervaded cities, that technology has brought us, not the problem, but the solution. For it appears that transparency will ultimately solve the problem that privacy represents, and not the other way around, that privacy is endangered by the new transparency era that technological advancement is about to usher in. Neither of these oversimplifications is satisfying, of course.

One might argue that it is only logical to extol the virtues of transparency. Indeed, if we are to lose our privacy anyways, we might as well try to enjoy the few benefits of this loss. What is intriguing, however, is that the farther we progress trough the book, and the more it seems that privacy is the problem. Likewise, the more we read, and the more it looks like transparency is considered by Brin as a prodigious remedy, not only to help solving the issues supposedly raised by technological progress, but also to find a solution to a whole lot of other evils, whether their nature is economic, scientific, social, or political, a characteristic which I identify as the third cornerstone of radical transparency, and which will be the focus of the next part.

Given that the two concepts of privacy and transparency have rather antithetical definitions, one might think that they are somehow mutually exclusive. David Brin however frequently insists throughout his book on the fact that some level of privacy is still important, for example in what he calls essential situations, as in the “home”, in our “hearth” and with the individuals we are very close to (Brin, 1998, p. 26).

Notwithstanding this rather vague definition, it appears difficult to imagine how we will forbid insects-sized cameras out of homes, or how we will prevent them from listening to the conversations we have with our beloved ones, if, as the author explained, society, and especially legislation, is unable to prevent them from invading our cities.

Brin really emphasises the importance of solitude, anonymity or intimacy, which he calls “deeply human desiderata”, but then immediately adds that their fulfilment all depends on our freedom, thus implying that if there is a choice to be made, it is a rather straightforward one (Brin, 1998, p. 79). He then goes further by calling privacy a “highly desirable benefit of freedom”, a declaration, which, in fact, places it below freedom, and makes it unnecessary. And that's about it regarding explicit reflexions around the concept. The rest of the book, when evoking privacy, will in most cases either point out that it is a mostly useless and dying utopia due to technological advancement, or overtly denounce it as a threat to democracy.

The term “privacy” itself is a recent construct, the author argues, and whatever its name through history, secrecy has always served oppression, not freedom (Brin, 1998, p. 86). As we have seen in the analysis of the “Tale of Two Cities”, privacy is even depicted as a problem in itself, and sometimes even worse, as a shield, yielded by the powerful and the criminals to hide themselves from the people they are accountable to.

> I surely won't give up essential privacy [...]. But that is a far cry from maintaining a so-called right to skulk in shadows and act against others anonymously – a fictitious right that shelters nearly all the predators who make this a wary, suspicious age […]. (Brin, 1998, p. 26)

Although Brin justly underlines the fact that debates around privacy and transparency suffer from a too strict polarization when a bit more nuance could be insightful (Brin, 1998, p. 19), he

himself seems prone to describe, in a very manichean tone, the war waged by the little people against the rich and powerful elites. This is not the only dichotomy the reader can witness, since the author's discourse on transparency is traversed by an interesting opposition between light and darkness, unveiling and concealment, and transparency and secret, as if there was something crucial to be revealed – or dissimulated – to the world. As is the case in the second tale of the first chapter, there are a few people who seem to see the truth, be it via their eyes, cameras, or their flashlights, and the others, who believe in the illusion of privacy, and are thus considered as suffering from blindness.

> Can we stand living exposed to scrutiny, our secrets laid open, if in return we get flashlights of our own that we can shine on anyone who might do us harm – even the arrogant and the strong? Or is an illusion of privacy worth any price, even the cost of surrendering our own right to pierce the schemes of the powerful? (Brin, 1998, p. 14)

This passage, which extends the metaphor of light, makes an intriguing assumption. It is as if, according to Brin, one could hardly have any secret without being a criminal, an argument that reminds the infamous “if you have nothing to hide, you have nothing to fear”, a saying we will examine later in this part. As already noted by Paul Gowder, Brin's rhetoric “gains great power to convince from the gut reaction” to such polarized metaphors that oppose the light of justice and freedom to the darkness of the powerful and the criminals, in a wary and suspicious age and at the most dramatic time (Gowder, 1999, p. 515).

Moreover, the representation of light as a tool of revelation and as a symbol of truth constitutes a universal and millenary ritual. Same goes for darkness, which typically is described as the avatar of secret and crime. The Bible, among other examples, is rife with such parables that depict blind people seeking God's spiritual light in order to escape the devil's darkness, and Plato's allegory of the cave also relies on that principle. In Brin's account, the eternal war between good and evil is never far away, and it is highly doubtful whether a serious discussion about reciprocal transparency benefits from such Manicheism.

But it nevertheless has the merit to indicate that the “inevitable” rise of surveillance technologies is not the only reason which leads the author to wish for a transparent society. Indeed, an unquenchable thirst for justice fuels the vast majority of his arguments. The inefficiency of the criminal justice system to find and condemn perpetrators is multiple times severely denounced by

Brin, which thus proposes transparency as a better alternative. In this narrative, privacy and its counterparts, anonymity and secrecy, are irrevocably guilty.

