

**Rethinking Relations and Regimes of Power in
Online Social Networking Sites: Tales of Control,
Strife, and Negotiations in Facebook and YouTube.**

Asma A.I. Vranaki

Wolfson College

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Abstract

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Asma A.I. Vranaki, Wolfson College, Oxford

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This thesis investigates the potentially complex power effects generated in Online Social Networking Sites ('OSNS'), such as YouTube and Facebook, when legal values, such as copyright and personal data, are protected and/or violated. In order to develop this analysis, in Chapter Two, I critically analyse key academic writings on internet regulation and argue that I need to move away from the dominant 'regulatory' lens to my Actor-Network Theory-Foucauldian Power Lens ('ANT-Foucauldian Power Lens') in order to be able to capture the potentially complex web of power effects generated in YouTube and Facebook when copyright and personal data are protected and/or violated. In Chapter Three, I develop my ANT-Foucauldian Power Lens and explore how key ANT ideas such as translation can be used in conjunction with Foucauldian ideas such as governmentality. I utilise my ANT-Foucauldian Power Lens in Chapters Four to Seven to analyse how YouTube and Facebook are constructed as heterogeneous, contingent and precarious 'actor-networks' and I map in detail the complex power effects generated from specific local connections. I argue five key points. Firstly, I suggest that complex, multiple, and contingent power effects are generated when key social, legal, and technological *actants* are locally, contingently, and precariously 'fitted together' in YouTube and Facebook when copyright and personal data are protected and/or violated. Secondly, I argue that 'materialities' play key roles in maintaining the power effects generated by specific local connections. Thirdly, I argue that there are close links between power and 'spatialities' through my analysis of the Privacy Settings and Tagging in Facebook. Fourthly, I argue that my relational understandings of YouTube and Facebook generate a more comprehensive view of the power effects of specific legal elements such as how specific territorial laws in YouTube gain their authority by virtue of their durable and heterogeneous connections. Finally, I argue that we can extrapolate from my empirical findings to build a small-scale theory

about the power effects generated in OSNS when legal values are protected and/or violated. Here I also consider the contributions made by my research to three distinct fields, namely, internet regulation, socio-legal studies, and actor-network theory.

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Football Association Premier League et al. v. YouTube, Inc., No. 1:07-cv-03582-UA (S.D.N.Y. May 4, 2007)

Grisman et al. v. YouTube, Inc., No. 3:2007cv02518 (N.D. Cal. May 10, 2007)

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Chapter One

The ‘Machine’ Is Not Coming, It Has Arrived

Abstract

This chapter introduces my thesis which investigates the power effects generated in Online Social Networking Sites (‘OSNS’), such as, YouTube and Facebook, when legal values, such as, copyright and personal data respectively, are protected and/or violated. In this chapter, I set out five essential building blocks for my research. Firstly, I present the main objectives and arguments of my research. Secondly, I argue that YouTube and Facebook are appropriate empirical sites for my research for five reasons, namely, topicality, popularity, the protection of copyright and personal data is hotly contested in these two OSNS, lack of micro-socio-legal research into how copyright and personal data are protected and/or violated empirically in YouTube and Facebook, and key differences between Facebook and YouTube. Thirdly, I argue that the case study method is the appropriate research method for my research for three reasons including shedding in-depth light on the power effects generated in YouTube and Facebook when copyright and personal data are protected and/or violated. Fourthly, I critically evaluate how the various data collection methods which I use for both case studies, namely, virtual ethnography, documentary analysis and interviews, enable me to answer my research questions. Finally, I set out the structure of this thesis, which in general terms is divided into seven chapters, excluding this Chapter One.

'People never touched one another.

The custom had become obsolete, owing to the Machine.'

E.M. Forster, The Machine Stops (1909, 101)

Introduction

Forster`s short story was written in an age when computer-mediated communication technologies¹ existed merely in the minds of writers interested in utopian and dystopian accounts of technological innovations or the 'Machine'. However, Forster could easily have been writing about the Information Age,² firmly ensconced in modern life, threatening our intimacy, privacy, body and more. Recently, there has been a rise in the number of applications and websites which ride on new technological platforms³ such as Ajax⁴ and RSS⁵ and support increased user interaction and large-scale user participation in cyberspace ('Participative Web').⁶ In

¹ This refers to any communicative transaction which occurs through the use of two or more networked computers. Denis McQuail, *Mcquail's Mass Communication Theory* (5th edn London Sage Publications 2005).

² 'The era in which the retrieval, management, and transmission of information, esp. by using computer technology, is a principal (commercial) activity.' (Oxford English Dictionary, Online Version).

³ *ibid.*

⁴ Acronym for Asynchronous JavaScript. Ajax can be defined as a 'web development technique for interactive web applications which encompasses different technologies.' (OECD Report 2006, 20) Applications such as Google Maps and Flickr are based on Ajax. For more on the participative web, see OECD, 'Emerging Technology Applications in OECD Information Technology Outlook 2006,' <http://www.oecd.org/document/10/0,2340,en_2649_33703_37486858_1_1_1_1,00.html> accessed 8 January 2011.

⁵ *ibid.*, 20. RSS refers to three different terms, namely, Rich Site Summary, Really Simple Syndication or RDF (Resource Description Framework) Site Summary. It can be defined as an 'XML (Extensible Markup Language) file format for content syndication.'

⁶ 'The 'participative web' can also be referred to as Web 2.0' platforms. There are many controversies surrounding the term Web 2.0 and its meanings. To avoid such these issues, I use the term 'participative web' in this thesis. See Tim O'Reilly, 'What is Web 2.0? Design Patterns and Business Models for the Next Generation of Software,' (2005) <<http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html>>

this thesis, I use the term 'cyberspace' and 'internet' interchangeably. By 'internet' or 'cyberspace' I refer to the 'seamless web of communications networks, computers, databases and consumer electronics that...put vast amount of information at the user's fingertips.'⁷ The recent rise of the Participative Web such as Online Social Networking Sites ('OSNS') has been accompanied by increasing attempts by legal practitioners,⁸ scholars⁹ and regulators to understand how legal values such as copyright and personal data can be protected against the risks posed by such platforms. I understand copyright¹⁰ and personal data¹¹ as values which law protects.¹² By personal data, I mean any information which relates to a user of an OSNS who is or can be identified from the data such as the internet protocol address, full name, characteristics, and electronic mail address of the OSNS user. By OSNS, I refer to the web-based social communities¹³ of users with shared interests or affiliations which enable their members to do any or all of the following depending on their technological tools: - share data, images, photos, videos, films and sounds; text messages, instant messages and multi-media messages; interact

accessed 5 May 2009; San Murugesan, '*Understanding Web 2.0*,' IT Pro (July-August 2007) 34.

⁷ Mark L Gordon and Diana J P McKenzie, 'A lawyers roadmap of the information superhighway' (1995) 12 J. Marshall J.Computer & Info.L. 177, 179ff.

⁸ E.g. Graham Smith, *Internet Law and Regulation* (4th edn. Sweet & Maxwell 2007).

⁹ E.g. Damian Tambini, *Codifying Cyberspace: Communications Self-regulation in the Age of Internet Convergence* (Oxford Routledge 2007); Lawrence Lessig, *Code Version 2.0* (Basic Books 2006).

¹⁰ For copyright as a legal value see, Matthew J Baker and Brendan M Cunningham, 'Court Decisions and Equity Markets: Estimating the Value of Copyright Protection,' (2006) 49 (2) Journal of Law and Economics 567.

¹¹ For personal data as a legal value see Colin J Bennett, *Regulating privacy: data protection and public policy in Europe and the United States* (Cornell University Press 1992).

¹² For more on the links between law and values, see Roger Cotterell, *Law's Community: Legal Theory in Sociological Perspective* (Oxford University Press 1997) 291.

¹³ A community can be defined as a group of interacting individuals who share an element of commonality (e.g. religious belief, race, ethnic origin, social interests). See Barry Wellmann, *Networks in the Global Village: Life in Contemporary Communities* (Oxford Westview Press 1999).

with other users by using virtual actions; create and display personal profiles with other users and create and display lists of contacts in the virtual community.

In academic circles, as further analysed in Chapter Two, the debates about the protection of legal values in cyberspace have been dominated by the idea of internet regulation through four 'regulatory modalities', namely, law, norms, market and 'code'.¹⁴ From this perspective, some argue that 'code is law' and is the 'perfect tool for control' in cyberspace due to its 'malleability' and 'plasticity'.¹⁵ Recently, such views about internet regulation have been attacked by scholars who have argued that internet regulation should not be approached from the perspective of '...what tools do what jobs'.¹⁶ Rather, they argue that the internet should be conceptualised as a complex and dynamic space where humans, conceptualised as a 'networked community (or matrix) of dots' with '...share[d] ideas, beliefs, ideals and opinions' interact with one another and regulatory modalities.¹⁷ Here, questions about regulation are questions about how diverse actors, not limited to the State, regulate and/or respond to regulation.¹⁸

Moving beyond this dominant 'regulatory' perspective,¹⁹ my research investigates the potentially complex power effects generated in OSNS such as YouTube and Facebook, when legal values, such as copyright and personal data are

¹⁴ n 9, Lessig.

¹⁵ Ibid.

¹⁶ Charles Raab and Paul de Hert, 'The Regulation of Technology: Policy Tools and Policy Actors,' in (ed) Karen Yeung and Roger Brownsword, *Regulating technologies: legal futures, regulatory frames and technological fixes* (Hart 2008).

¹⁷ Andrew D Murray, 'Nodes and Gravity in Virtual Space,' (2011) 5(2) *Legisprudence* 5.2 (2011) 195.

¹⁸ Ibid.

¹⁹ E.g. n 9; Andrew Murray, *The Regulation of Cyberspace: Control in an Online Environment*, (Routledge-Cavendish 2006); Andrew D Murray and Colin Scott, Murray, 'Controlling the new media: hybrid responses to new forms of power,' (2002) 65 (4) *Modern Law Review*, 491; DAVID G Post and DAVID R Johnson 'Law and borders: the rise of law in cyberspace,' (1996) 28 *Stanford Law Review* 1367.

protected and/or violated. By power effect, I mean any enabling, constraining and productive force which is generated when technological (e.g. Facebook`s privacy settings), social (e.g. YouTube user`s resistance practices) and legal elements (e.g. the fair use exception)²⁰ are associated in specific ways to extract compliance from *actants* which can resist such attempts. By ‘*actants*’, I mean ‘...something that acts or to which activity is granted by others.’²¹ ‘*Actants*’ refer both to humans and non-humans.²² In this thesis, I use the terms ‘*actants*’, ‘humans and non-humans’, and ‘elements’²³ interchangeably. In order to further advance this analysis , I have developed a conceptual prism of power where Michel Foucault`s²⁴ ideas about power are used in conjunction with Actor-Network Theory²⁵ (‘ANT’) ideas about power (‘ANT-Foucauldian Power Lens’) in Chapter Three.

²⁰ Title 17 of the United States Code, § 107.

²¹ Bruno Latour, ‘On actor-network theory: a few clarifications,’ (1996) *Soziale Welt* 369, 376,

²² Trisha Greenhalgh and Rob Stones, ‘Theorising big IT programmes in healthcare: strong structuration theory meets actor-network theory,’ (2010) 70(9) *Social Science & Medicine* 1285.

²³ Some ANT scholars use the terms ‘elements’ and ‘*actants*’ interchangeably. E.g. Ole Hanseth, Margunn Aanestad, and Marc Berg, ‘Guest editors’ introduction: Actor-network theory and information systems. What’s so special?’ (2004) 17(2) *Information Technology & People* 116.

²⁴ E.g. Michel Foucault, *The history of sexuality* (1st American edn Pantheon Books, New York 1978)

²⁵ E.g. Bruno Latour, ‘The Powers of Association’ in John Law (ed) *Power, Action and Belief: a New Sociology of Knowledge?* (London Boston and Henley, Routledge and Kegan Paul 1986) 264; John Law ‘On Power and Its Tactics: a View from the Sociology of Science’ (1986) 34 *The Sociological Review* 1.

In this chapter I focus on the essential building blocks of my research. The chapter is divided into six sections. In section 1.1, I present the objectives and arguments of my research. In particular, I argue that the primary objective of this research is to understand the power effects generated in YouTube and Facebook when legal values such as copyright and personal data are protected and/or violated. In section 1.2, I explore five reasons for why my research focusses on the protection and/or violation of copyright and personal data in YouTube and Facebook respectively. In sections 1.3 and 1.4, I critically evaluate the reasons why the case study method is the appropriate research method for my investigation of power effects generated in YouTube and Facebook when copyright and personal data are protected and/or violated. In section 1.5, I critically evaluate the various data collection methods I use for both case studies including virtual ethnography and documentary analysis. In particular, I argue that such data collection methods provide me with a detailed catalogue of qualitative empirical data which I can analyse to learn more about power effects in YouTube and Facebook when legal values such as copyright and personal data are protected and/or violated. In section 1.6, I present the structure of my thesis.

1.1 Research Objectives and Arguments

In this section, I explore the three key objectives and the five key arguments of my research.

My primary objective is to understand the power effects generated in OSNS such as YouTube and Facebook when legal values such as copyright and personal data respectively are protected and/or violated. Hence, I need to understand how YouTube and Facebook are constructed as socio-legal-technological ‘actor-networks’ when copyright and personal data respectively are protected and/or violated. Consequently, the second objective of this research is to analyse the myriads of ways in which heterogeneous *actants* are ‘fitted together’ in YouTube and Facebook when copyright and personal data are protected and/or violated. My third objective is to extrapolate from my two case studies to build a small-scale theory about the power effects generated in OSNS generally when legal values are protected and/or violated.

The analysis that addresses these three objectives has generated five key arguments. Firstly, I suggest that complex, multiple, and contingent power effects are generated when key social, legal, and technological *actants* are locally, contingently, and precariously ‘fitted together’ in YouTube and Facebook when copyright and personal data are protected and/or violated. Secondly, I argue that ‘materialities’ play key roles in maintaining the power effects generated by specific local connections. Thirdly, I argue that there are close links between power and ‘spatialities’ through my analysis of the Privacy Settings and Tagging in Facebook. Fourthly, I argue that my relational understandings of YouTube and Facebook generate a more comprehensive view of the power effects of specific legal elements such as how specific territorial laws in YouTube gain their authority by virtue of their durable and heterogeneous connections. Finally, I argue that we can extrapolate from my empirical findings to build a small-scale theory about the power effects generated in OSNS when legal values are protected and/or violated. Here I also consider the contributions made by my research to three distinct fields, namely, internet regulation, socio-legal studies, and actor-network theory.

Having explored the main objectives and arguments of this research, why are YouTube and Facebook appropriate instances of the threats that the ‘Machine’ poses to legal values such as copyright and personal data?

1.2 OSNS as Challenges to Personal Data and Copyright

In this section, I argue that YouTube and Facebook are appropriate empirical settings for my research for five reasons, namely, topicality, popularity, the protection of copyright and personal data is hotly contested in these two OSNS, lack of micro-socio-legal research into how copyright and personal data are protected and/or violated empirically in YouTube and Facebook, and key differences between Facebook and YouTube.

Firstly, Facebook and YouTube are appropriate empirical settings for my research as they are widely discussed in the news and academic literature because

of the risks they pose to legal values such as personal data and copyright.²⁶ In particular, the academic literature in the field of internet regulation highlights the serious risks which YouTube and Facebook pose to copyright and personal data such as unlawful use of a copyrighted content in a video created by a YouTube user²⁷ or the tendency of Facebook users to share large amounts of personal information on Facebook.²⁸ Secondly, Facebook and YouTube are appropriate empirical settings for my research because of their huge subscription bases²⁹ and high level of user interactions.³⁰ Facebook's and YouTube's popularity means that I can collect a wider range of qualitative data from both OSNS. It is important for me to analyse empirical settings which provide me with wide coverage of copyright and

²⁶ E.g. Harley Brown, 'YouTube Cover Songs Threatened by New Copyright Lawsuit,' (Rolling Stone 8 August 2013) <<http://www.rollingstone.com/music/news/youtube-cover-songs-threatened-by-new-copyright-lawsuit-20130808#ixzz2kMGn3dky>> accessed 8 August 2013; Sasha Bogursky, 'Facebook loosens privacy restrictions for minors amid cyber bullying concerns,' (Fox News 17 October 2013) <<http://www.foxnews.com/tech/2013/10/17/facebook-loosens-privacy-restrictions-for-minors-amid-cyber-bullying-concerns/>> accessed 17 October 2013; Eugene C Kim, 'YouTube: Testing the safe harbors of digital copyright law,' (2007) 17 S. Cal. Interdisc. LJ 139; Kurt Hunt, 'Copyright and YouTube: Pirate's Playground or Fair Use Forum,' (2007) 14 Mich. Telecomm. & Tech. L. Rev. 197; Danah Boyd, 'Facebook's Privacy Trainwreck,' (2004) 14(1) Convergence: The International Journal of Research into New Media Technologies 13; Wang Na, Heng Xu, and Jens Grossklags, 'Third-party apps on Facebook: privacy and the illusion of control,' (Proceedings of the 5th ACM Symposium on Computer Human Interaction for Management of Information Technology ACM 2011).

²⁷ David Kohler, 'This Town Ain't Big Enough for the Both of Us-Or Is It: Reflections on Copyright, the First Amendment and Google's Use of Others' Content,' (2007) Duke L. & Tech. Rev. 1.

²⁸ Bernhard Debatin, et al, 'Facebook and online privacy: Attitudes, behaviors, and unintended consequences,' (2009) 15 (1) Journal of Computer-Mediated Communication 83. This study highlighted that Facebook users shared a lot of personal information on Facebook despite apparently understanding the privacy issues raised by such oversharing.

²⁹ Facebook has over 1.15 billion monthly active users as at June 2013. Facebook, Statistics <<http://newsroom.fb.com/Key-Facts>> accessed 8 October 2013.

³⁰ Over one hundred hours of uploaded video per minute on YouTube. YouTube, Statistics <<https://www.youtube.com/yt/press/en-GB/statistics.html>> accessed 8 October 2013.

data protection and/or violation for the purposes of theory-building in Chapter Eight. Consequently, I have discounted other OSNS such as Bebo and Myspace from an early stage as they do not provide me with the same breadth of relevant qualitative data as Facebook and YouTube due to their mounting unpopularity,³¹ and lack of topicality.

Thirdly, I needed to focus on empirical settings where the protection of legal values such as copyright were hotly contested in order to have examples of the protection and/or breaches of these legal values and the complex web of power relations generated when such legal values are violated and/or protected. Very early on in the research, the number of copyright and data protection litigation brought against YouTube³² and Facebook³³ indicated that I would find qualitative evidence of 'strife,' and power effects in these OSNS. Fourthly, and importantly, an analysis of the existing literature in the field of internet regulation showed a lack of micro-socio-legal research into how legal values such as copyright and personal data are protected empirically in YouTube and Facebook.³⁴ Finally, it was important for my research to explore whether key differences between two empirical settings, such as the different practices, technological capabilities and interactions in YouTube and Facebook, impacted on my research questions. For example, YouTube users interact with one another in specific ways such as uploading, watching or sharing a video and commenting on videos of other YouTube users. Facebook users interact with one another in other ways such as uploading a photo, 'liking' a photo posted by another Facebook user, and sending private messages to other Facebook users.

Having analysed the five reasons why my research focusses on the protection and/or violation of copyright and personal data in YouTube and Facebook,

³¹ Emma Barnett, 'MySpace loses ten million users in a month,' (The Telegraph, 24 March 2011) <<http://www.telegraph.co.uk/technology/myspace/8404510/MySpace-loses-10-million-users-in-a-month.html>> accessed 24 March 2012; 'Why Bebo lost its bounce,' (The Scotsman 10 April 2010) <<http://www.scotsman.com/business/why-bebo-lost-its-bounce-1-1365809>> accessed 24 March 2012.

³² E.g. *Viacom Int'l v. YouTube*, No. 07-CV-02103 (S.D.N.Y. 13 Mar. 13, 2007).

³³ E.g. *Lane et al v. Facebook, Inc. et al*, No. 5:08-cv-03845 (C.N.D.C. 12 Aug. 2008)

³⁴ E.g. n 9, 16, 17 and 19.

next, I critically evaluate the research methods used to conduct the YouTube and Facebook case studies.

1.3 Tracing Network Construction and Power Effects in Facebook and YouTube through the Case Study Method

I suggest that the case study method³⁵ is an appropriate research method for my research for three reasons. By case study method, I mean an ‘all-encompassing method’ which covers research design, data collection techniques and data analysis for an ‘...empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context.’³⁶ My thesis is based on two qualitative case studies which investigate the power effects generated in YouTube and Facebook when copyright and personal data are protected and/or violated. I understand YouTube and Facebook as heterogeneous actor-networks which are formed and performed when heterogeneous *actants*, such as binary codes, programming languages, legal skills and Facebook’s users’ practices are locally ‘fitted together’ in YouTube (‘YouTube’s Copyright Network’) and Facebook (‘Facebook’s Data Network’) when copyright and personal data respectively are protected and/or violated. By ‘actor-network’, I mean ‘... an entity that does the tracing and the inscribing.’³⁷ Such local connections may at times become more durable or mobile when they are embodied in ‘materialities’, such as text.

³⁵ Certain scholars refer to the ‘case study’ as an approach rather than a method. See Lisa M Given, ‘Case Study’ in *The Sage Encyclopedia of Qualitative Research Methods* (Sage 2008) 69; Jacques Hamel, Stephane Dufour and Dominic Fortin, *Case Study Methods* (Sage 1993) 1ff. In line with key scholars, I refer to the case study as a method. See Yin (n 38); Andreas M Riege, ‘Validity and reliability tests in case study research: a literature review with “hands-on” applications for each research phase,’ (2003) 6(2) *Qualitative Market Research: An International Journal* 75.

³⁶ Robert Yin, *Case Study Research: Design and Methods* (Applied Social Research Methods) (Sage 2013) 18ff, Given (n 37) There is no consensus the basic characteristics of case studies as the term ‘case study’ is used in various contexts such as social sciences and practical experiments.

³⁷ Bruno Latour, ‘On actor-network theory: a few clarifications,’ (1996) *Soziale Welt* 369, 375.

Firstly, the case study method is very appropriate for my ANT-Foucauldian Power Lens. The case study method enables me to ‘follow the *actants*³⁸ which construct Facebook’s Data Network and YouTube’s Copyright Network without replicating the unquestioned distinction between ‘micro’ and ‘macro’ actors present in modernist social science analysis. This research method also enables me to investigate how Facebook’s Data Network and YouTube’s Copyright Network are effects which are continuously generated through a complex web of materially and discursively³⁹ heterogeneous relations rather than the product of a ‘fixed centre.’⁴⁰Crucially, the case studies method enables me to trace the ‘microphysical’⁴¹ workings of power in Facebook’s Data Network and YouTube’s Copyright Network.⁴²

Secondly, the case studies method enables me to focus on two units of analyses, namely, Facebook’s Data Network and YouTube’s Copyright Network and

³⁸ E.g. Bruno Latour, *Science in Action: How to Follow Scientists and Engineers Through Society*, (Milton Keynes Open University Press 1987); Bruno Latour, ‘*Ethnography of a ‘high-tech’ case: About Aramis,*’ in (ed) P Lemonnier *Technological Choices: Transformation in Material Cultures Since the Neolithic* (London Routledge 1993) 372; John Law, ‘On the Methods of Long Distance Control: Vessels, Navigation and the Portuguese Route to India,’ in (ed) John Law *Power, Action and Belief: a new Sociology of Knowledge?* 32 *Sociological Review Monograph* (London, Routledge and Kegan Paul 1986) 234.

³⁹ John Law, ‘Actor Network Theory and Material Semiotics,’ in B S Turner (ed) *The New Blackwell Companion to Social Theory* (Wiley-Blackwell Oxford 2009) 1.

⁴⁰ Paul Rabinow, *The Foucault reader* (New York Pantheon Books 1984) 4.

⁴¹ Gavin Kendall and Gary Wickham, *Using Foucault’s Methods* (Sage Publications 2003) 51.

⁴² For more on the certain assumptions of the case study methods such as the assumption that there is not one single reality and the assumption that empirical reality and theoretical concepts constitute one another, see Yin (n 38).

generate ‘thick description[s]’⁴³ about the ‘what’ and ‘how’ of power in these two networks. Building on such ‘thick description[s]’ of the complex web of power relations at play in Facebook’s Data Network and YouTube’s Copyright Network, in Chapter Eight, I start to build a small-scale theory of power effects in OSNS that, I suggest, may also be relevant to the analysis of other OSNS.⁴⁴ Thirdly, the case studies method also enables me to use various data collection methods,⁴⁵ namely, virtual ethnography, documentary analysis, and interviews, as detailed in section 1.5, to investigate in detail the construction of Facebook’s Data Network and YouTube’s Copyright Network and the power effects thus generated.

Whilst conducting my YouTube and Facebook case studies, I have also addressed three key limitations identified with the qualitative case study method, namely, unrepresentativeness, subjectivity and potentially limited reliability,⁴⁶ as analysed next.

⁴³ Clifford Geertz, ‘Thick Description: Towards an Interpretive Theory of Culture,’ in *The interpretation of cultures: Selected essays* (Vol. 5019) (Basic books 1973).

⁴⁴ For the links between ‘thick description’ and theory building, see Given (n 37). For the suitability of the case studies method to produce theory, see John Walton, ‘Making the Theoretical Case’, in Charles C Ragin, and Howard S Becker (eds), *What is a Case? Exploring the Foundations of Social Inquiry* (Cambridge University Press 1992) 121.

⁴⁵ Various qualitative data collection methods are suitable for a qualitative case study. See Lisa A Guion, Lisa A., David C Diehl, and Debra McDonald, ‘Triangulation: Establishing the validity of qualitative studies,’ (2011) < <http://edis.ifas.ufl.edu/fy394>> accessed 8 October 2013; Yin (n 38).

⁴⁶ Reliability is the extent to which an experiment, test, or any measuring procedure yields the same result on repeated trials.

1.4 YouTube and Facebook Case Studies: Of Representativeness, Subjectivity, and Reliability

In response to potential criticisms of unrepresentativeness, I would argue that each case study is a ‘well-constructed single case’⁴⁷ which provides me with detailed understanding of the ‘what’ and ‘how’ of power when a specific legal value such as copyright and personal data is protected and/or violated in YouTube and Facebook respectively. This, of course, does not mean that my case studies are representative of the wider population of all OSNS. However, it is not necessary for my case studies to be representative of the wider population of all OSNS for me to be able to answer my research questions. Furthermore, while not representative, my case studies provide me with fairly wide and in-depth⁴⁸ coverage of the power effects generated in OSNS when legal values are protected and/or violated.

In response to potential criticisms of subjectivity, I would argue that I have ensured that each case study does not contain a bias towards verification or a tendency to confirm some of my preconceived notions as a researcher. My ANT-Foucauldian Power Lens has been of great use here as it requires me to approach the question of power in YouTube’s Copyright Network and Facebook’s Data Network without any *a priori* assumptions such as analytic distinctions between humans and non-humans. It could be argued that by relying on my ANT-Foucauldian Power Lens I am, in fact, using certain pre-conceived notions and assumptions such as that the Facebook Network is a heterogeneous ‘actor-network.’ I would respond by raising three points.

Firstly, a degree of subjectivity is unavoidable in qualitative empirical research as the analysis of the phenomenon under study is invariably framed by the

⁴⁷ E.g. Bourdieu and Wacquant argued that ‘there is no need for Galileo to constantly repeat the slope experiment to construct the falling body model. A well-constructed single case is no longer singular.’ P Bourdieu and L Wacquant *Reponses* (Paris Seuil 1992).

⁴⁸ By depth of analysis, I mean the ‘...empirical completeness...conceptual richness and theoretical consistency.’ Given (n 37, 71).

researcher's concepts. However, this does not mean that such analysis is any less valid. Rather, such analysis represents one version of the phenomenon under study rather than the definitive version of the phenomenon in question. Consequently the focus here is on how the investigated phenomenon is constructed from the heterogeneous connections of diverse *actants* rather than a preoccupation with producing the 'truth' about the phenomenon in question.⁴⁹ Here I am not arguing that facts do not exist but rather than they are performed by and through heterogeneous connections between *actants*. Consequently, the stability of a 'fact' is constantly contested.

Secondly, to avoid the criticism of subjectivity (as far as possible), during my case studies I have constantly searched for the 'black swans' or the findings which go against my pre-conceived notions and assumptions. The constant search for the 'black swans'⁵⁰ have often led me to revise some theoretical notions and assumptions. For instance, it is common in ANT empirical case studies to find evidence of 'immutable mobiles' or mobilised sets of socio-technological relations which can travel through time and space without modification such as maps.⁵¹ However, during the YouTube and Facebook case studies, I have also found empirical evidence of partially mobilised sets of socio-legal-technological relations which can travel through time and space for some time before inevitably being

⁴⁹ For more on the ANT and the 'truth' see Bruno Latour, *Reassembling the Social. An Introduction to Actor-Network-Theory* (Oxford University Press 2005). For more on Foucault and the truth see Michel Foucault, *Ethics: Subjectivity and truth. Essential works of Michel Foucault 1954–1984 (Vol. 1)* (ed) P Rabinow (trans) R. Hurley et al (London Allen Lane 1997).

⁵⁰ G E Guba, and Yvonna S Lincoln, 'Competing paradigms in qualitative research,' (1994) 2 *Handbook of qualitative research* 163.

⁵¹ E.g. John Law, 'On the Methods of Long Distance Control: Vessels, Navigation and the Portuguese Route to India,' in John Law (ed) *Power, Action and Belief: a new Sociology of Knowledge?* 32 *Sociological Review Monograph* (London Routledge and Kegan Paul 1986) 234

modified such as YouTube's Help Centre. Here, based on this corrective⁵² lens of my data, I have developed the concept of 'partial immutable mobiles' to refer to such *actants*.

Thirdly, to avoid a highly subjective take during the data collection phase for each case study I have used data triangulation, as explained in section 1.5 below, to obtain different sources of data on key observation points.⁵³ Additionally, for each case study, I have carried on collecting data as long as new insights kept being generated in relation to my research questions. Furthermore, I have regularly questioned what aspects of the research questions were not being represented by the collected data.⁵⁴ At such points, I have gone back to my research design, research questions and conceptual lens to analyse which points could be represented by the data such as the unintended power effects in YouTube and Facebook. This has been an iterative where the research design, research questions and conceptual lens have constantly been refined in the light of the collected data. By using this strategy, I have avoided making unnecessary subjective judgments.

Finally, in response to potential criticisms of lack of reliability, I would raise two points. Firstly, I have ensured that each case study is reliable by systematically recording the data collection procedures (e.g. search terms), and case study reports (e.g. report on the first week of the virtual ethnography) as set out in Appendix One. Secondly, to ensure that the YouTube and Facebook case studies are reliable, I

⁵² Such corrections are relational effects of the network of relations I have found myself in, as a researcher, at the time of data collection and analysis. Such corrections are quite akin to 'falsifications' but I avoid using this term as it is mostly used in quantitative studies. For Latour's take on Popper's principle of falsification, see Bruno Latour, 'How to talk about the body? The normative dimension of science studies' (2004) 10(2-3) *Body & society* 205.

⁵³ For the use of data triangulation to establish the validity and reliability of the case study in question, see Riege (n 37); and Guion (n 46).

⁵⁴ As suggested in Hamel (n 37, 23ff).

have used software package NVivo to code⁵⁵ and categorise⁵⁶ the collected data to ensure systematic analysis. Whilst using Nvivo I have ensured that its 'code and retrieve methods' have not been the sole methods of data analysis so as to avoid limiting the depth of my analysis. Consequently, I have used other strategies such as reading the dataset in its entirety, and using graphic organisers to draw new connections between the data. Next, I outline the three main data collection methods which my YouTube and Facebook case studies have drawn on, namely, virtual ethnography,⁵⁷ documentary analysis and interviews.

1.5 Data Collection Methods

I have used virtual ethnographic methods to collect qualitative data from Facebook and YouTube⁵⁸. In particular, I have engaged in sustained observation in the field of relevant interactions (e.g. comments on YouTube's comment boards), and actions (e.g. use of 'Like' buttons in Facebook).⁵⁹ The enquiry avenues have been delimited by the research design, research questions and the conceptual framework.

⁵⁵ Coding data refers to the actual technological coding.

⁵⁶ Categorisation refers to creating categories from the concepts/data analysis.

⁵⁷ For more on virtual ethnography see Christine Hine, *Virtual Ethnography* (Sage 2000). On netnography, see Robert V Kozinets, *Netnography: Doing ethnographic research online* (Sage Publications 2009). Hine (2000, 34) argues that '...virtual ethnography aspires to give a distinctive understanding of the significance and implications of the internet.' Kozinets (2002) argues that traditional features of ethnography should be adapted to study practices and cultures in computer mediated communications technologies. See Robert Kozinets, 'The field behind the screen: Using netnography for marketing research in online communities,' (2002) 39 (1) Journal of Marketing Research 61.

⁵⁸ See Appendix One for further detail about both virtual ethnographies.

⁵⁹ Hine n 58.

As an 'interstitial activity,'⁶⁰ the YouTube and Facebook virtual ethnographies have been slotted alongside two other data collection activities, namely, documentary analysis, and interviews, which have also informed the direction of further virtual ethnographic enquiries. For the YouTube case study I have analysed various documents including internal YouTube documents,⁶¹ relevant mass media output,⁶² relevant Congressional Reports,⁶³ US,⁶⁴ UK,⁶⁵ and EU⁶⁶ copyright

⁶⁰ *Ibid* at 71.

⁶¹ E.g. analysis of key YouTube blogs such as YouTube API blog <<http://apiblog.youtube.com/>> accessed 12 January 2013; YouTube Blog <<http://youtube-global.blogspot.co.uk/>> accessed 12 January 2013; relevant contracts between YouTube users and YouTube such as Terms of Service <<http://www.youtube.com/t/terms>> accessed 12 January 2013; Community Guidelines <http://www.youtube.com/t/community_guidelines> accessed 12 January 2013; and Privacy Policy <<http://www.google.com/intl/en/policies/privacy/>> accessed 12 January 2013.

⁶² E.g. Mass media output on the copyright disputes between right holders and YouTube, see Greg Sandoval, 'YouTube Users Caught in Warner Music Spat,' (*Cnet News* 27 January 2009) <http://news.cnet.com/8301-1023_3-10150588-93.html> accessed 5 May 2010. Mass media output on the licensing deals between right holders and YouTube, see Claudine Beaumont, 'Music Videos Pulled from YouTube in Row over Licensing,' *Telegraph* (London 9 March 2009) <<http://www.telegraph.co.uk/technology/google/4963842/Music-videos-pulled-from-YouTube-in-row-over-licensing.html>> accessed 5 May 2010 Rob Hof, 'YouTube Announces Music Video Service with Universal Music Group,' (*Business Week* 9 April 2009) <http://www.businessweek.com/the_thread/techbeat/archives/2009/04/ever_since_goog_1.html> accessed 5 May 2010.

⁶³ The Senate Committee on the Judiciary Report, S. Rep. No. 105-190 (1998) and The House Committee on Commerce Report, H.R. Rep. No. 105-551, pt. 2 (1998).

⁶⁴ E.g. Copyright Act 1976 and the Digital Millennium Copyright Act 1998.

⁶⁵ Copyright, Designs, and Patents Act 1988; Electronic Commerce (EC Directive) Regulations 2002; Copyright and Related Rights Regulations 2003; and Digital Economy Act 2010.

⁶⁶ Copyright Directive, 2001/29 [2001] O.J. L 167/10; Electronic Commerce Directive, Directive 2001/31 [2000] O.J. L178/1.

legislation; an analysis of international copyright treaties;⁶⁷ and relevant US rulings⁶⁸ since 2005 (year of YouTube`s inception).⁶⁹ The analysis of copyright legislations and relevant US rulings (e.g. Viacom lawsuit)⁷⁰ have furthered my understanding of the applicable copyright legal regime and how it is enacted and performed in YouTube. The mass media outputs have provided useful background information about key *actants* in YouTube`s Copyright Network (e.g. Content ID) and a good starting point to trace important network elements (e.g. sources of resistance in YouTube). Additionally, the analysis of YouTube`s internal documents (e.g. Terms of Service) have enabled me to comprehend YouTube`s terms of entry, the development of its technologies (e.g. AudioSwap) and further analyse formal copyright law`s impact on them.

Similarly, for the Facebook case study, I have collected data from various documents including relevant UK, and EU legislative instruments;⁷¹ relevant

⁶⁷ WIPO Copyright Treaty 1996.

⁶⁸ E.g. *E.g. Viacom Int'l v. YouTube*, No. 07-CV-02103 (S.D.N.Y. Mar. 13, 2007); *Lenz v. Universal Music Corp.*, Case No. 5:07-cv-03783-JF (N.D. Cal., Feb. 25, 2010); *Robert Tur v. YouTube, Inc.*, No. CV 06-4436-GAF (FMOX) (C.D. Cal. July 14, 2006); *Football Association Premier League et al. v. YouTube, Inc.*, No. 1:07-cv-03582-UA (S.D.N.Y. May 4, 2007), *Grisman et al. v. YouTube, Inc.*, No. 3:2007cv02518 (N.D. Cal. May 10, 2007), *New Jersey Turnpike Authority v. YouTube, Inc.*, No. 2:2007cv02414 (D.N.J. May 22, 2007), *Cal IV Entertainment, LLC v. YouTube, Inc. et al.*, No. 3:2007cv00617 (M.D. Tenn. June 7, 2007) and *Explorologist Ltd v. Brian Sapient*, Case No. 2:07-cv-01848-LP (E.D.Pa., May 7, 2007).

⁶⁹ <<http://www.youtube.com/t/about>> accessed 26 May 2009.

⁷⁰ *Viacom*, n 69.

⁷¹ E.g. directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data.

rulings⁷²(2004 onwards- Facebook`s<sup>73</sup> foundation year); audits,<sup>74</sup> mass media outputs;<sup>75</sup> relevant studies (e.g. Gross and Acquisiti`s⁷⁶ study); and Facebook`s publicly available internal documents (e.g. Facebook`s Statement of Rights and Responsibilities).⁷⁷ I have contacted several key *actants* such as the Canadian Data Protection Commissioner and the Irish Data Protection Commissioner to clarify key matters related to the research. Finally, I have also conducted an interview with a senior Facebook official.⁷⁸

1.6 Structure of the Thesis

In order to develop my analysis and arguments, this thesis is divided into seven (excluding this Chapter One) further chapters. In Chapter Two, I critically analyse the

⁷² E.g. Lane, n 36.

⁷³ Facebook <<http://www.facebook.com/home.php#/press/info.php?factsheet>> accessed 26 May 2009.

⁷⁴ E.g. Irish Data Protection Commissioner, 'Facebook Ireland Limited, Report of Audit,' (21 December 2011) <<http://www.dataprotection.ie/docs/Facebook-Ireland-Audit-Report-December-2011/1187.htm>> accessed 8 October 2013.