> Just one indispensable ingredient enables sociopaths to wreak havoc, and it is not freedom. Rather, it is a pervasive cloak of anonymity that lets villains commit acts of barbarism […]. If protected by darkness, or by masking their identities in a crowd, miscreants will prosper […]. *Without* that shielding cloak, lacking that shroud of hidden identity, criminals would shudder under the light. (Brin, 1977, p. 206, original emphasis)

We are far from the purported intellectual discussion on the ways our society can preserve its freedom against the invasion of micro-cameras, here. Rather, this is a virulent diatribe against the very core concept of privacy, that clearly plays on the fear and emotions of people, and on their feeling of impunity. This has nothing to do with the choice technology supposedly is forcing us to make. One might besides argue that just because our laws are not perfect does not mean that we must get rid of them altogether. As Rick Searle, an affiliate scholar of the Institute for Ethics and Emerging Technologies, asserted, the law, one of our oldest technologies, has always been our best way to protect ourselves against such dangers, thanks to "its ability to give long lasting boundaries to the permissible and non-permissible" (Searle, 2014). Thus, he argues that recently, regulation has been lagging behind, and that we now urgently need updated surveillance laws.

By constantly depreciating privacy and polarising the debate, David Brin participates in creating a culture that automatically associates secrecy with malevolence, and transparency with honesty, a culture which has a perfect illustration in the very popular "Nothing to hide" argument. But as Clare Birchall demonstrated, things are not that simple, for one can easily control what information is disclosed and thus create only the impression of transparency, while secrecy does not merely amount to hiding criminal intentions. In a study entitled "the sociology of secrecy and of secret societies", the German sociologist Georg Simmel shows how truth, lies, secrecy and trust are all consubstantial components of any social interaction.

If human relationships are "conditioned by the capacity to speak", he argues, then they are "shaped by the capacity to be silent". Should secrecy or speech be eliminated, then any interaction would fail, for it would be impossible to build up trust, which is precisely dependent on the regulation of the flow and distribution of information that both components enable. Moreover,

secrets and lies specifically, Simmel argues, can be "sociologically positive" – although "morally negative" – for example in cases where the truth would needlessly hurt someone, or in any social interaction that implies a hierarchy of knowledge between individuals, such as concerted action, education or concurrency. Finally, the sociologist explains that the very interest of any human relationship resides in what we know or do not know about each other. In this regard, he believes secrecy is one of the "greatest accomplishments of humanity", for it procures an "enormous extension of life" by allowing for a "second world" that is ours to create, alongside the "obvious" one (Simmel, 1906, p. 462).

9.2 An Obsolete Social Norm?

The author of *The Transparent Society* is however not the only one to diffuse such a simplistic vision of the world. In an interview with *TechCrunch* founder Michael Arrington, Mark Zuckerberg evoked the reasons for the sudden privacy change that made such informations as the name, the profile picture, the gender, the current city, friends and all subscribed pages visible and searchable by anybody on the internet. Here is the reasoning of the founder of Facebook:

> And then in the last 5 or 6 years, blogging has taken off in a huge way and all these different services that have people sharing all this information. People have really gotten comfortable not only sharing more information and different kinds, but more openly and with more people. That social norm is just something that has evolved over time. (Zuckerberg, 2010)

Privacy – "That social norm" – has evolved, according to him, noticeably due to blogs, and the social network is thus only adapting to the modern world, which implies that Facebook has had no influence whatsoever on the current social norms. It is not the first time that Mark Zuckerberg demonstrates such modesty, for he has repeatedly asserted that the social network is simply "a tech company, not a media company", as when the decision to censor the historical picture of the "napalm girl" because of its nudity provoked so many protest that it had to be reinstated with excuses (Wong, 2016). But it is in fact undeniable that social networks influence and shape our social norms, for the decision to make the publicity of any profile information mandatory, and the way the technology is designed to enable an easy exchange of data, foster user transparency. It is this very doubtful whether blogs alone have brought upon such change, since they do not demand

that people give their real name, email address and phone number, contrary to Facebook. Such discourses is thus at best very naïve and misleading, if not downright dishonest, for asserting that privacy is no longer a social norm is also helping effectively making it so.

Another example is that of Vint Cerf, one of the "fathers of the internet" and the chief evangelist of Google, who stated that "privacy might actually be an anomaly", arguing that it is a construct of the modern industrial age, and implying that humans may perfectly live without it (as cited in Kastrenakes, 2013, November 20). Such assertion easily relates to David Brin's own vision of the concept, which tend to deny it any historical and social value.

Histories of privacy usually go back to the 19th century to situate the roots of the modern legal concept (Lepore, 2017), but the concern for privacy appears to be much older, and one needs only to read Aristotle's *Politics* to observe that the distinction between the private (oikos) and the public (polis) has been a subject of discussion at least since Ancient Greece (DeCew, 2002). Furthermore, as legal scholar Omer Tene justly points out, The Old Testament also insisted on the need for domestic privacy by praising the Israelites' decision to build their dwellings so that their entrance would not face each other, and Cicero, the roman orator, considered the house as a sacred place where one could at any time find an asylum (Tene, 2013). Privacy did not only concern the place of residence, for at all times treatise have existed that prohibited the opening and reading of other person's letters. Besides, even if the concern for privacy turned out to be a recent construction, which it obviously isn't, that would still not constitute a legitimate reason to dismiss it as a mere anomaly. Although Vint Cerf quickly adds that he does not want people to believe he is "shallow" about privacy, and that "social conventions that are more respectful of people's privacy are needed", it is too late, for his discourse is already influencing people's conception of it, as evidenced by such articles as that of Gregory Ferenstein on *TechCrunch*, which argues that privacy is to die soon, based on Vint Cerf's declaration (Ferenstein, 2013). The internet pioneer's strategy, supposing that he is being honest, is thus rather counterproductive, as it participates in diffusing a biased and depreciated image of privacy.

9.3 Nothing to Hide

Part of the problem might indeed originate from the way it is conceived by most individuals, as demonstrated by Daniel J. Solove, who has long argued in favour of a radical change of

definition. As I explained in the theoretical part, he asserts that rather than a monolithic concept, privacy should be considered as a web of related issues that resemble each other. This allows the legal scholar, among other things, to show how the “nothing to hide” argument fails to address the plurality of problems posed by data gathering programs such as that of the NSA. Let us take an example. Questioned about the privacy policy of search engines, Google's CEO Eric Schmidt answered that “if you have something that you don't want anyone to know, maybe you shouldn't be doing it in the first place” (Schmidt, 2009). This again implies that privacy merely serves as a veil to hide illegal acts. The traditional answer would be to directly refute the argument by trying to find examples of non-criminal information people would want to hide – nudity, medical results, embarrassing letters, or bills are commonly cited. But such response already agrees with the assumption that privacy is about hiding things, and thus leads to an unfruitful discussion about what people will want to hide or not. It is the very premise of the “nothing to hide” argument that is biased, as Bruce Schneier remarks. Moreover, since in this case privacy merely equates hiding, it becomes very difficult to refute the argument for when faced with the privacy-security trade-off, people will almost always choose security.

It is here that Solove's pluralistic definition of privacy comes into play, by emphasising the different aspects of the concept - Information Collection, Information Processing, Information Dissemination and Invasion. Each of these categories has its own subcategories, which represent various sorts of “harm”. The following list is taken from Solove's taxonomy of privacy.

Information Collection
- *Surveillance*
- *Interrogation*

Information Processing
- *Aggregation*
- *Identification*
- *Insecurity*
- *Secondary Use*
- *Exclusion*

Information Dissemination
- *Breach of Confidentiality*
- *Disclosure*
- *Exposure*
- *Increased Accessibility*
- *Blackmail*
- *Appropriation*
- *Distortion*

Invasion
- *Intrusion*
- *Decisional Interference*

The scholar argues that while legally and according to “the nothing to hide” argument, governmental surveillance might not seem problematic as long as the data uncovered is not something that people wanted to hide, other dimensions than just Information Collection and Surveillance are concerned. Apart from the debatable chilling effect that such practices can have on the population, Information Processing and Information Dissemination are also concerned. The systematic collection of “seemingly innocuous data” might for example lead over time to a complete profiling of individuals, a harm called “aggregation”. Federal agencies subcontracting the management of the collected data might cause Breaches of Confidentiality and accidental Disclosures, as has been the case recently with the National Geospatial Intelligence Agency (Gallagher, 2017). Moreover, it is rarely clear what such agencies precisely do with the data, which might lead to potentially harmful Secondary Use. The state of ignorance in which the citizen is regarding what is done with his or her personal data represents what Solove calls Exclusion. Taken individually, these harms might be considered negligible, but the example of global data gathering programs show how they can rapidly accumulate into a more structural harm, and foster a climate of surveillance that will definitely have a chilling effect on people's behaviour. To come back to Eric Schmidt's answer, privacy is thus not only about hiding unlawful acts. Rather, as Bruce Schneier underlines, privacy can be considered as a fundamental human right, that collectively protects us from all above mentioned harms.

> For if we are observed in all matters, we are constantly under threat of correction, judgment, criticism, even plagiarism of our own uniqueness. We become children, fettered under watchful eyes, constantly fearful that -- either now or in the uncertain future -- patterns we leave behind will be brought back to implicate us, by whatever authority has now become focused upon our once-private and innocent acts. We lose our individuality, because everything we do is observable and recordable. (Schneier, 2006)

Mark Zuckerberg, Vint Cerf and Eric Schmidt all share something in common, besides their narrow discourse on privacy. They are all linked to giant technology companies that exist solely thanks to the colossal amount of personal data they gather on their users. They thus have every interest in ensuring that privacy becomes an obsolete norm. Their influence becomes visible, not only in the changing practices of people, but also in their reasoning about privacy, as Solove demonstrated. Transparency advocates would surely argue that the issues ignored by the “nothing to hide” argument but spotted by the pluralistic definition of privacy are a concern no more when surveillance becomes symmetrical and reciprocal. But privacy would then be eradicated altogether. This vision of world devoid of secrecy and privacy will therefore be the focus of the next and final part of this analysis of the three cornerstones of reciprocal transparency.

10. The Utopia of Transparency

10.1 Technological Solutionism

The two previous chapters demonstrated that the legitimation for a world where reciprocal transparency would be the norm appears to rely both on the belief that technology is an autonomous and unstoppable force, and on a misconception of what privacy actually is. This third and final chapter will now consider the ideal of transparency in itself, as according to its advocates, it promises a perfect solution to ensure a peaceful existence among the inevitable rise of machines, all the while eradicating criminality by fostering accountability.