⁷⁵ E.g. Christopher Williams, 'Facebook battles Germans on privacy,' The Telegraph (London, 1 December 2011) <<http://www.telegraph.co.uk/technology/facebook/8926232/Facebook-battles-Germans-on-privacy.html>> accessed 1 December 2011

⁷⁶ Ralph Gross and Alexander Acquisiti, 'Information Revelation and Privacy in Online Social Networks (The Facebook case),' Pre-proceedings version, ACM Workshop on Privacy in the Electronic Society (WPES, 2005) <<http://www.heinz.cmu.edu/~acquisti/papers/privacy-facebook-gross-acquisti.pdf>> accessed 5 May 2010.

⁷⁷ E.g. the Data Use Policy - Facebook (<<https://www.facebook.com/about/privacy>>) accessed 8 October 2013.

⁷⁸ Interview of Richard Allan, Director of Policy (EMEA) at Facebook conducted by this researcher on 19 April 2011.

key academic writings on internet regulation and argue that I need to move away from the dominant 'regulatory' lens to my ANT-Foucauldian Power Lens in order to be able to capture the potentially complex web of power effects generated in YouTube and Facebook when copyright and personal data are protected and/or violated. In Chapter Three, I develop my ANT-Foucauldian Power Lens and explore how key ANT ideas such as translation can be used in conjunction with Foucauldian ideas such as governmentality. I utilise my ANT-Foucauldian Power Lens to analyse how YouTube (Chapter Four) and Facebook (Chapter Six) are constructed as socio-legal-technological 'actor-networks' when copyright and personal data are protected and/or violated. Building on my relational understanding of YouTube's Copyright Network and Facebook's Data Network, I analyse the power effects generated in YouTube (Chapter Five) and Facebook (Chapter Seven) from the local 'fitting together' of heterogeneous humans and non-humans. On the basis of the empirical data set out in Chapters Four to Seven, I argue four key points. Firstly, I argue that multiple, complex, and contingent intended and unintended power effects are generated in YouTube's Copyright Network and Facebook's Data Network. Secondly, I argue that there are close links between specific power effects and 'spatialities' such as the power effect of surveillance generated by Tagging in Facebook's Data Protection Network. Thirdly, I argue that 'materialities' such as web forms play important roles in lending obduracy to specific local connections, and their power effects, in YouTube's Copyright Network and Facebook's Data Network. Thirdly, I argue that my relational understandings of YouTube's Copyright Network and Facebook's Data Network generate a more comprehensive view of the power effects of specific legal elements. For example, as further examined in Chapter Five, my ANT-Foucauldian Power Lens, enables me to understand why specific territorial laws gain their authority not by virtue of their links to a physical border but rather by virtue of the durability of their connection with YouTube's copyright network. Finally, in Chapter Eight, transcending the specific empirical context of my case studies, I argue that we can extrapolate from my case studies to build a small-scale theory about the power effects generated in OSNS when a legal value is protected and/or violated.

Conclusion

In this chapter, I have introduced my research which investigates the power effects generated in the 'Machine', more specifically OSNS such as YouTube and Facebook when copyright and personal data are protected and/violated. In particular, I have presented the main objectives, outlined key arguments, and explained the scope and structure of this thesis. I have also analysed the reasons why the case study method is the appropriate research method for this research such as generating 'thick descriptions' of the complex web of power relations at play in YouTube and Facebook when copyright and personal data are protected and/violated. Moreover, the case study method has also enabled me to use various data collection methods such as virtual ethnography and documentary analysis. I have also sought to ensure that my YouTube and Facebook case studies are comprehensive, not subjective, and reliable. Finally, I have reflected on the main data collection and analysis methods on which my YouTube and Facebook case studies draw on. In order to contextualise my research and explore the gaps in existing literature which my research seeks to address, I critically evaluate the main academic arguments relating to the regulation of the 'Machine' or the internet, in the next chapter.

Chapter Two

Internet Regulation: From the 'Wild West' to Regulation to Power Effects

Abstract

A key objective of this thesis is to analyse the potentially complex and multiple power effects which are at play in Online Social Networking Sites ('OSNS') such as YouTube and Facebook when legal values such as copyright and personal data respectively are protected and/or violated. Can current academic writings on internet regulation which are dominated by the 'regulatory' lens, provide me with an adequate conceptual lens to capture the power effects, such as surveillance, generated in YouTube and Facebook when copyright and personal data respectively are protected and/or violated? In this chapter, I argue that a move away from a 'regulatory' lens to my Actor Network Theory-Foucauldian 'power' lens is essential if one wishes to investigate the potentially complex and multiple power effects generated locally in the 'capillaries' of YouTube and Facebook, when heterogeneous human and non-human actors are locally, contingently, and precariously 'fitted together,' when copyright and personal data respectively are protected and/or violated. Here the specific power effects, which are generated from the local connections between heterogeneous humans and non-humans, depend on the obduracy of the connections between the relevant humans and non-humans. The power effects of such local connections may change from time to time as new or old humans and non-humans join or leave the specific connective chain. In order to develop this argument, I evaluate the merits and weaknesses of key writings on internet regulation which focus on regulation by 'self-regulation' only, regulation by 'regulatory modalities' such as the 'code' and regulation as a complex and dynamic process of 'manifold interactions' between various human actors.

Introduction

As explained in Chapter One, a key objective of this thesis is to investigate the complex web of power relations which are generated in Online Social Networking Sites ('OSNS') such as YouTube and Facebook when legal values¹ such as copyright and personal data² respectively are protected and/or violated. Before taking this investigation further, I need to critically evaluate whether the current 'regulatory' lens used in academic writings on internet regulation, can assist me in understanding the why and how of power in these empirical contexts.

The main argument of this chapter is that it is crucial to move away from the current dominant 'regulatory' lens to my ANT-Foucauldian Power Lens (defined below), to capture the potentially complex power relations which are at play in YouTube and Facebook when copyright and personal data respectively are protected and/or violated. By ANT-Foucauldian Power Lens, I mean the conceptual lens of power, developed in Chapter Three, where Actor-Network Theory ('ANT')³ and

¹ In this thesis, I understand copyright and personal data as values which law protects. For example, specific data protection laws protect the value of the OSNS user's rights to privacy which includes the right to protect his/her personal information. For copyright as a legal value see, Matthew J Baker and Brendan M Cunningham, 'Court Decisions and Equity Markets: Estimating the Value of Copyright Protection,' (2006) 49 (2) Journal of Law and Economics 567. For personal data as a legal value see Colin J Bennett, *Regulating privacy: data protection and public policy in Europe and the United States*. Cornell University Press, 1992. For more on the links between law and values, see Roger Cotterell, *Law's Community: Legal Theory in Sociological Perspective*. Oxford University Press, 1997, 291.

² In this thesis, I define personal data as any information which relates to a user of an OSNS who is or can be identified from the data. Examples of personal data include geo-location data such as the internet protocol address, full name, characteristics, and electronic mail address of the OSNS user.

³ E.g. Bruno Latour, *Science in Action: How to Follow Scientists and Engineers Through Society*, (Milton Keynes Open University Press 1987); Bruno Latour, 'Ethnography of a 'high-tech' case: About Aramis,' in (ed) P Lemonnier *Technological Choices: Transformation in Material Cultures Since the Neolithic* (London Routledge 1993) 372.

Foucauldian⁴ ideas about power are used in conjunction with one another ('ANT-Foucauldian Power Lens'). By power effect, I mean any enabling, constraining and productive effect which is generated when specific legal, social, and technological elements are associated with one another. The move away from a 'regulatory' lens to my ANT-Foucauldian Power Lens is not far-fetched as questions about regulation are inevitably questions about power.⁵ Such questions focus on how relations between relevant *actants* are ordered and how certain effects such as domination are generated. By '*actants*', I mean '...something that acts or to which activity is granted by others.'⁶ '*Actants*' refer both to humans and non-humans.⁷ In this thesis, I use the terms '*actants*', 'humans and non-humans', and 'elements'⁸ interchangeably.

I develop these points through six sections in this chapter. In section 2.1, I analyse how earlier debates about internet regulation have focussed on the idea of regulation by mainly discussing 'self-regulation'. In section 2.2, I analyse how the criticisms of the idea of regulation through 'self-regulation' led to the dominant

⁴E.g. Michel Foucault, *Discipline and punish: the birth of the prison* (1st American edn Pantheon Books, New York 1977)

⁵For the links between power and regulation, see Stuart Hall, 'Foucault: Power, knowledge and discourse,' in Margaret Wetherell, Stephanie Taylor, Simeon J Yates (eds) *Discourse theory and practice: A reader* (Sage 2001) 72.

⁶ Bruno Latour, 'On actor-network theory: a few clarifications,' (1996) *Soziale Welt* 369, 376,

⁷ Trisha Greenhalgh and Rob Stones, 'Theorising big IT programmes in healthcare: strong structuration theory meets actor-network theory,' (2010) 70(9) *Social Science & Medicine* 1285.

⁸ Some ANT scholars use the terms 'elements' and '*actants*' interchangeably. E.g. Ole Hanseth, Margunn Aanestad, and Marc Berg, 'Guest editors' introduction: Actor-network theory and information systems. What's so special?' (2004) 17(2) *Information Technology & People* 116.

cyber-regulatory⁹ thesis on internet regulation, namely, regulation by the four regulatory modalities, namely, law, 'code' norms and the market. In section 2.3, I further analyse how the 'code' is conceptualised as a regulatory modality by cyber-regulatory theorists. I also analyse how cyber-regulatory theorists understand the relationship between 'code' and another regulatory modality, namely, law. I focus on these two ideas as such ideas dominate the writings on internet regulation. In section 2.4, I critically evaluate whether cyber-regulatory theory ('CRT') can assist me in investigating the potentially complex web of power relations at play in the various 'fibres' of YouTube and Facebook when legal values such as copyright and personal data are protected and/or violated. I argue that CRT cannot assist me in my research due to key weaknesses such as its utilisation of pre-determined regulatory modalities such as 'code' and law and its under-conceptualisation of the four regulatory modalities. Having analysed the main weaknesses of CRT, I then consider whether key post-CRT writings can assist me in my research. Thus in section 2.5, I analyse some of the common themes of post-CRT writings such as complexity and dynamism. I also focus on one specific post-CRT trend, namely, 'network communitarianism' which is of particular value to this research due to its use of ANT. Here, I argue that 'network communitarianism' cannot assist me in investigating the complex web of power relations at play in OSNS such as Facebook and YouTube due to four key weaknesses such as its failure to use Actor-Network Theory's principles of agnosticism and analytical symmetry. In section 2.6, I build on this argument and start laying down the foundations for Chapter Three by exploring the conceptual and empirical advantages of moving away from a 'regulatory' prism to an ANT-Foucauldian Power Lens in order to capture the potentially complex and multiple 'locales' of a web of relations in each 'capillary' or 'fibre' of YouTube and Facebook.¹⁰

⁹ E.g. Lawrence Lessig, *Code Version 2.0* (Basic Books 2006).

¹⁰ n 6.

2.1 Internet Regulation: 'Self-Help' in the 'New Frontier'

In this section, I consider the early debates about internet regulation which focussed on the idea that as a 'new frontier', distinct from 'realspace', ¹¹ the internet should not¹² be regulated by 'realspace' regulation but rather by self-regulation. I argue that the idea of 'self-regulation,' as the 'best regulatory response' is flawed as it does not take into account the potential 'spillover' effects of 'self-regulation'. In this section, I do not deal in detail with the conception of the internet as a 'Wild West'¹³ or a 'new frontier'¹⁴ as such conceptions have become less popular in the literature due to compelling criticisms.¹⁵

¹¹ This term is used by many cyber-regulatory theorists to denote the territories demarcated by physical borders. E.g. David G Post, 'Of black holes and decentralized law-making in cyberspace,' (2000) 2 Vand. J. Ent. L. & Prac. 70, 72.

¹² John P Barlow, 'A declaration of the independence of cyberspace,' (1996) <<https://projects.eff.org/~barlow/Declaration-Final.html>> accessed 8 October 2010.

¹³ David Post, 'Governing Cyberspace,' (1996) 43 Wayne L. Rev. 155, 166.

¹⁴ David R Johnson and David Post, 'Law and Borders--The Rise of Law in Cyberspace,' (1995) 48 Stan. L. Rev. 1367, 1378.

¹⁵ E.g. Murray argues that the idea that 'realspace' government cannot legitimately govern online activities due to the absence of social contract between 'realspace' government and internet users is flawed as it betrays a narrow conception of legitimate government which focusses solely on the relationship between the governed and the governors. Andrew D Murray, 'Internet Regulation,' in David Levi-Faur (eds) *Handbook On The Politics Of Regulation* (The Hebrew University of Jerusalem Israel and the Free University of Berlin Germany) (Edward Elgar 2011) 267. Other scholars have also argued that many key cyber-libertarian ideas such as the idea that cyberspace is a 'new space' which is distinct from 'realspace' and should be free from any form of state-based control (e.g. n 13) are flawed. See Chris Reed, *Internet Law: Text and Materials* (2nd edn. Cambridge University Press Cambridge 2004).

Some scholars argue that self-regulation, which draws upon the will and tacit consent of the governed¹⁶ is the best regulatory response in cyberspace. Self-regulation enables ‘...the widest possible scope for uncoordinated and uncoerced individual choice amongst different values and different embodiments of those values.’¹⁷ Informal systems of decentralised¹⁸ and consensus-based social controls¹⁹ become key here in influencing behaviour and exchanges of users online.²⁰ From this perspective, regulation gains legitimacy as it is determined by the actors who participate in cyber-life. Some scholars have ventured far enough to suggest that self-regulation is a ‘superior’ alternative to centralised modes of regulation as it is more consistent with values such as freedom and autonomy.²¹ Other scholars draw attention to efficiency reasons as self-regulation draws on the power of decentralised

¹⁶ E.g. n 15, n 23. Also see Perritt for a more controversial take on cyber-libertarianism. Henry H Perritt, ‘The Internet as a Threat to Sovereignty? Thoughts on the Internet’s Role in Strengthening National and Global Governance,’ (1998) 5 *Indiana Journal of Global Legal Studies* 423 (1998). For criticisms of this view see Keith Aoki, ‘Considering Multiple and Overlapping Sovereignities: Liberalism, Libertarianism, National Sovereignty, “Global” Intellectual Property, and the Internet,’ (1998) 5 *Indiana Journal of Global Legal Studies* 443.

¹⁶ David G Post, ‘*What Larry doesn’t get: code, law, and liberty in cyberspace*,’ (2000) 52 *Stanford Law Review* 1439, 1440

¹⁷ Ibid.

¹⁸ Decentralised norm-creation processes can be defined as those in which the ‘power to create and shape (...) rules is not concentrated in the hands of any individual group, or institution (and which is) spread among various social agents.’ Niva Elkin-Koren, ‘Copyrights in Cyberspace-Rights Without Laws,’ (1997) *Chi.-Kent L. Rev.* 73 1155, 1161.

¹⁹ David G Post & David R Johnson, ‘Chaos prevailing on every continent: towards a new theory of decentralised decision-making in complex systems,’ (1998) 73 *Chi.-Kent. L. Rev.* 1055.

²⁰ n 16.

²¹ n 18.

systems to generate solutions to complex problems by means of repeated trial and error.²²

Self-regulation as the only regulatory modality in cyberspace is flawed in three main ways. Firstly, proponents of the idea of internet regulation by 'self-regulation' still insist that 'realspace' regulation cannot legitimately regulate online activities because online interactions take place in a 'new space' which is different from 'realspace'. In their view, the internet is a 'new space' because of its lack of territorial borders. As a result of its lack of territorial borders, the internet cannot be regulated by 'realspace' regulation as the latter draws its legitimacy from the consent of the citizens located in the territory in question.²³ As noted elsewhere, such arguments fail to take into account that online interactions are actually not taking place in a 'new space' as all relevant actors involved in an online interaction have an actual location in a specific jurisdiction.²⁴ From this perspective, the difficulty of ascertaining the location of all the equipment involved in a specific online transaction is not per se a bar to arguing that the transaction should not be regulated at all, as in most cases one or more real world national jurisdictions can be identified which means that one or more regulatory regimes may apply. Furthermore, in cases where more than one jurisdiction is involved in an online interaction, existing rules such as choice-of-law and jurisdiction rules can be applied to determine the applicable law and jurisdiction.²⁵

²² David G Post & David R Johnson, 'Chaos prevailing on every continent: towards a new theory of decentralised decision-making in complex systems,' (1998) 73 Chi.-Kent. L. Rev. 1055.

²³ Ibid.

²⁴ n 15, *Reed*.

²⁵ Jack Goldsmith, 'Against Cyber-Anarchy,' (1998) 65 University of Chicago Law Review 1221. From this perspective, spill over effects issues are not unique to cyberspace but are also present in any case (in real space) of cross-jurisdictional transaction or activity.

Secondly, the idea of regulation by 'self-regulation' only is flawed because it is premised on the assumption that self-regulation is always more efficient than state regulation.²⁶ By this I mean that such scholars argue that 'self-regulation' has few 'spillover effects' than state regulation. By 'spillover effects' I mean the effects generated in jurisdictions C, D and E when an activity taking place in jurisdiction A is regulated by the private rules of the website located in jurisdiction F. However, such scholars have not actually undertaken the difficult task of showing that 'self-regulation' has fewer spillover effects than state regulation in a specific empirical context.²⁷

Thirdly, the idea of regulation by 'self-regulation' can also be criticised on the grounds that it is informed by an unrealistic radical notion of individualism, which disassociates the 'free independent' individual from the complex matrix of relations within which s/he is found.²⁸ Having analysed why the idea of internet regulation by 'self-regulation' only is not sufficient for understanding the myriad of power relations at play in OSNS when a legal value is protected and/or violated, I now examine the idea of internet regulation by regulatory modalities such as 'code', law, norms and market. This idea was developed partly in response to the idea that the internet should be regulated mainly by self-regulation.

²⁶ n 22.

²⁷ Jack Goldsmith, 'Regulation of the Internet: Three Persistent Fallacies,' (1997) 73 *Chi.-Kent L. Rev.* 1119.

²⁸ Langdon Winner, 'Cyberlibertarian myths and the prospects for community,' (1997) 27(3) *ACM SIGCAS Computers and Society* 14.

2.2 Regulation by 'Code' or the Rise of the Machine

In this section, I focus on 'cyber-regulatory theory'²⁹ ('CRT') which found a powerful and persuasive voice in Lessig's argument that four modalities³⁰ of regulation,³¹ namely, law, market, norms and 'code'³² regulate cyberspace. The Lessigian thesis has revolutionised³³ the way in which scholars think about internet regulation and thus it is important to consider whether such a conceptual lens can help me to account for the complex web of power relations in OSNS such as YouTube and Facebook. Before evaluating CRT's relevance for my thesis, I briefly outline the main CRT ideas on the 'regulatory modalities' in cyberspace.

²⁹ The terms 'cyber-regulatory theorists' and 'cyber-regulation' have emerged from the writings of various scholars who have written extensively about the regulation of cyberspace from a legal- regulatory perspective. Andrew Murray, *The Regulation of Cyberspace: Control in an Online Environment*, (Routledge-Cavendish 2006).

³⁰ n 9.

³¹ CRT draws on traditional regulatory literature such as Baldwin and Cave which identifies and evaluates macro-regulatory representations which can be used by regulators to control patterns of behaviour. In particular, they draw heavily on this literature to identify the representations of regulation which are at play in cyberspace. See Robert Baldwin, Martin Cave *Understanding Regulation* (Oxford University Press 1999). For the main CRT writings see Lawrence Lessig, 'The zones of cyberspace' (1996a) 48 Stan.L.Rev. 1403; Lawrence Lessig, 'Reading the Constitution in cyberspace' (1996b) 45(3) Emory L.J.1; Lawrence Lessig, 'Constitution and code' (1997) 27 Cumb.L.Rev. 1; Lawrence Lessig, 'The New Chicago Law School' (1998) 28(2) JLS 661; Lawrence Lessig, 'The law of the horse: what cyberlaw might teach' (1999) 113 Harv.L.Rev. 501; Joel R Reidenberg, 'Technology and internet jurisdiction,' (2005) 153 University of Pennsylvania Law Review 1951; Joel R Reidenberg, 'Lex Informatica: the formulation of information policy rules through technology,' (1998) 76(3) Texas Law Review 553, n 9, 12 -16, 19, 25.

³³ E.g. Charles Raab and Paul de Hert, 'The Regulation of Technology: Policy Tools and Policy Actors,' in (ed) Karen Yeung and Roger Brownsword, *Regulating technologies: legal futures, regulatory frames and technological fixes* (Hart 2008).

CRT argues that legal values such as personal data in cyberspace can be protected through four modalities³⁴ of regulation,³⁵ namely, law, market, norms and 'code.'³⁶ Lessig adopts an Austinian view of law as a modality of regulation which operates by 'directing' the behaviour of the internet user in specific ways by 'threatening' the internet user with 'ex-post sanctions' in cases of breach of law.³⁷ Lessig adopts Posner's definition of the norm as a 'rule that is neither promulgated by an official source, such as a court or a legislature, nor enforced by the threat of legal sanctions, yet is regularly complied with.'³⁸ Lessig argues that norms or '...understandings or expectations about how [the internet user] ought to behave...' ³⁹ are enforced through the '...understandings and expectation of just about everyone within a particular community'⁴⁰ rather than through a '...centralised norm enforcer.'⁴¹ From this perspective, norms direct and constrain the behaviour of the internet user without having to resort to centralised enforcement by the state. The market

³⁴ Lessig, n 9.

³⁵ Baldwin and Cave, n 31.

³⁶ E.g. Lessig and Reidenberg, n 31.

³⁷ n 9, 340. Lessig acknowledges the fact this stance is a positivist stance which does not describe the essence of law but rather only facet of law. See Lawrence Lessig, 'The New Chicago Law School,' (1998) 28(2) The Journal of Legal Studies 661.

³⁸ R A Posner, 'Social norms and the law: an economic approach,' (1997) 87 Am. Econ. Rev. 365; *ibid*.

³⁹ Lawrence Lessig, 'The Laws of Cyberspace,' (Taiwan Net '98 conference Taipei March 1998) 2.

⁴⁰ *Ibid*.

⁴¹ *Ibid*.

regulates through 'pricing structures' which constrain and enable access to the internet.⁴² The market is distinct from law and norms despite being 'parasitic on laws' such as contract laws and 'constrained' by norms' (e.g. 'one does not "buy" a "friend")'.⁴³ The fourth modality of regulation is 'architecture' or 'technology' or 'code'. Lessig defines the term architecture as 'the world as I find it, understanding that as I find it, much of this world has been made.'⁴⁴ His later, and more widely used term 'code' is defined as the 'software and hardware... that make cyberspace what it is.'⁴⁵ Some of his followers define 'code' as 'technological capabilities...system design choices...network designs...standards [and] system configurations.'⁴⁶ Lessig argues that the 'code' governs the behaviour of the internet users by either enabling or constraining a specific behaviour and directing or affecting users' behaviour.

These four 'modalities of regulation' directly or indirectly⁴⁷ act on the individual, who is conceived by Lessig as a 'pathetic dot,'⁴⁸ by enabling or constraining specific behaviour. Regulation flows only in one direction, namely, from the regulatory mechanism (e.g. market, norms) to the regulatee (the dot). The four 'modalities of regulation' interact with one another to some extent and can be used by the regulator either on their own or in conjunction with another modality of

⁴² n 9, 124.

⁴³ n 37, Lessig 1998.

⁴⁴ *ibid*, 662.

⁴⁵ n 9, 5.

⁴⁶ n 31, Reidenberg (1998, 554).

⁴⁷ n 9, 86 ff.

⁴⁸ n 9, 86.

regulation to achieve a desired outcome.⁴⁹ Lessig's thesis that the 'code' is a 'modality of regulation'⁵⁰ has been very influential in developing the current received view in the literature on internet regulation that questions about internet regulation are invariably questions about the 'code'. I therefore explore in the next section Lessig's idea about 'code' in order to investigate whether such ideas can help me to answer my research question.

2.3 Towards an Understanding of 'Code' as a Regulatory Modality

Lessig argues that:

“In real space we recognize how laws regulate—through constitutions, statutes, and other legal codes. In cyberspace we must understand how code regulates—how the software and hardware that make cyberspace what it is *regulate* cyberspace as it is. As William Mitchell puts it, this code is cyberspace's 'law.’”⁵¹

CRT suggests that the 'code' is the 'perfect tool of control'⁵² in cyberspace for three main reasons. Firstly, the 'code' does not depend on either centralised or decentralised enforcement.⁵³ The 'code' does not depend on subjective⁵⁴ elements

⁴⁹ n 9, 87 ff.

⁵⁰ Ibid; Reidenberg (n 31); Post (n 16).

⁵¹ Lawrence Lessig, *Code and Other Laws of Cyberspace*, (Basic Books, 1999a) 6.

⁵² n 9.

⁵³ Ibid.

⁵⁴ Ibid.

(such as agency⁵⁵ and understanding by the subject) for its efficiency⁵⁶ due to its 'self-executing'⁵⁷ and 'automatic nature.'⁵⁸ Secondly, the regulatee cannot challenge the 'code's' constraints which operate mechanically. Finally, the 'code' is flexible and can easily be shaped and reshaped to deal with new emerging issues because it is 'plastic'⁵⁹ and 'malleable'.⁶⁰⁶¹

One of the most significant CRT arguments is that 'code is law.'⁶² Initially this point has been used metaphorically⁶³ (i.e. code is law because it controls users`

⁵⁵ Ibid.

⁵⁶ They argue that the 'code' is far more effective than law as it is not hampered by the exercise of a value-judgment by its agent due to its 'automatic nature.' See Lawrence Lessig, 'Foreword: Symposium Cyberspace and Privacy' (2000) 52 Stan. L.Rev. 987.

⁵⁷ Ibid.

⁵⁸ Hence it applies to the subject whether or not the latter is aware of its existence. (n9, 342-343).

⁵⁹ Lessig, 1996, n 31, 4.

⁶⁰ Lessig, 1999, n 31, 505.

⁶¹ They contrast this with law which can only be amended through the formal and rigid democratic process. Note the main counter-arguments which have been raised, namely, the dangers of overuse of the 'code' (Wagner, 2005) and the dangers of leaving choices related to the design of the 'code' to the market (n 9); (n 31, Reidenberg 1998). R P Wagner, 'On software regulation' (2005) 78 S.Cal.L.Rev. 457.

⁶² Lessig (n 31). In his earlier writings, Lessig argued that the 'code' and law were complementary representations of regulation (Lessig, n 31). However, he now argues that the 'code' is the 'perfect tool of control' in cyberspace and is displacing law as a representation of regulation (n 9, 5).

⁶³ n 9.

behaviour as law would and tells the user what s/he can do).⁶⁴ However, in recent years, it has been used literally.⁶⁵ Accordingly, the 'code' is perceived as a source of 'lex informatica',⁶⁶ or a 'parallel rule system'⁶⁷ which can reflect 'policy choices of exclusion and restriction'⁶⁸ and code actions⁶⁹ whilst sharing 'key elements of a legal regime' such as framework,⁷⁰ jurisdiction,⁷¹ source⁷² and representation of enforcement.⁷³ CRT presents a view of 'code that enables control...[and] code that makes regulation possible.'⁷⁴ Lessig argues that the 'code' is displacing law as a modality of regulation as it is the 'perfect tool for control'⁷⁵ due to its plasticity and malleability. Some of his followers have presented a similar view and have suggested that the design rules of cyberspace amount to *Lex Informatica* which runs as a 'parallel rule system'⁷⁶ to law whilst sharing the 'key elements of a legal system.'⁷⁷

⁶⁴ n 56, 990.

⁶⁵ Ibid.

⁶⁶ Reidenberg, 1998, n 31.

⁶⁷ ibid, 565.

⁶⁸ n 56, 990.

⁶⁹ For more on this, see n 66, 565-68.

⁷⁰ ibid. Architectural standards as opposed to law.

⁷¹ ibid. Network borders used by the 'code' to demarcate jurisdiction as opposed to physical borders for cyberspace.

⁷² ibid. State as the source of law as opposed to technologists as the source of the 'code.'

⁷³ ibid. Enforcement via automated, self-execution rather than court (which is posited as the main representation of enforcement for law).

⁷⁴ n 56, 990.

⁷⁵ n 9.

⁷⁶ n 67.

⁷⁷ Ibid.

However, in recent times, some CRT scholars have argued for a more nuanced version of the notion of 'code is law.' Some scholars⁷⁸ have contended that:

'...for every quantum of legal-regulatory impact, there is a corresponding equilibrium of regulation-by-software. [Thus] [t]he absence of a legal right will stimulate a technological response...' ⁷⁹

Consequently, if an issue is not addressed by state law, it is redressed by the 'code' and vice versa. From this perspective, it is not so much a matter of 'code' being law but rather of 'code' meeting law or 'code' and law being 'complementary'⁸⁰ to one another rather than 'substitutable.'⁸¹ From this perspective, the relationship between law and 'code' is 'fundamentally additive rather than subtractive'⁸² and 'it is the interface of law and software that establishes the complete regulatory conditions. This law-software interface is defined by a rough equilibrium,⁸³ 'a mix of regulatory effects established by a complex...mixture of legal effects, technological circumstances, and private cost-benefit analyses.'⁸⁴ From this viewpoint, regulators need to consider the 'software-regulatory response' when deciding about legal changes⁸⁵ as law and 'code' do not exist in a vacuum but rather 'their tight co-

⁷⁸ Wagner, n 61.

⁷⁹ n 61, 457. Wagner however argues that it is more a case of 'code meets law' rather than 'code is law.'

⁸⁰ Changes in law lead to changes in technology and vice versa. Thus any proposal for legal/technological change should consider the corresponding technological/legal consequence. Wagner (n 61) does acknowledge the difficulties of such considerations both on the technical level (i.e. difficulty faced by legal actors to determine this) and on a practical level (i.e. bearing in mind the rapid evolution of technology).

⁸¹ n 61, Wagner, 465.

⁸² Ibid.

⁸³ The equilibrium is determined by the 'contextual cost-benefit functions of law and software-regulatory mechanisms.' n 61, Wagner, 469.

⁸⁴ n 61, Wagner, 461-2.

⁸⁵ Ibid.

existence creates a continual feedback loop.’⁸⁶ I critically evaluate these arguments in section 2.4.

Having explained Lessig’s key ideas about the regulatory modalities operating in cyberspace, in the next section I analyse whether key aspects of Lessig’s ‘regulatory’ lens, such the idea of pre-determined regulatory modalities, can help to answer my research questions.

2.4 Against Cyber-Regulatory Theory

In this section, I argue that the main tenets of CRT, such as internet regulation through four pre-determined regulatory modalities, limit the relevance of CRT in answering my research questions. I focus on five key aspects of CRT.

Firstly, Lessig’s labels for the ‘modalities of regulation’ have been heavily criticised. For example, the label of ‘market’ has been criticised on the grounds that it excludes other forms of control such as rivalry and competition where no market can be identified.⁸⁷ Additionally, some scholars have argued that Lessig’s label of ‘norms’ is quite narrow as it does not extend to ‘self-regulatory’ standards which are generated by a specific community and combined with other regulatory modalities such architectural constraints.⁸⁸ I bear in mind these criticisms whilst conceptualising heterogeneous *actants* such as law, technology and the social in my research.

Secondly, although cyber-regulatory theorists write extensively about the ‘code’ as a modality of regulation in cyberspace and its central role in protecting legal values, they neither engage deeply with it nor analyse its construction and constitution as a technological artefact.⁸⁹ But this is vital for an analysis of its

⁸⁶ n 83.

⁸⁷ Andrew D Murray and Colin Scott, Murray, ‘Controlling the new media: hybrid responses to new forms of power,’ (2002) 65 (4) *Modern Law Review*, 491, 503.

⁸⁸ *Ibid.*

⁸⁹ I use the term ‘technological artefact’ to highlight the complex process of heterogeneous engineering which leads to the creation of what is commonly viewed as amounting to the ‘code’. By ‘heterogeneous engineering,’ I mean the strategies used by the main actor (i.e. software developers) to juxtapose, simplify, associate and translate the heterogeneous elements of the technological artefact as a ‘self-sustaining’ actor-network which can ‘resist dissociation’. See John Law, ‘On the Methods of Long Distance Control: Vessels, Navigation

regulatory consequences, such as its supposedly self-executing architecture. Furthermore, CRT conceptualises the 'code' in basic terms as being merely 'software and hardware'⁹⁰ and pays little theoretical and empirical attention to the 'code' as a technological artefact but rather focuses on the specific legal problems it solves, such as intrusion of privacy. Consequently, CRT talks about the 'code' merely by naming it (e.g. Platform for Privacy Preferences⁹¹ and trusted systems technology⁹²) and treats it in a 'social vacuum'⁹³ which does not take into account how various human and non-human actors interact with these technologies to form and perform them.

Thirdly, CRT adopts an Austinian⁹⁴ view of law as commands backed by sanctions which are issued by a sovereign and which are directed at a population within a specific jurisdiction. Such views of law can still be detected in more recent writings of some scholars in the field of internet regulation who view law as a 'socially mediated modality'⁹⁵ where a 'networked community (or matrix) of dots', representing humans with '...share[d] ideas, beliefs, ideals and opinions' interact with law and other regulatory modalities.⁹⁶ Generally, in socio-legal studies, an Austinian view of

and the Portuguese Route to India,' In J. Law (Ed.) *Power, Action and Belief: a new Sociology of Knowledge?* 32 *Sociological Review Monograph* (London, Routledge and Kegan Paul, 1986) 234.

⁹⁰ n 9.

⁹¹ *ibid.*

⁹² J Weinberg, 'Hardware-Based ID, Rights Management, and Trusted Systems,' (1999-2000) 52 *Stanford Law Review* 1251.

⁹³ For instance, Schwartz argues that Lessig's technological and legal solution to the dataveillance issues in cyberspace does not work in practice when privacy is placed in a more concrete context which reflects certain realities as difficulties of users to get to grips with technology and power shifts of such a system. P M Schwartz, 'Beyond Lessig's Code for internet privacy: cyberspace filters, privacy-control and fair information practices,' (2000) *Wisconsin Law Review* 743.

⁹⁴ J Austin, *The Province of Jurisprudence Determined* (Isaiah Berlin et al eds 1954); n 9, 340.

⁹⁵ n 29, 233-51.

⁹⁶ Andrew D Murray, 'Nodes and Gravity in Virtual Space,' (2011) 5(2) *Legisprudence* 195.

law has been heavily criticised.⁹⁷ In line with some of these criticisms, my research questions the CRT view of law as being coercive,⁹⁸ restrictive,⁹⁹ and mainly normative with law being conceptualised as a specific section in a statutory instrument¹⁰⁰ or the *ratio* of a judgment.¹⁰¹ Additionally, it is not appropriate to utilise an Austinian view of law in cyberspace because Austin's view of law is underpinned by the assumption of state sovereignty. Such an assumption is not present in cyberspace due to its lack of physical borders.¹⁰² Finally, CRT does not account for the *heterogeneous* ways (e.g. legal reasoning, texts) in which the legal¹⁰³ (e.g. legal reasoning, texts) manifests itself, and the fact that it is enacted through various social practices. As further explained in Chapter Three, in this thesis I conceptualise law, through my ANT-Foucauldian Power Lens, as a 'heterogeneous' and decentred actor-network which is formed of and performed by diverse human and non-human actors such as judges, lawyers, enactments, case law, staples and stamps.

Fourthly, by arguing that the four regulatory modalities interact with one another to some extent and directly or indirectly act the internet user, CRT over-

⁹⁷ E.g. See Denis Galligan, *Law in Modern Society* (Oxford University Press, 2007) chp. 8; Roger Cotterrell, *Law's Community: Legal Theory in Sociological Perspective* (Clarendon Press Oxford, 1996); Hart HLA, 'Introduction to John Austin,' in Hart HLA (ed.), *The Province of Jurisprudence Determined*, (London Weidenfeld & Nicolson, 1954). Other authors as Harris and Dworkin have attempted to defend the Austinian view of law. See JW Harris, 'The Concept of Sovereign Will,' (1977) *Acta Juridica* 1 and Ronald Dworkin, *Law's Empire*, (Cambridge Mass Harvard University Press, 1986).

⁹⁸ n 9.

⁹⁹ E.g. n9, n31.

¹⁰⁰ For example, when considering the role of law in protecting privacy in cyberspace, Edwards (Forthcoming) only refers to the specific provisions of the relevant statutory instruments. See Lilian Edwards, 'Evaluating Privacy: Law, Privacy, Code and Value,' 18 (Forthcoming) *Florida Journal of International Law*. Likewise, Edwards and Brown (2009) list all the relevant UK provisions when considering the legal protection afforded to privacy in the context of OSNS. Lilian Edwards and Ian Brown, 'Data Control and Social Networking: Irreconcilable Ideas?' in A Matwyshyn (ed) *Harboring Data: Information Security, Law and the Corporation* (Stanford University Press 2009).

¹⁰¹ E.g. J Zakalik, 'Law without borders in cyberspace' (1996) 43 *Wayne L.R.* 101.

¹⁰² Johnson and Post, n9.

¹⁰³ By legal I mean related to law.

simplifies the relationships between the four regulatory modalities. Here CRT fails to analyse the interdependencies and conflicts which exist amongst the four regulatory modalities.¹⁰⁴ In particular, CRT terms the relationship between law and 'code' as either 'code is law' or 'code meets law.' Such views again over-generalise the relationships between law and 'code' without taking into account the specific empirical and local context in which such relationships are formed and performed. Is 'code' always law in any aspect of cyberspace such as blogging platforms when any legal value is protected and/or violated? Does 'code' always meet law when there are no existing laws to protect a specific legal value in an online context? Additionally, are 'law' and 'code' regulatory substitutes? I would argue that it is difficult to equate the 'code' with law as the 'code' lacks the procedural attributes that gives to law its legitimacy such as its enforcement mechanism.¹⁰⁵ Finally, are 'law' and 'code' always 'complementary' regulatory modalities? What about circumstances when specific technologies such as Audacity are used by internet users to alter the digital fingerprint of a copyrighted content thereby breaching the intellectual property rights of the right-owner?

Finally, CRT adopts a restrictive analytic lens of cyber-regulation (i.e. regulation via the modalities of law, norms, market and 'code') which prevents it from analysing how power effects are generated in cyberspace, how they interact with one another, and how relationships of perceived subservience emerge (e.g. law being displaced by 'code').¹⁰⁶ Besides, the CRT 'top-down' approach means that it can only account for power from one direction (i.e. from the state¹⁰⁷ or private

¹⁰⁴ n 3, 271.

¹⁰⁵ For a critique of Lex Informatica, see Antonis Patrikios, 'Resolution of Cross-Border E-Business Disputes by Arbitration Tribunals on the Basis of Transnational Substantive Rules of Law and E-Business Usages: The Emergence of the Lex Informatica,' (2006) 38 *U. Tol. L. Rev.* 271.

¹⁰⁶ E.g. 'code is law.'

¹⁰⁷ n 9; Reidenberg (n 31).

companies¹⁰⁸) and cannot account for contested struggles¹⁰⁹ where power emanates from various actors and directions (e.g. also bottom-up) and where power is the outcome of interactions rather than simply being a fixed social structure that shapes social interactions.¹¹⁰ Finally, CRT adopts a linear¹¹¹ and socially deterministic¹¹² view of the relationship between the market, technology and society by arguing code' is socially shaped¹¹³ (e.g. by the market) since it represents software developers' values.¹¹⁴ In response to some of the criticisms levelled against CRT, new ways of thinking about internet regulation have been developed. Next, I consider whether such approaches can help me to investigate the complex web of power relations at play in OSNS.

2.5 After Cyber-Regulatory Theory: Of Polycentric Regulation and Dynamic Regulatory Spaces

In this section, I do not critically evaluate all the different conceptual innovations following CRT. Rather, I draw, firstly, the reader's attention to two common themes of various post-CRT writings on internet regulation which are dynamism and

¹⁰⁸ n 14.

¹⁰⁹ R Jones, 'Entertaining Code: File Sharing, Digital Rights Management Regimes, and Criminological Theories of Compliance,' (2005) 19(3) *Int'l Rev.L.Computers & Tech* 287.

¹¹⁰ *ibid*; Michel Foucault and others, *Beyond Structuralism and Hermeneutics, with an Afterword by Michel Foucault*, (Brighton Harvester 1982).

¹¹¹ Victor Mayer-Schonberger, 'Demystifying Lessig,' (2008) 4 *Wis. L. Rev.* 713, 713.

¹¹² E.g. L Edwards, 'E-Valuating Privacy: Law, Privacy, Code And Values' (2006) 18 *Florida Journal of International Law*. For more on a social constructivist perspective on the technological artefact, see W E Bijker, T P Hughes, and T J Pinch (eds), *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology* (MIT Press, Cambridge Mass 1987) and W E Bijker and J Law (eds), *Shaping Technology, Building Society: Studies in Sociotechnical Change*, (MIT Press, Cambridge, Mass 1992).

¹¹³ Ian Hosein, 'A research note on capturing technology: toward moments of interest,' in Edgar A Whitley and others (eds), *Global and organizational discourse about information technology*, International Federation for Information Processing, Vol. 238 (110) (Kluwer Academic Publishers, London, 2003). However, other commentators such as Guadamuz (2004) mistakenly argue that such an approach is technologically deterministic. See Andres Guadamuz, 'Technological Determinism in Code,' (Lefis workshop Belfast 2004).

¹¹⁴ n 9.

complexity. Secondly, I analyse how these themes are developed in a specific post-CRT trend, namely, 'network communitarianism', which at first glance may look relevant to my research because it also builds on ANT.

2.5.1 Understanding Internet Regulation in Terms of Complexity and Dynamism

So how do post-CRT writings understand internet regulation? In this section, I argue that to some extent, post-CRT writings, which understand internet regulation in terms of complexity and dynamism, are relevant to my research as they argue for a move away from understanding internet regulation in a 'linear' and static manner. I develop this argument by considering two main themes of post-CRT writings.

Firstly, post-CRT scholars propose a move away from a centralised, often linear, Lessigian model of regulation to a more complex one which reflects how different regulatory instruments and the actors found in the 'regulatory space' in question interact with one another. From this angle, internet regulation is understood as occurring through dynamic 'regulatory spaces'.¹¹⁵ Such writings focus on cyberspace's dynamism, the complex and unpredictable interactions between the actors found in cyberspace and the role of actors other than macro-actors (e.g. the state) in ordering social life in cyberspace.¹¹⁶ Hence such writings adopt a sophisticated view of the regulatory environment in cyberspace as one which is inhabited with 'participat[ion]', 'conflict' and 'shifting real-world relationships'.¹¹⁷ From this view point, a 'generic transplantation' of a regulatory response from one technology to another does not work.¹¹⁸

¹¹⁵ Roger Brownsword and Karen Yeung, 'Regulating Technologies: Tools, Targets and Thematics' in Karen Yeung and Roger Brownsword (eds) *Regulating technologies: legal futures, regulatory frames and technological fixes* (Hart 2008), 5; Andrew D Murray, 'Conceptualising the Post-Regulatory (Cyber)State' in Karen Yeung and Roger Brownsword (eds) *Regulating technologies: legal futures, regulatory frames and technological fixes* (Hart 2008), 287.

¹¹⁶ Murray (2006) n 29.

¹¹⁷ n 115, Brownsword & Yeung, 17.

¹¹⁸ n 33.

Secondly, post-CRT scholars highlight that influential regulationists such as Lessig fail to appreciate how different regulatory instruments interact with one another and the actors found in the ‘regulatory space’ in question.¹¹⁹ Such post-CRT scholars argue that, ‘regulation is a social and political process and not just a question of what tools do what jobs.’¹²⁰ Such post-CRT writings have also argued for a more advanced understanding of regulation in cyberspace which accommodates the existence of competing regulators within the same regulatory space.¹²¹ Here the focus is on polycentric legal systems rather than the traditional regulatory model of a state monopoly on regulation in a bid to understand the complexity involved in regulating cyberspace.¹²² Complexity and dynamism are two themes which are also found in specific post-CRT writings such as ‘network communitarianism’.¹²³ Network-communitarianism’ is potentially important to my research as it draws on ANT, which I employ in my ANT-Foucauldian Power Lens, developed in Chapter Three. Consequently, next, I evaluate whether ‘network communitarianism’ can assist me in tracing the potentially complex webs of power relations at play in OSNS.

2.5.2 Of Complex Systems, ‘Regulatory Settlements’ and the ‘Pathetic Dot’

‘Network communitarianism’¹²⁴ is an important and valuable contribution to the literature on internet regulation. It seeks to account for the complex flows of information in cyberspace and the complex interactions between actors which form

¹¹⁹ Ibid,16.

¹²⁰ Ibid.

¹²¹ n 29.

¹²² Ibid.

¹²³ Andrew D. Murray, ‘Internet Regulation,’ in Handbook On The Politics Of Regulation Edited by David Levi-Faur, The Hebrew University of Jerusalem, Israel and the Free University of Berlin, Germany (Edward Elgar, 2011) 267

¹²⁴ E.g. n 29; n 96, 205ff.

social life online¹²⁵ by using a conceptual lens which draws on various theoretical perspectives including ANT, Social Systems Theory ('SST'), Nodal Governance Theory¹²⁶ and Communicative Action Theory.¹²⁷ In this section, I argue that 'network communitarianism' does not provide me with an appropriate conceptual lens to capture the complex power relations in the various 'capillaries' of YouTube and Facebook due to four key weaknesses. Before evaluating the relevance of 'network communitarianism' as a conceptual lens for my research, next, I briefly examine some of its key ideas.

Network communitarianism suggests that the 'regulatory matrix' online is understood as an autopoietic system¹²⁸ and the group of relevant actors is understood as a 'sub-system'.¹²⁹ Here control is understood in terms of 'communications' between 'subsystems' which are 'cognitively open but operatively closed.' Murray does not clarify why he differs from Luhmann's conception of sub-systems as being cognitively open but normatively closed.¹³⁰ Here, Lessig's 'pathetic dot', which is the target of the different modalities of regulation, is perceived as a

¹²⁵ n 123, 275 ff.

¹²⁶ E.g. n 96, 204.

¹²⁷ J Habermas and W Rehg, 'Between Facts and Norms: Contributions to a Discourse Theory of Law and Democracy,' (1998) as cited in n 96.

¹²⁸ Niklas Luhmann, *Social Systems* (translated by John Bednarz Jr. with Dirk Baecker) (Stanford University Press 1995).

¹²⁹ n 115.

¹³⁰ Niklas Luhmann, 'The unity of the legal system,' in G Teubner (ed), *Autopoietic Law: A New Approach to Law and Society* (New York and Berlin Walter de Gruyter Publishing 1988) 12, 15.

‘material node’ in the network or ‘part of a system’ or a ‘Habermasian opinion former’,¹³¹ who is not isolated from the system but rather forms parts of the wider system or network (from a SST or ANT perspective respectively).¹³² Habermas and Luhmann understand social systems in different ways. It is not clear from Murray’s works how he reconciles those differences in order to use Habermas’ notion of an ‘opinion former’ in conjunction with Luhmann’s ideas about social systems.¹³³

‘Civil disobedience’¹³⁴ occurs here through instances of over-regulation when a critical mass of negative response from a ‘matrix of dots’ is achieved.¹³⁵ Effective ‘regulatory settlements’¹³⁶ are achieved when ‘symbiotic’ or ‘complementary’¹³⁷ regulation’ is harnessed.¹³⁸ ‘Symbiotic’ or ‘complementary’ regulation’ is understood as a ‘control model’¹³⁹ which harnesses already existing relations between actors by

¹³¹ n 96, 204

¹³² n 123, 275 ff.

¹³³ It is not clear in Murray’s writings whether he conceptualises law in a similar manner as Luhmann. Luhmann has a very distinct way of understanding law and legal systems. For example, he conceptualises law as a ‘closed system’ which is a distinct social system from the wider society. Despite the merits of Luhmann’s approach to law, various issues arise if one uses his approach to understand law. For instance, if one adopts Luhmann’s approach to law, then one excludes how humans act towards specific laws. For a critical evaluation of Luhmann’s ideas of the links between law and society, see Denis Galligan, *Law in Modern Society* (Oxford University Press, 2007) 39ff.

¹³⁴ I question whether acts of objections or resistance by online users are instances of ‘civil disobedience’, as understood by Dworkin, Ghandhi, Thoreau and the likes or whether they are simply instances of resistance in the network in the ANT sense.

¹³⁵ n 96, 204.

¹³⁶ Murray uses the phrase ‘regulatory settlement’ in his writings but does not explain what he means by that. He could be referring to the process of regulating specific activities and interactions in cyberspace on a permanent footing. E.g. n 115.

¹³⁷ Note the unclarity in Murray’s works as to whether he refers to the same process when he talks about ‘symbiotic’ and ‘complementary’ regulation. E.g. n 33.

¹³⁸ Andrew D Murray, ‘Symbiotic Regulation,’ (2008) 26(2) John Marshall Journal of Computer and Information Law 207, 209.

¹³⁹ Ibid, 223ff,

mapping the communications between such actors.¹⁴⁰ Only 'regulatory settlements'¹⁴¹ which are acceptable to the community bind the community and abuse of power by a regulator is nullified by the response of the community. From this perspective, the legitimacy of regulation is derived from acquiescence of the community. Additionally, through the 'network communitarianism' prism, certain modalities of regulation such as law, norms, and the market are understood as 'community-based' regulatory modalities. For instance, Murray argues that formal law is drafted and enacted by law-makers who are elected by the community.¹⁴² Additionally, the market is viewed as a mere '...reflection of value, demand, supplies, and scarcity as reflected by the community in monetary terms and norms are merely the codification of community values.'¹⁴³ From this perspective, these three regulatory modalities are viewed as 'socially mediated modalities' as the 'pathetic dot' plays an 'active role' in the regulatory process.¹⁴⁴ Internet regulation is understood here in different terms from offline regulation as it is based on the 'communicative power' between the 'active matrix of dots' rather than on geography or environment.¹⁴⁵

The two main merits of the network-communitarianism approach is that it, firstly, brings to the fore the myth of the 'pathetic dot' who exists in a vacuum and is a mere passive regulatee. It highlights that the 'pathetic dot' exists in a network of dots and has a more active role in the regulatory process in relation to three of the regulatory modalities, namely, law, norms and market. For 'network communitarian's regulation is a dynamic and complex phenomenon. However, such a perspective can be criticised as at best not going far enough and at worst being misleading. For example, it does not go far enough as it does not analyse how certain regulatory modalities such as law are complex actor-networks not only because of their links

¹⁴⁰ Ibid.

¹⁴¹ Ibid.

¹⁴² N 143.

¹⁴³ A.D. Murray, 'Internet Regulation,' in Handbook On The Politics Of Regulation Edited by David Levi-Faur, The Hebrew University of Jerusalem, Israel and the Free University of Berlin, Germany (Edward Elgar, 2011) 267, 276.

¹⁴⁴ n 29, 233.

¹⁴⁵ n 96, 204ff

with 'a matrix of dots' or humans but also because of their links with heterogeneous *actants* such as materialities, skills, and knowledges.¹⁴⁶ Additionally, as explained below, 'network communitarianism' is misleading as it uses ANT to explore the roles of humans in network construction. However as explained below, ANT is concerned with bringing both humans and *non-humans* to the forefront of analysis. I further develop this critique in the next section by highlighting four main weaknesses of 'network communitarianism.'

Firstly, network-communitarian writings fail to present a persuasive and in-depth argument about how it is possible - conceptually and methodologically - to combine all the different theories it draws on such as SST, ANT and Nodal Governance Theory bar a few mentions of some similarities between ANT and SST such as mapping complex interactions in networks or systems respectively. However, in my view, ANT and SST are less similar than network communitarianism suggests. The ANT idea of an 'actor-network'¹⁴⁷ and Luhmann's idea of a 'system'¹⁴⁸ are two different ideas which come from different sociological origins. For example, SST builds on functionalism whilst ANT builds on science and technology studies, a specific substantive field of sociology which also gives rise to more widely applicable theorising. Crucially, it is highly questionable whether ANT's 'fibrous', 'capillary', 'ropy' 'actor-network' can really be equated with the SST's 'system' or nodal governance theory's 'node'. For instance, nodal governance conceives of the node as a '...site of governance (i.e. the management of a course of events)...'¹⁴⁹ which meets four specific characteristics such as mentalities (or 'a way of thinking about the matters that the node has emerged to govern') and institutions which refers to 'structures that enables the directed mobilization of resources, mentalities and technologies over time.'¹⁵⁰ Additionally, 'network-communitarians' fail to examine

¹⁴⁶ E.g. n 96.

¹⁴⁷ E.g. Bruno Latour, 'On actor-network theory: a few clarifications,' (1996) *Soziale Welt* 369.

¹⁴⁸ E.g. Niklas Luhmann, 'System as Difference,' (2006) 13(1) *Organization* 37.

¹⁴⁹ Scott Burris, Peter Drahos, and Clifford Shearing, 'Nodal Governance,' (2005) 30 *Australian Journal of Legal Philosophy*, 11.

¹⁵⁰ *ibid*

why they need to combine these specific theories to develop a conceptual lens through which internet regulation can be examined. Finally, 'network-communitarians' fail to examine which specific ANT, SST, Nodal Governance Theory concepts are used in conjunction with one another and to what end. For instance, it is not clear which ANT concepts (e.g. translation) are used in conjunction with which SST concepts to conceptualise the internet user as a 'matrix of dots.'¹⁵¹

Secondly, 'network-communitarianism' fails to take advantage of ANT's principle of agnosticism and analytical symmetry when developing its conceptual prism. One of the main analytical advantages of using ANT is that it enables the researcher to analyse both human and non-human actors which associate themselves with one another to form and perform a particular network. Network-communitarianism fails here by not actively bringing the technological to the foreground of the analysis and investigating on a micro-sociological level, how technological elements play an active role in forming and performing a specific aspect of cyberspace. 'Network-communitarianism's failure to use ANT principles also explains why it understands regulation as a 'discourse between the individual and society' rather than an effect of the chain of association (which is fluid, contingent and fragile) between the human and non-human actors which make up the network in question. It may also explain why network-communitarianism argues, in a counter-ANT move, that a 'regulatory settlement' is generally either imposed or challenged by society. This argument is informed by the assumption that society or social elements drive effects of regulation in the network in question. Such a conclusion is objectionable because of its *de facto* social constructivist stance (i.e. social element driving regulation). Again this is a counter-ANT move where such conclusions vary from locality to locality and empirical setting to empirical setting. Finally, network-communitarianism is also at odds with ANT as it naively assumes that a 'community of dots' emerges in the network. From an ANT perspective the question is how do such communities of dots emerge empirically? How can one *actant* speak on behalf of other *actants*? In other words, what 'translations' account for the construction of a specific network? The potential misuse of ANT is perhaps

¹⁵¹ n 96, 11.

most apparent when ‘network communarians’ use ANT to bring out the roles of human rather than humans and *non-human* actors in their tales.¹⁵²

Thirdly, ‘network communitarianism’ adopts a very limited view of law, market and norms as being ‘socially mediated’ modalities of regulation. Indeed, the network-communitarianism approach gives a very privileged role to the social when considering three modalities of regulation, namely, law, market and norms. Apart from the social constructivist criticism, which I dealt with earlier, they also view law, market and norms in narrow terms. For instance, they view law only in terms of legislation and fail to adopt a more ANT-informed view of law as a ‘heterogeneous network’ composed of various human and non-human actors such as staples, judges, and legal skills and so on. They also fail to investigate empirically how any mediation (whether social or technological otherwise) happens at a micro-sociological level. Furthermore, they fail to view these three modalities of regulation in ANT terms as being effects of contingent, precarious, and local connections in which they are found. Crucially, they do not highlight the fragility of such effects, with such effects being easily disrupted as one *actant* leaves the specific connective chain or when the connections are not stable. Network communarians fail to highlight how relations between *actants* (and the effects of such relations such as regulation) gain obduracy when they are embodied in material conditions such as hyperlinks and web forms. Finally, they also fail to analyse the ‘code’ in detail, as one regulatory modality, in ANT-SST, terms which is important to understand how the ‘code’ regulates specific activities in cyberspace.

Finally, ‘network communitarianism’s use of Nodal Governance Theory is problematic for two reasons. Firstly, ‘network communitarianism’ does not explicitly explain whether it equates governance with regulation and if so how. Although arguably regulation questions can often be governance questions and some scholars use both terms interchangeably, it is important for ‘network communitarian’ writings to address this point explicitly.¹⁵³ Beyond debates about regulation or governance, a more important issue is that ‘network communarians’ still think of regulation in rigid

¹⁵² n 142.

¹⁵³ For the links between governance and regulation, see J Black, ‘Constitutionalising Self-Regulation,’ (1996) 59The Modern Law Review 24.

and limiting terms as emanating from three levels, namely, the state or companies or non-governmental organisations.¹⁵⁴ Although they do not give conceptual priority to either of these ‘nodes’ and argue that the inter-relations between the three ‘nodes’ is an empirical question, they still think of regulation in limiting terms as emanating from specific pre-determined categories without exploring effects of regulation which may transpire from interactions between entities which do not fall within these neatly defined categories. Regulation is conceived as an interaction between ‘major nodes’ such as the state which have ‘considerable weight’ and other ‘nodes’ such as corporations before arriving at the ‘node’ of the internet user who reacts to it.¹⁵⁵ ‘Regulatory settlement’ is reached here when it is accepted by the ‘node’ which has the ‘most regulatory gravity.’¹⁵⁶ Although such an approach bypasses the usual problems of a state-centric regulatory perspective, it invites new sets of problems such as how are certain ‘nodes’ constructed as ‘major’ nodes? How do certain entities gain certain attributes such as ‘considerable weight’ or ‘regulatory gravity’? Such issues are perhaps more easily resolved if cyberspace is approached as a ‘fibrous’, ‘ropy’, ‘wiry’ network, a point explored further in Chapter Three.

2.6 After Regulation: Of Power Relations

As analysed above, the main internet regulation theories, adopt a regulatory lens which is applied from different stances such as polycentric regulation, regulation by design and ‘self-regulation.’ Given the weaknesses of the main internet regulation theories, what conceptual lens can capture the potentially complex power relations which are at play in OSNS when a legal value is protected and/violated? In this section, I argue that a move away from a ‘regulatory’ lens to my ANT-Foucauldian Power Lens enables me to empirically capture how ‘local pockets of order’¹⁵⁷ or disorder are constructed in OSNS such as Facebook and YouTube when a legal value is protected and/or violated. Previously in this chapter, I have critically evaluated the dominant ‘regulatory’ lens used in the main writings about internet

¹⁵⁴ For more on this, see, Clifford Shearing and Jennifer Wood, “Nodal governance, democracy, and the new ‘denizens’ “ (2003) 20(3) *Journal of Law and Society* 400.

¹⁵⁵ n 96.

¹⁵⁶ *Ibid.*

¹⁵⁷ n 147.

regulation. In this section, I argue that it is imperative for my research to move away from an analytic lens of regulation to my ANT-Foucauldian Power Lens for two main reasons.

Firstly, despite the merits of a 'regulatory' lens, it is not wide enough to capture the potentially complex power effects generated in cyberspace when a legal value is protected and/or violated. In particular, the various enunciations of the regulatory lens assume that there are pre-determined modalities of regulation such as law, market and the state which operate from determined directions such as top-down or bottom-up. Although recent scholarly developments in the regulatory field also argue that regulatory modalities can also operate 'horizontally,' such developments still cling to the more traditional regulatory assumption of pre-determined regulatory modalities such as private organisations.¹⁵⁸ However, a move towards an analytic lens of 'power' enables me to capture comprehensively the intricate and convoluted maze of interactions, connections and dissociations which operate in cyberspace when legal values such as copyright and personal data are protected and/or violated without assuming any pre-determined actor, such as the State. This perspective thus opens up empirical inquiry.

Secondly, a move towards 'power' also helps me to capture the whole range of humans and non-humans which generate power effects in cyberspace when a legal value is protected and/or violated. From this perspective, my analysis is not limited to certain pre-determined entities, such as the State or collectivities of individuals, which directly or indirectly apply relevant 'regulatory modalities' to regulate a specific online interaction or action. Rather my analysis focusses on the myriad of ways in which heterogeneous humans and non-humans are locally, contingently, and precariously 'fitted together' in a specific empirical context when a legal value is protected and/or violated. My analysis also focusses on the potentially complex power effects generated from such local connections between heterogeneous humans and non-humans. Applying the ANT-Foucauldian Power Lens which I develop in Chapter Three, enables me to understand how human and

¹⁵⁸ Julia Black, 'Decentering Regulation: Understanding the Role of Regulation and Self-Regulation in the Post-Regulatory World,' (2001) 54(1) Current Legal Problems 103.

non-human actors achieve a position of power in a specific 'actor-network' (e.g. enforce a regulation against another actor) in relational terms. From this perspective, such humans and non-humans do not have pre-determined positions and effects in a specific 'actor-network'. Rather their positions and their effects in a specific 'actor-network' is a product of the chain of associations with other human and non-human actors within which such actors find themselves. Here the power effect generated from the local connections between heterogeneous humans and non-humans may become more or less stable as new and/or old humans and non-humans enter and/or leave the associative chain. Finally, from this perspective, diverse effects of power such as domination or control are understood as effects generated by connecting and patterning heterogeneous human and non-human elements locally in the 'actor-network' under scrutiny.

Conclusion

In this chapter, I have analysed whether current academic approaches to internet regulation enable me to investigate the potentially complex web of power relations potentially at play in OSNS such as Facebook and YouTube. I have argued that it is crucial to move away from the current dominant 'regulatory' lens to an ANT-Foucauldian Power Lens, to capture also dynamic, multi-directional, complex and fluid power relations which may be at play in OSNS such as Facebook and YouTube. I have developed this argument by critically evaluating the main academic approaches to internet regulation such as regulation by 'self-regulation' only, regulation by 'modalities of regulation' including the 'code' and regulation as a 'complex and dynamic process of 'manifold interactions' between various human actors. Building on my critical analysis of these main academic approaches to internet regulation, I have argued that such approaches cannot account for complex webs of power relations that may be generated in heterogeneous networks such as Facebook and YouTube. Consequently, I argue that a move away from the 'regulatory' prism towards an ANT-Foucauldian Power Lens, developed next in Chapter Three, is important to understand more fully the potentially complex power effects generated in the diverse locales of a specific OSNS when a legal value is protected and/violated.

Chapter Three

Of Power, Relationality and Resistance: Using Foucault in Conjunction with Actor-Network Theory

Abstract

In this chapter, I develop a conceptualisation of power, which utilises Michel Foucault's ideas about power in conjunction with Actor Network Theory ('ANT') notions of power. My aim is to develop an innovative conceptual framework of power, which builds on commonalities and differences between Foucault and ANT and provides a prism through which power relations in the various 'capillaries' of YouTube and Facebook can be analysed in Chapters Four to Seven. I argue four key points in this chapter. Firstly, I argue that it is important for me to use ANT ideas about power in conjunction with Foucauldian ideas about power to answer my research questions. Having analysed the reasons why I need to use ANT in conjunction with Foucault in my research, I then explore the areas of compatibility between Foucault and ANT in order to, secondly, argue that it is possible to build links between these two perspectives on power. Building on this analysis, I set out the main tenets of my ANT-Foucauldian Power Lens such as, 'power's provenance, 'power as confrontation and productivity,' 'power as an effect of one possible state of association,' the links between power and 'materialities', and the links between power and 'spatialities'. I also explore how specific Foucauldian ideas such as governmentality can be used in conjunction with ANT ideas such as translation to generate a stronger concept to capture the complex web of forms of 'conduct of conduct' in YouTube and Facebook. This analysis enables me to argue my third point, that it is possible to use ANT ideas about power in conjunction with Foucauldian ideas about power. Finally, I argue that my ANT-Foucauldian Power Lens can be used to generate a more comprehensive understanding of three specific *actants*, namely, social, legal, and technological, which potentially play key roles in generating power effects in YouTube's copyright network and Facebook's data network. I illustrate this abstract and conceptual analysis by providing some empirical examples of how I apply my conceptual lens in Chapters Four to Seven. These practical examples further show that my ANT-Foucauldian Power Lens can frame empirical, micro-sociological analysis that seeks to capture power relations.

*'Confusion heard his voice, and wild uproar stood rule, stood vast infinitude confined;
Till at his second bidding darkness fled, Light shone, and
Order from disorder sprung.'*¹

Introduction

Aside from the religious undertones, ripe with images of an omniscient and omnipresent power, Milton's quote is very reminiscent of one of the main arguments of this thesis. Order or 'orderings'² exists amidst a 'sea of disorder' or alongside other orderings.³ By 'orderings' I mean the myriad of ways in which heterogeneous legal, social, and technological *actant*' are locally, contingently, and precariously 'fitted together' and the power effects generated from such 'fitting together.' In this chapter and thesis, I use the terms 'fitting together', and 'connections' interchangeably. By '*actants*', I mean '...something that acts or to which activity is granted by others.'⁴ '*Actants*' refer both to humans and non-humans.⁵ In this thesis, I use the terms '*actants*', 'humans and non-humans', and 'elements'⁶ interchangeably.

¹ John Milton, *Paradise Lost* (Rev Ed edn, Penguin Classics 2003) Bk. III, line 710.

² In line with Law I argue that the word 'ordering' may be more appropriate than 'order' to describe that there is not only one specific regime of order and to highlight the precarity and incompleteness of regimes of order. John Law, *Organising Modernity* (Oxford Blackwell 1994) 1ff.

³ Michel Serres, *La Traduction: Hermes III* (Paris Les Éditions de Minuit 1974); Bruno Latour, 'On actor-network theory: A few clarifications' (1996) 47 *Soziale Welt* 369 <<http://www.cours.fse.ulaval.ca/edc-65804/latourclarifications.pdf>> accessed 6 August 2013; John Law, 'Actor network theory and material semiotics' in Bryan Turner (ed), *The New Blackwell Companion to Social Theory* (Wiley-Blackwell 2008) 141.

⁴ Latour, *ibid*, 7.

⁵ Trisha Greenhalgh and Rob Stones, 'Theorising big IT programmes in healthcare: strong structuration theory meets actor-network theory,' (2010) 70(9) *Social Science & Medicine* 1285.

⁶ Some ANT scholars use the terms 'elements' and '*actants*' interchangeably. E.g. Ole Hanseth, Margunn Aanestad, and Marc Berg, 'Guest editors' introduction: Actor-network

As Latour has argued, order or 'ordering' is '...an exceptional state which needs to be accounted for.'⁷ Unlike the Miltonian protagonist, who does not need any intermediary⁸ or mediator⁹ to chase away 'darkness', in this chapter I suggest, where different 'orderings' exist, then different messengers or intermediaries or mediators locally link these different worlds or places. Furthermore, 'orderings' generate power effects.¹⁰ This thesis focusses on answering two key questions, namely, how can we account for the construction of such 'orderings' in YouTube and Facebook when copyright (YouTube's copyright network) and personal data (Facebook's data network) respectively are protected and/or violated? What are the power effects generated from such 'orderings' in YouTube's copyright network and Facebook's data network?

In this chapter, I develop a conceptual prism of power where Michel Foucault's ideas about power are used in conjunction with Actor-Network Theory ('ANT') ideas about power ('ANT-Foucauldian Power Lens'). By power effect, I

theory and information systems. What's so special?' (2004) 17(2) *Information Technology & People* 116.

⁷ Latour, n 3.

⁸ An intermediary is '...what transports meaning or force without transformation: defining its inputs is enough to define its outputs.' Bruno Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory* (New Edn, OUP 2007) 39.

⁹ Mediators '...transform, translate, distort, modify the meaning or the elements they are supposed to carry.' Unlike intermediaries which can be counted as one or a black-box, mediators cannot be counted as one due to their complexity. Ibid, 39.

¹⁰ John Law, 'Notes on the theory of the actor-network: ordering, strategy, and heterogeneity,' (1992) 5(4) *Systems Practice* 379.

¹¹ I use a hyphen in the abbreviation to denote that I use Foucauldian ideas about power in conjunction with ANT ideas about power and vice versa in my conceptual framework. John Seely, *Oxford A-Z of Grammar and Punctuation* (OUP 2007) 54. I am not using the hyphen to denote that the words 'Foucauldian' and 'ANT' are being combined with one another to create one word. Henry G Liddell and Robert Scott, *A Greek-English Lexicon* (revised and augmented throughout by Henry Stuart Jones with the assistance of Roderick McKenzie) (Oxford Clarendon Press 1940)
<<http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.04.0057%3Aentry%3Du%28fe%2Fn>> accessed 6 August 2013. The abbreviation lists the names of the theories in alphabetical order. Consequently, the fact that ANT is listed first in the abbreviation does not mean that ANT has a more privileged role than Foucault in my conceptual power lens.

mean any enabling, constraining and productive effect which is generated when heterogeneous *actants* are locally 'fitted together' when legal values such as copyright and personal data are protected and/or violated. For instance, in Facebook, when a Facebook user reports the breach of a provision of the Governing Contracts¹² by another Facebook user, such as identity theft, by clicking on the 'Report Button',¹³ complex and multiple power effects are generated such as disciplining the Facebook user who infringes the Governing Contracts. Such power effects are generated by the local 'fitting together' of specific social, legal, and technological elements such as binary codes,¹⁴ the Facebook team,¹⁵ Facebook users, and the 'Report Button.' Such an investigation enables me to understand how multifarious power effects such as compliance, domination and discipline are potentially relational, local, and fragile achievements¹⁶ in YouTube and Facebook. It is crucial to my analysis in this thesis to cross the boundary between human and non-human actors and trace how 'acting' is distributed in Facebook and YouTube. This enables me to account for order or disorder in such a way that 'code', law and social¹⁷ elements (e.g. a market) are not causes of anything but rather consequences of the alliances between *actants*.

¹²The Governing Contracts refer to the series of contracts between key *actants* such as Facebook and the Facebook User which the parties enter into at the time the User or other relevant *actants* such as advertisers join Facebook. See Chapter Six.

¹³ This is a hyperlink which the User can click to report identity theft. See 'How do I report a Fake Account?' (Help Centre, Facebook) < <https://www.facebook.com/help/167722253287296?q=fake%20profile&sid=0FYJ3uLmltX8lOky>> accessed 8 June 2013. See Chapters Six and Seven for more.

¹⁴ A binary code can be defined as a computer code that uses the binary number system. The binary number system has a base of two numbers being expressed by sequences of the digits 0 and 1. (Collins English Dictionary, Online Version).

¹⁵ E.g. Facebook's legal team.

¹⁶ For more on power as a 'relational achievement' see John Law, n 10; Bruno Latour, 'The Powers of Association' in John Law (ed) *Power, Action and Belief: a New Sociology of Knowledge?* (London Boston and Henley, Routledge and Kegan Paul 1986) 264; John Law 'On Power and Its Tactics: a View from the Sociology of Science' (1986) 34 *The Sociological Review* 1.

¹⁷ Not in the Durkheimian sense of the 'social.'

I argue four key points in this chapter. Firstly, I argue that it is important for me to use ANT ideas about power in conjunction with Foucauldian ideas about power to answer my research questions. Having analysed the reasons why I need to use ANT in conjunction with Foucault in my research, I, then, explore the areas of compatibility between Foucault and ANT in order to argue that it is possible to build links between these two perspectives on power. Building on this analysis, I set out the main tenets of my ANT-Foucauldian Power Lens such as, 'power's provenance, 'power as confrontation and productivity,' 'power as an effect of one possible state of association,' the links between power and 'materialities', and the links between power and 'spatialities'. I also explore how specific Foucauldian ideas such as governmentality can be used in conjunction with ANT ideas such as translation to generate a stronger concept to capture the complex web of forms of 'conduct of conduct' in YouTube and Facebook. This analysis enables me to argue my third point, that it is possible to use ANT ideas about power in conjunction with Foucauldian ideas about power. Finally, I argue that my ANT-Foucauldian Power Lens can be used to generate a more comprehensive understanding of three specific *actants*, namely, social, legal, and technological, which potentially play key roles in generated power effects in YouTube's copyright network and Facebook's data network. I illustrate this abstract and conceptual analysis by providing some empirical examples of how I apply my conceptual lens in Chapters Four to Seven. These practical examples further show that my ANT-Foucauldian Power Lens can frame empirical, micro-sociological analysis that seeks to capture power relations.

This chapter is divided into seven parts. In section 3.1, I explain the reasons why I need to use Foucauldian ideas about power in conjunction with ANT ideas about power to address my research questions. In section 3.2, I explore the areas of compatibility between Foucault and ANT in order to argue that it is possible to build links between these two perspectives on power. In section 3.3, I set out the five general tenets of my ANT-Foucauldian Power Lens, namely, power's provenance, 'power as confrontation and productivity,' 'power as an effect of one possible state of association,' the links between power and 'materialities', and the links between power and 'spatialities'. Moreover, I also explore how I use the Foucauldian notion of governmentality in conjunction with the ANT ideas of translation, 'action at a distance', and 'centres of translation'. Additionally, I analyse how I use Foucauldian

ideas about disciplines, surveillance and the 'panopticon' in conjunction with ANT ideas about the 'oligopticon.' In section 3.4, I analyse how I use the ANT notion of translation to trace the construction of specific 'actor-networks' such as YouTube's copyright network and their power effects. Having set out the main tenets of my ANT-Foucauldian Power Lens, in the remaining three sections of this chapter, I analyse how three specific *actants*, namely, social, law, and technological artefacts, can be conceptualised from my ANT-Foucauldian Power Lens. I focus on these three *actants* as they are potentially key in generating power effects in YouTube's copyright network and Facebook's data network. This has also been confirmed by my later empirical analysis.

3.1 Reasons for Using Foucault in Conjunction with ANT

In this section, I explore five reasons why I use ANT in conjunction with Foucault to answer my research questions. This analysis supports one of the overall arguments of this chapter that using ANT in conjunction with Foucault enables me to construct a robust analytic power lens to analyse various power relations in Facebook and YouTube. For avoidance of doubt, in this section, I focus more explicitly on the analytic opportunities afforded by using ANT in conjunction with Foucault rather than using Foucault in conjunction with ANT because (a) ANT is not used as widely as Foucault in socio-legal studies - the field in which this thesis is located¹⁸ and (b) ANT is slightly more in the foreground than Foucault in my conceptual lens. However, this section should not be read as an attempt to downplay Foucault's importance in my conceptual lens.¹⁹

¹⁸ Recent socio-legal works have employed ANT. Emilie Cloatre, 'Trips and Pharmaceutical Patents in Djibouti: An ANT Analysis of Socio-Legal Objects,' (2008) 17 *Social and Legal Studies* 263; Thomas Scheffer T, 'The Duality of Mobilisation—Following the Rise and Fall of an Alibi-Story on its Way to Court,' (2003) 33(3) *Journal for the Theory of Social Behaviour*, 313; Thomas Scheffer, 'Materialities of Legal Proceedings,' (2004) 17(4) *International Journal for the Semiotics of Law* 356; Bruno Latour, *The making of law: an ethnography of the Conseil d'État* (Polity 2010). Bettina Lange, 'Social Dynamics of Regulatory Interactions: An Exploration of Three Sociological Perspectives,' in M. Freedman (ed.), *Law and Sociology* (Oxford University Press, 2006) 141.

¹⁹ I am grateful to Geoff Walsham for raising this point.

Firstly, I suggest that using ANT and Foucauldian ideas about power in conjunction with one another provides a stronger analytical perspective, to analyse my research questions, rather than relying on either of these two perspectives. As analysed in Chapter One, my principal research question is what are the power effects generated in YouTube and Facebook when legal values such as copyright and personal data are protected and/or violated? To answer this question, I also need to trace how heterogeneous *actants* are ‘fitted together’ to form and perform YouTube’s copyright network and Facebook’s data network. For example, if I only use a Foucauldian approach to answer my research questions, I would not be able to account for heterogeneity in Facebook’s data network and YouTube’s copyright network, beyond discourses, institutions, architectural forms, regulatory decisions, administrative measures, institutions, and law in socio-historic contexts. However, using ANT²⁰ in conjunction with Foucault provides me with a lens that can also account for heterogeneity in terms of an explicit consideration of the roles of non-human actors, such as binary codes, programming languages²¹ and the ‘Sign-Up button’,²² in network construction and the power effects generated from materially heterogeneous connections in YouTube’s copyright network and Facebook’s data network. Likewise, if I only use an ANT approach to answer my research questions, I may downplay the roles of humans in network construction.²³ For example, ANT, unlike Foucault, cannot shed as much shed on specific issues such as the issues of ethics raised by resistance by humans.²⁴

²⁰ In particular, its principles of analytical agnosticism and generalised symmetry as well as its concepts such as ‘actor-network, and ‘*actant*’. See Latour, n3.

²¹ A programming language refers to ‘a system of precisely defined symbols and rules devised for writing computer programs.’ (Oxford English Dictionary, Online Version).

²² The ‘Sign-Up’ button is the button which Facebook users have to click when they sign up to Facebook for the first time.

²³ I am grateful to Geoff Walsham for raising this point.

²⁴ E.g. Michel Foucault, ‘The Ethic of the Care for the Self as a Practice of Freedom,’ in J Bernauer and D Rasmussen, (eds) *The Final Foucault* (Cambridge Mass.: Massachusetts Institute of Technology Press, 1988) 1.

Secondly, ANT provides me with a more practical perspective than Foucault to talk about interactions between various power effects because of its robust micro-sociological empirical approach, which is more relevant to my research of activity in contemporary OSNS than Foucault's genealogical and historical approach.²⁵ In particular, ANT helps me to trace the construction of specific 'orderings' and their power effects in YouTube's copyright network and Facebook's data network, how fragile such 'orderings' can be and how maintaining 'orderings' in Facebook and YouTube is a constant process of refinement of *actants'* interests, negotiations and struggles. Crucially, the various empirical ANT investigations tracing the relationships between technology and society enable me to account for the potentially complex web of power relations at play in Facebook's data network and YouTube's copyright network where technological *actants* such as hyperlinks,²⁶ binary codes, and programming languages play key roles in constituting these networks. This has been confirmed by my later data analysis.²⁷ The earlier ANT works investigating the relationship between science and society are also relevant to my research because they help to contextualise, both in terms of concepts and methods, the later ANT works that interrogate the links between technology and society.²⁸

²⁵ E.g M Foucault, *Discipline and punish: the birth of the prison* (1st American edn Pantheon Books, New York 1977)

²⁶ Hyperlinks are electronic links providing direct access from one distinctively marked place in a hypertext or hypermedia document to another in the same or a different document.