Coming back to David Brin's *The Transparent Society*, we observe that reciprocal transparency goes way further than just Steve Mann's sousveillance, for it constitutes an illustration of an ideological view of society that values above all unlimited information exchange, and thus considers privacy and secrecy as highly problematic concepts. Rather than rebalancing the amount of power that is given to superiors and subordinates thanks to data gathering technologies, reciprocal transparency eliminates any kind of information hierarchy, by rendering every aspect of life visible. Transparency is thus valued intrinsically, and not instrumentally, for it becomes the purpose, and not the means.

One of the underlying assumptions of such vision of the world is that seeing equates knowing and understanding. Although global transparency enthusiasts usually metaphorically depict secrecy and privacy as representing darkness and evil as opposed to light and good, they also resort to the metaphor of transparency as omniscience. In 2015, the European Journal of Social Theory realized a special issue on the concept of transparency. One of the papers, written by Lars Thøger Christensen and Joep Cornelissen, studies the “myth” of organizational transparency, and the recurrent metaphors that support it. Although their analysis concentrates on an instrumental kind of transparency, it is still of interest to this thesis because both authors show how myths and metaphors, originally supposed to be elements of comparison and representation, lose all distance with their target, and come to be adopted as truthful and undoubted accounts of reality, thus becoming dogmas (Christensen & Cornelissen, 2015, p. 136).

A striking example they give is that of the expression “seeing is knowing”, which they identify as one of the key metaphors of the transparency myth. It postulates that being able to see everything directly and transparently immediately translates into knowledge and understanding, “as if visual perception equates to tried and tested forms of knowledge”. This is an important conviction of many transparency advocates, for whom the unrestricted and unlimited communication of information will improve not only accountability, but also the efficiency of scientific research, business, education, and many other domains of our society. But seeing or even learning something does not mean understanding it. In fact, an overflow of information might even have the opposite effect, since too much data might hinder one's capability to make sense of it (Han, 2015).

Moreover, such accounts of reality often make a second assumption, according to which reciprocal transparency will foster equality by giving everyone a total access to information. This is also highly debatable, for there will remain a fundamental asymmetry between the people who have the material means and the required knowledge to analyse and treat the gigantic amount of data, and those who do not have this chance (Heald, 2006). Besides, as Bruce Schneier for example aptly notes, while a police officer demanding to see your identity card grants her enormous power over you by allowing her to search you profile on police databases, to create a police record attached to your name, or by putting the latter on a terrorist watchlist, asking the officer for her identity does not give you a comparable power (Schneier, 2008).

A third assumption on which the technological solutionism of transparency relies is the belief that by eliminating power hierarchies and criminality thanks to a technologically-enhanced accountability, freedom and democracy will be drastically increased. The question here is to know whether one can call himself free when he is monitored twenty-four hours a day, no matter where he is, even if every other citizen in the world has to undergo the same regime of surveillance.

10.2 The Many Epigones of Michel Foucault

Here, it seems appropriate to evoke Michel Foucault and his revisitation of Jeremy Bentham's panopticon[12], and even more so to dedicate some time to some other scholars, noticeably Jean-Gabriel Ganascia, Mateusz Bucholski and Byung-Chul Han, who have been studying and extending this theory.

12 While this section aims at representing various opinions regarding the Panopticon, it is far from exhaustive, and a longer analysis could be dedicated to study other developments, such as Lyon's and Bauwman's Post-Panopticon, Umberto Eco's Anopticon, and Thomas Mathiesen's Synopticon.

The architecture of the prison designed by the English founder of utilitarianism is known by most STS scholars, as is its analysis by the French philosopher, so I will only briefly present them. The panopticon (a word which's etymology means “see everything”) was to be a penitentiary whose circular shape was supposed to allow guards, placed in the middle of the prison, in a watchtower, to observe any prisoner at any time. The prisoner themselves could never know whether or not the guards were watching them thanks to a sophisticated system of louvres, rendering the surveillance potentially permanent, and in any case unescapable.

In this case, privacy exists no more, while transparency, following David Heald's model, is vertical and upwards. But what really is crucial with this type of architecture, according to Foucault, is that the prisoner, not being able to know whether or not he is being monitored at the moment, will generally interiorise the surveillance, and modify its behaviour as if really he was actually being watched, thus “disciplining” himself (Foucault, 1977, p. 141). The panopticon showcases a good example of a unidirectional top-down transparency where the people being watched would know they are potentially being watched without knowing precisely when. This more or less relates to Brin's description of actual privacy, as for him, it is mostly a veil allowing the powerful to oppress the powerless. In the future, he fears that technology will render this kind of surveillance omnipresent and perpetual if nothing is done.

And he seems not to be the only one to believe that reciprocal transparency thus may be a solution. Inspired by Steve Mann's concept of sousveillance, which inverses the perspectives and postulates that the watched can now in turn watch their watchers thanks to the spread of technology, scientist Jean-Gabriel Ganascia[13] has modified Foucault's panopticon to transform it into a catopticon (from “catoptrics”, the study of light and mirrors), hereby supposedly compensating for its unidirectional and inequitable gaze. Indeed, in such an architecture, there is nobody in the central watchtower. Moreover, since the latter is covered with mirrors, anybody, from its cell, can permanently look at all other inhabitants of the building. The main goal is here, as theorized by Steve Mann, to use technology as a mirror against prying authorities, thus making everything transparent and everyone accountable.