²⁷ See Chapters Four to Seven.

²⁸ Bruno Latour, *Science in Action: How to Follow Scientists and Engineers through Society* (Milton Keynes 1987); Bruno Latour, *Pandora's Hope: Essays on the Reality of Science Studies* (Harvard University Press Cambridge MA 1999); Bruno Latour, *Politics of Nature: How to Bring the Sciences into Democracy*, (trans.) C Porter (Cambridge MA Harvard University Press 2004); Michel Callon, 'Some elements of a sociology of translation: domestication of the scallop and the fishermen of St Brieuc Bay' in J Law (ed), *Power, Action and Belief: A new Sociology of Knowledge?* (Routledge & Kegan Paul Plc, London 1986); John Law, 'The Anatomy of a Socio-Technical Struggle: the Design of the TSR2' in B Elliott (ed) *Technology and Social Process*, (Edinburgh University Press Edinburgh 1988).

Thirdly, it is not suitable for my research to employ only Foucauldian concepts such as ‘dispositif’²⁹ to account for heterogeneity in YouTube’s copyright network and Facebook’s data network. Although the Foucauldian concept of ‘dispositif’ is helpful in terms of understanding the ‘assemblages’ of heterogeneous elements, it has three weaknesses. In the first instance, the notion of ‘dispositif’ can be limiting and does not enable me to capture the wide range of ‘technologies’ which have an effect on scale, time, distance or space within an OSNS. In the second instance, the concept of ‘dispositif’ on its own does not help me to account how these ‘dispositifs’ become stabilised, in the sense of being able to resist change, deterioration, or displacement and consequently how ‘orderings’ and their power effects are achieved. Here, the connection with ANT lets me explicitly trace how various power effects are stabilised in YouTube’s copyright network and Facebook’s data network and how various *actants* in these two networks have come to understand their situation according to a similar logic and construct shared interests, through the notion of translation.³⁰ Finally, by only using the Foucauldian notion of ‘dispositif’, I cannot explore how specific enactments, such as the particular enactment of a market of copyrighted content in YouTube’s copyright network, can be understood in terms of socio-legal-technical ‘agencement’³¹ or a ‘collective’ composed of YouTube users, binary codes, and copyright licences. Here by using the ANT notion of ‘agencement’ in conjunction with Foucault’s notion of ‘dispositif’, I can analyse how a specific aspect of the market, namely, enacting YouTube users as consumers, is formed by and performed through materially heterogeneous connections, as analysed in Chapter Five.

Fourthly, both the Foucauldian concept of materiality³² and the ANT concept of relational materiality³³ are important as they enable me to understand the roles of

²⁹ Dispositifs refer to the heterogeneous assemblages of diverse elements. See Michel Foucault, ‘Le jeu de Michel Foucault,’ in *Dits et Ecrits*, Vol. iii (1994) 299.

³⁰ Callon, n 28.

³¹ Law, n 3.

³² E.g. Michel Foucault, *The Archaeology of Knowledge* in A M Sheridan Smith (trans) (New York Pantheon Books 1972), 101ff where he posits that the ‘materiality’ is ‘...constitutive of the statement itself: a statement must have a substance, a support, a place, and a date. And when these requisites change, it too changes identity.’ Elsewhere he talks about the

‘materialities’ such as web forms in network construction and how specific ‘materialities’ support specific power effects. The ANT slant on relationality enables me to explore further how YouTube’s copyright network and Facebook’s data network attain their forms and features as a result of their connections with other *actants*. Staples, hyperlinks, and reports, and their relations with other *actants*, emerge as possible partial explanations for how ‘orderings’ (or lack of ‘orderings’ – that is, disorder) can be maintained over time and space or how different ‘orderings’ can co-exist (or not) alongside one another.

Finally, combining specific Foucaudian ideas such as discursive formation,³⁴ governmentality³⁵ and the ‘panopticon’³⁶ with ANT ideas such as translation, ‘centres of translation’³⁷ and oligopticon³⁸ enables me to develop my analysis further. For instance, using the notion of translation enables me to explore how the object of translation moves from the hands of *actants* to *actants* and actually changes whilst moving. However, translation does not help me to address how the meaning of the ‘scripts’ of each *actant* may change with the interests of different *actants*. Here using the Foucaudian concept of ‘discursive formation’ enables me to see how particular *actants* can translate the object in question with reference to a ‘home discourse.’ Likewise, connecting the ANT idea of ‘centres of translation’³⁹ with the Foucaudian

materiality of the body. For example he states that ‘the most speculative most ideal and most internal element in a *dispositif* of sexuality organised by power in its hold on bodies and their materiality, their forces, energies, sensations and pleasures.’ Michel Foucault, *The History of Sexuality. Vol. I: An Introduction* (London Allen Lane/ Penguin 1978), 155

³³ Law, n 3.

³⁴ ‘Whenever one can describe, between a number of statements, such a system of dispersion, whenever, between objects, types of statement, concepts, or thematic choices, one can define a regularity (an order, correlations, positions and functionings, transformations), we will say, for the sake of convenience, that we are dealing with a discursive formation.’ (Foucault, 1972, 38 n 32).

³⁵ n 125.

³⁶ n 24.

³⁷ Latour, n 3.

³⁸ n 67.

³⁹ Centres of translation refer to sites where associated elements or traces of distant occurring are gathered together and additional work is done. They enable ordering through

idea of governmentality further provides me with a way to analyse the importance of the accumulation of specific inscriptions⁴⁰ in 'centres of translation' in rendering particular *actants* powerful. Another example is using Foucault's ideas about surveillance and the 'panopticon' in conjunction with ANT ideas about the 'oligopticon'. This enables me to understand surveillance in Facebook and YouTube as a 'situated,' fragile, local and contingent exercise. Having analysed five reasons why I use Foucault and ANT in conjunction with one another to answer my research questions, next I analyse whether it is possible to use Foucauldian and ANT ideas about power in conjunction with one another.

3.2 Exploring Conceptual and Methodological Compatibilities between ANT and Foucault

Connections between the works of Michel Foucault and ANT scholars, and vice versa, have been made in various fields.⁴¹ Such connections are not surprising given the 'close affinity'⁴² between some Foucauldian and ANT ideas about power. Both theoretical orientations subscribe to the idea that power is productive, enabling, and an 'effect' generated from the heterogeneous 'assemblage' of various elements such as humans, and regulatory practices.⁴³ Some scholars argue that ANT builds on Foucauldian notions of power such as 'power as an effect' emanating from the association of heterogeneous elements.⁴⁴ Others qualify ANT as being 'post-

time and space by gathering elements together. Bruno Latour, *Science in Action: How to Follow Scientists and Engineers through Society* (Milton Keynes 1987) 104

⁴⁰ n 5.

⁴¹ For attempts to connect Foucault's and ANT's works see Jonathan Murdoch, 'Ecologising sociology: Actor-network theory, co-construction and the problem of human exemptionalism' (2001) 35(1) *Sociology* 111; Law, n 10; Gavin Kendall and Gary Wickham, *Using Foucault's Methods* (1st edn, Sage Publications Ltd 1998) ch 3 and 4.

⁴² Law, *ibid*.

⁴³ Michel Foucault, 'The Confession of the Flesh,' in Colin Gordon (ed), *Power/Knowledge* (New York Pantheon 1980) 194.

⁴⁴ Kendall and Wickham, n 41.

Foucauldian.⁴⁵ Others more accurately concede some areas of overlap which are then further extended by ANT.⁴⁶ In this section, I argue that it is possible to use Foucauldian and ANT ideas about power in conjunction with one another for four key reasons.

Firstly, a sceptical reader could argue that it might be a tricky task to use Foucauldian and ANT ideas about power in conjunction with one another due to their different methodological approaches. Foucault adopts a genealogical and historical approach which analyses power in institutions such as the prison⁴⁷ whereas ANT is firmly rooted in a strong tradition of empirical⁴⁸ micro-sociological work.⁴⁹ I would argue that although Foucault has developed and studied notions of power in the socio-historic contexts of institutions such as the prison and the clinic, this does not mean that his notions of power such as 'governmentality',⁵⁰ 'surveillance'⁵¹ and 'disciplines'⁵² can only be applied in the context of institutions. Foucault does not think of power in terms of its provenance or origin which implies that for him power is not a property localised in an institution or subordinated to structure. Rather power is a strategy which involves relations of 'truths' and which is exercised through heterogeneous techniques which constitute the individual. Foucault's focus on the

⁴⁵ David Wood, 'Foucault and Panopticism Revisited,' (2002) 1(3) *Surveillance & Society* 234, 236.

⁴⁶ E.g. Law, n 10 argues that ANT goes further than Foucault on ideas such as 'power as an effect' by telling empirical micro-sociological stories about the 'how' of power. Also see Kendall and Wickham, n 41.

⁴⁷ E.g. Foucault, 1977, n 25; Foucault, 1980, n 32.

⁴⁸ E.g. Callon, n 28; Michel Callon, 'Society in the Making: the Study of Technology as a Tool for Sociological Analysis' in W E Bijker and others (eds) *The Social Construction of Technical Systems: New Directions in the Sociology and History of Technology* (Cambridge Mass. and London, MIT Press 1987) 83; Bruno Latour, *The Pasteurization of France* (Cambridge Mass Harvard University Press 1988); Bruno Latour, *Aramis, ou l'Amour des Techniques* (Paris Éditions de la Découverte 1992); Bruno Latour and Steve Woolgar, *Laboratory Life: the Social Construction of Scientific Facts* (Beverly Hills and London Sage 1979).

⁴⁹ Ibid.

⁵⁰ n 125.

⁵¹ n 25.

⁵² ibid

processes and activities which define, control or regulate the individual rather than the structural properties of the institutions (for their own sake) chimes with ANT's micro-sociological concern with how effects of power are generated locally when heterogeneous *actants* assemble with one another.⁵³

Secondly, there are key specific theoretical connections between ANT and Foucault which I harness for my analysis. Both perspectives reject humanism as an *a priori* explanation of society,⁵⁴ both are concerned with 'concrete practices'⁵⁵ and have a shared interest in detailing how knowledge is distributed in particular networks. Both distance themselves from a structuralist approach.⁵⁶ Other areas of commonalities include a rejection of dualistic thinking, a historico-empirical⁵⁷ quest to trace how order and disorder are effects of specific 'discursive formations'⁵⁸ or '*agencements*'. Moreover, both do not give a privileged role to macro-actors when studying particular networks but rather actively consider the roles of micro human

⁵³ However, it could be argued that Latour would not approve of using Foucauldian notions such as governmentality with ANT ideas such as translation. I would respond that certainly in his earlier works Latour has been very keen to demarcate his work from Foucault (e.g. Latour, n 39) and/or makes little reference to Foucault. However, in his recent interviews, he acknowledges his use of Foucault. For instance, he says, '...I have used Foucault and read him a lot, so he might be absorbed in my thinking probably much more than I recognize...' Hugh T Crawford, 'An interview with Bruno Latour,' (1993) 1(2) *Configurations* 1, 247, 252.

⁵⁴ For ANT's rejection of humanism, see Callon, 1986, and Latour, 1988 both at n 28; Bruno Latour, *We Have Never Been Modern* (Brighton Harvester Wheatsheaf 1993). For Foucault's ideas on humanism, see Michel Foucault, 'What is Enlightenment?' in Paul Rabinow (ed) *The Foucault Reader* (New York Pantheon 1984). For a critical evaluation of Foucault's stance on humanism see Nancy Fraser, 'Foucault on Modern Power' in *Unruly Practices: Power, Discourse and Gender in Contemporary Social Theory* (Minneapolis University of Minneapolis Press 1989) 27 ff. For a critical evaluation of ANT's anti-humanism see Olga Amsterdamska, 'Surely, You Must be Joking, Monsieur Latour!' (1990) 15 *Science, Technology and Human Values* 495.

⁵⁵ John Law, 'Introduction' in John Law (ed) *Power, Action and Belief: a new Sociology of Knowledge? Sociological Review Monograph* (London Routledge and Kegan Paul 1986) 12.

⁵⁶ E.g. Stuart Clegg, *Frameworks of power* (Sage 1989).

⁵⁷ This term has been borrowed from Gavin Kendall and Mike Michael, 'Order and Disorder: Time, Technology and the Self' (2001) *Culture Machine* <<http://www.culturemachine.net/index.php/cm/article/view/242/223>> accessed 6 August 2013. They use this term to refer collectively to Foucault's historical approach and ANT's micro-sociological and empirical approach.

⁵⁸ A limited and uncritical link has been drawn by these two concepts by Kendall and Michael, *ibid*.

and non-human actors including 'materialities' and 'spatialities' in particular networks.⁵⁹

Thirdly, a sceptical reader could draw attention to the fact that Latour has criticised Foucault's work for being 'anti-historic,' 'anti-marxist,' too focused on a critical analysis of the social rather than 'hard' sciences,⁶⁰ and for his limited exploration of the relation between power and knowledge (beyond raising it as an issue).⁶¹ In response, I would argue that such criticisms should not be exaggerated and lead to a rejection of the value of Foucault's works for ANT and vice versa.⁶² Some ANT scholars highlight the utility of Foucauldian ideas on how power is disseminated and how 'dispositifs' such as the 'panopticon' produce society and knowledge.⁶³ Latour himself, in his later works, recognises that his writings '...owe more than a little to the writing of Foucault.'⁶⁴

Finally, a sceptical reader could question how distinct Foucauldian concepts such as the 'panopticon' can be used in conjunction with ANT ideas such as the 'oligopticon' and still be practically applicable to empirical research. How can ideas about power developed within the context of the circular-shaped 'panopticon' be used in conjunction with ideas about power developed within the context of the star-shaped oligopticon? The reader may also question whether Latour, a leading ANT scholar, would agree that such concepts can be used in conjunction with one

⁵⁹ Michel Callon and Bruno Latour, 'Unscrewing the big Leviathan: how do actors macrostructure reality,' in KD Knorr and A Cicourel (eds) In *Advances in Social Theory and Methodology: Toward an Integration of Micro and Macro Sociologies* (London Routledge 1980) 277.

⁶⁰ Except medicine. Crawford, n 53, 251.

⁶¹ E.g. Latour argues that Foucault's works are limited due to (a) his 'antihistoricism', (b) 'anti-Marxism' and (c) his focus on social sciences rather than the 'hard sciences' such as natural science. Latour also argues that Foucault's concept of 'knowledge/power' also raises the issue of what is the relationship between knowledge and power rather than solves it. Ibid, 251ff.

⁶² E.g. Latour argues that despite his criticisms of Foucault, he does not contend that Foucault's works such as *Discipline and Punish* are not important. Ibid.

⁶³ Ibid.

⁶⁴ E.g. n53, 18; ibid, where he notes that a lot of his thinking may have been far more influenced by Foucault than he recognises.

another.⁶⁵ I respond to such criticisms by (a) drawing attention to the theoretical connections between Foucault and ANT explored earlier in this section, and (b) by arguing that I use specific Foucauldian and ANT ideas about power in conjunction with one another in particular ways in my conceptual lens. For example, as analysed further in section 3.3.5, I use Foucauldian ideas about power, and the ‘panopticon’⁶⁶ in conjunction with ANT ideas about power and the oligopticon⁶⁷ to develop an understanding of specific surveillance relations in Facebook and YouTube as ‘situated’, fragile, and highly localised exercises⁶⁸ in a specific way.

Having analysed four key reasons why it is possible to use Foucauldian and ANT ideas about power in conjunction with one another, I now analyse the main tenets of my ANT-Foucauldian Power Lens.

3.3 Using my ANT-Foucauldian Power Lens to Analyse Power Effects Generated in OSNS

In this section, I analyse five general tenets of my ANT-Foucauldian Power Lens, namely, power’s provenance, ‘power as confrontation and productivity,’ ‘power as an effect of one possible state of association,’ the links between power and ‘materialities’, and the links between power and ‘spatialities’. Moreover, I also explore how I use the Foucauldian notion of governmentality in conjunction with the ANT ideas of translation, ‘action at a distance’, and ‘centres of translation’. Finally, I analyse how I use Foucauldian ideas about disciplines, surveillance and the ‘panopticon’ in conjunction with ANT ideas about the ‘oligopticon.’ This supports one

⁶⁵ I am grateful to Geoff Walsham for raising this point.

⁶⁶ Foucault (1977, 205) (n 25).

⁶⁷ By contrast to the perfect surveillance enabled by the Panopticon, the oligopticon is a fragile construction whose vision can be blurred by the tiniest insect. Through the use of inscriptions as documents and computer programs, it enables one to ‘...see little...but see it well’ in concrete places. See Bruno Latour, *Reassembling the Social-An Introduction to Actor-Network-Theory* (Oxford University Press 2005) 181ff; Bruno Latour and Emilie Hermant, *Paris Ville Invisible* (La Decouverte Les Empecheurs de Penser en Rond 1998) 14ff. For more on the analytical benefit of the oligopticon, see Christopher Gad and Peter Lauritsen, ‘Situating Surveillance: an ethnographic study of fisheries inspection in Denmark,’ (2009) 7(1) *Surveillance & Society* 49.

⁶⁸ See Chapters Four to Seven.

of the overall argument of this chapter that it is possible to use Foucault in conjunction with ANT.

3.3.1 The Provenance of Power

Power does not emanate either from one single source (e.g. the State) or from one single direction (namely top-down) but from various sources and directions (e.g. also bottom-up). It constitutes 'the multiplicity of force relations immanent in the sphere in which [it] operate[s] and which constitute [its] own organization.'⁶⁹ Despite not emanating from a single source of central authority, power is omnipresent because:

'...it is produced from one moment to the next, at every point, or rather in every relation from one point to another. **Power is everywhere**, not because it embraces everywhere, but because it comes from everywhere.'⁷⁰(my emphasis)

As such, power is not 'something you may possess or hoard.'⁷¹ It is 'exercised rather than possessed; it is not a privilege, acquired or preserved, of the dominant class, but the overall effect of its strategic positions.'⁷² From this perspective, each *actant*'s action in a chain of actions is equally significant for the diffusion of a token.⁷³ Notions such inertia,⁷⁴ initial force, and capitalisation⁷⁵ are absent to explain the successful diffusion of a token. The latter is rather explained as the 'consequence of the energy given to the token by everyone in the chain who does something to it.'⁷⁶ There is also

⁶⁹ Foucault, 1978, n 32, 92.

⁷⁰ Ibid.

⁷¹ Bruno Latour, 'The powers of association' in John Law (ed), *A new sociology of knowledge? Sociological Review monograph* 32, (Routledge & Kegan Paul London 1986) 264.

⁷² N 68, 27.

⁷³ By token, I mean 'something that serves to indicate a fact, event, [or] object.' (Oxford English Dictionary)

⁷⁴ n 71, 267.

⁷⁵ Ibid.

⁷⁶ Ibid.

an important distinction between possessing power and exerting power. 'When an actor has power nothing happens and s/he is powerless; when, on the other hand, an actor exerts power it is others who perform the action.'⁷⁷

3.3.2 Power: The Site of Confrontation and Productivity

Additionally, power is dynamic and should be understood as 'the process which, through ceaseless struggle and confrontations, transforms, strengthens, or even reverses them [the organisation of power].'⁷⁸ Moreover, I understand power as an enabling and productive phenomenon rather than being merely restrictive and coercive.⁷⁹ As Foucault argues

'the term power designates relationships between partners (and by that I am not thinking of a zero-sum game), but simply ... of an ensemble of action which induce others and follow from one another.'⁸⁰

The idea that the term power indicates an 'ensemble of action' is a crucial one for this chapter as it highlights that power only exists when it is 'put into action.'⁸¹ Thus, the defining element of a power relation in this conceptual framework is the

'representation of action which does not act directly and immediately on others'⁸² but rather 'acts upon their actions: an action upon an action, on existing actions or on those which may arise in the present or the future (my emphasis).'⁸³

⁷⁷ n 71, 264.

⁷⁸ n 32, 92.

⁷⁹ E.g. the view of power in the sense of 'representation of subjugation which...has the form of rule;' (ibid) or as a 'general system of domination exerted by one group over another, a system whose effects, through successive derivations, pervade the entire social body' (ibid).

⁸⁰ Michel Foucault and others, *Beyond Structuralism and Hermeneutics, with an Afterword by Michel Foucault*, (Brighton Harvester 1982) 217.

⁸¹ Ibid, 788.

⁸² ibid, 789.

⁸³ Ibid.

ANT takes this idea of an indirect layered exercise of power (e.g. domino effects) further and talks about power as a 'consequence rather than as a cause of action'.⁸⁴ From this perspective, power seems less 'powerful' than in the traditional modernist understanding and causation becomes much more complex. Consequently, power can be used to 'summarise the consequence of a collective action' but cannot be used to 'explain what holds the collective action in place'⁸⁵ because power is not the cause of anything.⁸⁶

3.3.3 Power As the 'Effect' of One Possible 'State of Association'

Crucially, power is the 'effect of the creation of the network of mobile, durable and tractable agents that have been sent out in another's company.'⁸⁷ The durability of an actor-network depends on 'immutable mobiles',⁸⁸ that is, objects⁸⁹ which can move from one location to another without changing (e.g. a map). Relatedly, power is neither permanent nor stable⁹⁰ as it is an 'essence' which can dissolve at a later stage when one of the entities involved in the state of association 'has gone from Name of Action to Name of Object.'⁹¹

To be more precise, power is not only an effect but rather an effect generated by one 'possible state of association'⁹² between specific *actants* in a

⁸⁴ n 71, 264.

⁸⁵ n 71, 265.

⁸⁶ John Law, 'Power, discretion and strategy,' in John Law (eds) *A sociology of monsters: Essays on power, technology and domination* (Routledge London 1991) 165, 166 argues that the various forms or uses as power such as 'power to', 'power over', 'power storage' and 'power discretion' should be treated as 'relational products' which are the 'effects of a stable network of relations.'

⁸⁷ Law, 1986, n 55, 34.

⁸⁸ Bruno Latour, 'Drawing Things Together' in M Lynch and S Woolgar (eds), *Representations in Scientific Practice*, (MIT Press Cambridge Mass 1990).

⁸⁹ Whether human or not.

⁹⁰ Foucault, HoS, n 32, 93.

⁹¹ n 86, 123.

⁹² Ibid.

network. It is the name given to the 'stabilisations'⁹³ or specific 'mobilities'⁹⁴ (e.g. reports) which emerge when *actants*' behaviour become predictable. It is always local and unstable as it 'is composed here and now by enrolling many act[ants] in a given political and social scheme, and is not something that can be stored up and given to the powerful by a pre-existing society.'⁹⁵ Additionally, each act[ant] involved in the chain of actions, performs an action which is essential to the token's existence and preservation, rather than merely resist a source of energy or transmitting it. Consequently, each actor shapes the token according to his/her own project.⁹⁶

A successful command (i.e. one which is followed by other *actants*) is the product of the series of actions from a chain of *actants* which translates the command in accordance to its own interests. Each statement⁹⁷ is loaded⁹⁸ by using various elements such as text, inscription, and artefact to ensure that most individuals behave in the same manner.⁹⁹ Once a statement is obeyed, it is no longer the same statement as the initial one. On the contrary, it has been translated rather than transmitted and the actors are not obeying the initial statement but rather

⁹³ I am here referring to the stabilisations which result from the behaviour of actors becoming predictable.

⁹⁴ n 86.

⁹⁵ n 71, 264. Latour views the nature of society as being negotiable, that is, a 'practical and revisable matter' rather than 'something that can be determined once and for all by the sociologist who attempts to stand outside it.'

⁹⁶ Ibid.

⁹⁷ A statement can be defined as 'anything that is thrown, sent, or delegated by an enunciator.' It refers 'not to linguistics, but to the gradient that carries us from words to things and from things to words.' Bruno Latour, 'Technology is Society Made More Durable' in J Law (ed), *A Sociology of Monsters: Essays on Power, Technology and Domination*, (Routledge London 1991) 106.

⁹⁸ The number of loads attached to the statement depends on the level of resistance displayed by the individuals

⁹⁹ The level of compliance to a specific statement is an empirical matter.

performing a specific act because it is aligned to their interests.¹⁰⁰ Thus, the outcome of a statement is determined by actors other than the enunciator of the statement.¹⁰¹

A crucial idea linked to the notion of power as ‘effect’ is that of power as a ‘condition, a capacity, something that may be stored.’¹⁰² This is a significant idea which implies that ‘power to’ and ‘power over’ can be contained and released at a later stage as required by its agents. The notions of ‘power to’ and ‘power over’ are relative ones since their nature, allocation, storage and deployment by an actor¹⁰³ depends on the network of relations.¹⁰⁴ This idea also leads to another important notion namely that of power/discretion or the ‘power not to act.’¹⁰⁵ Having considered some of the general ideas of my ANT-Foucauldian Power Lens such as the ‘provenance of power’, next I explore the links between power and ‘materialities’ as well as power and ‘spatialities’.

3.3.4 Power: Of ‘Materiality’ and ‘Spatiality’

¹⁰⁰ n 95, 105.

¹⁰¹ Latour, 1987, n28.

¹⁰² n 95, 170.

¹⁰³ John Law, *A sociology of monsters: essays on power, technology and domination* (Routledge 1991) 172ff ties the notion of agency and power together to avoid an agency/structure dualism. He argues that an actor can be seen as a ‘set of relations which in some measure has the effect of (a) characterising, (b) storing and ... (c) offering a degree of discretion with respect to ‘power to’ and ‘power over.’ From this perspective, agents are both ‘sets of relations’ and ‘nodes in sets of relations’ (Law, 1991, 173).

¹⁰⁴ *ibid*, 172. The character of the actor is also defined by its relations and its propensity to operate on and within these relations.

¹⁰⁵ n 101, 170. Law argues that it is sensible to avoid quick distinctions between power and authority (in the Barnes sense of ‘mere relays in developed systems of control [which]...direct routines in response to external signs or instructions.’ See Barry Barnes, *The nature of power* (Cambridge Polity Press 1988) 73. Barnes argue that if the compulsion is an internal one then the agent is a power whereas if the compulsion is an external one then the agent is an authority. Law argues that such distinctions do not recognise that viewing a compulsion as power or authority is really a relational matter. It also does not take into account the question of calculation.

By materiality I refer to ‘that which constitutes the matter or material of something.’¹⁰⁶ By ‘material’, I refer to ‘matter (not precisely characterised); that which constitutes the substance of a thing (physical or non-physical).’¹⁰⁷ From this perspective, “...materiality becomes a signifier of contingency, of ‘ce qui fait que tout se fait.’”¹⁰⁸

My ANT-Foucauldian Power Lens uses ANT ideas about relational materiality¹⁰⁹ and the Foucauldian concept of materiality¹¹⁰ to analyse how specific ‘materialities’ such as web forms and hyperlinks render certain local connections between specific heterogeneous *actants* more durable and mobile through time and space respectively in YouTube’s copyright network and Facebook’s data network. When certain local connections are rendered more durable through their links with specific ‘materialities’, then the ‘orderings’ formed and performed through such local connections, and the power effects of such ‘orderings’, last for longer. Additionally, some ‘materialities’ are more durable than others and as such maintain relational patterns, and their power effects, for longer.¹¹¹ Arguably, the durability of a ‘materiality’ is not an *a priori* attribute of the ‘materiality’ in question but rather an effect generated from the networks of relations within which such ‘materiality’ finds itself.¹¹² Whilst durable ‘materialities’ order relations between *actants* through time, mobile ‘materialities’ order relations between *actants* through space. Thus, when a specific set of local connections between heterogeneous *actants* are embodied in a

¹⁰⁶ Oxford English Dictionary, Online Version. For more on materiality, law, and ANT see Alex Faulkner, Bettina Lange, and Christopher Lawless, ‘Introduction: Material Worlds: Intersections of Law, Science, Technology, and Society,’ 2012) 39 (1) *Journal of law and society* 1; Alain Pottage, ‘The materiality of what?’ (2012) 39 (1) *Journal of law and society* 167.

¹⁰⁷ Oxford English Dictionary.

¹⁰⁸ H. Bergson, cited in M. Lazzarato, ‘Pour redeÀfinition du concept de biopolitique’ (1997), at <<http://multitudes.samizdat.net/Pour-une-redefinition-du-concept>> as cited in Pottage n 106.

¹⁰⁹ N 111.

¹¹⁰ Foucault, AoK, n 32, 101, 103, 105. Materiality ‘is constitutive of the statement itself: a statement must have a substance, a support, a place, and a date. And when these requisites change, it too changes identity’ (at 101).

¹¹¹ Law, 1992, n 10, 387.

¹¹² Ibid.

mobile 'materiality' such as a hyperlink, then such local connections, and their power effects, can be carried from one capillary of the network to another.

There are not only close links between power and 'materialities' but also close links between 'spatialities' and power. By 'spatialities' I mean 'of, pertaining, or relating to space; subject to, or governed by, the conditions of space.'¹¹³ By 'space', I mean physical and/or virtual extent. Foucault's writings on the links between power and space revolved around understanding the links between specific spaces such as the hospital¹¹⁴ and the prison¹¹⁵ and specific power effects such as discipline or governing individuals as a population which needed to be known in its 'spatial dispersion' through techniques such as statistics.¹¹⁶ ANT also focusses on the links between power and spaces such as the roles of spaces in environmental conflicts¹¹⁷ and tourism.¹¹⁸ Here power effects are embroiled with 'spatialities' are intertwined with power.¹¹⁹ Thus, when one attempts to account for the power effects generated by a specific 'actor-network,' one has to localise them in '...their...geographical specificity.'¹²⁰ Like 'materialities', 'spatialities' are very much relational effects. By this, I mean that spaces do not have a reality of their own other

¹¹³ Oxford English Dictionary, Online Version.

¹¹⁴ Michel Foucault, 'The incorporation of the hospital into modern technology,' in Jeremy W Crampton et al (eds) E Knowlton Jr, William J King, and Stuart Elden (trans) *Space, knowledge and power: Foucault and geography* (Ashgate 2007) 141.

¹¹⁵ D&P, N 25

¹¹⁶ Stuart Elden and Jeremy W Crampton, 'Introduction, space knowledge and power,' in Jeremy W Crampton et al (eds) *Space, knowledge and power: Foucault and geography* (Ashgate 2007) 7.

¹¹⁷ Jonathan Murdoch, and Terry Marsden, 'The spatialization of politics: local and national actor-spaces in environmental conflict,' (1995) *Transactions of the Institute of British Geographers* 368.

¹¹⁸ Gunnar Thór Jóhannesson, 'Tourism translations Actor–Network Theory and tourism research,' (2005) 5(2) *Tourist Studies* 133.

¹¹⁹ For Foucault's writings on the links between power and spatiality, see n 120.

¹²⁰ Michel Foucault, 'The meshes of power,' in Jeremy W Crampton et al (eds) E Knowlton Jr, William J King, and Stuart Elden (trans) *Space, knowledge and power: Foucault and geography* (Ashgate 2007) 153, 156.

than within the relations which form and perform such spaces. I do not mean that spaces are not 'real'. Rather I mean that spaces are 'real' as well as 'made' in the sense of being formed and performed by a web of heterogeneous relations.¹²¹ Consequently, any specific space can be 'otherwise.'¹²² For example, as analysed in Chapter Six, the local 'fitting together' of heterogeneous elements such binary codes, programming languages, Facebook user, and the Friends of the Facebook user construct spatial dimensions through which the personal data of a Facebook user can or cannot be viewed by his/her Friends. Through the local 'fitting together' of specific heterogeneous *actants*, a particular version of spatiality is formed and performed and becomes an 'obligatory point of passage' occasionally for key *actants* such as the Facebook user's personal data.

Having identified some of these similarities between Foucauldian and ANT ideas on power on a general level, I now consider how specific Foucauldian concepts such as 'governmentality' can be used in conjunction with ANT notions such as translation. This analysis supports one overall argument of this chapter that is possible to use specific ANT and Foucauldian concepts in conjunction with one another.

3.3.5 Using 'Governmentality' in Conjunction with Translation

Before analysing how I use Foucauldian ideas about 'governmentality' in conjunction with the ANT ideas of translation, 'action at a distance', and 'centres of translation', I analyse 'governmentality' further. I analyse the concept of translation in section 3.4 below.

'Governmentality'¹²³ refers to the 'conduct of conduct'¹²⁴ or in '...the broad sense ...[to] techniques and procedures for directing human behaviour....

¹²¹ John Law, and John Urry, 'Enacting the social,' (2004) 33 (3) *Economy and society* 390, 396.

¹²² Ibid.

¹²³ For more on governmentality, see Nikolas Rose, Pat O'Malley and Marianna Valverde, 'Governmentality,' (2006) 2 *Annu. Rev. Law. Soc. Sci* (2006) 83; T Lemke, 'The birth of biopolitics: Michel Foucault's lecturer at the College de France on neo-liberal governmentality,' (2001) 30(2) *Economy and Society* 190.

government of children...of souls and consciences...of a household, of a state or of oneself.¹²⁵ The focus is on the sources of power which attempt to shape the conduct of *actants* through rational and calculated activities, which are carried out by multiple authorities and agencies by using complex, interlinked and varied techniques, tactics and knowledge,¹²⁶ to achieve 'economy' for the population¹²⁷ which becomes crucial in defining the aims of government. Government refers to 'an activity that undertakes to conduct individuals throughout their lives by placing them under the authority of a guide responsible for what they do and for what happens to them.'¹²⁸

In line with current 'governmentality' literature,¹²⁹ my analysis of the regimes of governmentality in YouTube's copyright network and Facebook's data network focuses on the three main axes of governmentality, namely its *techne*, *episteme* and *ethos*. Focusing on governmentality's *techne* opens up an investigation in the local and heterogeneous techniques, instruments and any other means by which government is accomplished.¹³⁰ Moreover, an analysis of the *episteme* of governmentality facilitates the examination of the multiple rationalities behind the *techne* of governmentality. Here, the emphasis is on local and heterogeneous

¹²⁴ Michel Foucault, 1991 'Governmentality,' in G Burchell, C Gordon and P Miller (eds) *The Foucault effect: Studies in governmentality*, (Chicago University of Chicago Press 1991); Mitchell Dean, *Governmentality: Power and rule in modern society*, (Sage publications 2009) 7ff expands on this definition and argues that there are three key elements which can be derived from this definition, namely, the degree of calculation as to how conduct is guided, the way in which an individual conducts himself or herself and the regulation of an individual's behaviour in accordance to a specific standard or norm.

¹²⁵ Michel Foucault, 'On the Government of the Living,' in *Michel Foucault, Ethics: Subjectivity and Truth. Essential Works of Michel Foucault, 1954 – 1984, Vol. 1* (New York Press, 1997) 82; C Gordon, 'Governmental rationality: an introduction,' in (eds) G Burchell, C Gordon and P Miller, *The Foucault effect: Studies in governmentality* (Chicago University of Chicago Press, 1991) 1.

¹²⁶ N 122.

¹²⁷ *ibid*, 28.

¹²⁸ Michel Foucault, 'Security, Territory, Population,' in *M Foucault, Ethics: Subjectivity and Truth. Essential Works of Michel Foucault, 1954 – 1984, Vol. 1* (New York Press, 1997) 68.

¹²⁹ E.g. n 123.

¹³⁰ *Ibid*.

knowledge, calculations, formation of 'governable' objects, assumed identities by the governors, identities attributed to the governed by the governors, language of government and rituals of 'truths' which permit or are permitted by practices of governmentality.¹³¹

Finally, the *ethos* of governmentality enables me to investigate the forms of self-regulation which are immanent in YouTube's copyright network and Facebook's data network. I zoom in on the practices of the self which depend on practices of government by other *actants* and practices of the self which resist other forms of government.¹³² In particular, I analyse how YouTube and Facebook users exercise their agencies by resisting certain normalising forces in these networks. For example, in Chapter Four, I analyse how YouTube users exercise their personal ethical conducts¹³³ when they use a counter-notification in YouTube to challenge a lawful takedown notice. The analysis of the technologies of the self¹³⁴ in YouTube's copyright network and Facebook's data network allows me to evaluate an important aspect of power relations, namely, how human actors are at the same time the 'object' of power as well as the 'subject' exercising power over himself/herself.

I do not reduce the question of government¹³⁵ to the problem of the legitimacy of state power and start from the premise that government is conducted by various *actants* and agencies rather than by a single macro-*actant* (e.g. State). This approach enables to understand further the micro-level interactions between *actants* in YouTube and Facebook, as a mode of governmentality, rather than

¹³¹ See Mitchell Dean, 'Governing the unemployed self in an active society,' (1995) 24(4) *Economy and Society* 559.

¹³² E.g. K Krinks, *Government as a Practice of Freedom* (Australian National University, 1998) as cited in Dean (122, 21)

¹³³ Mitchell Dean, 'Governing the unemployed self in an active society,' (1995) 24(4) *Economy and Society* 559.

¹³⁴ Note that in Foucauldian thought it is the point of contact between power exercised by the governors over the governed and the governed over himself/herself which amounts to governmentality. Michel Foucault, 'Technologies of the Self,' in L H Martin, H Gutman & P Hutton (eds), *Technologies of the Self. A Seminar with Michael Foucault* (Amherst The University of Massachusetts Press 1988) 19.

¹³⁵ I.e. How do we govern? How are we governed?

understand these interactions as mere reactions to a mode of governmentality deployed by macro-structures such as the State. Although this chapter argues against a 'state centred' or macro-centric conception of power, I do not, however, mean that the state and macro-actors such as YouTube do not produce multiple centres of government in YouTube and Facebook. However, I am interested in the technologies of government, i.e. the alliance, flows, devices and mentalities which enable specific locales in YouTube and Facebook to act as centres of government¹³⁶ rather than a state-centric or other macro-actor centric view of power. Having examined the Foucauldian notion of 'governmentality' which I use in this thesis, next, I consider, how I use Foucault's ideas about governmentality in conjunction with ANT ideas such as 'translation', 'action at a distance', and 'centres of translation' in this thesis.

In Chapters Four to Seven I trace how YouTube's copyright network and Facebook's data network are constructed by using ANT ideas such as translation. This enables me to chart the local, contingent, and precarious connections between specific heterogeneous *actants* in YouTube's copyright network and Facebook's data network. By using Foucault's ideas about governmentality I can examine the complex and multiple practices, rationalities and regimes of governmentality generated by such local connections in Facebook and YouTube. Additionally, by using Foucault's ideas about governmentality in conjunction with the ANT notion of translation, I can explicitly consider the agency of non-human actors. The agency of non-human actors is only implicitly addressed by the concept of governmentality. Furthermore, using the Foucauldian notion of 'governmentality' with the ANT idea of 'action at a distance' provides me with a way to investigate indirect methods of governing at a distance.¹³⁷ The ANT slant here expands the scope of the investigation not only to alliances formed through dependency of one *actant* on another but also to alliances formed because one *actant* has convinced another *actant* that their aims or problems are linked through multiple 'interessement' and

¹³⁶ Nikolas Rose and Peter Miller, 'Political Power beyond the State: Problematics of Government,' (1992) 43(2) *The British Journal of Sociology* 173.

¹³⁷ Peter Miller and Nikolas Rose, 'Governing Economic Life,' (1990) 19(1) *Economy and Society* 1, 9 -10 draw a similar link between governmentality and ANT's idea of 'action at a distance.' For more on the ANT idea of 'action at distance' see n 10.

enrolment strategies such as calculations.¹³⁸ Finally, connecting the ANT idea of ‘centres of translation’ with the governmentality enables me to analyse how the accumulation of specific inscriptions in ‘centres of translation’ can render particular *actants* powerful.¹³⁹ Having analysed how I use one set of Foucauldian notions in conjunction with ANT notions, next I analyse how I use other Foucauldian ideas such as discipline, surveillance and the ‘panopticon’ with other ANT ideas such as oligopticon. This supports one overall argument of this chapter that it is possible to use ANT and Foucauldian ideas about power in conjunction with one another.

3.3.6 The ‘Oligopticon,’ Surveillance and Disciplines

Before analysing how I use Foucault’s ideas about the ‘panopticon,’ surveillance and discipline in conjunction with ANT ideas about the ‘oligopticon,’ I analyse these ideas further.

Foucault developed the ‘panoptic on’ to analyse the relations of power, including surveillance and discipline, in a prison. The ‘panopticon’ was originally imagined by Bentham, as containing inmates isolated from one another in cells arranged around a central tower which is occupied by a central guard, who can see the inmates, but cannot be seen by the latter.¹⁴⁰ In contrast to the perfect surveillance enabled by the ‘panopticon’, through visibility and self-discipline,¹⁴¹ the ‘oligopticon’ is a fragile construction whose vision can be blurred by the tiniest insect. Through the use of inscriptions such as documents and computer programs, it enables one to ‘...see little...but see it well’ in concrete places.¹⁴² This means that the ‘oligopticon’ enables a detailed observation from a limited viewpoint. However, if the connections underlying the limited but detailed view change then the vision itself changes.¹⁴³ From this perspective, surveillance relies on a network of complex

¹³⁸ Miller and Rose, *ibid*, 1ff.

¹³⁹ n 134, 186.

¹⁴⁰ D & P, n 25.

¹⁴¹ I am grateful for Geoff Walsham for raising this point.

¹⁴² Latour, 2005, 181; Latour and Hermant, both at n 67.

¹⁴³ Latour and Hermant, *ibid*.

association between *actants*. The analytical benefits of the oligopticon have started to attract some scholarly attention lately.¹⁴⁴ In line with many surveillance scholars, I also argue that the use of the oligopticon bypasses a common problem in surveillance studies where the metaphor of the ‘panopticon’ has become a ‘straightjacket’¹⁴⁵ whose walls are in danger of being ‘torn down’¹⁴⁶ as many attempt to attribute general characteristics to surveillance.¹⁴⁷ As noted elsewhere,¹⁴⁸ such approaches fail to appreciate that surveillance should be approached in a specific context as a ‘situated exercise’¹⁴⁹ which depends on local, contingent, precarious connections between diverse *actants* rather than a linear link between the ‘watched’ and the ‘watcher.’

It might seem an impossible task to attempt to combine the circular, omnipresent, invisible and omniscient ‘panopticon’ with the star-shaped oligopticon which sees ‘little.’¹⁵⁰ However I am combining these two metaphors in a specific way. I do not use either metaphor as an ‘architectural blueprint.’ Rather I use Foucault’s ideas on power developed in his analysis of the ‘panopticon’, such as ‘panopticon’`s perfect ‘surveillance’ generated through visibility and self-discipline, to cast further light on how power relations are developed and maintained in specific ‘capillaries’ of Facebook and YouTube, conceptualised as an oligopticon, such as

¹⁴⁴ See Gad, n 67.

¹⁴⁵ Aas, Katja Franko, Helene Gundhus, and Heidi Mork Lomell. 2009. ‘Introduction’, in Aas, Katja Franko, Gundhus, Helene & Lomell, Heidi Mork (eds) *Technologies of (in)security. Technologies of InSecurity. The Surveillance of Everyday Life* (Oxon Routledge-Cavendish 2009) as cited in *ibid*, 49.

¹⁴⁶ Kevin Haggerty, ‘Tear down the walls: on demolishing the panopticon,’ in David Lyon (ed) *Theorizing Surveillance. The panopticon and beyond*, (Portland Willan Publishing 2006) as cited in *ibid* 49.

¹⁴⁷ E.g. see David M Wood, ‘Beyond the Panopticon? Foucault and Surveillance Studies,’ in Jeremy W Crampton and Stuart Elden (Eds) *Space, Knowledge and Power –Foucault and Geography* (Ashgate 2007).

¹⁴⁸ E.g. Gad; Latour, 2005 both at n 67.

¹⁴⁹ *ibid*.

¹⁵⁰ Latour, n 148, 187.

Content ID.¹⁵¹ Thus, the connection between the ‘panopticon’ and the oligopticon is not *a priori* impossible.

Whilst setting out the general ideas of my ANT-Foucauldian Power Lens, I have often mentioned the concept of ‘translation.’ I use ‘translation’ to trace how specific ‘actor-networks’ such as YouTube’s copyright network and Facebook’s data network are constructed. Next, I analyse the four stages of translation.

3.4 Translation or the Art of ‘Bricolage’

Translation is a four-staged process consisting of ‘problematization’, ‘interessement’, enrolment and mobilisation.

‘Problematization’ refers to the stage where one or more key *actants* become indispensable in the process of defining the nature of the problem and the roles of the *actants* needed to solve the problem.¹⁵² The problem is defined in terms of the solution offered to the *actants* which becomes an ‘obligatory point of passage’ for all the relevant *actants*.¹⁵³ An obligatory point of passage is an obligatory element through which all the relevant *actants* must pass in order to achieve a result¹⁵⁴. ‘Interessement’ refers to the ‘actions by which an entity attempts to impose and stabilise the identity of other *actants* it defines through its ‘problematization.’¹⁵⁵ Enrolment refers to the definition and coordination of the roles of *actants* so that a stable network of association is generated.¹⁵⁶ Mobilisation refers to the stage where the relevant *actants* have accepted their roles in solving the problem or have yielded to an imposition of will of others. The *actants* involved in translation are engaged in a

¹⁵¹ See Chapters Four to Five.

¹⁵² Callon, n 28.

¹⁵³ Ibid.

¹⁵⁴ Ibid.

¹⁵⁵ Ibid.

¹⁵⁶ Ron Levi and Mariana Valverde, ‘Studying law by association: Bruno Latour goes to the Conseil d’Etat,’ (2008) 33(3) Law & Social Inquiry 805.

collective process of transmission in which the thing in question (e.g. statement, object) is passed along from *actant* to *actant*.¹⁵⁷ Each *actant* can add to, modify or block the thing in question depending on its interests. In this sense, the *actants* involved in the process are ‘multi-conductors’¹⁵⁸ (they have different attitudes towards the thing depending on their interests) and unpredictable (they can do anything to the thing). From this perspective, the thing is not only collectively transmitted by the *actants* but also composed of these very *actants*.¹⁵⁹ I explain how certain *actants* are inextricably linked to one another in chains of association (which can be broken or amended) in various contexts such as using, viewing, sharing, and creating content (audio or visual or both) which contains third-party content (audio or visual or both) in YouTube. The ANT concept of ‘centres of translation’ also furthers the understanding of translation. The concept refers to sites where associated elements or traces of distant occurring are gathered together and additional work is done.¹⁶⁰ They enable ordering through time and space by gathering elements together.

Having analysed the main ideas of my ANT-Foucauldian Power Lens, I now analyse how three key *actants*, namely, social, legal, technological, can be conceptualised through my ANT-Foucauldian Power Lens. I focus on these three *actants* as my data analysis has shown that they play key roles in generating power effects in YouTube’s copyright network and Facebook’s data network.

3.5 Understanding Social *Actants* through my ANT-Foucauldian Power Lens

In this section, I argue that my ANT-Foucauldian Power Lens enables me to conceptualise how social *actants*, such as YouTube users’ practices of resistance against Content ID, are formed and performed through their links with other heterogeneous actants such as binary codes, programming language and audio-visual content. By ‘social’, I mean the interactions and relationships which link

¹⁵⁷ Latour, 1987, n 28, 104.

¹⁵⁸ *ibid* 104.

¹⁵⁹ *ibid* 104.

¹⁶⁰ *ibid* 104.

humans such as YouTube users, and right-holders, to YouTube`s copyright network and Facebook`s data network.

Through my ANT-Foucauldian Power Lens, the ‘social’ is not a given but is rather constituted through the local connections between specific heterogeneous actants. For example, as further analysed in Chapters Four and Five, YouTube users often resist Content ID by using Audacity, a third-party software, to alter the digital fingerprint of a copyrighted audio-visual content. This resistance practice is an example of the ‘social’ and it is an effect generated when heterogeneous actants such as binary codes, programming languages, YouTube users, servers, and audio-visual content are locally, contingently and precariously ‘fitted together’ in YouTube`s copyright network. From this perspective, the ‘social’ is not to be understood in static terms but rather a continuously generated effect of the web of relations which form and perform it. If social *actants* are achieved locally when specific heterogeneous actants are locally ‘fitted together’, then the power effects generated from such local connections are also relational constructs. Specific power effects, such as Content ID`s power effect of enacting YouTube users as consumers, are not understood in traditional terms as the impact of ‘the’ market. Rather, such power effects are understood as the effects generated when one version of the market is formed and performed in practice. Here the market is not understood as an entity which exists in a ‘state of nature.’ Rather, markets can take different forms in different contexts and such forms are the effects of the materially heterogeneous relations which form and perform such markets.

Additionally, from my ANT-Foucauldian Power Lens, some social *actants*, such as the Facebook user`s practice of resisting Facebook advertisements by using third-party technologies such as Adblock,¹⁶¹ can only be developed if they are supported by suitable spaces. Here, the social, and its power effects, are very much embroiled with ‘spatialities’ and ‘spatialities’ are intertwined with power. Thus, when one attempts to account for the power effects generated by a specific ‘actor-network,’ one has to localise them in ‘...their...geographical specificity.’ ‘Spatialities’

¹⁶¹ Adblock is a third-party technology which Facebook users can use to blocking advertisements.

or the construction of spaces are very much relational effects. By this, I mean that spaces do not have a reality of their own other than within the relations which form and perform this. I do not mean that spaces are not 'real'. Rather I mean that spaces are 'real' as well as 'made' in the sense of being formed and performed by a web of heterogeneous relations.

The 'social' and its power effects are not only embroiled with 'spatialities' but they are also embroiled with 'materialities.' From this viewpoint, the 'social' is not only heterogeneous but also materially heterogeneous. 'Materialities' such as hyperlinks, and 'Sign-Up' button may at times render specific local connections which form and perform a social practice, such as the Facebook user's practice of 'consenting' to the processing of his/her personal data by Facebook, more durable. If specific local connections are more obdurate, then their power effects also last longer. As was the case with 'spatialities', 'materialities' are themselves relational constructs and do not exist outside the interactions which form and perform them. Having analysed how my ANT-Foucauldian Power Lens can be used to analyse social actants, next I explore how I can utilise my ANT-Foucauldian Power Lens to analyse legal *actants*, which, as shown by my data analysis, play important roles in generating power effects in YouTube and Facebook.

3.6 Understanding Law through an ANT-Foucauldian Power Lens

Recent trends in socio-legal studies have explored how Science and Technology Studies, and in particular ANT, can help us to develop an understanding of law a 'relational process.'¹⁶² Building on such approaches, in this section, I analyse how law can be analysed through my ANT-Foucauldian Power Lens. For avoidance of

¹⁶² n 18, Emilie Cloatre, 'Trips and Pharmaceutical Patents in Djibouti: An ANT Analysis of Socio-Legal Objects,' (2008) 17 *Social and Legal Studies* 263; Thomas Scheffer T, 'The Duality of Mobilisation—Following the Rise and Fall of an Alibi-Story on its Way to Court,' (2003) 33(3) *Journal for the Theory of Social Behaviour*, 313; Thomas Scheffer, 'Materialities of Legal Proceedings,' (2004) 17(4) *International Journal for the Semiotics of Law* 356; Bruno Latour, *The making of law: an ethnography of the Conseil d'État* (Polity 2010).

doubt, unlike Latour I do not only equate law with a regime of 'enunciation'¹⁶³ that is marked by a 'clef de lecture' or a 'code.'¹⁶⁴ By 'clef de lecture', Latour means

"...one cannot understand any particular act of the institution of law unless one adds the following code: 'what you are about to read or hear is Law rather than fiction, politics etc.'¹⁶⁵

As noted elsewhere, here Latour seems to assume that the legal quality of an enunciation exists out there rather than being generated through heterogeneous connections between *actants*.¹⁶⁶ Rather, my approach to law focusses on how law is formed and performed through the local fitting together of heterogeneous *actants*.

I understand law as a 'heterogeneous' and decentred 'actor-network' which is formed and performed through the local 'fitting together' of *actants*, such as specific legislative enactments, case law, judges, staples and stamps. From this perspective, law is 'not a field to be studied independently, but is instead a way in which the world is assembled, an attribute that is attached to events, people, documents, and other objects.'¹⁶⁷ Moreover, law is not analysed as a pre-determined, stable social structure but rather as patterns emerging from the local associations of *actants* at the various 'capillaries' of the network under scrutiny.¹⁶⁸ From this perspective, *actants* of the network of law, such as the safe harbour defence in YouTube's copyright law network, are viewed as relational effects of the

¹⁶³ Latour, *ibid*, viii. Latour does not define 'enunciation'. I understand 'enunciation' as the 'action of enunciating'. Enunciating means 'to give definition expression to a proposition or principle.' (Oxford English Dictionary, Online Version).

¹⁶⁴ Bruno Latour, 'Note breve sur l'ecologie du droit saisie comme enonciation' in F Audren and L de Sutter, *Pratiques cosmopolitiques du droit*, (2005) as cited in Pottage (n 106), 171ff.

¹⁶⁵ *Ibid*,

¹⁶⁶ Pottage, n 106.

¹⁶⁷ n 156, 806.

¹⁶⁸ E.g. Latour, 1987, n 28, 180.

network.¹⁶⁹ Additionally, this view enables me to examine how forms of normativity such as data protection legislation in Facebook are produced by Facebook's data law network.¹⁷⁰ This approach requires a shift in emphasis from law being a cause of action to law being a consequence.¹⁷¹ Accordingly, law is seen as a 'way of arranging the social world rather than as a field that is produced through external social causes.'¹⁷² In Chapters Four to Seven, I use specific concepts from my ANT-Foucauldian Power Lens such as translation, materiality and spatiality to analyse how law is constructed as a materially heterogeneous 'actor-network.' I also use other concepts from my ANT-Foucauldian Power Lens such as governmentality to analyse the power effects generated by law in YouTube's copyright network and Facebook's data network. Next, I explore the internal plurality of law by focussing on two key points, namely, the links between heterogeneous knowledges and law and the plural aims of law. This enables me to further explore the construction of law as a heterogeneous 'actor-network'.

3.6.1 The Internal Plurality of Law

From my ANT-Foucauldian Power Lens, the network of law is 'internally plural and open to translation.'¹⁷³ The notion of plurality of law is significant and refers to the idea that the network of law is a heterogeneous 'actor-network', which is not strictly legal but also material, technological and so on.

The 'internal plurality' of law can be linked to the emergence of heterogeneous forms¹⁷⁴ of knowledge (e.g. information produced about the YouTube

¹⁶⁹ Michel Callon and John Law, 'After the Individual in Society: Lessons on Collectivity from Science, Technology and Society' (1997) 22(2) *Canadian Journal of Sociology* 171.

¹⁷⁰ Bettina Lange, 'Social Dynamics of Regulatory Interactions: An Exploration of Three Sociological Perspectives' in M Freedman (ed), *Law and Sociology* (OUP Oxford 2006) 150.

¹⁷¹ *Ibid*, 153.

¹⁷² n 156, 806.

¹⁷³ Ron Levi, 'Book Review: La fabrique du droit: Une ethnographie du Conseil d'Etat' (2005) 1 *Law, Culture and the Humanities* 137.

¹⁷⁴ Foucault, 1991, n 125, 96.

user) which bestow more 'reality' to law than transcendental rules.¹⁷⁵ Applied to my research, this perspective on law enables me to analyse how diverse forms of knowledge intermesh with one another to construct key aspects of the network of law in Facebook and YouTube. For instance, in Chapter Six, I analyse how diverse regimes of knowledge such as an engineer's knowledge about the technical aspects of Facebook's features such as cookies, the Irish Data Protection Commissioner's knowledge about the relevant data protection legislation, knowledge about how Facebook users interact with Facebook associate with one another to form and perform the Irish Data Protection Commissioner's audit of Facebook as a relational process.¹⁷⁶ Apart from the links between heterogeneous knowledges and law, law is internally plural because of its plural aims.

By this I mean that some legal *actants* such as legislation go beyond merely enacting specific rules to impose a sanction. Instead, such legal *actants* can also be viewed as ways to 'arrange things in such a way that, through a certain number of means, such and such ends may be achieved.'¹⁷⁷ The objectives to be achieved are not only strictly legal but also social and technological. It is in this sense that law has plural aims. By this I mean that the aims of law are not purely legal. Rather laws can be used as tactics to dispose of things in certain ways so that specific aims can be achieved.¹⁷⁸ The intertwining of law and 'governmentality'¹⁷⁹ in modern times has

¹⁷⁵ *ibid*, 97.

¹⁷⁶ Chapters Six and Seven.

¹⁷⁷ Foucault, 1991, n 127, 95.

¹⁷⁸ *Ibid*.

¹⁷⁹ Foucault uses the term 'governmentality,' 'art of government', and 'rationality of government' interchangeably. This chapter will privilege the use of the term 'governmentality' for the sake of convenience. The term 'governing' or government is not used in a strict and standard political manner but rather relates to issues of self-control, family management, soul management, lives management and management of the State by the sovereign (*ibid*, 90). The term 'governmentality' is generated by 'linking... [the concept of] governing ("gouverner") to 'modes of thought ("mentalite")'. See T Lemke, 'Foucault, Governmentality, and Critique' (2002) 14(3) *Rethinking Marxism* 49. Governmentality refers to the 'government of all and of each...whose concerns would be...to totalise and to individualise'. See Colin Gordon, 'Governmental rationality: an introduction' in G Burchell, C Gordon and P Miller (eds), *The Foucault Effect: Studies in Governmentality*, (University of Chicago Press Chicago IL1991)

transformed law from a repressive and coercive regime to a productive one which encourages, supports and shapes the individual, as a segment of the population, and the wider population, to achieve certain ends. I use this understanding in Chapters Four to Seven to analyse how legal *actants* are disposed and to what end in YouTube and Facebook. Having explored how the network of law is internally plural, next I analyse law's hybridity. This enables me to further explore the construction of law as a heterogeneous 'actor-network.'

3.6.2 Law as a Hybrid

Law is produced as a hybrid 'actor-network.'¹⁸⁰ Hybrid refers to the materially heterogeneous connections which form and perform law. So what does it mean to say that law is 'hybrid'?

Because law is hybrid in character, it '... resides not only in law itself, but also in the site (context) where it is to be applied.'¹⁸¹ The hybridity of law can be assimilated to the hybridity of the *actants* which make up the network of law and in this sense law can be seen as 'a job of import-export.'¹⁸² In other words, the heterogeneous *actants* which form and perform the network of law give to the latter a hybrid character and the converse is true as well. Not only is law hybrid in character, it is also hybrid in its operations.

Indeed it can be argued that in modern times, law operates as a 'dispositif' as it provides the connection between discipline and governmentality.¹⁸³ Disciplines 'partition [...] an area that the laws [have] ... left empty; they defin[e] and repre[ss] a mass of behaviour that the relative indifference of the great systems of punishment ha[ve] allowed to escape.'¹⁸⁴ As analysed in section 3.3.4, governmentality acts on

¹⁸⁰ N 171.

¹⁸¹ n156, 818.

¹⁸² *ibid*

¹⁸³ I borrow this idea from Victor Tadros, 'Between governance and discipline: The law and Michel Foucault,' (1998) 18(1) Oxford Journal of Legal Studies 75, 99.

¹⁸⁴ Foucault, 1977, n 25, 178.

the population through economy. Here law is at once a 'governmental tactic' and also embroiled with disciplines. Consequently, to understand the power effects of law in modern times, one has to consider the complex connections between the legal,¹⁸⁵ and regimes of disciplines and governmentality. From this perspective, law

'is an instrument of power which is at once complex and partial. Crucially, the form of law with its effects of prohibitions needs to be resituated among a number of other, non-juridical mechanisms.'¹⁸⁶

As I have analysed governmentality further earlier on, I would like to highlight a few key points about disciplines. Disciplinary power '...produces reality...produces domains of objects and rituals of truth.'¹⁸⁷ In addition, '[t]he individual and the knowledge that may be gained of him (sic) belong to this production.'¹⁸⁸ Disciplinary power has evolved from 'discipline-blockade' (i.e. disciplinary power exercised within the confines of specific institutions in the Classical Age) to the 'swarming of the disciplinary mechanisms'¹⁸⁹ (in the 19th century). The 'swarming' of disciplinary power has led to its homogeneous application in modern times which has been achieved by extending disciplinary power from the confines of the institutions to the community itself.¹⁹⁰ This extension is possible through surveillance which has enabled the application of disciplinary power to subjects within an institution (e.g. pupil at school) and subjects outside the institution (e.g. parents), leading to the self-discipline by the observed subjects.

¹⁸⁵The legal system can be defined as an assemblage of human and nonhuman actors connected to form a unity pertaining to the law.

¹⁸⁶ Michel Foucault and Colin Gordon, *Power/knowledge: Selected Interviews and Other Writings, 1972-1977* (Pantheon Books 1980) 141.

¹⁸⁷ Foucault, 1977, n 25, 194.

¹⁸⁸ Ibid.

¹⁸⁹ Foucault, 1977, n 25, 211.

¹⁹⁰ Ibid.

The disciplinary system constitutes the ‘underside’¹⁹¹ of the legal system¹⁹² and erodes some of the fundamental rights granted by the legal system (e.g. data protection rights). It can be characterised as ‘counter-law’¹⁹³ as it goes beyond the limits set on the power of the state by the legal system. The disciplinary power is more insidious than the legal power as it can shape the individual as a subject in ways in which law cannot (i.e. by constantly subjecting the individual to normalising modes of behaviour). This does not mean that law is expelled by disciplinary power. Additionally the rise of the normalising society has not reduced the power of law or led to the disappearance of legal institutions but is rather accompanied by an ‘astonishing proliferation of legislation.’¹⁹⁴ The mutual relationship of interdependence between law and the normalisation of ‘disciplines’¹⁹⁵ has impacted on the configuration of law which has evolved from its coercive and repressive form to an increasingly regulatory, administrative, productive and normative form.¹⁹⁶ The ‘import-export relationship’ which exists between the elements constituting the character of law, can also be found in the shape taken by law. As law becomes more disciplinary, the disciplinary system becomes more legalised. Having analysed how law can be conceptualised through an ANT/Foucauldian Power Lens, next I consider, how a third *actant* which is heavily involved in the tales of power in YouTube and Facebook, namely, technological *actants* can be conceptualised through my ANT-Foucauldian Power Lens.

3.7 Understanding Technological *Actants* through my ANT-Foucauldian Power Lens

¹⁹¹ Foucault, 1977, n 25, 223.

¹⁹² The legal system can be defined as an assemblage of human and nonhuman actors connected to form a unity pertaining to the law.

¹⁹³ Foucault, 1977, n 25, 222.

¹⁹⁴ E F Ewald, ‘Norms, Discipline, and the Law’ (1990) 30 *Representations*, Special Issue: Law and the Order of Culture 138. Other scholars argue that Foucault’s account of modern forms of power has expelled law. E.g. Alan Hunt and Gary Wickham, *Foucault and law: Towards a sociology of law as governance* (Pluto Press 1994).

¹⁹⁵ Ewald, *ibid*.

¹⁹⁶ D&P, n25.

In this section, I argue that my ANT-Foucauldian Power Lens also provides a new way of conceptualising technological *actants* in YouTube and Facebook as ‘technological artefacts’. Such a conceptualisation enables me to understand how and why specific technological *actants* such as binary codes and programming languages generate power effects such as surveillance. I develop this argument by pursuing four points. I explore how specific technologies can be conceptualised as ‘technological artefacts’. Secondly, I argue that some concepts from my ANT-Foucauldian Power Lens such as translation enable me to understand how specific technological *actants* are constructed as heterogeneous *actants* in YouTube’s copyright network and Facebook’s data network. Thirdly, I also explore other concepts from my ANT-Foucauldian Power Lens such as the ‘notion of articulation’ enable me to capture the ‘technological discourse.’ Finally, I locate where morality and agency figure in this conceptual lens where technological artefacts are brought to the foreground.

3.7.1 Conceptualising Technologies as ‘Technological Artefacts’

How can specific technological *actants* in Facebook and YouTube be conceptualised as ‘technological artefacts.’? The ‘technological artefact’ is

‘a family of methods for associating and channelling other entities and forces, both human and nonhuman. It is a method, one method, for the conduct of heterogeneous engineering, for the construction of a relatively stable system of related bits and pieces with emergent properties in a hostile or indifferent environment.’¹⁹⁷

The term ‘technological artefact’ highlights the complex process of heterogeneous engineering which generates the mundane ‘code.’ By ‘heterogeneous engineering,’ I mean the strategies¹⁹⁸ used by *actants*,¹⁹⁹ such as

¹⁹⁷ John Law, ‘Technology and heterogeneous engineering: the case of Portuguese expansion,’ in WE Bijker and others (eds), *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology* (MIT Press 1989) 115

¹⁹⁸ *ibid*, 113.

¹⁹⁹ *ibid*, 121.

engineers, to juxtapose,²⁰⁰ simplify,²⁰¹ associate and translate the heterogeneous elements forming and performing the technological artefact as a 'self-sustaining'²⁰² actor-network which can 'resist dissociation.'²⁰³

This perspective is instructive for my research for five reasons. Firstly, it enables me to analyse the relevant technologies in YouTube's copyright network and Facebook's data network as outcomes of a discourse of negotiating,²⁰⁴ adopting, redefining and using the artefacts as well as appropriating interests back and forth.²⁰⁵ Secondly, this perspective permits me to inquire how and when the technological artefact restricts or enables Facebook and YouTube users' actions and the implications of such resistance²⁰⁶ in YouTube and Facebook. Thirdly, this perspective enables me to conceptualise relevant technological artefacts as families of artefacts with multiple components with interconnections of varied strengths (e.g. weak or strong) that require 'bridging, integration, and articulation in order to work together'²⁰⁷ rather than as a single entity known as 'technology' or 'code.' I can thus examine how technological artefacts break down and wear out (e.g. old Facebook profile). Such an analysis is absent from current academic²⁰⁸ debates on internet

²⁰⁰ Associations in the technological artefact, as an actor-network, extract their rationality, regularity and the relationship structure from juxtapositions. The associations 'render a series of events predictable and stable....each element is part of a chain that guarantees the proper functioning of the [technological artefact].' Callon, n 28, 95.

²⁰¹ Simplification explains how *actants* reduce an infinite number of complex entities to a few groups of well-defined entities with which they associate themselves. *ibid.*

²⁰² n 55, 114.

²⁰³ *ibid.*

²⁰⁴ M Akrich, 'The De-Description of Technical Objects' in W E Bijker and J Law (eds), *Shaping Technology, Building Society: Studies in Sociotechnical Change* (MIT Press Cambridge Mass 1992) 205.

²⁰⁵ E Monteiro and O Hanseth, 'Social Shaping of Information Infrastructure' in W J Orlikowski, G Walsham, M R Jones and JI DeGross (eds), *Information Technology and Changes in Organisational Work* (Chapman & Hall, London 1996) 331.

²⁰⁶ n 55, 116.

²⁰⁷ WJ Orlikowski and C S Iacono, 'Research Commentary: Desperately Seeking the "IT" in IT Research – A Call to Theorizing the IT Artifact' (2001) 12(2) *Information Systems Research* 121, 131.

²⁰⁸ E.g. Lawrence Lessig, *Code Version 2.0* (Basic Books 2006).

regulation apart from the limited acknowledgement that hackers can modify the technological artefact.²⁰⁹ Thus, this perspective enables me to analyse the technological artefact as being conditionally stable,²¹⁰ variable,²¹¹ and dependent (i.e. emerging from ongoing interaction with heterogeneous elements). Fourthly, it is important for my research to develop a framework which enables me to analyse relevant technologies in Facebook and YouTube, which become entangled with copyright and data protection and/or violation, as a distinct realm of social life and theorise its nature in non-contextual terms (i.e. beyond the list of functions of each technological artefact). This viewpoint provides me with the relevant conceptual and methodological tools to analyse the roles of relevant technological *actants* in constructing YouTube's copyright network and Facebook's data network whilst conserving an analytical symmetry with other *actants* such as YouTube Users, YouTube, key US copyright statutory laws, with which they are entangled.

Finally, this perspective enables me to analyse the relevant technologies' construction and structure; their perceived malleability/plasticity; how the latter should be assessed (i.e. by reference to whose intentions);²¹² their representations of various actors' ²¹³ intentions (e.g. various software designers as opposed to one designer at a leading IT company); and how such interests can be charted. Crucially, this perspective recognises that the technologies' shape is not controlled or decided by one dominant *actant* but rather emerges from the choices and interests of various *actants*. I am not suggesting that the technologies' internal organisation as an actor-network (i.e. its physical properties²¹⁴) does not set the boundary conditions for its

²⁰⁹ E.g. *ibid.*

²¹⁰n 207. By this, I mean that the development of new materials, features, functions and standards affect the stability of the technology.

²¹¹ It changes over time as the plans and goals of *actants* evolve and the technological artefact is used and adopted beyond the original intentions of the main actor (*ibid.*, 131).

²¹² J Kallinikos, 'Reopening the black box of technology artifacts and human agency,' (23rd International Conference on Information Systems 2002).

²¹³ Thomas P Hughes, 'The evolution of large technological systems,' in WE Bijker et al *The social construction of technological systems: New directions in the sociology and history of technology* (MIT Press 1987) 51.

²¹⁴ W Orlikowski, 'Using Technology and Constituting Structures: A Practice Lens for Studying Technology in Organizations' (2000) 11(4) *Organization Science* 404.

use. I investigate how Facebook and YouTube users' actions are shaped by the technologies' physical properties or by non-technological contingencies such as social ones in the empirical case studies in Chapters Four to Seven.

However, this perspective which brings the technological to the foreground alongside the social, gives rise to two challenges. Firstly, the researcher has to avoid endowing the technologies' non-human elements (e.g. user interface) with interests to avoid either placing the social at the mercy of the technological or falling into the technologically deterministic trap.²¹⁵ Secondly, the researcher has to avoid presenting the technologies' non-human elements as mute agents which are waiting to be enrolled or aligned and endowed with the interests of the all-powerful software developers because such an approach clearly disregards the technological and embraces social determinism.²¹⁶ I have paid heed to these challenges during my research by approaching relevant technologies in the ways set out in sections 3.7.2 and 3.7.3.

3.7.2 Technological Artefacts as An 'Actor-Network'

In this section, I analyse how I use some concepts from my ANT-Foucauldian Power Lens such as translation, materiality and 'articulation' to analyse how specific technological *actants*, such as the Privacy Settings, are constructed when heterogeneous humans and non-humans are locally, contingently, and precariously 'fitted together'. From this perspective, a specific technological *actant* is not purely a technological 'actor-network' but rather a heterogeneous 'actor-network.'

The concept of translation enables me to evaluate empirically how specific technological *actants* such as Content ID are formed and performed when social, legal, and technological elements such as binary codes, programming language, US

²¹⁵ Ian Hosein, 'A research note on capturing technology: toward moments of interest,' in (eds.) E A Whitley and others, *Global and organizational discourse about information technology*, International Federation for Information Processing, Vol. 238 (110) (Kluwer Academic Publishers London 2003)

has made a similar point in the context of IS research.

²¹⁶ n 215.

Copyright Laws, and technological skills are locally, contingently, and precariously fitted together. I also enquire whether the technological artefact's design represents an 'ideal world' or a 'scenario' which resolve specific problems by creating, designing and distributing roles to various *actants*,²¹⁷ whether such scenarios are developed to mobilise and enrol the relevant *actants* (e.g. Facebook) and the challenges of transposing the design of an 'ideal world'²¹⁸ into the real world, i.e. successful allocation and acceptance of *actants*' roles. Moreover, I employ the concept of 'materiality' to explore how specific materialities such as hyperlinks render some local connections, and their power effects, more durable.

To assist me in tracing the translation of technological artefacts, I use the 'notion of articulation'²¹⁹ to analyse how a statement about an object (e.g. Juliot's concept of neutrons) can gradually be reduced to the object (i.e. neutrons) itself once alignments are accepted which enables the object to stand on its own in the discourse. Thus, design constraints inscribed within the technological artefacts can be viewed merely as articulations within a discourse. By discourse, I mean the discourse produced by discursive practices. By discursive practices, I mean the practices of producing specific meanings through specific statements which fit together through their links with one another.²²⁰ It is interesting here to address the 'yawn' or the Latourian continuities between such discourses and the networks they find themselves in.²²¹ For avoidance of doubt, a discourse can amount to an '*actant*'²²² as long as it 'acts.' It is significant to capture and interrogate those articulations, without being technologically deterministic.²²³ At an empirical level, it is

²¹⁷ Law, n 28, 53.

²¹⁸ Michel Callon and John Law, 'After the Individual in Society: Lessons on Collectivity from Science, Technology and Society' (1997) 22(2) Canadian Journal of Sociology 17.

²¹⁹ Pandora, n 28, 94.

²²⁰ For more on Foucault's ideas about discourse and discursive formations, see n 32.

²²¹ n 3, 15.

²²² n 3, 8.

²²³ C Sørensen, et al, 'Cultivating Recalcitrance in Information Systems Research,' in Russo, B Fitzgerald, and J I DeGross (eds), *Realigning Research and Practice in Information Systems Development: The Social and Organizational Perspective* (Boston Kluwer Academic Publishers 2001) 297.

important to listen to the articulations of the relevant *actants* and capture ‘moments of interest’²²⁴ within a discourse or moments where the technological interacts with other elements such as social and legal elements. Such ‘moments of interest’ enable me to analyse how relevant *actants* distinctly interpret and articulate the technological artefacts,²²⁵ to unfold zones of conflicts, agreements, reduction (of articulations) and identify which actor²²⁶ speaks authoritatively about the technological artefacts and when.²²⁷ During these significant moments in the discourse, an understanding of the technological artefacts, other *actants`* interests and strategies emerges.²²⁸

It is important to analyse the technological discourse²²⁹ in my research to generate a comprehensive analysis of the technological artefact. I examine how the way key *actants* talk about the technological artefact, constrains or enables discussions, negotiations and implementation of the artefacts. This may also reveal the involvement of further *actants*. I distinguish between the language used to talk about the technological artefacts (i.e. terminology such as Privacy Settings) and the *actants`* language when discussing their designs, enrolling other actors and negotiating their implementations. This helps me to understand how the technological artefacts are understood by different actors and explore the differences in how different actors (e.g. technological vs. legal) understand and talk about them.

²²⁴ n 215.

²²⁵ Ibid, 11.

²²⁶ Ibid.

²²⁷ n 215, 11 has made similar point in the context of information systems research.

²²⁸ N Pouloudi and EA Whitley, ‘Representing human and non-human stakeholders: On speaking with authority,’ in R Baskerville, J Stage, and JI Degross (eds) *Organizational and Social Perspectives on Information Technology* (Boston Kluwer Academic Publishers 2002).

²²⁹ Other authors such as Whitley and Hosein have also used discourse analysis in the context of their research to understand how key stakeholders understand technology. EA Whitley, and I Hosein, ‘Doing politics around electronic commerce: Opposing the

Regulation of Investigatory Powers Bill,’ (Realigning Research and Practice in IS Development: The Social and Organisational Perspective Boise Idaho 2001).

When attempting to capture or represent technological discourses, the researcher can be faced with a lot of irrelevant data.²³⁰ To avoid this problem, I have identified specific points of interests which are important for data collection and analysis. A review of the key literature on technology studies has shown that key 'moments of interests' (in the sense of points where the capacities of *actants* are discussed and articulations are generated by other *actants*²³¹), are interrogating interests and actions, objections (which can lead to failure of the technological artefact);²³² and resistance²³³ to interpretation,²³⁴ and controversy or change.²³⁵ I analyse empirically how *actants* speak of one another during these key moments and whether the technological artefacts' shapes change because of controversies or changes in interests generated by other actors' actions²³⁶ or exogenous forces.²³⁷ Additionally, I am particularly interested in resistance as this is usually the point where the artefacts break down,²³⁸ implementation weaknesses are revealed or where new alliances are formed. Moments of resistance may also reveal which *actants* dominate other *actants* and which *actants* attempt to control the outcome of the process. Such *actants* are identified either through their ability to speak authoritatively, simplify articulations or speak of facts²³⁹ or capacities²⁴⁰ of the

²³⁰ Geoff Walsham, 'Actor-Network Theory and IS Research: Current Status and Future Prospects,' (IFIP TC8 WG 8.2: Information Systems and Qualitative Research, Philadelphia, Pennsylvania USA 31st May - 3rd June 1997).

²³¹ n 215.

²³² Bruno Latour, 'When things strike back: A possible contribution of science studies to the social Sciences,' (2000) 51(2) British Journal of Sociology 107.

²³³ n 215.

²³⁴ K Grint and S Woolgar, *The machine at work: technology, work, and organization* (Cambridge Mass Polity Press 1997) 10.

²³⁵ W E Bijker and T Pinch, 'The Social Construction of Facts and Artifacts: Or How the Sociology of Science and the Sociology of Technology Might Benefit Each Other,' in W E Bijker et al (eds) *The social construction of technological systems: New directions in the sociology and history of Technology* (MIT Press 1987) 27.

²³⁶ Pandora, n 28.

²³⁷ n 215.

²³⁸ n 215.

²³⁹ Ibid.

technological artefact. Such an attempt to bring non-human actors to the foreground raises questions about where agency and morality figure in such analysis which I consider next.

3.7.3 Delegating Morality and Agency to Technological Artefacts

As my research focuses on copyright and data protection and/or violation, it is important to analyse where morality (in the sense of respecting rights of content owners and the user's right to a private life) and agency are situated in this 'hybrid' world.

The delegation and distribution of morality²⁴¹ can be dealt with through networks of human (driver) and non-human actors (e.g. car and seat belt). Non-humans are not treated as sources of morality but rather morality is delegated and distributed through the networks of human and non-human actors.²⁴² There is a trade-off between human and non-human skills as behaviour is prescribed back onto the human (e.g. getting through a highly sprung door which slams the door upon exit by the human without injury) by the non-human (the door)²⁴³ and non-human actors make humans behave appropriately²⁴⁴ (e.g. the car driver compelled by flashing lights, alarms and disembodied voices to attend to his/her security and that of others and respect laws to wear a seat belt).²⁴⁵

²⁴⁰ n 234, 3.

²⁴¹ Latour does not explicitly use the of distributed morality but he hints at it when he argues that that moral activity does not just attach to humans or artificial agents but may rather be distributed through societies, organisations, and networks of artificial and human agents. A. Adam, 'Delegating and Distributing Morality: Can We Inscribe Privacy Protection in a Machine?' (2005) 7 *Ethics and Information Technology* 233, 240.