Ganascia gives dozens of positive examples, each based on the same principle: a victim is able to obtain justice due the presence of a camera whose footage serves as a proof, or sometimes

13 Ganascia is director of the Comité d'Éthique du CNRS, and often criticises Transhumanism and technological determinism. However, he seems a bit too enthusiastic regarding the specific subject of transparency.

due to some other device, be it a computer or a microphone. Potential negative consequences of total transparency are only marginally considered, however, and the author of the catopticon only declares that its application might be inherently limited in certain domains (Ganascia, 2009).

Notwithstanding the somewhat ironic fact that Ganascia's “great catopticon” is inspired by a prison, one might once again wonder, just as was already the case with Brin's transparency, if an individual can be considered free when monitored all the time. Foucault's analysis' very interest is that it shows how people eventually end up disciplining themselves under the potential gaze of watchers, a phenomenon called “chilling effect”. They cannot be said to be free anymore, because they modify their behaviour according to that gaze. Now, the hypothetical inhabitants of Bentham's penitentiary have by definition lost their freedom, since they are prisoners.

But the implications of Foucault's thesis go way beyond prison alone. He indeed showed that in our modern societies, the general trend of panopticism quickly spread to schools, hospitals, companies, barracks, and other institutions where one is a priori free (Foucault, 1997/1995). Eventually, as Gilles Deleuze, another French philosopher, theorized, it is society as a whole, and all its individuals, that interiorise the potential control exerted on them, which means that our “disciplinary society” has become one of “control” (Deleuze, 1990). Both Brin and Ganascia's gamble is that mutual surveillance will eventually cancel this behavioural modification. But it might not be so simple.

Ganascia argues that we can witness sousveillance's benefits for freedom every day and everywhere on social networks – the modern representation of a catopticon –, because they allow for a total communication as well as for a total transparency. According to him, it is indeed not anymore the people who are watching that possess the power, but the people being watched, because they can now hold anyone accountable for their abuses, by recording and diffusing them instantaneously on the internet. Facebook and Twitter, among others, thus would empower the citizens, and allow them to enjoy more freedom. This is, again, a very optimistic vision of things that could be a bit more nuanced, for social networks are more than just the armed wing of sousveillance.

10.3 The Illusion of Freedom

In 2015, a group of students of the university of Maastricht, from the bachelor Programmes Arts and Culture and European Studies, realized a series of papers on transparency supervised by

the professor Nico Randeraad. The result, called *I spy my little eye. Surveillance, transparency and the power of information*, offers a variety of studies on different aspects of surveillance, with a focus on power relations (Marble Students 2015, 2016). One of the papers, written by Mateusz Bucholski, proposes to analyse Facebook's terms of a service and data policy, in order to find characteristics that could confirm or infirm the assertion that the social network is a good example of panoptic or catoptic surveillance (Bucholski, 2016).

According to the author, Facebook can be considered both as a panopticon and a catopticon, for it displays the fundamental traits denounced by Foucault – enclosure, partitioning, rationalization of space, and ranking – and the ones praised by Ganascia – total transparency, fundamental symmetry and total communication. Surely, such events as the Arab Spring of 2010-2011 demonstrate that social networks can act as crucial tools for democracy and human rights. But Mateusz Bucholski's analysis however eventually leads him to the conclusion that the empowerment capabilities offered by these tools are far from being unlimited, whereas the scope of Facebook's online surveillance, which collects all sorts of data in order "to create a holistic behavioural profile for the purpose of targeted, personalized advertising", is constantly expanding (p. 244). He therefore closes his paper by quoting several passages from Zygmunt Bauman and David Lyon's *Liquid Surveillance: A Conversation*, among which is the following:

> Social media depend for their existence on monitoring users and selling the data to others. The possibilities for social media resistance are attractive and in some ways fruitful, but they are also limited, both due to the lack of resources for binding relationships in a liquefying world and to the fact that surveillance power *within* social media is endemic and consequential. (Bauman & Lyon, 2013, p. 12, original emphasis)

Indeed, it might be useful to remind that Facebook and most other social networks are primarily companies, whose objective is mainly to make money, no matter the extent to which some take part in humanitarian and philanthropic actions (Morozov, 2015). Furthermore, one might also argue that there is neither such thing as total transparency nor fundamental symmetry on social networks, for nobody has access to all the data but the companies themselves. Even between users, information exchange is asymmetrical, since one still has the possibility to choose what is shared with who (although this tends to be less and less the case, as showed in the previous part).