²⁴² Ibid.

²⁴³ Bruno Latour, 'Where are the Missing masses? The Sociology of a Few Mundane Artefacts' in W. E. Bijker and J. Law (eds), *Shaping Technology, Building Society: Studies in Sociotechnical Change*, (MIT Press, Cambridge Mass 1992) 229.

²⁴⁴ Ibid, 225-26.

²⁴⁵ Ibid, 232-234. Consequently, it could be argued that the seat belt makes the driver a good citizen irrespective of his/her desire.

Likewise, the way in which technological artefacts define *actants* and the relationships between *actants* is partly a function of the software developers' decisions.²⁴⁶ By deciding what should be delegated to whom, they generate a 'specific geography of responsibilities.'²⁴⁷ Moral judgments are also made in this process as software developers inscribe a view of the world in the technological artefacts' technical contents. Thus, technological artefacts can control the user's moral behaviour. '...[D]evices may measure behaviour, place it in a hierarchy, control it, express the fact of submission, and distribute causal stories and sanctions'²⁴⁸ and 'human and non-human actors are held in a web of moral relationship.'²⁴⁹ The concept of 'distributed morality' is useful here to think about how morality spreads through networks of human and non-human actors, how it is delegated to non-human actors and how they delegate morality back to humans.²⁵⁰ High levels of autonomy do not have to be attributed to non-human actors as morality is distributed throughout the network by inscription²⁵¹ and 'meaningful moral activity may be achieved without a high degree of agency.'²⁵²

Technological artefacts influence human agency by inviting specific courses of action rather than by imposing a single functionality. The courses of action are inscribed within the artefacts by how they frame their reference domains (e.g., uploading videos), organise their basic functions and the complex web of intentions and functionalities (i.e. range of tasks such as writing on a 'friend's' Wall in Facebook). The technological artefacts' influence on human agency is reflected by how it 'invites [users]...to frame a delimited domain of tasks or activities and organize their execution'²⁵³ rather than the '(non)exhaustive use [users]... may make of

²⁴⁶ n 204.

²⁴⁷ Ibid, 207.

²⁴⁸ ibid, 216.

²⁴⁹ n 241, 240.

²⁵⁰ Ibid, 241.

²⁵¹ Ibid.

²⁵² Ibid

²⁵³ n 212, 290.

...[it]’²⁵⁴ Each *actant* has some degree of agency as no *actant* is passive although there is a variation in the degree of resistance or surrender to other actants’ influence.²⁵⁵ Agency is achieved as humans and non-humans are extended into and through one another to ‘(per)form’²⁵⁶ the technological artefact.

Conclusion

In this chapter, I have argued three main points. Firstly, at a general level, I have argued that different theories of power should not necessarily be considered in isolation from each another. On the contrary, I have shown how it is possible to develop an ANT-Foucauldian Power Lens if theoretically compatible power theories are brought together in a program of exchange which generates a stronger framework of power than a purely Foucauldian or purely ANT perspective on power. Secondly, I have pursued this idea by analysing specific ways in which Foucauldian and ANT ideas about power can be brought together in such a program of exchange. I have analysed five general ways in which ANT and Foucault can be brought together to shed light on the ‘provenance of power’, ‘power as confrontation and productivity,’ ‘power as an effect of one possible state of association’, the links between power and ‘materialities’, and the links between power and spatialities. I have also analysed how the Foucauldian notion of governmentality can be used in conjunction with the ANT notion of translation ‘action at a distance’, and ‘centres of translation’, Additionally, I have also analysed how other Foucauldian ideas, namely, surveillance, discipline and the ‘panopticon’ can be used in conjunction with the ANT idea of ‘oligopticon’. I have also briefly illustrated these how these abstract Foucauldian and ANT notions are used in conjunction with one another through references to specific instances of power, such as Content ID’s power effect of surveillance, analysed in much more detail in Chapters Four to Seven. These practical examples also show that the conceptual framework of the ANT-Foucauldian power lens can be applied to empirical scenarios. Finally, I have also explored how

²⁵⁴ n 212, 289.

²⁵⁵ Michel Callon, ‘Social ordering,’ (Lecture at the University of Illinois Urbana-Champaign IL 7th May 1993).

²⁵⁶ E Laurier, and C Philo, ‘X-morphising: a review essay of Bruno Latour’s ‘Aramis or the love of technology’ (1999) A 31(6) Environment and Planning 1047, 1048.

my ANT-Foucauldian Power Lens can be used to understand three specific *actants*, namely, social, legal, and technological, which play important roles in generating power effects in YouTube`s copyright network and Facebook`s data network. Some readers may object to my understanding of Foucault or ANT or may not agree with some of the ways in which I use Foucault in conjunction with ANT (and vice versa). The subsequent thesis chapters, however, will provide further evidence from my empirical research of the value of the specific connections I make between Foucault and ANT for understanding the power effects generated in You Tube`s copyright and Facebook`s data network.. Moreover, I hope to have convinced even a sceptical reader that it is worthwhile to consider the analytical strengths of my ANT-Foucauldian Power Lens. Such a conception of power, as I have shown in this chapter, can open up a wider analytical perspective than a conception of power that focuses only on a Foucauldian or ANT perspective, or any other singular theoretical perspective on power.

Chapter Four

Tracing the Construction of YouTube`s Copyright Network as a Socio-Legal-Technological Network

Abstract

In this chapter, I present the findings of my qualitative empirical analysis of the construction of YouTube`s copyright network. This case study draws on virtual ethnographic methods and documentary analysis. I use my ANT-Foucauldian Power Lens to empirically trace the construction of YouTube`s copyright network as a socio-legal-technological network. This chapter highlights three points. Firstly, the construction of YouTube`s copyright network is a precarious, contingent, and local process which depends on the stable and durable association of various human and non-human actors (*'actants'*) such as binary codes, legal reasoning and right-holders. Crucially, this means that no single *actant* has a privileged role in constructing the network. Moreover, network construction involves a complex and constant funnelling of the interests of the *actants* involved. To highlight the precarity of YouTube`s copyright network, I also analyse specific empirical instances of resistance. Through my analysis of some of these resistance practices, I also explore how *actants* such as YouTube users conduct themselves in relation to specific rules. Secondly, the chapter argues that it is very important to consider the roles of 'materialities' such as web forms and hyperlinks in ordering relations between *actants* in YouTube`s copyright network through time and space. Thirdly, the chapter highlights that this relational analysis of YouTube`s copyright network sheds new light on the role of copyright legislation (and associated precedents) in protecting intellectual property interests, the concept of legality and the process of judicial decision-making.

Introduction

As explained in Chapter One, this thesis investigates the power effects generated in OSNS such as YouTube when legal values such as copyright are protected and violated. To achieve this aim, I firstly, trace how YouTube's copyright network is constructed at a micro-sociological level in YouTube itself. By YouTube's copyright network, I refer to the 'series of heterogeneous elements, animate or inanimate, that [are] linked to one another for a certain period of time'¹ in YouTube when copyright is protected and/or violated. This does not refer to a traditional network with strategically positioned nodes which constitute the finalised structure of the network², the type of networks talked about by some internet regulation scholars such as cyber-regulatory theorists,³ but rather denotes an 'entity that does the tracing and the inscribing.'⁴ Consequently, YouTube's copyright network cannot be reduced to a specific human or non-human actor.⁵ In this chapter and the next, I use the terms 'actants', 'humans and non-humans', and 'elements'⁶ interchangeably.

In this chapter, I trace the construction of YouTube's copyright network by using my Actor-Network Theory-Foucauldian, power lens developed in Chapter Three ('ANT-Foucauldian Power Lens'). I argue three key points. Firstly, I argue that YouTube's copyright network is constructed when heterogeneous legal, social, and technological elements such as binary codes,⁷ programming languages,⁸ YouTube

¹ Michel Callon, 'Some elements of a sociology of translation: domestication of the scallop and the fishermen of St Brieuc Bay' in John Law (ed), *Power, Action and Belief; A new Sociology of Knowledge?* (Routledge & Kegan Paul Plc London 1986) 83.

² Bruno Latour, 'On Actor-Network Theory: A Few Clarifications,' (1996) 47 *Soziale Welt*, 369.

³ Chapter Two.

⁴ n 2, 4.

⁵ Chapter Three.

⁶ Some ANT scholars use the terms 'elements' and 'actants' interchangeably. E.g. Ole Hanseth, Margunn Aanestad, and Marc Berg, 'Guest editors' introduction: Actor-network theory and information systems. What's so special?' (2004) 17(2) *Information Technology & People* 116.

⁷ A binary code can be defined as a computer code that uses the binary number system. The binary number system has a base of two numbers being expressed by sequences of the digits 0 and 1. (Collins English Dictionary, Online Version).

users, the ‘tick-box’⁹ and legal skills are locally, contingently, and precariously ‘fitted together.’ In this chapter and the next, I use the terms ‘fitting together’, and ‘connections’ interchangeably. From this perspective, no single *actant* has a privileged role in construction YouTube’s copyright network. Rather Napoleons and mundanes such as YouTube’s departments, YouTube users, binary codes, and legal skills contribute to the four stages of network construction, namely, ‘problematization,’ ‘interessement’, enrolment and mobilisation. I trace how specific empirical instances of local ‘fitting together’ can be ruptured from time to time by resistance thereby preventing the successful translation of certain aspects of YouTube’s copyright network, such as YouTube’s Copyright Dispute Resolution Mechanism.¹⁰ Whilst exploring these resistance practices, I also analyse how such practices are arguably instances of ‘ethical practices’, that is, practices through which YouTube users attempt to negotiate their relationships with specific rules. Secondly, I argue that ‘materialities’ such as hyperlinks¹¹ and files play key roles in ordering durable relations between *actants* over time and space and overcoming sources of resistances. Thirdly, building on this relational understanding of the network, I develop micro-sociological insights into specific legal notions and processes. For example, through my analysis of certain resistance practices, I analyse how legality, that is, the quality of being legal and in conformity with doctrinal

⁸ A programming language refers to ‘a system of precisely defined symbols and rules devised for writing computer programs.’ (Oxford English Dictionary, Online Version).

⁹ The tick-box refers to the box which YouTube users have to tick when signing up to YouTube to evidence their acceptance of the Terms of Use. The ‘Terms of Use’ refer to various contracts which exist between YouTube and YouTube users and right-holders such as the Terms of Service <<http://www.youtube.com/t/terms>> accessed 5 May 2010; YouTube’s Privacy Policy <<http://uk.youtube.com/t/privacy>> accessed 5 May 2010; YouTube’s Community Guidelines <http://uk.youtube.com/t/community_guidelines> accessed 5 May 2010 (collectively referred to as ‘Terms of Use’).

¹⁰ YouTube’s Copyright Dispute Resolution Mechanism refers to the takedown notice and the counter-notification filed by right holders and YouTube users respectively in YouTube to either complain of copyright infringement or defend a copyright infringement complaint (‘YouTube’s Copyright Dispute Resolution Mechanism’).

¹¹ A hyperlink is an electronic link providing direct access from one distinctively marked place in a hypertext or hypermedia document to another in the same or a different document. A hypertext document is a database format in which information related to that on a display can be accessed directly from the display. A hypermedia document is a database format similar to hypertext in which text, sound, or video images related to that on a display can be accessed directly from the display (Merriam-Webster Dictionary, Online Version).

law, is constructed in relational terms. Additionally, through my analysis of *Viacom Int'l v. YouTube* ('*Viacom lawsuit*')¹², a key ruling in the field, I also analyse the roles of certain legal processes such as the lawsuit and judicial decision-making in network construction.

I develop these three arguments in seven sections. In section 4.1, I analyse how YouTube's copyright network has been 'cut' for my research. In section 4.2, I introduce the reader to some of the key elements of YouTube's copyright network. By doing so, I am not privileging certain 'capillaries'¹³ of YouTube's copyright network over others but, instead, I explain those 'fibres'¹⁴ of YouTube's copyright network, which are relevant to this chapter and the next chapter such as specific YouTube functionalities such as 'Like'.¹⁵ In the remaining five sections of this chapter, I analyse the myriad of ways in which specific legal, social and technological elements are locally, contingently, and precariously 'fitted together' to form and perform specific aspects of YouTube's copyright network. In section 4.3, I therefore explore the roles of certain legal elements such as US Copyright Laws¹⁶ and judicial reasoning¹⁷ in constructing YouTube's copyright network. In section 4.4, I investigate how YouTube's Legal department contributes to the construction of YouTube's copyright network through the Terms of Use. In section 4.5, I analyse how YouTube's Technological Department further constructs YouTube's copyright network through two specific technologies, namely, Content ID, and the Regional Blocking Technology. In section 4.6, I explore how other social, legal, and technological elements are locally, contingently, and precariously 'fitted together' to form and perform another key aspect of YouTube's copyright network, namely,

¹² No. 07-CV-02103 (S.D.N.Y. 13 Mar., 2007).

¹³ I am talking here about the '...fibrous, thread-like, wiry, stringy, ropy, capillary character [of an 'actor-network'] that is never captured by the notions of levels, layers, territories, spheres, categories, structure, systems.' n 2, 371.

¹⁴ Ibid.

¹⁵ See section two for more.

¹⁶ US Copyright Laws refer to US copyright legislation and case law ('US Copyright Laws').

¹⁷ Judicial reasoning refers to the process through which judges, arbitrating a copyright lawsuit, establish the content of US Copyright Laws and deduce from this content how the case in question should be decided

YouTube's Copyright Dispute Resolution Mechanism.¹⁸ In the final section, I consider the sources of resistance in YouTube's copyright network which threaten to derail its construction.

4.1 Building YouTube's copyright network

The present construction of YouTube's copyright network, as an '*actor network*'¹⁹ emerges from an analysis of data collected from my virtual ethnography of YouTube conducted between in May and June 2010 with over eighty-six thousand collected YouTube user comments;²⁰ an analysis of various documents on the protection and violation of copyright in YouTube;²¹ an analysis of mass media outputs on copyright issues in YouTube;²² an analysis of US,²³ UK,²⁴ and EU²⁵ copyright legislation; an

¹⁸ n 10. The takedown notice refers to the notice which a right-holder can file to request YouTube to takedown a Video which allegedly contains copyright content which belongs to the right-holder in question ('Takedown Notice'). The Counter-Notification refers to the notice filed by a YouTube user who wishes to dispute a Takedown Notice in specific cases such as when his/her use of the content in question amounts to 'fair use' ('Counter-Notification').

¹⁹ Michel Callon, 'The Sociology of an Actor-Network: The Case of the Electric Vehicle,' in Michel Callon, Jon Law and Arie Rip (eds), *Mapping the Dynamics of Science and Technology* (London Macmillan 1986) 22.

²⁰ See Appendix One.

²¹ This includes an analysis of key YouTube blogs such as YouTube API blog <<http://apiblog.youtube.com/>> accessed 12 January 2013; YouTube Blog <<http://youtube-global.blogspot.co.uk/>> accessed 12 January 2013; relevant contracts between YouTube users and YouTube such as Terms of Service <<http://www.youtube.com/t/terms>> accessed 12 January 2013; Community Guidelines <http://www.youtube.com/t/community_guidelines> accessed 12 January 2013; and Privacy Policy <<http://www.google.com/intl/en/policies/privacy/>> accessed 12 January 2013.

²² E.g. Don Jeffrey, 'Music Publishing Group Drops Appeal of YouTube Copyright Infringement Case,' (Bloomberg News 17 August 2011) <<http://www.bloomberg.com/news/2011-08-17/music-publishing-group-drops-appeal-of-youtube-copyright-infringement-case.html>> accessed 17 August 2011; Timothy B Lee, 'UMG claims "right to block or remove" YouTube videos it doesn't own,' (ArsTechnica 16 December 2011) <<http://arstechnica.com/tech-policy/2011/12/umg-we-have-the-right-to-block-or-remove-youtube-videos/>> accessed 16 December 2011.

²³ The Copyright Act 1976 and Digital Millennium Copyright Act 1998.

²⁴ Copyright, Designs, and Patents Act 1988; Electronic Commerce (EC Directive) Regulations 2002; Copyright and Related Rights Regulations 2003; and Digital Economy Act 2010.

²⁵ Copyright Directive, 2001/29 [2001] O.J. L 167/10; Electronic Commerce Directive, Directive 2001/31 [2000] O.J. L178/1.

analysis of international copyright treaties;²⁶ and an analysis of key copyright infringement lawsuits brought against YouTube.²⁷ Before exploring how YouTube's copyright network is constructed as an 'actor-network', where *actants*' roles and functions are bound in a somewhat cohesive manner for some time, it is important to explain how I compile the inventory of *actants* for this case study. Like other ANT tracery of networks,²⁸ I consider YouTube's copyright network to be composed of many familiar *actants* such as audio-visual content and YouTube users. However, my inventory of *actants* also extends to lesser known *actants* such as binary codes, mark-up language,²⁹ hyperlinks³⁰ and legal skills such as judicial reasoning. As other ANT analyses have shown, the successful construction of various 'actor-networks', such as the electric vehicle, depends on the durable association of obscure *actants*

²⁶ Berne Convention for the Protection of Literary and Artistic Works 1886; Universal Copyright Convention 1952; Agreement on Trade Related Aspects of Intellectual Property Rights 1994; and WIPO Copyright Treaty 1996.

²⁷ E.g. *Viacom Int'l v. YouTube*, No. 07-CV-02103 (S.D.N.Y. Mar. 13, 2007); *Lenz v. Universal Music Corp.*, Case No. 5:07-cv-03783-JF (N.D. Cal., Feb. 25, 2010); *Robert Tur v. YouTube, Inc.*, No. CV 06-4436-GAF (FMoX) (C.D. Cal. July 14, 2006); *Football Association Premier League et al. v. YouTube, Inc.*, No. 1:07-cv-03582-UA (S.D.N.Y. May 4, 2007), *Grisman et al. v. YouTube, Inc.*, No. 3:2007cv02518 (N.D. Cal. May 10, 2007), *New Jersey Turnpike Authority v. YouTube, Inc.*, No. 2:2007cv02414 (D.N.J. May 22, 2007), *Cal IV Entertainment, LLC v. YouTube, Inc. et al.*, No. 3:2007cv00617 (M.D. Tenn. June 7, 2007) and *Explorologist Ltd v. Brian Sapient*, Case No. 2:07-cv-01848-LP (E.D.Pa., May 7, 2007).

²⁸ E.g. Bruno Latour, *The Pasteurization of France* (Cambridge Mass. Harvard University Press 1988); Bruno Latour, *Aramis, ou l'Amour des Techniques* (Paris Éditions de la Découverte 1992); Bruno Latour and Steve Woolgar *Laboratory Life: the Social Construction of Scientific Facts* (Beverly Hills and London Sage 1979); John Law, 'On the Methods of Long Distance Control: Vessels, Navigation and the Portuguese Route to India,' in John Law (ed) *Power, Action and Belief: a new Sociology of Knowledge? Sociological Review Monograph* (London, Routledge and Kegan Paul 1986 234); and John Law, 'The Anatomy of a Sociotechnical Struggle: the Design of the TSR2,' in B Elliott (Ed) *Technology and Social Process* (Edinburgh University Press 1988) 44.

²⁹ Mark-up language refers to 'any of various tagging systems used in text markup.' (Oxford English Dictionary, Online Version.) YouTube uses various markup languages including HTML5. HTML or hypertext mark-up language refers to 'a standard system for tagging text files to achieve formatting, graphics, and linking when they are stored as web pages.' (OED, Online Version.)

³⁰ A hyperlink is an electronic link providing direct access from one distinctively marked place in a hypertext or hypermedia document to another in the same or a different document. A hypertext document is a database format in which information related to that on a display can be accessed directly from the display. A hypermedia document is a database format similar to hypertext in which text, sound, or video images related to that on a display can be accessed directly from the display (Merriam-Webster Dictionary, Online Version).

such as electrons and accumulators with well-known *actants* such as consumers and ministries.³¹ So how do I go about identifying which *actants* are important in tracing the construction of YouTube`s copyright network?

For the purposes of this chapter and Chapter Five, YouTube`s copyright network has been ‘cut,’³² in the sense of the ‘...cessation of flow of endless associations...’³³ by paying attention to three factors. Firstly, I used my research questions and design to determine which *actants* are relevant to this research. Consequently, certain *actants* such as Adobe Flash Player Plug-in³⁴ and mark-up language help to make sense of how specific local connections are maintained but do not need to be explored further for this research because they are not relevant to the research questions because I focus on specific *actants* such as the ‘tick-box’, hyperlinks and legal skills which are locally ‘fitted together’ to form specific aspects of YouTube`s copyright network such as the Terms of Use.³⁵ Secondly, certain *actants*, such as the US Copyright Laws,³⁶ cannot to be treated as ‘black-boxes’ as they impact on network construction and need to be opened. Finally, certain *actants* such as the old YouTube interface can be omitted from the tale as they have already exited the network.³⁷ Data analysis suggests that YouTube`s copyright network is a decentered, heterogeneous ‘actor-network’ which is composed of various *actants* including binary codes, YouTube users, YouTube`s departments (e.g. YouTube`s

³¹ E.g. *Pasteur*, n 28.

³² As imagined by Jacques Derrida, ‘Force of law: ‘the mystical foundations of authority,’ in C Drucillae et al (eds) *Deconstruction and the Possibility of Justice* (New York Routledge 1992) as cited in Marilyn Strathern, ‘Cutting the network,’ (1996) *Journal of the Royal Anthropological Institute* 517, 522.

³³ *Ibid.*

³⁴ This has to be installed on the User`s computer so that s/he can view any video on YouTube <<http://en.wikipedia.org/wiki/YouTube>> accessed 10 January 2010.

³⁵ n 9.

³⁶ n 16.

³⁷ <<http://www.youtube.com/t/new>> accessed 12 January 2013; A Chitu, ‘YouTube`s New Interface,’ (Google Operating System, Blog, 7 December 2012) <<http://googlesystem.blogspot.co.uk/2012/12/youtubes-new-interface.html>> accessed 12 January 2013.

legal department), US copyright legislation,³⁸ commercial right holders and 'Terms of Use' (defined below). This is not a definitive representation of YouTube's copyright network but rather represents one way of constructing the network as a 'hybrid.'³⁹

4.2 Postcard from the Edge: the Musically Visual World of YouTube

Before empirically tracing YouTube's copyright network's construction, it is useful to sketch out YouTube's main features. YouTube is an online social networking site where users can share, view, and otherwise interact with audio-visual content ('Videos').⁴⁰ By 'Interactions' (or any of its variant) I refer to the wide range of user actions on YouTube such as Like, Share, and Comment (defined below). Figures such as over eight hundred million unique YouTube users monthly, over four billion hours of watched Videos, over seventy-two hours of Videos uploaded every minute, over one hundred million weekly Interactions, attest that YouTube is currently very much '*en vogue*'. By signing up to YouTube,⁴¹ YouTube users agree to a series of contracts such as YouTube's Terms of Service,⁴² Community Guidelines⁴³ and the Copyright Policy⁴⁴ ('Terms of Use'). Signed-up YouTube users can perform a series of actions on YouTube such as upload Videos and distribute Videos through other social media channels such as Facebook, email or direct links ('Share').⁴⁵ Other Interactions include written comments on Videos, channels,⁴⁶ playlists,⁴⁷ or in

³⁸ n 23.

³⁹ *Strathern*, n 32.

⁴⁰ YouTube was launched in 2005. <http://www.youtube.com/t/press_timeline> accessed 10 January 2011.

⁴¹ <http://www.youtube.com/t/about_getting_started> accessed 10 January 2011.

⁴² *ibid*.

⁴³ <http://www.youtube.com/t/community_guidelines> accessed June 2011.

⁴⁴ <<http://www.google.com/support/youtube/bin/answer.py?hl=en-GB&answer=55772>> accessed June 2011.

⁴⁵ <<http://www.youtube.com/yt/playbook/glossary.html>> accessed 10 January 2011.

⁴⁶ Channels are public pages for User accounts containing Videos, playlists, Liked Videos etc. <<http://www.youtube.com/yt/playbook/glossary.html>> accessed 10 January 2011

response to other comments ('Comments'); clicking on the 'like' button underneath a Video or Comment to express enjoyment or agreement with a specific Video or Comment ('Like'); clicking on the 'dislike' button underneath a Video or Comment to express dislike or disagreement with a specific Video or Comment ('Dislike'). Each Video is accompanied by a wide range of information such as number of viewers, viewers' engagement, and demographic User information which can be accessed by the User who has uploaded the Video.⁴⁸ YouTube users can access further information about all YouTube features, such as third-party advertisements, by consulting its help centre ('Help Centre').⁴⁹

The Help Centre can be understood as a partially 'immutable mobile' which carries specific information about YouTube's features such as 'how to upload a Video' from one point of the network to another without changing form, except when the information has been updated by YouTube to reflect changes in such features. YouTube users can also learn about key issues such as copyright, and advertising at any time by accessing the hyperlink to the Help Centre which is found on each web page of YouTube.⁵⁰ Apart from the Help Centre, other concentrated zones of information can also be found at different nodes in the network such as the 'Video Toolbox',⁵¹ 'YouTube Essentials'⁵² and 'Getting Started'⁵³ sections. Finally, advertising appears in different formats such as banner advertising (appears on all

⁴⁷ A playlist is a collection of Videos that can be viewed, shared, and embedded like an individual video which can be created by YouTube users.

<<http://www.youtube.com/yt/playbook/glossary.html>> accessed 10 January 2011.

⁴⁸ <<http://www.youtube.com/yt/advertise/youtube-analytics.html>> accessed 10 January 2012.

⁴⁹ The Help Centre can be defined as a space where all information relating to Facebook, its features and copyright issues is consolidated. < <http://support.google.com/youtube/?hl=en-US&p=/>> (YouTube Help Centre) accessed 12 September 2012.

⁵⁰ Bottom, left-hand side of each page. E.g. <<http://support.google.com/youtube/?hl=en-US&p=>>> accessed 12 January 2013.

⁵¹ <<http://www.youtube.com/user/videotoolbox>> accessed 12 January 2013.

⁵² <http://www.youtube.com/t/about_essentials> accessed 12 January 2013.

⁵³ <http://www.youtube.com/t/about_getting_started> accessed 12 January 2013.

areas of the site except the 'Home Page'⁵⁴), overlay-in-Video advertising (transparent overlay advertising appearing in the lower part of the Video), and true view in-stream advertising (skippable video advertising that are inserted before, during or after the main Video).⁵⁵

Next I apply my ANT-Foucauldian Power Lens to trace the construction of YouTube's copyright network as a socio-legal-technological 'actor-network'. My data analysis suggests that three *actants*, namely, elements of the copyright law network, YouTube's legal and technological departments play a crucial part in the first stage of translation namely 'problematisation', as analysed in sections 4.3 to 4.5 below. For avoidance of doubt, when I conducted my data collection, I followed the 'actants' which became embroiled in specific local connections that generated power effects when copyright was protected and/or violated in YouTube. Thus, I did not go in the field looking for specific *actants* such as YouTube's legal department. Rather such *actants* emerged as relevant *actants* to my research during my data collection and/or data analysis. Additionally, these three *actants* are also composed as 'actor-networks' themselves. However, I do not examine all the local connections which form and perform these three *actants* as 'actor-networks' unless such examinations are key to understanding how YouTube's network is constructed as a socio-legal-technological network.

Before analysing how elements of the copyright law network, YouTube's legal and technological departments contribute to the 'problematic field' in YouTube's copyright network, these multiple 'problematisations'⁵⁶ are significant for two reasons. Firstly, it means that the problem in YouTube's copyright network, as defined initially by certain elements of the copyright law network, is no longer the same once it is in the hands of YouTube's legal and technological departments. Secondly, it also means that elements of the copyright law network do not have a

⁵⁴ This refers to the main page on which the User lands each time s/he enters the unique resource locator for YouTube in his/her browser.

⁵⁵ For more on advertising formats on YouTube, see <<http://support.google.com/youtube/bin/answer.py?hl=en&answer=2467968>> accessed 10 January 2013.

⁵⁶ By multiple 'problematisations', I mean the attempts of three different, rather than one, actants to define the 'problematic field' in YouTube.

privileged role in defining the 'problematic field' in YouTube's copyright network. Rather they play an important part in defining the 'problematic field' at the outset but the definition of the problem changes as the YouTube's legal and technological departments also define the problem according to their own interests. However the interests of YouTube's legal and technological departments are not imputed as background causes of action. Rather they are seen as attempts to define and enforce contingent forms of social order by these *actants*.⁵⁷ Although YouTube users are not involved in 'problematisation,' they play an important part in constructing YouTube's copyright network by being involved in other stages of network construction such as enrolment and resistance.⁵⁸

4.3 Cutting off the King's Head: the Heterogeneity of YouTube's Copyright Law Network

In this section, I analyse the roles of YouTube's copyright law network in constructing YouTube's copyright network. This analysis supports three key overall arguments of this chapter that (1) no single *actant* has a privileged role in constructing YouTube's copyright network, (2) 'materialities' such as staples, files and stamps can lend obduracy to specific local connections between heterogeneous *actants* such as the local connections forming and performing one stage of a lawsuit, and (3) my ANT-Foucauldian Power Lens can help us understand the concept of 'legality' and legal processes such as a lawsuit, and judicial decision-making in relational terms.

4.3.1 Inside YouTube's copyright law network

Before analysing the roles of some legal elements in constructing YouTube's copyright network, it is useful to unpack YouTube's copyright law network. Figure 1 below shows that YouTube's copyright law network is composed of heterogeneous

⁵⁷ For more on this, see Michel Callon and John Law, 'On interests and Their Transformations: Enrolment and Counter-Enrolment,' (1982) 12(4) *Social Studies of Science*, 615. For more on the importance of the notion of interests in social science, see the debate between Steve Woolgar, 'Interests and Explanation in the Social Study of Science,' (1981) 11 *Social Studies of Science*, 365; Barry Barnes, 'On the "Hows" and "Whys" of Cultural Change (Response to Woolgar),' (1981) 11 *Social Studies of Science*, 481; D MacKenzie, 'Interests, Positivism and History,' (1981) 11 *Social Studies of Science*, 498.

⁵⁸ See section 7 below.

elements such as copyright legislation, case law,⁵⁹ international copyright treaties,⁶⁰ materialities (e.g. legal files),⁶¹ human actors (e.g. judges), and skills (e.g. legal reasoning and interpretation):⁶²

⁵⁹ n 27.

⁶⁰ n 26.

⁶¹ Thomas Scheffer, 'Materialities of Legal Proceedings,' (2004) 17(4) *International Journal for the Semiotics of Law* 356.

⁶² Legal reasoning and interpretation refer to process through which lawyers, advising a client on copyright matters or representing a client in court in relation to copyright lawsuits, establish the content of copyright legislation and applicable precedents and apply them to the facts of the case in question.

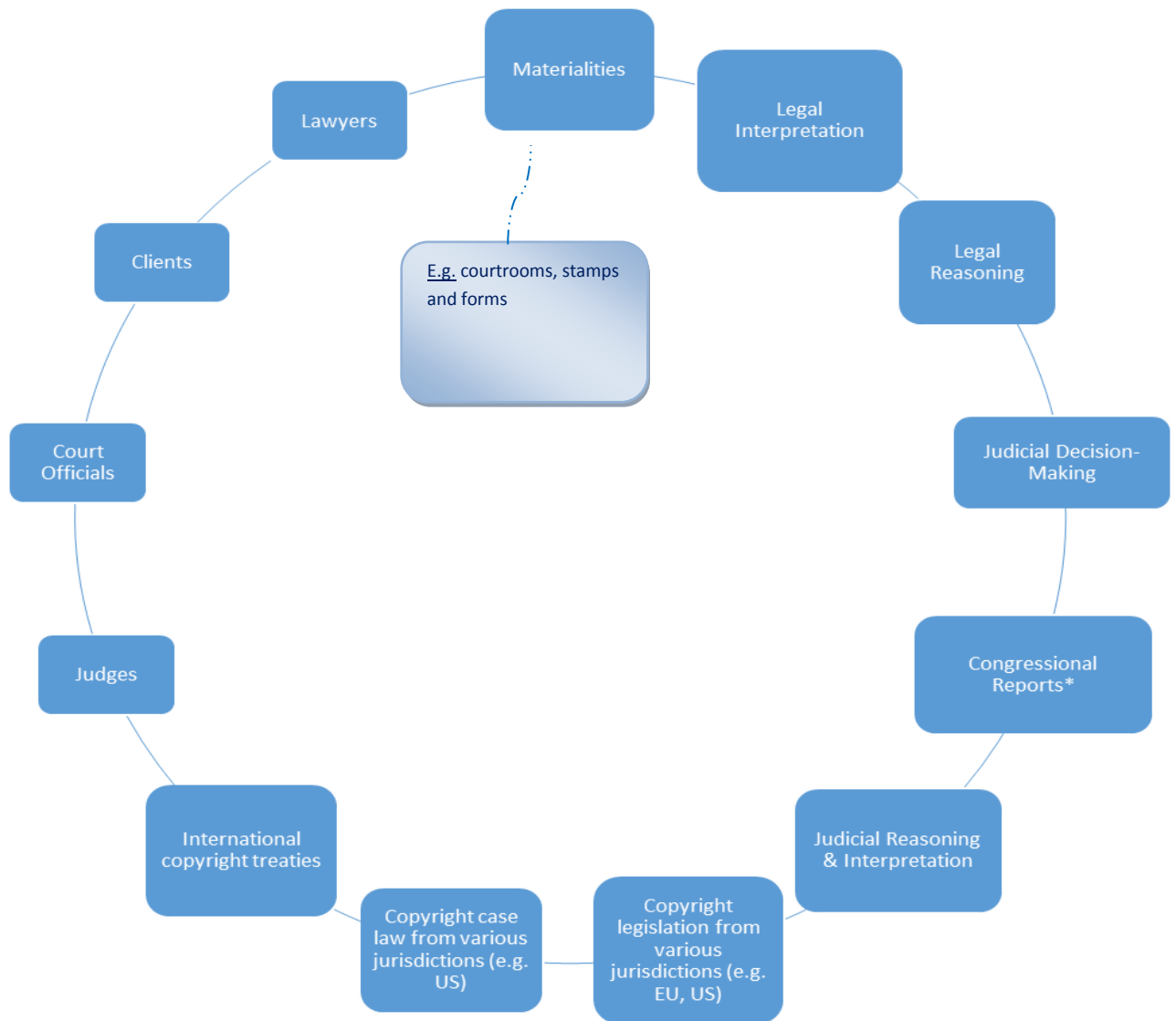


Figure: 1 YouTube`s Copyright Law Network

* See n 139 for the relevant Congressional Reports.

The constituting elements of YouTube`s copyright law network interact at specific times. For instance, at the start of a copyright lawsuit, *actants* such as relevant copyright legislation, legal reasoning, lawyers, clients, legal files interact

with one another. As the lawsuit progresses, other *actants* are brought in such as judges and judicial reasoning and interpretation.⁶³ At times certain elements of the copyright law network emerge as black-boxes in YouTube`s copyright network. ‘Black box’ means here that one element of the copyright law network is visible but its underlying associations with the other elements disappear from view.⁶⁴ Thus, the ‘fair use’ defence⁶⁵ appears as a black-box when it is used by YouTube to defend a copyright lawsuit brought by a right-holder. It is only when the local connections between the *actants* constituting the relevant element break that the constituting *actants* behind the black box emerge. Hence, the black-box of the ‘fair use’ defence is ruptured when the association between its constituting elements⁶⁶ are broken down as new *actants* (e.g. the lawyers’ use of legal interpretation and reasoning to try to widen the ambit of one of the criteria of the ‘fair use’ defence) enter the network. Additionally, YouTube`s copyright law network interacts with YouTube`s copyright network at specific points such as when a right holder brings a lawsuit against YouTube. So how do legal elements construct YouTube`s copyright network? In the remaining sections, I focus on the roles of specific legal elements such as US Copyright Laws, legal skills such as drafting and legal reasoning, judicial skills such as decision-making in constructing YouTube`s copyright network.

4.3.2 Network Construction: Of US Copyright Laws and ‘Problematism’

In this section, I analyse the roles of US copyright legislation⁶⁷ and case law⁶⁸ (collectively referred to as US Copyright Laws), in constructing the ‘problematic field’ in YouTube`s copyright network, which is the first stage of translation. I focus on US

⁶³ Judicial reasoning and interpretation refer to the process through which judges, arbitrating a copyright lawsuit, establish the content of formal copyright law and deduce from this content how the case in question should be decided.

⁶⁴ Michel Callon, ‘Some elements of a sociology of translation: domestication of the scallop and the fishermen of St Brieuc Bay’ in J Law (ed), *Power, Action and Belief; A new Sociology of Knowledge?* (Routledge & Kegan Paul Plc, London 1986).

⁶⁵ Copyright Act 1976, 17 U.S.C. § 107.

⁶⁶ E.g. the legal precedents clarifying the meaning of the fair use defence.

⁶⁷ n 23.

⁶⁸ n 27.

Copyright Laws as my data analysis suggests that US Copyright Laws compared to UK, EU and other WIPO Contracting States copyright laws,⁶⁹ play a crucial role during 'problematization'.⁷⁰ However, I am not arguing that US Copyright Laws have a privileged role in defining the 'problematic field' in YouTube's copyright network because, as explained above, two other *actants*, namely YouTube legal and technological departments, with their sets of relations, also advance 'problematization'.⁷¹

US Copyright Laws⁷² define the 'problematic field' in YouTube's copyright network as achieving a balance between preserving commercial right holders' rights

⁶⁹ E.g. Canada.

⁷⁰ E.g. none of the comments and videos collected during my virtual ethnography referred to UK/EU/WIPO copyright laws. For EU copyright law, see Copyright Directive, 2001/29 [2001] O.J. L 167/10; and Electronic Commerce Directive, Directive 2001/31 [2000] O.J. L178/1. For UK copyright law, see Copyright, Designs, and Patents Act 1988; Electronic Commerce (EC Directive) Regulations 2002; Copyright and Related Rights Regulations 2003; and Digital Economy Act 2010. The YouTube website also refers extensively to US copyright legislation and only contain one reference to non-US copyright legislation. See 'Further Resources,' (YouTube) <http://www.youtube.com/t/copyright_resources> accessed 4 May 2011

⁷¹ Three factors may explain the predominance of US Copyright Laws in network construction. Firstly, YouTube is incorporate in the US. Secondly, the WIPO Copyright Treaty 1996 extends internationally many copyright provisions which are already in force in the US. For more on this, see J S Sheinblatt, '*The WIPO Copyright Treaty*,' (1998) 13 Berkeley Technology Law Journal 535 for an analysis of the provisions of the WIPO Copyright Treaty 1996. See J Lipton, '*Copyright in the Digital Age: A comparative survey*,' (2001) 27 Rutgers Computer & Technology Law Journal 333 for a comprehensive exposé on the impact of the WIPO Copyright Treaty 1996 on US, EU copyright legislations. Thirdly, US Copyright Laws provide detailed guidance on the Takedown Notice and Counter-Notification. Such guidance is not provided by non-US copyright laws. The takedown notice refers to the notice which a right-holder can file to request YouTube to takedown a Video which allegedly contains copyright content which belongs to the right-holder in question ('Takedown Notice'). The Counter-Notification refers to the notice filed by a YouTube user who wishes to dispute a Takedown Notice in specific cases such as when his/her use of the content in question amounts to 'fair use' ('Counter-Notification'). For instance, the Digital Millennium Copyright Act 1998 ('DMCA'), 17 U.S.C § 512 (3) provides detailed guidance on how to fill out the takedown notice including the good faith requirement. 17 U.S.C § 512 (3) (g) provides detailed guidance on how to fill out the Counter-Notification. Contrarily, Articles 12-14 of the Electronic Commerce Directive, n 25 and Electronic Commerce Regulation, n 24 only make provision for the hosting, caching and 'mere conduit' defences without specifying any formalities for the Takedown Notice and Counter-Notification.

⁷² The 'problematic field' is set out in the Copyright Act 1976 and Digital Millennium Copyright Act 1998 which interact with one another in a multi-layered fashion. It is beyond the scope of this research to analyse which associations have historically led to their emergence.

in the digital context,⁷³ ‘stimulating artistic creativity for the general public good,’⁷⁴ and protecting Service Providers⁷⁵ (‘SP’) from liabilities as intermediaries.⁷⁶ Table 1 below details how US Copyright Laws define the problematic field through solutions which it seeks to establish as ‘obligatory points of passage.’⁷⁷

<u>Actant(s)</u>	<u>Problem</u>	<u>Solution</u>
YouTube (SP)	How can YouTube limit its liability for hosting, storing, distributing third party content on its website? ⁷⁸	Safe Harbour Immunity ⁷⁹
Commercial Right-Holders	How can commercial right holders protect their copyrighted content?	• Exclusive Rights⁸⁰ and • Remedies⁸¹ • Enforcement mechanisms - Takedown Notice⁸²

⁷³ S. Rep. No. 105 -190 (1998) 8ff.

⁷⁴ *Sony v. Universal City Studios*, 464 U.S. 417, 429 (1984).

⁷⁵ The Digital Millennium Copyright Act 1998 (‘DMCA’), 17 U.S.C § 512 (k)(1)(A-B) defines a service provider as ‘an entity offering transmission, routing, or providing connections for digital online communications, between or among points specified by a user, of material of the user’s choosing, without modification to the content of the material as sent or received’ or ‘a provider of online services or network access, or the operator of facilities thereof.’ In key intermediary liability lawsuits such as the *Viacom lawsuit*, n 27, it is undisputed that YouTube is a ‘service provider’ under this definition.

⁷⁶ Copyright Act 1976, and Digital Millennium Copyright Act 1998.

⁷⁷ An obligatory element through which all the relevant *actants* must pass in order to achieve a result.

⁷⁸ Copyright Act 1976; DMCA, 17 U.S.C § 512.

⁷⁹ Ibid.

⁸⁰ Copyright Act 1976, 17 U.S.C. § 106.

⁸¹ 17 U.S.C. § 502; 17 U.S.C. § 504.

		- Lawsuit ⁸³
YouTube users	• How can YouTube users create, distribute, share content which contain third-party material? • How can YouTube users defend themselves against abusive Takedown Notices?	• Fair Use,⁸⁴ and • Counter-Notification⁸⁵

Table 1: How does formal US copyright law define the problematic field?

As illustrated by Table 1, US Copyright Laws define the problematic field for YouTube (SP), commercial right holders and YouTube users. Firstly, US Copyright Laws define the problematic field for YouTube (SP) in terms of limiting its liability for hosting, storing, distributing third party content on its website through the safe harbour immunity.⁸⁶ If YouTube (SP) complies with its statutory obligations⁸⁷ such as the expeditious removal of infringing material upon receipt of a Takedown Notice,⁸⁸ it is eligible for the safe harbour immunity.⁸⁹ The latter also amounts to ‘interessement’ and ‘enrolment’ strategies as they are employed by US Copyright Laws to persuade YouTube (SP) to discharge certain duties such as persuading YouTube users to

⁸² 17 U.S.C. 512 (c) (3).

⁸³ 17 U.S.C. § 502; 17 U.S.C. § 504.

⁸⁴ Copyright Act 1976, 17 U.S.C. § 107.

⁸⁵ 17 U.S.C. 512 (g) (3).

⁸⁶ 17 U.S.C § 512

⁸⁷ See 17 U.S.C § 512 (2); and (3).

⁸⁸ n 71.

⁸⁹ The Digital Millennium Copyright Act 1998, 17 U.S.C § 512.

accept their roles under YouTube`s Copyright Dispute Resolution Mechanism<sup>90</sup> if it wishes to avail itself of the immunity. YouTube`s enrolment into the scheme of US Copyright Laws is achieved through the local connections between relevant social, legal, and technological elements. For example, as explained in section 4.6 below, YouTube`s Copyright Dispute Resolution Mechanism`s successful translation in YouTube`s copyright network depends on the local and durable ‘fitting together’ of legal elements such as the statutory formalities,<sup>91</sup> social elements such as the YouTube user`s practices of filing a Counter-Notification and technological elements such as binary codes underlying the Takedown Notice.

Secondly, US Copyright Laws define the problematic field for commercial right holders by providing them with exclusive rights,⁹² remedies,⁹³ and enforcement mechanisms such as the lawsuit⁹⁴ and Takedown Notice.⁹⁵ In YouTube`s copyright network, the Takedown Notice becomes the first obligatory point of passage for right holders who seek remedies for copyright infringement. If the YouTube user disputes a Takedown Notice by filing a Counter-Notification, then the lawsuit becomes the second obligatory point of passage for the right holder, if s/he wishes to block the content.⁹⁶ Hence, the Takedown Notice and lawsuit represent an attempt by US Copyright Laws to impose themselves between the target entity (e.g. copyrighted content) and other *actants* (e.g. right holders, YouTube users). By filing Takedown Notices and lawsuits, right holders are enrolled in the scheme of US Copyright Laws. Furthermore, the Takedown Notice and lawsuit mechanisms are also used to enrol and counter-enrol other *actants* into US Copyright Laws` scheme. For example, in *Viacom*,<sup>97</sup> Viacom used the lawsuit mechanism to further funnel YouTube`s interests

⁹⁰ n 10.

⁹¹ See 17 U.S.C § 512 (2); and (3).

⁹² E.g. the right to reproduce, distribute, publicly perform and publicly display copyrighted content Copyright Act 1976, 17 U.S.C. § 106.

⁹³ E.g. injunctive relief (17 U.S.C § 502) and damages (17 U.S.C § 504).

⁹⁴ 17 U.S.C § 501.

⁹⁵ 17 U.S.C § 512.

⁹⁶ Ibid.

⁹⁷ n 27.

in accepting its role under formal copyright to ‘...employ reasonable measures...[to] substantially reduce, or eliminate, the massive amount of copyright infringement’ on its website from which it profits.⁹⁸ In a ping pong move, Viacom’s enrolment strategy was in turn met by a defensive move by YouTube which raised statutory defences such as ‘fair use’ and safe harbour immunity. This defensive move can be likened to counter-enrolment as YouTube sought to counter-enrol Viacom and the courts in finding that either the use amounted to ‘fair use’ or that the safe harbour immunity was applicable.

Finally, US Copyright Laws define the ‘problematic field’ for YouTube users in YouTube’s copyright network as maximising the creation, sharing and distribution of user-generated content which contains third party material. It offers the ‘fair use’ doctrine,⁹⁹ to limit the exclusive rights of right holders, counter the rigid application of copyright law which can stifle creativity¹⁰⁰ and allow YouTube users to ‘fairly adopt part of the work of another.’¹⁰¹ US Copyright Laws also provide the Counter-Notification¹⁰² mechanism as an ‘obligatory point of passage’ for YouTube users who seek to dispute a Takedown Notice.¹⁰³ The successful translation of the Counter-Notification procedure and ‘fair use’ defence depends on the local, contingent, and precarious ‘fitting together’ of specific social, legal, and technological elements. Hence, the Counter-Notification is translated in YouTube’s copyright network when specific legal, social, and technological elements are locally and durably ‘fitted

⁹⁸ Complaint in the *Viacom* lawsuit, *ibid*, 40 <<http://docs.justia.com/cases/federal/district-courts/new-york/nysdce/1:2007cv02103/302164/1/>>accessed 5 June 2011.

⁹⁹ Copyright Act 1976, 17 U.S.C. § 107. The ‘fair use’ defence is determined by a judge on a case to case basis by applying the following factors, namely the purpose and character of the use, the nature of the copyrighted work, the amount and substantiality of the portion used in relation to the copyrighted work as a whole, and the effect of the use upon the potential market for or value of the copyrighted work. Please note that there has been inconsistent judicial interpretation of these factors and the outcome of the exercise varies from case to case. See *Campbell v. Acuff-Rose Music Inc*, 510 U.S. 569, 577 (1994).

¹⁰⁰ *Campbell v. Acuff-Rose Music Inc*, 510 U.S. 569, 577 (1994) (quoting *Stewart v. Abend*, 495 U.S. 207, 236 (1990)).

¹⁰¹ *Cary v. Kearsley*, 170 Eng. Rep. 679, 680 (K.B. 1803).

¹⁰² n 71. The international takedown notice, the international Counter-Notification is similar in content to the DMCA Counter-Notification resulting in a uniform system of copyright dispute resolution.

¹⁰³ *ibid*.

together.’ As explained in sections 4.6 and 4.7 below, heterogeneous *actants* such as statutory formalities, Terms of Use, web forms, and YouTube user’s practice of filling the web form are locally ‘fitted together’ to translate the Counter-Notification.

Having explained the roles of US Copyright Laws, in defining the ‘problematic field’ in YouTube’s copyright network, I now examine how other legal elements such as legal skills, and precedents impact on the construction of YouTube’s copyright network by focussing on the *Viacom* lawsuit. The *Viacom* lawsuit is a suitable paradigm because of its topicality,¹⁰⁴ the alleged instances of one hundred and fifty thousand copyright infringements which formed the basis of the lawsuit and the fact that other copyright lawsuits filed against YouTube by other right-holders such as the English Premier League eventually joined the *Viacom* lawsuit. Additionally, the *Viacom* lawsuit is a suitable paradigm as it shows that my ANT-Foucauldian Power Lens can be used to understand legal processes such as lawsuits and judicial decision-making in relational terms.

4.3.3 Copyright Law Network: Understanding the Stages of a Lawsuit in Relational Terms

In this section, I analyse the three stages of the *Viacom* lawsuit, namely, pre-trial, trial, and post-trial, ¹⁰⁵as paradigmatic of how the effect of the copyright law network is mediated by intermediaries. This relational analysis of the *Viacom* lawsuit supports three overall arguments of this chapter that (1) ‘materialities’ such as staples and stamps can lend obduracy to specific local connections between heterogeneous *actants* such as the local connections forming and performing the various stages of a lawsuit, (2) no single *actant* has a privileged role in network construction, and (3) my ANT-Foucauldian Power Lens can help us understand the notion of ‘legality’, the construction of a lawsuit, and judicial decision-making in relational terms.

¹⁰⁴ The lawsuit was filed in 2007 and is an ongoing lawsuit at the time of writing.

¹⁰⁵ Thomas Scheffer, ‘File work, legal care, and professional habitus—an ethnographic reflection on different styles of advocacy,’ (2007a) 14(1) *International Journal of the Legal Profession*, 57; Thomas Scheffer, ‘On procedural discoursivation – or how local utterances are turned into binding facts,’ (2007b) 27(1) *Language & Communication*, 1.

In 2007, Viacom brought a \$1 Billion lawsuit against YouTube (SP) on the grounds of direct and secondary copyright infringements.¹⁰⁶ In its defence, YouTube argued that it was protected, *inter alia*, by the safe harbour immunity and the 'fair use' defence.¹⁰⁷ The *Viacom* lawsuit's pre-trial stage covers all aspects of case preparation by the parties before trial including the construction of legal files such as the drafting of the Complaint,¹⁰⁸ the exploration and construction of arguments to be pursued during trial (e.g. how can YouTube use the 'fair use' defence?) It involves a complex mix of legal reasoning and interpretation (e.g. what elements need to be proved for YouTube to be eligible for safe harbour immunity?) by both parties' lawyers who have to establish successful associations between the client's story,¹⁰⁹ legislative provisions (e.g. DMCA) and precedents (previous case law which trace connections between a specific factual matrix and a general rule). The legal file's construction involves multiple practices such as reading, writing, and creative legal engineering in relation to crucial issues such as whether YouTube can use the 'fair use' defence as a shield against Viacom's copyright claim.¹¹⁰ Additionally, various 'materialities' such as folders, staples, and computers contribute to the obduracy of the associations between the elements. The pre-trial stage sets the ground work for the trial stage which starts when the complaint¹¹¹ is filed by Viacom ('Complaint').

The trial stage is marked by the production of an array of legal documents such as the YouTube's first formal pleading ('Answer') to the Complaint. It achieves the association between old *actants* (e.g. lawyers, clients, files) and new *actants*

¹⁰⁶ Under 17 USC section 504(b). It sought three remedies, namely, a declaration of infringement, a permanent injunction, and statutory damages as well as the usual cost orders and interests. For more, see Complaint at para. 89.

¹⁰⁷ Answer, pp. 10, < <http://docs.justia.com/cases/federal/district-courts/new-york/nysdce/1:2007cv02103/302164/21/0.pdf>> accessed 5 January 2011.

¹⁰⁸ Declarations are the American equivalent of witness statements and are general accompanied by evidence which is attached as exhibits.

¹⁰⁹ This poses an interesting question about fact construction which is not considered here as it is not within the scope of the research.

¹¹⁰ Thomas Scheffer, 'The Duality of Mobilisation—Following the Rise and Fall of an Alibi-Story on its Way to Court,' (2003) 33(3) *Journal for the Theory of Social Behaviour*, 313.

¹¹¹ In the US, a lawsuit begins when one or more plaintiffs serve a summons and complaint upon one or more defendants.

(e.g. judges, courtrooms, court officials etc). The Complaint marks the start of the formal 'life' of the case which is given the official lease of life through various bureaucratic strategies such as the assignment of a case number, electronic filing, and a court official signature. Each of the four hundred and four¹¹² documents filed in the *Viacom* lawsuit have only been brought into the 'life' of the lawsuit by going through a similar bureaucratic loop of stamp, numbering, and court official signature. The filed documents in the *Viacom* lawsuit are distinct and achieve different aims such as transcription of proceedings before the judge, Amicus Curiae Appearance,¹¹³ and pre-trial conference arrangements. Each action in the case from the purely mundane such as a record sent to the electronic file to the exciting finale (e.g. final judgment) is minutely recorded in a docket report.¹¹⁴ However it is only by going through this tedious process of minute recording of each party's move, of each word uttered by the judge that any action gains the quality of being 'legal.' This supports one of the overall arguments of this chapter that legality is constructed through the local, contingent and precarious 'fitting together' of heterogeneous bits and pieces. Arguably these 'bureaucratic inscriptions'¹¹⁵ can be seen as a necessary pre-conditions for the stability of discourses transferred between *actants* such as legal file, client, and judge.

The legal dispute between the parties is narrated and reduced to the legal brief of the parties in written (e.g. Complaint, Answer) and oral submissions. It can be argued that the parties' legal briefs¹¹⁶ '...keep folded heterogeneous

¹¹² This is the number of filed documents as at 16 March 2011. See <<http://dockets.justia.com/docket/new-york/nysdce/1:2007cv02103/302164/>> accessed 16 March 2011.

¹¹³ An Amicus Curiae Appearance permits permitting interested third parties such as the Sideshow Coalition to participate in the hearing. See <<http://docs.justia.com/cases/federal/district-courts/new-york/nysdce/1:2007cv02103/302164/352/>> accessed 16 March 2011 for its brief.

¹¹⁴ n 27.

¹¹⁵ M Poovey, *A history of the modern fact: Problems of knowledge in the sciences of wealth and society* (The University of Chicago Press Chicago 1998). Valverde (2005), n 132, similarly argues that the reduction of documents to a 'bureaucratic existence is an absolutely necessary feature of modern information transfers.'

¹¹⁶ P Tuitt, '*Legal Practice and Modes of Dying: Bruno Latour, Technology and the Critical Legal Instance*,' (2005) 16(1) Law and Critique, 113.

temporalities...and assemble...ancient times and dispersed spaces.¹¹⁷ Hence, the Complaint is an assemblage which brings the alleged uploading of more than one hundred and fifty thousand Viacom content¹¹⁸ by YouTube users in various jurisdictions within one space-continuum, and the spaces it traverses such as the court room, and the lawyers' office.¹¹⁹ Moreover, the narrative at the trial stage is bound to the legal file which '...keeps folded an experience of law in all its temporal and spatial dimensions....' and represents a 'true form of mediation through which law is constituted.'¹²⁰ Only the facts and legal grounds presented in the filed documents¹²¹ can be used by lawyers to construct the oral argument during the trial stage. Hence, the legal file opens some avenues (e.g. what defence will YouTube present) and closes others.¹²²

The complex intertextuality¹²³ between the filed documents resembles mini-discourses¹²⁴ which refer to certain ways of ordering documents, relations, and things. The legal brief orders¹²⁵ the dispute by defining the conditions of possibility and their limits. Thus, Viacom files the Complaint following strict pleading rules¹²⁶ such as use of numbered paragraphs, identifying the causes of actions and the

¹¹⁷ Bruno Latour, *La Fabrique du Droit: Une ethnographie du Conseil d'Etat* (Paris La Decouverte 2002) 248.

¹¹⁸ E.g. 'Sponge Bob Square Pants.'

¹¹⁹ n 71.

¹²⁰ n 92, 250.

¹²¹ Namely, the Complaint, Answer to the Complaint, amended Complaint/Answer to Complaint and the declarations.

¹²² E.g. YouTube can only invoke the defences cited in its Answer and Amended Answer.

¹²³ By intertextuality I refer to the need for one document to be read in the light of its allusions to and differences from the content of other documents. This definition of 'intertextuality' has been adapted from the meaning of the word in the Oxford English Dictionary, Online Edition.

¹²⁴ John Law, *Organizing Modernity* (Oxford Blackwell 1994); J Law, 'Actor Network Theory and Material Semiotics,' in (ed B S Turner) *The New Blackwell Companion to Social Theory* (Wiley-Blackwell Oxford 2009) chp 7.

¹²⁵ It provides one possible state of order.

¹²⁶ By pleading rules, I refer to the rules on drafting and filing pleadings such as a Complaint in America. For more see, Rule 8, Federal Rules of Civil Procedure.

remedies which the complainants seek. When responding to the Complaint, YouTube has to draft an Answer that responds to each allegation made in the Complaint in the order made, use standardised language to respond to each paragraph in the Complaint such as deny, admit, and without sufficient knowledge or information to form a belief. Consequently there are discursive limits on how YouTube can respond to the Complaint in its Answer and these limits order the network of the legal dispute. Additionally an analysis of the filed documents shows the presence of multiple discursive orders.¹²⁷ By this I mean that there are different ways to order different relations. For instance, arrangements for conference meetings between the parties are distinct from the appointment of the presiding judge. All the filed documents enact relations between diverse elements as facts, and legal rules.¹²⁸ They also order the relations between the *actants* involved in the case and permit the addition of new *actants* such as third parties (through order granting motions to appear), and new evidence (e.g. disclosure orders). In order to further account for the roles of various legal elements in constructing YouTube's copyright network, next consider how judicial decision-making, which also emerges as a strongly relational process through my ANT-Foucauldian Power Lens, also locally impact on the construction of YouTube's copyright network.

4.3.4 Judicial Decision-Making as 'Heterogeneous Engineering'

In this section, I focus on the final judgment granted in favour of YouTube¹²⁹ in the *Viacom* lawsuit to exemplify the heterogeneity of the judicial decision-making process from my ANT-Foucauldian Power Lens. This analysis supports two overall arguments of this chapter that (1) specific legal, social, and technological elements are locally, contingently, and precariously 'fitted together' to form and perform YouTube's copyright network, and (2) my ANT-Foucauldian Power Lens can help us understand judicial decision-making¹³⁰ in relational terms. From this vantage point,

¹²⁷ *ibid.*

¹²⁸ E.g. rule 7.1 on disclosure orders. The filed documents themselves enclose associations between facts, legal rules (e.g. rule 7.1. for disclosure orders), precedents etc.

¹²⁹ See < <http://docs.justia.com/cases/federal/district-courts/new-york/nysdce/1:2007cv02103/302164/401/>> for Final Order.

¹³⁰ It is beyond the scope of this work to provide a comprehensive account of the various ways in which judicial decision-making and the role of judges have been approached in

judges are not viewed as the delegates of the sovereign, who deliver decisions within specific political and cultural contexts, a point familiar to socio-legal researchers.¹³¹ Rather, and thereby transcending traditional socio-legal perspectives,¹³² the roles of judges are analysed in relational terms including their relations with heterogeneous *actants* such as technologies.

In the *Viacom* lawsuit, the judge had to rule on the key issue of whether YouTube is eligible for the safe harbour protection. Here judicial decision-making is a relational process where specific social, technological, and legal elements are locally, contingently, and precariously 'fitted together' to form and perform the decision in question. The judge had to understand the complex factual matrix of the case enclosed in the written and oral submissions of the parties and form a view on the case's key legal/factual issue(s).¹³³ The submissions contain socio-legal-technological regimes of knowleges. Hence, both parties file submissions from actors belonging to different fields such as technological (e.g. YouTube's declaration on Content ID's technical aspects),¹³⁴ and legal (e.g. Memorandum of law by each party's legal team) fields.¹³⁵ Additionally, the regimes of knowledge

socio-legal literature. For more see Cotterrell (1989) *n* 131; and P S Atiyah, *Law & Modern Society* (Opus, 1995).

¹³¹ Roger Cotterrell, *The Politics of Jurisprudence: A Critical Introduction to Legal Philosophy* (Butterworths 1989) 75.

¹³² Certain authors such as Valverde (2005), Lange (2006), Cloatre (2008) and Scheffer (2004) have recently started to explore the analytic overtures offered by ANT to the study of law. See Marianna Valverde, 'Authorizing the Production of Urban Moral Order: Appellate Courts and Their Knowledge Games,' (2005) 39(2) *Law & Society Review*, 419 for the use of an ANT perspective to shed light on the dynamics of knowledge processes in appellate courts. See Thomas Scheffer, 'Materialities of Legal Proceedings,' (2004) 17(4) *International Journal for the Semiotics of Law*, 356 on the materialities of legal proceedings. See Bettina Lange, 'Social Dynamics of Regulatory Interactions: An Exploration of Three Sociological Perspectives,' in M. Freedman (ed.), *Law and Sociology* (Oxford University Press, 2006) 141. See Emilie Cloatre, 'Trips and Pharmaceutical Patents in Djibouti: an ANT Analysis of Socio-Legal Objects,' (2008) 17 (2) *Social Legal Studies* 263.

¹³³ Namely, has YouTube discharged its statutory obligations? Is it eligible for the safe harbour immunity?

¹³⁴ See <<http://docs.justia.com/cases/federal/district-courts/new-york/nysdce/1:2007cv02103/302164/369/0.pdf>> accessed June 2011.

¹³⁵ E.g. Memorandum of Law in support of Viacom's Motion for Partial Summary Judgment on Liability and Inapplicability of the Digital Millennium Copyright Act Safe Harbour Defense

have no essence per se but rather have uses which vary from context to context.¹³⁶ Thus, in the lawsuit, documents such as the Terms of Use¹³⁷ evidence YouTube's compliance with its legal obligations but within the YouTube community they constitute the rules of entry. Part of the judicial decision-making process also involves linking precedents¹³⁸ to these regimes of knowledge, and key Congressional Reports¹³⁹ to decide key questions such as the meaning of statutory phrases such as '*actual knowledge that the material or activity is infringing*' which impinge upon the case.

Furthermore, the court's ruling mobilises the roles of the relevant *actants* in YouTube's copyright network temporarily. The mobilisation of the *actants*' roles through the ruling is contingent on the future outcome of any appeal to the ruling. In the *Viacom* lawsuit, Viacom's recent appeal may disrupt the mobilisation of YouTube's copyright network if the summary judgment order is revoked.¹⁴⁰ The appeal also leads to the rebirth of the legal file which 'died' temporarily when the Final Judgment was granted and may lead to the production of more documents.¹⁴¹

<<http://docs.justia.com/cases/federal/district-courts/new-york/nysdce/1:2007cv02103/302164/186/0.pdf>> accessed June 2011.

¹³⁶ Valverde (2005), *n* 132 makes a similar point in her study about the production of urban moral order in appellate courts.

¹³⁷ The 'Terms of Use' were produced as exhibits in the declaration of the then Associate General Counsel of Google, Zahavah Levine. For more see the declaration of Zahavah Levine <<http://docs.justia.com/cases/federal/district-courts/new-york/nysdce/1:2007cv02103/302164/295/>> accessed June 2011.

¹³⁸ The following precedents were considered namely *UMG Recording Inc. v. Veoh Networks, Inc.* 665 F. Supp. 2d 1099, 1108 (C.D. Cal. 2009), cited at pp. 17 of the Opinion and Order; *Corbis Corp. v. Amazon.com, Inc* 351 F. Supp. 2d 1090, 1108 (W.D. Wash. 2004), cited at pp. 18 of the Opinion and Order;¹³⁸ and *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.* 545 U.S. 913 (2005), cited at pp. 21 of the Opinion and Order.

¹³⁹ The Senate Committee on the Judiciary Report, S. Rep. No. 105-190 (1998), cited at pp. 7-15 of the Order and Opinion and The House Committee on Commerce Report, H.R. Rep. No. 105-551, pt. 2 (1998), cited at pp. 9-15.

¹⁴⁰ *Viacom International Inc et al v. YouTube Inc et al*, No. 07-cv-02103-LLS (S.D.N.Y. Nov. 8, 2010).

¹⁴¹ At the time of writing this chapter, two hundred and fifty-one documents have been filed in connection with the appeal. See <<http://dockets.justia.com/docket/circuit-courts/ca2/10-3270/>> accessed May 2011.

I now leave aside YouTube's copyright law network to analyse how another *actant*, namely, YouTube's legal department contributes to the various stages of the construction of YouTube's copyright network, including, 'problematization.'

4.4 Mapping Actants' Roles in the Terms of Use

In this section, I analyse the role of YouTube's legal department in constructing YouTube's copyright network. In particular, by analysing the three ways in which YouTube's legal department shapes the 'problematic field', initially defined by certain legal elements, in YouTube's copyright network, I explore one overall key argument of this chapter that no single *actant* has a privileged role in constructing YouTube's copyright network. Here, I also explore how YouTube's legal department attempts to impose its 'problems-solutions'¹⁴² by 'interesting'¹⁴³ and enrolling¹⁴⁴ other *actants* such as YouTube's technological department into accepting their roles in such 'problems-solutions'.

YouTube's legal department shapes the 'problematic field', initially defined by certain legal elements, by pursuing its own interests, namely, minimising YouTube's exposure to copyright infringement lawsuits or complaints whilst maximising the creation, viewing and distribution of user-generated content.¹⁴⁵ It contributes to the 'problematic field' in YouTube's copyright network in three ways. Firstly, YouTube's legal department has to ensure that YouTube meets its obligations under US Copyright Laws such as YouTube's obligation to provide right-holders and YouTube users with a copyright dispute resolution mechanism to minimise YouTube's liability for copyright infringement. YouTube's legal department drafts the Terms of Use in such a way as to ensure that it provides YouTube users and right-holders with a copyright dispute resolution mechanism which complies with

¹⁴² Some scholars use the term 'problem-solution' to define the attempts by one or more *actant* to define the 'problematic field' in a specific network in terms of a specific solution. See Thomas Osborne, 'What is a problem?' (2003) 16 (4) *History of the Human Sciences* 1.

¹⁴³ This is the second stage of translation. Chapter Three.

¹⁴⁴ This is the third stage of translation. Chapter Three.

¹⁴⁵ Paragraph 4, Declaration of Zahava Levine, Viacom lawsuit, n 137.

relevant statutory requirements.¹⁴⁶ By doing so, YouTube's legal department is also arguably enrolled into the scheme of US Copyright Laws. Furthermore, YouTube's legal department contributes to the 'problematic field' by using its legal skills such as legal interpretation, reasoning and drafting to ensure that the Terms of Use are drafted in such a way that specific rights and obligations are granted to specific *actants* such as YouTube users and right-holders.

Secondly, YouTube's legal department shapes the 'problematic field' for YouTube users and right-holders who wish to file and/or defend a copyright complaint under non-US copyright laws by specifying how such complaints should be filed and/or defended in the Terms of Use.¹⁴⁷ Non-US copyright laws do not detail how such complaints should be filed and/or defended. By minutely providing for how such complaints should be filed and/or defended, YouTube's legal department defines the 'problematic field' for such *actants*.

Thirdly, YouTube's legal department contributes to the 'problematic field' in YouTube's copyright network by persuading YouTube's technological department to construct the Terms of Use as an 'obligatory point of passage' through which relevant *actants* such as YouTube users, and YouTube have to pass from time to time. YouTube's legal department uses its drafting skills to draft the Terms of Use in accordance with relevant legal and drafting principles so that the Terms of Use amount to a legally binding contract between YouTube and relevant *actants* such as YouTube users.¹⁴⁸ Additionally, YouTube's legal department enrolls YouTube's technological department to construct the Terms of Use as 'obligatory points of

¹⁴⁶ YouTube discharges its duty to provide right-holders and YouTube users with a copyright dispute resolution mechanism which is in accordance with 17 USC 502, 504, 521 (g) by making provisions for such a copyright dispute resolution mechanism in Term 6, Terms of Use, n 9.

¹⁴⁷ <<http://www.google.com/support/youtube/bin/answer.py?answer=59826&query=counter&topic=&type=>> accessed May 2011.

¹⁴⁸ As YouTube is incorporated in California, presumably, the Terms of Use comply with sections 1619-1632 of the California Civil Code. Additionally, as English courts and English law are the relevant choice of jurisdiction and courts, the Terms of Use also have to comply with English contract law. For more see, Joseph Chitty, *Chitty on Contracts*, Vol. 1. (Sweet & Maxwell, 2012). The Terms of Use also have to be written in accordance with relevant rules of drafting contracts. See Mark Anderson and Victor Warner, *Drafting and Negotiating Commercial Contracts* (A&C Black, 2012).

passage,' by ensuring that if the YouTube user does not tick the 'tick-box,'¹⁴⁹ at the time of signing up to YouTube, and thereby confirming his/her acceptance of the Terms of Use, then the YouTube user is not authorised to join the community. Furthermore, YouTube`s technological department is also enrolled to design technological features to support the Terms of Use such as hyperlinks to these terms on almost each page of the website and multiple warnings to YouTube users when the YouTube Users upload a Video not to violate the Terms of Use by uploading a Video which contains infringing material. The Terms of Use can be likened to partial 'immutable mobiles' as they display strong properties of irreversibility whilst being mobile in time and space. By this I mean that the Terms of Use can travel through the various 'fibres' of YouTube`s copyright network because of their mobility (they can be accessed via a hyperlink) and durability (they are enclosed in a textual document). They are partial 'immutable mobile' as the contents of the Terms of Use can be updated regularly by YouTube`s legal department to reflect legal or commercial changes. However, the successful translation of the Terms of Use in YouTube`s copyright network can be temporary and can be disrupted through socio-legal-technological practices such as when a YouTube user breaches the Terms of Use¹⁵⁰ by attempting to circumvent Content ID.

While YouTube`s legal department is an important *actant* in constructing YouTube`s copyright network, as suggested above, it is not a privileged *actant* in network construction. My data analysis has shown that a third *actant*, namely, YouTube`s technological department also impacts on the construction of YouTube`s copyright network.

4.5 Configuring Solutions through Technological Designs

In this section, I analyse the roles of YouTube`s technological department in constructing YouTube`s copyright network by focussing on two technologies, namely, Content ID,¹⁵¹ and Regional Blocking Technology¹⁵². By technology, I refer

¹⁴⁹ The tick-box refers to the box which YouTube users have to tick when signing up to YouTube to evidence their acceptance of the Terms of Use.

¹⁵⁰ Term 4.

¹⁵¹ It is a filtering technology used by commercial right holders to manage their content. For more, see <<http://www.youtube.com/t/contentid>> accessed May 2011.

to the ‘family of methods for associating and channelling other entities and forces, both human and nonhuman.’¹⁵³ This analysis supports three overall arguments of this chapter. Firstly, this analysis supports the argument that YouTube’s copyright network is constructed as a socio-legal-technological network. I illustrate this argument by analysing how heterogeneous *actants* are locally ‘fitted together’ to form and perform these technologies. Secondly, I analyse how specific instances connections can be disconnected by various forces, such as resistance by YouTube users, to support another overall argument of this chapter that the local connections between heterogeneous *actants* can often be precarious and contingent. This approach differs¹⁵⁴ from the cyber-regulatory¹⁵⁵ social constructivist view of technology which considers how the market or private companies drive technological innovations¹⁵⁶ and interact with the user, who is conceived as a ‘pathetic dot.’¹⁵⁷ Instead my approach emphasises that technological solutions are constructed through a process of heterogeneous engineering¹⁵⁸ between social, legal, and technological elements which can often become be disconnected by disruptive forces such as resistance by the user.

4.5.1 Constructing Technological Designs: a Tale of Heterogeneity

YouTube’s technological department defines the ‘problematic field’ in YouTube’s copyright by offering certain technologies such as Content ID and the Regional Blocking Technology as solutions to copyright protection and/or violation issues. The

¹⁵² It is a technology used to blocked content in specific jurisdictions.

¹⁵³ John Law, ‘Technology and the Case of the Portuguese Expansion,’ in (ed) WE Bijker and others, *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology* (MIT Press 1989) 115.

¹⁵⁴ For more on this, see Chapter Two.

¹⁵⁵ E.g. Lawrence Lessig, *Code Version 2.0* (Basic Books 2006).

¹⁵⁶ For more on this, see TJ Pinch and W E Bijker, ‘*The Social Construction of Facts and Artefacts: or How the Sociology of Science and the Sociology of Technology might Benefit Each Other,*’ (1984) 14 *Social Studies of Science*, 388 and WE Bijker and others, *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology* (MIT Press 1989) 17ff, 159.

¹⁵⁷ n 155.

¹⁵⁸ See n 153, 113.

essential blocks for such technologies can often have been set by other actants such as US Copyright Laws. However, by designing, testing, bug fixing the look and feel, operations and functionalities of Content ID and the Regional Blocking Technology, YouTube`s technological department distinctly contributes to the construction of the ‘problematic’ field in YouTube`s copyright network.

YouTube`s technological department offers Content ID as the solution to the problem of how to enable right-holders to manage the use of their content by YouTube users. Right-holders provide a digital fingerprint of their copyrighted content to Content ID. This digital fingerprint is stored in Content ID`s reference library. Each time a YouTube user uploads a Video, Content ID filters the Video to detect whether the Video contains copyrighted content. If there is a match between the Video and the reference library, then Content ID applies the usage policy elected by the right-holder, namely, track, block, or monetise.¹⁵⁹ Tracking refers to tracking specific information about the YouTube user who has viewed the Video in question. Blocking refers to either muting or disabling the Video. Monetise refers to applying an advertisement to the infringing Video. If the ‘monetise’ option is applied to a Video, then the right-holder is entitled to a portion of the revenue generated by the advertisement according to his/her licensing contract with YouTube.¹⁶⁰ Specific functions performed by Content ID are constructed through the local ‘fitting together’ of diverse elements such as programming language, binary bits, right-holders, copyright licences, digital fingerprint of the audio-visual content of a right-holder, and the YouTube user`s practice of uploading a Video.

YouTube`s technological department also offers the Regional Blocking Technology as an ‘obligatory point of passage’ for right-holders who wish to block their content in an unlicensed jurisdiction. The Regional Blocking Technology blocks a specific content in an unlicensed jurisdiction. The successful translation of the Regional Blocking Technology depends on durable connections between heterogeneous elements such as YouTube user`s geo-location information, right-holders, copyright licence, binary bits and programming language. YouTube`s legal

¹⁵⁹ ‘How Content ID works?’ (YouTube) < <https://support.google.com/youtube/answer/2797370?hl=en> > accessed 8 January 2012.

¹⁶⁰ Ibid.

and technological departments collaborate with one another to devise 'interessement' and enrolment strategies to stabilise the roles inscribed in Content ID and the Regional Blocking Technology. For example, YouTube's legal and technological departments provide extensive information to YouTube users and right-holders about Content ID and the Regional Blocking Technology through Videos,¹⁶¹ posts on YouTube's blogs¹⁶², and dedicated sections in the 'Help Centre'.¹⁶³ By providing YouTube users and right-holders with so much information in different 'capillaries' of YouTube's copyright network, YouTube's legal and technological departments aim to cement the roles of relevant *actants* such as YouTube users and right-holders which are inscribed in Content ID and the Regional Blocking Technology such as the role of the right-holder to submit a digital fingerprint of his/her audio-visual content to YouTube as analysed in section 4.2. These strategies aim to persuade the relevant *actant* (e.g. the right-holder) that the technology (e.g. the Regional Blocking Technology) in question is an 'obligatory point of passage to solve the problem' (e.g. prevent the use of copyrighted content in an unlicensed jurisdiction). By inscribing such information in material conditions such as videos, blog posts, and hyperlinks, the relations between the distant *actants* such as the right-holder user located in London, and a copyrighted content hosted on a server located in India can be ordered over time and space. For example, my data analysis suggests the partial successful translation of Content ID in YouTube's copyright network as over one thousand right holders have signed up to Content ID which contains over one million reference files (i.e. over one hundred thousand hours of audio or Video footage).¹⁶⁴ But there is also resistance against Content ID

¹⁶¹ E.g. <<http://www.youtube.com/t/contentid>>; <<http://www.youtube.com/watch?v=9g2U12SsRns>> accessed May 2011.

¹⁶² E.g. D King, 'Latest Content ID Tool for YouTube,' (Google Blog, 15 October 2007) <<http://googleblog.blogspot.com/2007/10/latest-content-id-tool-for-youtube.html>> accessed 4 May 2010; and D King, 'Content ID Turns 3,' (Google Blog, 2 December 2010) <<http://googland.blogspot.com/2010/12/g-content-id-turns-three.html>> accessed 1 January 2011.

¹⁶³ E.g. <<http://www.google.com/support/youtube/bin/answer.py?hl=en&answer=83766>> accessed May 2011.

¹⁶⁴ Shenaz Zack, 'Content ID and Fair Use,' (Google Public Policy Blog, 23 April 2010) <<http://googlepublicpolicy.blogspot.com/2010/04/content-id-and-fair-use.html>> accessed 5 May 2010.

and the Regional Blocking Technology, a feature that clearly emerges through the Foucauldian elements of my ANT-Foucauldian Power Lens, as discussed next.

4.5.2 Disconnection as a Network Building Strategy

In this section, I argue that the specific local connections forming and performing Content ID and the Regional Blocking Technology can occasionally be disrupted. This supports one of the overall arguments of this chapter that the local connections between heterogeneous actants in YouTube`s copyright network are precarious.