For now, thus, as one might be inclined to understand by reading Mateusz Bucholski's paper,

social networks appear to be closer to a panopticon than to a catopticon, and to offer more possibilities for surveillance than for sousveillance. Facebook moreover constitutes, if considered as today's best example of what might get the closest to some sort of global transparency, another clear demonstration that people do modify their behaviour when they know they are being watched. They tend to show only one's best side, post pictures of themselves smiling, or being on holiday, rather than exposing themselves as being sad or having a boring existence (Raynes-Goldie, 2012; Royal Society for Public Health, 2017). Social networks such as Instagram (which belongs to Facebook) sometimes appear as theatres where every individuals compete in order to determine who can display the greatest amount of happiness to his or her friends and to the world more generally. This standardization of behaviours is further fostered by Facebook's architecture itself, as theorized by the philosopher and cultural theorist Byung-Chul Han. In *The Transparency Society* – a book which is more a pamphlet than a scholarly work, but which probably constitutes the best analysis of the ideology of transparency – he shows, among many other things, how Facebook's refusal to add a "dislike" button on its site is indicative of its adhesion to the ideology of positivity, a key component of transparency.

According to him, since a society based on the principle of transparency values the unrestricted communication of information above all, negativity – or any sort of difference or opinion that creates a conflict – cannot be tolerated because it would cause the exchange of data to stall. It follows that such society would chiefly encourage uniformity and conformity, if necessary by trying to eliminate "otherness" (Han, 2015). As suggested in the state of the art, Han's essay appears in many respects as a pamphlet, and criticises transparency for being the instrument of neoliberalism, all the while exposing its potential for totalitarianism. It should be read with caution, for it expresses Han's own personal opinion about the transformations that are taking place, rather than it proposes an academic study of transparency. But his work is still very insightful, for it presents a very insightful extrapolation of the core tenets of the ideology of transparency.

Han also further argues that Foucault's panopticon is becoming an aperspectival one, because there are no guards anymore in the central watchtower. Whereas Brin and Ganascia would therefore be inclined to think that more freedom will ensue thanks to the hereby created transparency, the German philosopher for his part postulates that reciprocal or not, it remains a form of surveillance.

The fact that the architecture now allows any individual to watch his or her neighbour and vice versa means that people will consider themselves to be free, because the control exerted by the once central authority has been distributed through all of them, thus making it invisible. People will therefore voluntarily monitor but also expose themselves, which is more or less what Gilles Deleuze theorized when, inspired by Foucault's concept of discipline, he described the "societies of control".

Coming back to Brin's *The Transparent Society*, one might thus argue that it is highly debatable whether people would feel freer or even effectively be freer in a world where reciprocal transparency would be the rule. Transparency, although carefully presented by the author as being only an "idea", or another solution to the problematic "inescapable rush" of technology, with its limitations, appears as a utopia that has less to do with the invasion of cameras than with an ideological conception of the world based on illegitimate assumptions and very criticisable arguments. The previous examples constitute another confirmation that reciprocal transparency is much more than just a tool for sousveillance, or a potential alternative to deal with pervasive surveillance technologies. It is, much more, an ideology, and an idealistic view of the world, in which all would be known and shared, and in this case, where crime would have been eradicated. Although such assertions are never made explicitly, the way transparency advocates frame the issue, the way they selectively choose the events that make our history, and the way they metaphorically portray the war of light against darkness tend to lead to the conclusion that it is not technology that "wants" to eliminate privacy, but humans themselves. A final illustration of such a will is presented in the fiction I will now consider to close this analysis of the third cornerstone of the argument of global transparency.

10.4 The Dystopia of Transparency

Just like I began this first chapter on *The Transparent* Society by discussing a tale, I will now close the analysis with a commentary on another work of fiction. However, whereas the tale of two cities brought us face-to-face with a dystopia, that, I argue, eventually turned out to be presented as a utopia, *The Circle*, written by Dave Eggers, first appears as a utopia before the reader realizes he or she is in fact presented with a dystopia. This book, which Rick Searle considers as a sign that awareness is raising again regarding privacy issues (Searle, 2014), follows the story of Mae Holland, a young woman who enters The Circle, a giant technology company that probably could have adopted "more cameras" as one of its own mottos. Eggers went for other aphorisms

however, such as “Secrets are lies”, “Sharing is Caring” and “Privacy is Theft”, words that certainly do not compare unfavourably to 1984's “War is Peace”, “Freedom is Slavery” and “Ignorance is Strength” (Orwell, 1949).

Indeed, The Circle is the undeniable champion of transparency, or, at least, of a global transparency à la Facebook, by which I mean that David Brin does definitely not approve of such unidirectional transparency, since the company depicted in the book is rather opaque in its functioning (Brin, 2014).

At first, Mae Holland identifies her new workplace to heaven, declaring that only “utopians could make utopia” (Eggers, 2014, p. 30). As time goes by, however, she becomes skeptic of the evermore invasive experiences she has to submit to, as when her colleague records their first sexual encounter and uploads everything online, without her knowing, all in the name of the above mentioned aphorisms. But the heroine eventually gives up any form of critical sense, and fully adopts the ideology of transparency. She goes as far as accepting to wear a SeeChange camera, a technology conceived to record every second of her life, and make it accessible to anybody on the internet. In The Circle's terminology, she thus becomes “transparent”. Mae Holland leaves behind her friends, her family, and any value that could cause inflict with those of the technology company. When one of the founders of The Circle, realizing that his creature is about to usher in a new era of totalitarianism, asks the heroine for help to denounce the company publicly, she is already so indoctrinated that she betrays him, thus eliminating the last possibility to stop the dystopia.

This book of course depicts a worst-case scenario. But even though every character chiefly shines by being a caricature of him or herself, this exaggeration is salutary, for it efficiently underlines the main traits and the potential excesses of the ideology of transparency. Indeed, no intriguing experiment and no unsettling whim presented in the story is the pure product of the author's frenzied imagination. Rather, each event described in the book has roots in today's technology pervaded society, and thus seems a plausible, albeit terrifying, outcome. Mae's suggestion to make membership to The Circle obligatory, for example, appears much less of an unrealistic idea when one knows that Facebook has recently been sentenced by the French CNIL (Commission Nationale de l'Informatique et des Libertés) for tracking not only the users of its social network – a fact which today should not surprise anyone anymore – but also people without a Facebook account, thanks to the pervasive “social plugins”, those small buttons embedded in web pages that make it easier for internet users to reference websites on the social network (Le Monde,

2017). Facebook had to pay a 150.000€ fine, which is absolutely derisory given the company's annual profit amounted to more than ten billions dollars in 2016. This simple example clearly illustrates that Searle is right when he calls for updated laws, especially at the international level. If, as Brin argues, deterrence is a key factor in holding institutions and organizations accountable, we might as well try to establish sanctions that really make technology companies and government think twice about surreptitiously collecting data, before implementing reciprocal transparency.

Another example is that of ChildTrack, a project developped by the obnoxious Francis Garaventa, a colleague with which Mae Hollands maintains a love relationship. The goal is to design microchips that would be inserted in the bones of children and would allow parents – and of course The Circle – to track their very movements, purportedly in order to ensure their safety.

> Mae, think about a world where there could never again be a significant crime against a child. None possible. The second a kid's not where he's supposed to be, a massive alert goes off, and the kid can be tracked down immediately. *Everyone* can track her. All authorities know instantly she's missing, but they know exactly where she is. […] So immediately, you take all child abduction, rape, murder, and you reduce it by 99 percent. (Eggers, 2014, p. 89)

This discourse about the elimination of crime sure sounds familiar. David Brin is of course no advocate of such drastic measures, but the desire for absolute justice nevertheless is quite similar. One might argue that, aside from representing a potential threat to freedom, the solutions proposed by transparency advocates, as is the case here, present the disadvantage of solving only the symptoms of criminality, and not criminality itself. Ideally, a society should try to understand the origin of crime in order to avoid its very emergence, and not simply prevent the criminals from acting. For in surface, the result may look the same, but in reality, humans have simply put aside the question of criminality, not solved it.

But let us come back to Francis' TrackChild. The worst, in that passage, is that Francis is probably sincere when he explains that he simply wants to avoid dramatic crimes and accidents. But not one second does he seem to contemplate, however, the potential consequences that such a technology entails. The most direct and tangible effect would be that after one generation, every adult member of the company in the world could be scrutinized in real time. As for the less tangible but undoubtedly deeper impact, it simply suffice to read Aldous Huxley's *Brave New World*,

George Orwell's *1984* or Ievgueni Zamiatine's *We*, for these prescient works epitomize societies were technology's supposed perfectness having replaced the inherent uncertainty of human trust, freedom has been completely eradicated.

This easily relates to one of the main critiques addressed to the ideology of transparency, according to which the promise of a greater trust thanks to an unlimited access to information comes at the prize of eliminating the very concept of trust, for human life will then have been so standardized and preconfigured that there will not be any space left in which to exercise one's freedom. It is thus global transparency advocates' inability to accept the existence of risk and human's "imperfectness" that eventually may lead to the rise of totalitarian societies (Han, 2015).

And once again, TrackChild appears to be a rather realistic extrapolation of some of our modern society's most disturbing trends. Indeed, parents can today choose among a wide variety of gadgets, also called wearables, whose function is to be put in a child's bag, or at his or her wrist, in order to track them. One of the leading companies in the sector proudly advertises that its product is the "ideal solution" in order to remain "close" to your child at any time, and praises what are supposed to be impressive functionalities, such as real-time location on the parents' smartphones, the ability to send an alert if the child leaves or enters predefined areas, and a history of all visited places, among other wonderful services. Not to mention, of course, that the company keeps all the obtained information in its databases. Although such devices are far from being successful, the lack of any reflexion from the many vendors and designers of such technologies is utterly astonishing. But as Deleuze demonstrated through the concept of "societies of control", part of the problem is that the desire for tracking and control also originates from the population itself. In such a security driven perspective, it seems only logical to take the next step and directly implant a tracking microchip into the children bones, in order to avoid that it becomes lost, or that the children themselves get rid of it to reclaim their freedom. Indeed, as Francis Garaventa probably would put it, why take the risk?

The Circle is rife with such examples of apparently good and innocent technological ideas that eventually lead to the construction of a rather dystopian society, and it would probably take a full thesis to exploit all its richness. I however hope that the previous illustrations demonstrate how fiction, by its magnifying power, can help underline the core tenets of an ideology such as transparency.

Dave Eggers' book is especially helpful in the actual context because, in my opinion, it makes the reader conscious, in a very intelligible way, that the world depicted in *The Circle*, although it represents the result of a dystopian and thus a priori remote nightmare, also appears, to some degree, very close to ours.

11. Conclusion

Throughout this thesis, I have analysed the core tenets of the argumentation that lies at the foundation of the proposition that reciprocal transparency might be a relevant alternative to actual privacy laws. I have hereby demonstrated that far too often, advocates of an intrinsically valued transparency rely on illegitimate assumptions and biased beliefs in order to justify the supposed necessity of a nearly unlimited access to information. More than an instrument, transparency appears, according to the discourses of the advocates of the concept, as an ideal to be pursued, in the context of a war waged against criminals and powerful people that hide in the shadows offered by privacy. Quoting Louis Brandeis, David Brin declares that sunlight is the best of disinfectants, and proclaims the inevitable and imminent death of privacy. But this solid conviction, which has inspired many followers thanks to its many promises, and which has been refined over time in numerous blogs, books and conferences, rests upon grave misconceptions about the relationship between technology and society, the concept of privacy, and that of transparency.

Firstly, a social constructivist account of events allows to insist on the fact that the advent of certain technologies is the result of the conjunction of the right technical ideas in the favourable social context (Bijker & Pinch, 1987; Hacking, 1999). It follows that, contrary to any technologically deterministic framing of history, things could definitely have been otherwise. Moreover, there appears to be no legitimate reason to believe that technology has a greater influence on the course of events than any other factor, or that human evolution is causally linked solely to science (Wyatt, 2008). As Searle aptly notes, “it is ultimately a debate over what kind of society we want to live in based on our technological capacities, which should not be confused with a society determined by these capacities” (Searle, 2014, para. 39).

Secondly, privacy cannot merely be equated with hiding unlawful acts (Simmel, 1906; Solove, 2007; Birchall, 2011). Although more than a half-century of research has not been able to come up with a commonly accepted definition, some scholars, among which Daniel J. Solove, succeeded in highlighting that a more pluralistic view of privacy allows for a better consideration of today's ICT-related issues.

This also has the advantage of refute such simplistic quips as the “Nothing to hide” argument, or statements that describe privacy as an obsolete norm.

Thirdly, the opinion according to which transparency will solve criminality and enhance freedom is naïve at best, if not utterly dangerous. For society's role should be to understand why criminality arises in the first place in order to prevent it, rather than simply eliminating it. Furthermore, it remains to be proven whether individuals would effectively feel freer under constant monitoring, event if they know this surveillance also applies to anyone else. Likewise, seeing is not knowing, and unlimited access to information can actually be detrimental to understanding (Heald, 2006; Christensen & Cornelissen, 2015). As Bruce Schneier aptly observed, there will always be huge differences in the relative power and in the available means and knowledge of the individuals accessing the data (Schneier, 2008).

More generally, transparency advocates appear to have very narrow conceptions of society and technology. While David Brin's *The Transparent Society* presents the reader with an intriguing imaginary of power, where corruption and oppression are the rule, other personalities, such as Mark Zuckerberg and Vint Cerf, fail to see the positive social value of secrecy, and the non-legal, broader meaning of privacy. As for technologies, their constant personification by transparency enthusiasts – often linked to transhumanism – such as Kevin Kelly constitutes a blatant illustration of a blind faith in the "genie" of machines. It is never a bad idea to propose innovative solutions to modern problems. Reciprocal transparency should not be dismissed, and the concept deserves a proper discussion. But discourses that defend the idea would be less problematic, in my opinion, if they were presented as beliefs, for every individual is entitled to have its own opinion. Rather, the advent of technology and the "inevitable" death of privacy are constantly presented as facts, as the undeniable truth, when such view is but one interpretation of the events among many others, and here lies the hypocrisy. Moreover, as was justly underlined by scholars such as Han and Birchall, the biased narrative of transparency advocates are often part of an ideology of transparency, which appears to convey above all the values of neoliberalism. *The Transparent Society* does thus not offer simply a solution to ICT-related privacy issues, but rather, a very specific and ideological view of the world, clearly visible in the often demagogic examples that oppose the little people against evil criminals and power hungry tyrants.

Maybe even more disturbing is the potential for totalitarianism that Han identifies in the very core of the ideology of transparency. We indeed observe that one of the main traits of the society depicted by Yevgeny Zamyatin is the elimination of individuality, or the advent of conformity and standardisation, for the constant and mutual "omniveillance" causes a chilling effect

that encourages people to behave strictly according to the norms, lest they might easily be detected and suspected.

For the concept of reciprocal transparency to be taken as a serious and credible alternative to actual privacy laws, its advocates will first have to relinquish technological determinism, to take a more socially inclusive stance, and to reconsider the potential unintended consequences of the implementation of reciprocal transparency.

For now, they mostly pretend to observe transformations that in fact, they are provoking themselves, by creating a culture that praises transparency over privacy. Although this thesis has analysed the argumentative cornerstones of reciprocal transparency, many aspects remain unstudied. More space could have been dedicated to the importance given by transparency enthusiasts to the Enlightenment and its opposition to the preceding millenia of "feudalism", to the ideal of omniscience, to the new influence of transhumanism, to the links between most transparency advocates and technology companies such as Google and Facebook, and to the neoliberal aspects of reciprocal transparency, among other things. This research thus hopes to spur further studies that treat the concept of transparency with an STS approach or at least with a perspective that considers technical and human dimensions of the issue equally, especially since, in my opinion, the ideology of transparency is well on its way to become dominant.

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