My data analysis shows two significant resistance movements against Content ID which often threaten to disconnect the local connections which form Content ID. First, many YouTube users resist Content ID by using third party technologies (e.g. Audacity) to circumvent Content ID. This practice is enacted in YouTube`s copyright network (and it also enacts the network – i.e. leads to the construction of the network) through various strategies such as advice on using third party technologies, message inciting other YouTube users to use third party technologies and reporting successful circumvention of Content ID.¹⁶⁵ Second, my data analysis shows ample strategic use of the fair use defence in Counter-Notifications to dispute legitimate Takedown Notices. YouTube users employ this strategy to temporarily¹⁶⁶ re-enable content lawfully blocked by Content ID. My data analysis has shown that the level of resistance against Content ID is strong due to the YouTube users` perceptions that Content ID erodes the fair use doctrine as it

¹⁶⁵ E.g. data collected from videos and accompanying comments in Week 4, day 2 and week 2, day 3 of the virtual ethnography. See mglittle robin, 'How to dispute YouTube Content ID over wrongful WMG claim to your video,' (*YouTube*, 17 February 2009) <<http://www.youtube.com/watch?v=PXGaWPFZpE>> accessed 18 May 2011; Plankhead, 'How to dispute your blocked YouTube video,' (*YouTube*, 26 April 2010) <<http://www.youtube.com/watch?v=MPGQqWP-MRU>> accessed 18 May 2011; Kariodude, 'Tutorial: How to bypass copyright infringement,' (*YouTube*, 3 February 2009) <http://www.youtube.com/watch?v=oiQDc_TCGS8>.

¹⁶⁶ The content is re-enabled until the right holder considers the merit of the Counter-Notification.

does not consider whether the use in question amounts to fair use.¹⁶⁷ This may account for Content ID's frequent lack of success in imposing itself between the content, the YouTube user, and third-party circumvention technologies.

My data analysis also shows that the local connections between the heterogeneous *actants* forming and performing the Regional Blocking Technology can often be disrupted by resistance practices by YouTube users. For example, many YouTube users use proxy servers¹⁶⁸ to circumvent the operations of the Regional Blocking Technology. ¹⁶⁹If YouTube users use such proxies successfully, then they can bypass the Regional Blocking Technology and view the content in question despite the fact that this is a restricted content for the region in question. Such resistance practices are arguably instances of ways in which YouTube users conduct themselves in relation to specific set of rules for distinct technologies such as Content ID and Regional Blocking Technologies.¹⁷⁰ They are therefore indicative of an 'ethics' of YouTube users. Such forms of resistance can only be developed if there are suitable spaces or assemblages sustaining such practices such as binary

¹⁶⁷ Data collected from videos and associated commented boards during virtual ethnography. E.g. data collected during in week 5 (2nd day) PlasticKatanaProd, 'How to Resolve Copyright on YouTube,' 21 February 2009 <<http://www.youtube.com/watch?v=ir1hGMK-1Ak&feature=related>> accessed 22 June 2010; DarkLordofDebate, 'How to Dispute YouTube Copyright Notices (Content ID System),' 12 March 2010 <<http://www.youtube.com/watch?v=RtdBI-0EE0Y>> accessed 22 June 2010.

¹⁶⁸ A proxy server is a server (a computer system or an application) that acts as an intermediary for requests from clients seeking resources from other servers.

¹⁶⁹ Data collected during my virtual ethnography. See CoolDudeKlem, 'How to watch streaming video anywhere in the world, regardless of any region restrictions,' (YouTube, 30 May 2009) < <http://www.youtube.com/watch?v=BsChrIZ0YCE>> accessed 23 June 2010; piratemorocco, 'How to Change your IP to Any Country You Want,' (YouTube, 1 December 2009) < <http://www.youtube.com/watch?v=-SxMw3PukYg>> accessed 23 June 2010; Hussain Isa, 'How to Change your IP Address?' (YouTube, 15 December 2011) < <http://www.youtube.com/watch?v=ulwkf1sOfdA>>.

¹⁷⁰ M Foucault, *The history of sexuality* (1st American edn Pantheon Books New York 1978)

codes and programming languages¹⁷¹ constructing third-party technologies such as Audacity. It could be argued that YouTube users are exercising their agency here by resisting certain normalising forces through their own personal ethical conducts,¹⁷² by, for example, viewing a restricted content in an unlicensed jurisdiction.

The effectiveness of the resistance movement of YouTube users against Content ID and the Regional Blocking Technology is reinforced by the obduracy of their underlying materiality. The provision of advice (through Comments and / or Videos) can be likened to 'immutable mobiles' which enrol YouTube users over a distance (e.g. YouTube users located in multiple locations such as the UK and Canada). Advice through Comments and/or Videos amount to 'immutable mobiles' as they display strong properties of irreversibility by travelling from one 'capillary' of YouTube's copyright network to another without changing. The association of durable and heterogeneous materials such as Macromedia Flash Player underlying YouTube Player,¹⁷³ Video file formats (e.g. .AVI),¹⁷⁴ textual Comments, functionalities underlying Interactions¹⁷⁵ lead to the performance of the relations of resistance which are embodied in these very materials. The durability of the association itself is relational. If another *actant* enters the equation, it may disrupt the association. An example of such a disruptive action is when a YouTube user comments that the circumvention practice breaches the Terms of Use¹⁷⁶ and may

¹⁷¹ A programming language refers to 'a system of precisely defined symbols and rules devised for writing computer programs.' (Oxford English Dictionary, Online Version).

¹⁷² Michel Foucault, 'The Ethic of the Care for the Self as a Practice of Freedom,' in J Bernauer & D Rasmussen (eds) *The Final Foucault* (Cambridge Mass Massachusetts Institute of Technology Press 1988) 1.

¹⁷³ 'System Requirements,' (*YouTube*)
<<http://www.google.com/support/youtube/bin/answer.py?hl=en-GB&answer=78358>>
accessed 5 June 2010.

¹⁷⁴ For the full list of video file formats required for the Uploading Application Software and YouTube Player, see 'What video file formats can I upload,' (*YouTube*)
<<http://www.google.com/support/youtube/bin/answer.py?hl=en-GB&answer=55744>>
accessed 5 June 2010.

¹⁷⁵ E.g. Like and Dislike buttons.

¹⁷⁶ Term 5C, 'Terms of Use' (*YouTube*)
<<http://www.youtube.com/static?gl=US&template=terms>> accessed 5 June 2010.

result in disciplinary action (e.g. account suspension).¹⁷⁷ On reading such Comments, certain YouTube users may become disconnected from the resistance movement. Thus, the strength of the resistance movement is dependent on the durability of the association between the relevant *actants*.

My data analysis has shown that another key aspect of YouTube`s copyright network is YouTube`s Copyright Dispute Resolution Mechanism. I now consider how heterogeneous social, legal, and technological elements are locally, contingently and precariously ‘fitted together’ to form and perform YouTube`s Copyright Dispute Resolution.

4.6 YouTube`s Copyright Dispute Resolution Mechanism : a Tale of Capitulation and Chilling Effects

In this section, I analyse how YouTube`s Copyright Dispute Resolution Mechanism is translated in YouTube`s copyright network. This analysis supports two overall arguments of this chapter. Firstly, this analysis supports one overall argument that heterogeneous *actants* are locally ‘fitted together’ to form and perform YouTube`s copyright network. Here I also analyse how specific local connections can be disrupted by specific obstacles such as strategic use of the ‘fair use’ doctrine in a Counter-Notification to support my argument that specific local connections can often be precarious. Secondly, I analyse the roles of ‘materialities’ such as web forms to support my argument that when specific local connections are embodied in ‘materialities,’ they become more durable and mobile.

4.6.1 Configuration of Roles and Relations through Content and Design choices

So what heterogeneous *actants* are locally, contingently, and precariously ‘fitted together’ to form and perform YouTube`s Copyright Dispute Resolution Mechanism?

As explained earlier,¹⁷⁸ YouTube`s legal department is enrolled in the project of US Copyright Laws and enacts YouTube`s Copyright Dispute Resolution Mechanism in YouTube through the Terms of Use. The successful translation of YouTube`s Copyright Dispute Resolution Mechanism partly depends on the

¹⁷⁷ Ibid.

¹⁷⁸ See section 4.3 above.

interaction between YouTube's legal and technological departments. Hence YouTube's legal department has to persuade YouTube's technological department to design certain technological functionalities such as the design, and layout of the Takedown Notice.¹⁷⁹ Additionally, it has to convince YouTube's technological department to inscribe certain legal obligations such as the good faith statement in the Takedown Notice,¹⁸⁰ in the binary codes underlying YouTube's Copyright Dispute Resolution's webpages or web forms.¹⁸¹ Furthermore, it has to persuade YouTube's technological department to enrol the Takedown Notice and Counter-Notification within all the 'capillaries' of YouTube's copyright network through hyperlinks to the Takedown Notice and Counter-Notification as well as sections in the Help Centre and other pages on the YouTube website which contain further information about the Takedown Notice and Counter-Notification.¹⁸² Such sections in the Help Centre amount to socio-legal-technological regimes of knowledge as they provide *actants* such as right-holders with detailed instructions on how to use specific functionalities such as the web forms, how to file a complaint which fulfils the requirements of US Copyright Laws,¹⁸³ and specific practices such as the time frame within which a Takedown Notice has to be filed.¹⁸⁴

¹⁷⁹ The takedown notice form can be accessed at 'Copyright Infringement Notification,' (YouTube) <http://www.youtube.com/copyright_complaint_form> accessed 5 June 2010

¹⁸⁰ *ibid.*

¹⁸¹ *ibid.* The Counter-Notification form can be accessed at 'Copyright Counter-Notification,' (YouTube) <http://help.youtube.com/support/youtube/bin/request.py?contact_type=copyright_counternotification> accessed 5 June 2010.

¹⁸² For instance hyperlinks and web information on how to file a takedown notice or Counter-Notification, and what elements should be contained in either notices. See 'Copyright Counter-Notifications, International Counter-Notifications,' (YouTube) <<http://www.google.com/support/youtube/bin/answer.py?answer=59826&query=counter&topic=&type=>>> accessed 5 June 2010; n. 162.

¹⁸³ E.g. Identify the url of the infringing video; include the 'good faith statement' which states 'I have a good faith belief that the use of the material in the manner complained of is not authorized by the copyright owner, its agent, or the law'; include 'truth statement' which states 'The information in this notification is accurate, and under penalty of perjury, I am the owner, or an agent authorized to act on behalf of the owner, of an exclusive right that is allegedly infringed;' and sign the Takedown Notice.

¹⁸⁴ E.g. 'Claim Disputes,' (Help Centre) <<https://support.google.com/youtube/answer/2663800?hl=en>> accessed 25 October 2013;

Secondly, a comparative analysis of the design and content of the web forms and web pages for the Takedown Notice and Counter-Notification reveal strikingly different patterns of technological and legal burdens. A right-holder faces fewer technological burdens when s/he files Takedown Notice.¹⁸⁵ By this I mean that the right-holder has to click on fewer hyperlinks or view less cumbersome web pages when s/he files a Takedown Notice. The right-holder can easily navigate to the Takedown Notice through a simple search of terms such as 'copyright complaint' or access the hyperlink 'Report Copyright Infringement' accessible from the 'Help Centre'.¹⁸⁶ Both actions take the right holder to the web page containing information¹⁸⁷ about the takedown procedure and a clearly visible link to the Takedown Notice web form¹⁸⁸ which is accessible through one last final click. Additionally, the information relating to the Takedown Notice is easily readable, with few hyperlinks, unambiguous instructions on how to fill the Takedown Notice web form. Thus, the instructions on how to fill the Takedown Notice are clearly stated in plain English without stating that these are the requirements of US Copyright Laws. The Takedown Notice web form is further designed to minimise technological burdens through its user-friendly and accessible format of five sections with one question per section.¹⁸⁹ It is also designed to minimise legal burdens on right-holders through various features such as lack of legal warnings such as warnings about the legal consequences of bad faith notices.¹⁹⁰ Finally, the impact of the bad faith notice

'Copyright Infringement Notification Requirement,' (YouTube) <
<https://www.youtube.com/yt/copyright/copyright-complaint-requirements.html> > accessed 25 October 2013.

¹⁸⁵ DMCA or international.

¹⁸⁶ 'Copyright Centre,' (YouTube)
 <<http://www.google.com/support/youtube/bin/topic.py?&topic=10554&hl=en-GB>> accessed 5 June 2010.

¹⁸⁷ 'Copyright Infringement Notification,' (YouTube)
 <http://www.youtube.com/t/copyright_notice> accessed 5 June 2010.

¹⁸⁸ 'Copyright Infringement Notification,' (YouTube)
 <http://www.youtube.com/copyright_complaint_form> accessed 5 June 2010.

¹⁸⁹ 'Copyright Infringement Notification,' (YouTube)
 <http://www.youtube.com/copyright_complaint_form> accessed 5 June 2010.

¹⁹⁰ E.g. if the user has a licence to the content, or has the permission of the right holder, or if the use amounts to fair use.

is diluted as it is not very prominent. It is placed after the hyperlink to the Takedown Notice web form which reduces its visibility to right holders.

Conversely, a YouTube user who files a Counter-Notification web form faces more technological and legal burdens (e.g. warnings of legal sanctions) in order to be able to access the Counter-Notification form. The Counter-Notification is embedded within several hyperlinks and webpages. This means mean that a simple search (e.g. 'Counter-Notification') does not take the YouTube user directly to the Counter-Notification form. Rather, s/he is taken to a new webpage containing detailed information about the Counter-Notification process which is very legalistic.¹⁹¹ For instance, there are explicit references to particular legal sections,¹⁹² and extensive¹⁹³ and prominent¹⁹⁴ legal warnings such as the legal consequences of filing a Counter-Notification in bad faith.¹⁹⁵ Moreover, the legalistic look and feel of the web page is supported by specific technological means. Examples of such means are excessive use of the tree view functionality, prominent use of nodes,¹⁹⁶ over-elaborate use of hyperlinks concealing the Counter-Notification form,¹⁹⁷ and requirement for a YouTube user to copy and paste two compulsory legal statements.¹⁹⁸

¹⁹¹ <http://www.youtube.com/t/copyright_counter> accessed May 2010.

¹⁹² DMCA 1998, 17 U.S.C., section 512.

¹⁹³ I.e. the Counter-Notification web form should only be filed when the user is certain that s/he has the necessary rights to the content, and that filing of a Counter-Notification web form can lead to the user being sued by the right holder.

¹⁹⁴ In bold and red.

¹⁹⁵ <<http://www.google.com/support/youtube/bin/answer.py?answer=155562>> accessed 5 May 2010; <http://www.youtube.com/t/copyright_counter> accessed May 2010.

¹⁹⁶ 'Copyright Counter-Notifications,' (*YouTube*) <<http://www.google.com/support/youtube/bin/answer.py?hl=en&answer=59826>> accessed 5 June 2010.

¹⁹⁷ E.g. when the user clicks on the embedded hyperlink to view the Counter-Notification form, s/he is not taken to the form itself but rather to a webpage where YouTube undertakes an assessment which 'tells [the user] what to do next.

¹⁹⁸ Statements about the duty to make claim in good faith (and the penalty of perjury for breach) and acquiescence of the jurisdiction of the US courts (if DMCA Counter-Notification).

These differences are significant as they show the discursive stabilities within the analysed web forms/pages and how *actants`* roles are allocated through these discursive practices. The active use of technological (e.g. tree view, multiple hyperlinks) and legal (e.g. specific sections of the DMCA, legal warnings) elements increase the technological and legal burdens faced by the YouTube user to access and/or file the Counter-Notification web form. It therefore appears that YouTube`s Dispute Resolution Mechanism is designed in such a way as to dissuade YouTube users from filing Counter-Notifications. Despite this, my data analysis suggests that YouTube users are enrolled into using Counter-Notifications. There are two types of enrolment here legitimate enrolment and strategic enrolment. Legitimate enrolment refers to enrolment by YouTube users whose content have been unlawfully¹⁹⁹ taken down by Content ID and are legitimately issuing a Counter-Notification.²⁰⁰ Strategic enrolment refers to enrolment by YouTube users whose content have correctly been taken down by Content ID but are issuing the Counter-Notification as a strategy to temporarily enable blocked content.²⁰¹ Strategic enrolment in YouTube`s Copyright Dispute Resolution Mechanism is an instance of resistance by a YouTube user against the rights holders.²⁰² YouTube users seek to enrol others in using the Counter-Notification through a wide array of socio-legal-technological strategies. Examples of such strategies include Videos²⁰³ and / or Comments²⁰⁴ explaining how

¹⁹⁹ It is unlawful either because the use amounts to fair use or the user has a licence or the content does not belong to the right holder.

²⁰⁰ E.g. Data collected from week 5 of the virtual ethnography including videos (and associated comment boards) such as DarkLordofDebate, 'How to Dispute YouTube Copyright Notices (Content ID System),' 12 March 2010 <<http://www.youtube.com/watch?v=RtdBI-0EE0Y>> accessed 22 June 2010; U2tubeCopyright, 'How To Resolve Copyright On Youtube (Music/Audio Only),' 9 May 2009 <<http://www.youtube.com/watch?v=nPMNYMggxD8&feature=related>> accessed 22 June 2010.

²⁰¹ E.g. data collected during week 2 of the virtual ethnography such as <<http://www.youtube.com/watch?v=W9-0IKIfR7Q&feature=related>> accessed on 13May 2010.

²⁰² See section 7 below.

²⁰³ *n* 200.

²⁰⁴ *ibid*.

to use the wording of *section 107, Copyright Act 1976* (i.e. fair use exception) in the Counter-Notification web form to invoke the fair use exception.²⁰⁵

Next, I analyse the roles of 'materialities' such as web forms and hyperlinks in lending obduracy to the local connections between the heterogeneous *actants* which form and perform YouTube's Copyright Dispute Resolution Mechanism.

4.6.2 'Materialities': Furthering Capitulation of Interests

'Materialities' such as hyperlinks and web forms are important in maintaining durable local connections between the heterogeneous *actants* which form and perform YouTube's Copyright Dispute Resolution Mechanism. Such 'materialities' maintain for longer the relations promoted by the collaborative exercise between YouTube's legal and technological departments in more durable mediums and by so doing contribute to the third stage of translation - enrolment. The hyperlinks can be compared to 'immutable mobiles' as they can travel from one 'fibre' of the network to another without changing. Hyperlinks play a key role here in network construction as they provide hypertext links to key elements such as 'fair use' and ensure that enrolment can take place over a distance. Consequently, UK YouTube users who are not familiar with the fair use defence²⁰⁶ are enrolled by these hyperlinks to use fair use defence, if applicable, in the Counter-Notification web form. Such hyperlinks also create regimes of knowledge which are socio-legal-technological in nature as they generate knowledge about how technological (e.g. Counter-Notification technical functionalities such as e-signature box) and legal materials (e.g. the e-signature box is included to discharge the legal obligation pursuant to which the YouTube user has to represent that his/her Counter-Notification is made in good faith) can be associated with one another to defend a Takedown Notice. Moreover, the Help Centre also plays an important role in enrolling YouTube users and right-holders in YouTube's Copyright Dispute Resolution Mechanism anticipating the common problems which arise when using YouTube's Copyright Dispute Resolution

²⁰⁵ E.g. data collected during week 1 of the virtual ethnography such as Rewboss, 'How not to get caught for copyright infringement,' 3 April 2009
<<http://www.youtube.com/watch?v=eVs04bm8ua4>> accessed on 18 February 2010.

²⁰⁶ This concept does not exist in English Law which has a different defence known as fair dealing.

Mechanism.²⁰⁷ The information gathered in the Help Centre can be likened to ‘centres of translation’ as they accumulate the traces of many points which are spatially distanced in the network (e.g. exclusive rights, Takedown Notice). The accumulation of the traces depends on other *actants* (e.g. technological elements as hyperlinks) as well as the fact the information are in mobile, partially immutable (e.g. specific information can occasionally change as current technologies such as the YouTube Player are updated), and combinable form (e.g. easy copy and paste of the wording of the fair use defence). To some extent, such ‘centres of translation’ are strong enough to counter resistance which may emanate from other *actants* in the network as explained in section 4.7 below. Next I consider how another disruptive force, namely, abusive Takedown Notices by right-holders can prevent the translation of YouTube’s Copyright Dispute Resolution Mechanism. This supports my argument that local connections between specific heterogeneous *actants* can often be precarious.

4.6.3 The Chilling Effects of Abusive Takedown Notices

Apart from YouTube users’ resistance as evidenced by their strategic use of the Counter-Notifications,²⁰⁸ abusive takedowns by right holders also disrupt the mobilisation of YouTube’s Copyright Dispute Resolution Mechanism. Abusive takedowns refer to instances where right holders issue Takedown Notices in relation to user-generated content containing either wholly or partly their material but where such use falls within the ambit of the ‘fair use’ exception or where the Video does not feature its content. The automatic nature of the system, the lack of human review before the content is blocked, the lack of human consideration of whether use amounts to ‘fair use,’ and the right holders’ sole role in determining the merit of a Counter-Notification are the key weaknesses of the system. It is not argued that YouTube’s legal and technological departments have designed YouTube’s Copyright Dispute Resolution Mechanism to facilitate abusive takedowns. Rather, I

²⁰⁷ <http://www.youtube.com/t/copyright_faq> accessed May 2010.

²⁰⁸ See section 6.1

argue that the 'overbroad protection of legal content'²⁰⁹ is often an outcome of YouTube's Copyright Dispute Resolution Mechanism.²¹⁰

Moreover, YouTube users face many difficulties when responding to abusive Takedown Notices because of the threat of legal action if the Counter-Notification is rejected and the lack of expertise when dealing with commercial right holders. Successful disputes of Takedown Notices are often dependent on the involvement of the Electronic Frontier Foundation ('EFF').²¹¹ The EFF often²¹² successfully interposes itself amongst the relevant *actants* (e.g. the abusive Takedown Notice, the right holder, Content ID) due to its legal and commercial expertise. It can provide YouTube users with the necessary legal expertise to either lodge a successful Counter-Notification or to successfully issue/defend a copyright lawsuit against the right holder.²¹³

²⁰⁹ C McSherry, 'Everyone Who's Made a Hitler Parody Video, Leave the Room,' (*Electronic Frontier Foundation*, 20 April 2010) <<http://www.eff.org/deeplinks/2010/04/everyone-who-s-made-hitler-parody-leave-room>> accessed on 1 May 2010.

²¹⁰ Recent instances of abusive takedown notices include the Universal Music Group ('UMG') takedown of video of a toddler dancing to a Prince song. See 'Prince Tries to Bury Dancing Baby Clip,' (*Electronic Frontier Foundation*) <<http://www.eff.org/takedowns/prince-tries-bury-dancing-baby-clip>> accessed on 5 March 2011. Other examples include the takedown of a home video of a teenager singing 'Winter Wonderland,' the takedown of a home video of a toddler lip-synching to Foreigner's Juke Box Here. See Fred Von Lohmann, 'YouTube's January Fair Use Massacre,' (*Electronic Frontier Foundation*, 3 February 2009) <<http://www.eff.org/deeplinks/2009/01/youtubes-january-fair-use-massacre>> accessed 5 March 2010.

²¹¹ The EFF is an American independent internet advocacy body, which represents consumers in cases where fundamental rights in cyberspace such as free speech are breached.

²¹² Other important cases which the EFF has brought against right holders on behalf of YouTube users for abusive takedowns include *Explorologist Ltd v. Brian Sapien* Case No. 2:07-cv-01848-LP (E.D.Pa., May 7, 2007); *Lenz v. Universal Music Corp.*, Case No. 5:07-cv-03783-JF (N.D. Cal., Feb. 25, 2010); and Makin Counter-Notification against Warner Music Group 'Music Publisher Tries to Muzzle Podcast Criticizing Akon,' (*Electronic Frontier Foundation*) <<http://www.eff.org/takedowns/music-publisher-tries-muzzle-podcast-criticizing-a>> accessed 5 March 2011; 'Malkin Fights Back Against Copyright Law Misuse by Universal Music Group,' (*Electronic Frontier Foundation*, 9 May 2007) <<http://www.eff.org/deeplinks/2007/05/malkin-fights-back-against-copyright-law-misuse-universal-music-group>> accessed 5 March 2011.

²¹³ Thus in *Lenz* n 195, the EFF successfully filed a lawsuit against Universal Music Group on behalf of the user arguing that the takedown by UMG of Lenz's video of a toddler dancing to a song by Prince was a breach of the 'fair use' exception. See 'Prince Tries to Bury

However, the outcome of such cases varies from case to case. For instance, in *Explorologist Ltd v. Brian Sapient*,²¹⁴ Uri Geller issued a Takedown Notice for Video containing segments from a program which challenged his performance techniques. The EFF issued a lawsuit against Geller's company on behalf of a YouTube user on the grounds of misrepresentation and fair use as the Video was a parody.²¹⁵ It successfully negotiated an agreement with Geller's company that placed the clip under a Creative Commons licence.²¹⁶ But in other cases such as the *Malkin* case, the EFF adopted a different strategy, namely assisting Malkin in filing a Counter-Notification resulting in the restoration of the blocked content.²¹⁷ Having explored how YouTube's copyright network is constructed, I now examine the sources of resistance which threaten the last stage of translation, namely, mobilisation.

4.7 Resistance: the Fall of the Giants

In this section I analyse two further types of resistances in YouTube's copyright network, namely, resistance against commercial right holders and YouTube (SP). This analysis supports three overall arguments of this chapter that (1) local connections between heterogeneous *actants* are precarious and contingent, (2) resistance practices are socio-legal-technological rather than being purely social or legal or technological, and (3) my ANT-Foucauldian Power Lens can shed light on the legal notion of legality.

4.7.1 Resistance against Commercial Right Holders

Dancing Baby Clip,' (*Electronic Frontier Foundation*) <<http://www.eff.org/takedowns/prince-tries-bury-dancing-baby-clip>> accessed on 5 March 2011 and *Lenz* n 195.

²¹⁴ Case No. 2:07-cv-01848-LP (E.D.Pa., May 7, 2007).

²¹⁵ Under DMCA, 17 U.S.C. § 512 (f).

²¹⁶ 'Sapient v Geller,' (*Electronic Frontier Foundation*) <<https://www.eff.org/cases/sapient-v-geller>> accessed 9 March 2011.

²¹⁷ See 'Music Publisher Tries to Muzzle Podcast Criticizing Akon,' (*Electronic Frontier Foundation*) <<http://www.eff.org/takedowns/music-publisher-tries-muzzle-podcast-criticizing-a>> accessed 5 March 2011; 'Malkin Fights Back Against Copyright Law Misuse by Universal Music Group,' (*Electronic Frontier Foundation*, 9 May 2007)<<http://www.eff.org/deeplinks/2007/05/malkin-fights-back-against-copyright-law-misuse-universal-music-group>> accessed 5 March 2011.

In this section, I analyse how two specific *actants* namely YouTube users and YouTube resist right-holders to support one of the overall argument of this chapter that specific local ‘fitting together’ can often be disconnected.

YouTube users have developed many resistance practices against commercial right holders such as boycotting the offerings of commercial right holders when they issue abusive Takedown Notices²¹⁸ or using third-party technology to circumvent Content ID.²¹⁹ Three key points emerge from my qualitative empirical data. Firstly, resistance practices are closely linked to perceived abuses by right holders such as abusive takedowns. Thus, mass Warner Music Group (‘WMG’) Takedown Notices²²⁰ in 2008 have led to a colossal wave of resistance by YouTube users such as advice on altering WMG content to circumvent Content ID²²¹ match.²²² Secondly, the resistance practices emerge from the local ‘fitting together’ of specific legal, technological, and social elements. Thus, boycott and incitement practices are formed and performed through the local connections between technological (e.g. Videos, YouTube functionalities),²²³ legal (e.g. discussions about when takedown is

²¹⁸ E.g. Warner Music Group. Data collected during the virtual ethnography in week 3 such as dantay2405, ‘Unite Against WMG,’ 2 February 2009 <<http://www.youtube.com/watch?v=9yvyDB63f8s>> accessed 28 May 2010; PookLowEnd, ‘LRRG Protest against UMG, WMG, and Metallica,’ <http://www.youtube.com/watch?v=brqhkflhlul&playnext_from=TL&videos=dELU0bOTa18&feature=grec_index> accessed 28 May 2010.

²¹⁹ E.g. data collected during virtual ethnography in week 4 such as mglittlerobin, ‘How to Dispute YouTube Content ID over Wrongful WMG Claim to your Video, 17 February 2009 <<http://www.youtube.com/watch?v=PXGaWPFGZpE>> accessed 2 June 2010; DarkLordofDebate, ‘YouTube Copyright Tutorial - Dispute Content ID Matches WMG,’ 12 March 2010 <<http://www.youtube.com/watch?v=RtdBI-0EE0Y>> accessed 2 June 2010. Other practices include inciting other YouTube users to use copyrighted content from a right holder who issues abusive takedown.

²²⁰ See section 7.2 below.

²²¹ Content ID Technology is a filtering technology developed by YouTube’s technological department in 2005 following massive copyright infringement by YouTube users when using the Uploading Application Software of YouTube (to upload videos) and the YouTube Player (to view videos). For more information, see D King, ‘Latest Content ID Tool for YouTube, (Google Blog, 15 October 2007) <<http://googleblog.blogspot.com/2007/10/latest-content-id-tool-for-youtube.html>> accessed 3 March 2010.

²²² E.g. see *n* 200 and 205.

²²³ Functionalities of Share, Embed, Like, Dislike, Flag as Inappropriate, and Add to Favourites or Playlist, found immediately below the YouTube Player and which can be used by the user to share the video.

abusive, and good faith requirement under US Copyright Laws) and social elements (e.g. YouTube's users practices of commenting). My data analysis also reveals a high level of successful enrolment of other YouTube users in such resistance projects. This in turn means that the roles defined during 'problematization' are eventually rejected certain *actants*.²²⁴ For instance, when a YouTube user circumvents Content ID by using third-party technologies, Content ID cannot perform its role defined during 'problematization', namely, filter and match infringing content. Thirdly, 'materialities' such as video format, text contained in Comments, and hyperlinks are key in lending obduracy to resistance practices. For example, by enclosing a specific set of local connections which forms and performs one practice of resistance, such as how to use Audacity to circumvent Content ID, in 'materialities' such as hyperlinks, such practice of resistance can be easily and quickly disseminated across YouTube's copyright network. Having analysed how YouTube users resist commercial right-holders, I now analyse how YouTube itself resists commercial right-holders.

Typically, YouTube resists right-holders when the negotiations of the terms of the copyright licences reach a deadlock such as the stalled negotiations between YouTube and the Performing Rights Society (PRS).²²⁵ In such cases, YouTube may occasionally block all the content of the right-holder such as when YouTube blocked all of PRS' content.²²⁶ These practices of resistance are constructed when specific social (e.g. negotiations), legal (e.g. copyright licences), and technological elements (e.g. binary code underlying Content ID) are locally 'fitted together.' These practices impact on the mobilisation of the network in two ways. Firstly, the right holder's content is taken down as an economic sanction to prevent him/her from promoting his/her offerings on YouTube. Secondly, it is also a pre-emptive move to prevent the right holder from issuing a Takedown Notice against its YouTube users and prevent YouTube users' accounts from being sanctioned. Having discussing the resistance

²²⁴ Ibid.

²²⁵ D Waters, 'YouTube stands by UK video block,' (*BBC News*, 10 March 2009) <<http://news.bbc.co.uk/1/hi/7933565.stm>> accessed 9 March 2010.

²²⁶ Another well-known incident is the breakdown of the commercial negotiations between YouTube and Warner Music Group in 2008 which resulted in the latter taking down its content on YouTube. See Buskirk *n* 231 below.

practices against commercial right-holders, what other sources of resistance impact on YouTube`s copyright network?

4.7.2 Resistance against YouTube (SP)

In this section, I analyse how YouTube users and commercial right holders resist YouTube.

Firstly, YouTube users resist YouTube by using different techniques including threats made in Comments or Videos to leave YouTube, and Videos and / or Comments on using the 'fair use' doctrine strategically to defend a lawful Takedown Notice.²²⁷ Such practices are socio-legal-technological in nature as they emerge when specific social (e.g. advice), legal (e.g. the fair use defence), and technological (e.g. Content ID, Videos) are locally 'fitted together'. My data analysis shows that these resistance practices are often successful²²⁸ in YouTube`s copyright network.

Secondly, my analysis suggests that commercial right-holders may often resist YouTube when both parties fail to agree on the terms of commercial licence pursuant to which the right holder provides a licence for use of its content by YouTube users in consideration for a financial benefit such as a share of advertisement revenue. In such cases, some right-holders can resist by issuing multiple Takedown Notices within a short-time frame. This has the domino effect of applying sanctions on relevant YouTube users` accounts.²²⁹ The resistance practices are also socio-legal-technological in nature as they are formed and performed when legal (e.g. US Copyright Laws), social (e.g. practice of using Takedown Notices strategically), and technological (e.g. web form underlying the Takedown Notice) elements are locally 'fitted together.' For instance, initially Warner Music Group ('WMG') successfully negotiated the terms of a commercial licence with

²²⁷ E.g. data collected in week 4 of the virtual ethnography such as mglittlerobin, 'How to Dispute YouTube Content ID over Wrongful WMG Claim to your Video, (17 February 2009) <<http://www.youtube.com/watch?v=PXGaWPFGZpE&feature=related>>; <http://www.youtube.com/results?search_query=audacity+copyright>&aq=f>

²²⁸ *ibid.*

²²⁹ E.g. data collected from virtual ethnography in June 2010 such DarkLordofDebate, YouTube Copyright Tutorial - Dispute Content ID Matches WMG 12 March 2010 <<http://www.youtube.com/watch?v=RtdBI-0EE0Y>> accessed June 2010.

YouTube. In 2008, the negotiations between the two parties for the renewal of the commercial licence failed. Consequently, WMG issued multiple Takedown Notices for all Videos containing its content irrespective of whether the Videos were uploaded when the original licence was effective.²³⁰ Sanctions were automatically applied to the relevant user accounts such as account suspensions even if such users posted their Videos when the original licence was valid. Eventually, the parties successfully negotiated the renewal terms of the commercial licence when YouTube agreed to more lucrative terms for WMG such as broadcasting WMG content on multiple channels to provide additional value to the advertisers.²³¹

Three key points emerge from this example. Firstly, commercial licences between YouTube and commercial right holders are important strategies used by YouTube to enrol commercial right holders into its scheme, namely, manage to get right holders to leave their content on the website rather than block access to the content. Secondly, the commercial right holders' resistance typically occurs when they seek to counter-enrol YouTube by negotiating more financially lucrative licence terms.²³² This shows the important role played by the social (here economic dynamics) in network construction.²³³ If such counter-enrolment attempts are unsuccessful, then many commercial right holders use the resistance practice of issuing multiple Takedown Notice to apply economic pressures on YouTube.

Thirdly, the resistance practices shed further light on how the notion of legality can be understood in two ways. By legality I mean the quality of being legal and in conformity with doctrinal law. In the first instance, the resistance practices in the

²³⁰ 'Music Publisher Silences Scores of Videos in Spat with YouTube,' (*Electronic Frontier Foundation*) <<http://www.eff.org/takedowns/music-publisher-silences-scores-videos-spat-youtub>>. It also did not consider whether the content fell within the ambit of the fair use exception.

²³¹ E Van Buskirk, 'Warner's Music Returns to YouTube Following Nine Month Hiatus,' (*Wired*, 28 September 2009) <<http://www.wired.com/epicenter/2009/09/warner-music-group-signs-youtube-deal/>> accessed 9 May 2010.

²³² This often happens when the original licence has expired.

²³³ See John Law, 'Notes on the theory of the actor-network: ordering, strategy and heterogeneity,' published by the Centre for Science Studies, Lancaster University, Lancaster LA1 4YN, (1992) <<http://www.comp.lancs.ac.uk/sociology/papers/Law-Notes-on-ANT.pdf>> accessed 19 November 2009.

WMG/YouTube example illustrate how the concept of legality can be understood in relational terms. This is an important idea which furthers the social-legal²³⁴ argument that an imagery of legality in terms of a state of compliance with reasoned, principled (i.e. embodying consistent values), and systematic doctrine is inadequate and misleading. Such an imagery of legality ignores²³⁵ the extent to which legality is contingent, localised²³⁶ and is enacted (as well as enacts) relational patterns. In the WMG/YouTube example, the resistance practices mean that YouTube users, who uploaded WMG content in good faith at the time of the existence of the licence between WMG and YouTube, became pirates after the event when the parties failed to reach an agreement.²³⁷ Thus, the legality of certain actions in YouTube`s network depends on the durability of the association between the *actants* such as licence terms, Video, binary codes, and practices such as YouTube`s practice of negotiating licence terms. In the WMG/YouTube example, what is 'legal' (in the sense of an action being in conformity with formal law) is very much transient and changes when local connections between the *actants* involved in the chain of association changes. By this I mean that what is legal is changing in itself not in the sense that the norm itself is changing but in the sense of an action being in conformity with the law. Hence, in the WMG/YouTube example, when the licence was in place, the YouTube user`s actions were legal. However, when the licence was not renewed then retrospectively the very same Videos which contained WMG content and were legal a few days before became illegal.

²³⁴ Roger Cotterrell, *Law's Community: Legal Theory in Sociological Perspective*, (Oxford Socio-Legal Studies, Clarendon Press, 1997) 277ff.

²³⁵ By this token, I am not underestimating the value of theoretical inquiries about law which have portrayed law as being rational, principled and systematic. E.g. J Austin, *The Province of Jurisprudence Determined* (Isaiah Berlin et al eds 1954).

²³⁶ n 234, (Cotterrell, 1997, 414)

²³⁷ A well-known case is the case of Corey Vidal who was branded as a pirate as a result of licensing spat: posted funny video tribute to John Williams (the musician who created the score to various well-known films including Indiana Jones). His content was posted in October 2008 when the licence between YouTube and Warner Music Group was still operative. Greg Sandoval, 'YouTube YouTube users Caught in Warner Music Spat,' (*Cnet News*, 27 January 2009) <http://news.cnet.com/8301-1023_3-10150588-93.html> accessed 5 May 2010.

In the second instance, my ANT-Foucauldian Power Lens also provides a different vantage point to analyse the imagery of legality contained in the licence between YouTube and right holders. From a traditional socio-legal perspective,²³⁸ it could be argued that the terms of the licence between YouTube and right holders reveal an individualised, private and contractual notion of legality as the terms of the specific licence are shaped by the specific economic interests of the parties. However, from my ANT-Foucauldian Power Lens, such economic interests are not seen as background social structures which drive the actors but are rather seen as relational constructs in YouTube's copyright network. From this perspective, economic interests in practice are understood as effects of power which are continuously generated from the web of relations within which they are located. Additionally, there is no assumption that economic interests have a 'reality' or form outside the enactment (through heterogeneous materials and practices) of those relations. Finally, other *actants* apart from economic interests (e.g. technologies which detect copyright violations) also contribute to the enunciation of these individualised contractual definitions of private legality.

Conclusion

In this chapter, I have used my ANT-Foucauldian Power Lens, developed in Chapter Three, to empirically trace the construction of YouTube's copyright network as a socio-legal-technological network. I have argued three key points. Firstly, I have argued that heterogeneous social, legal and technological *actants* are locally 'fitted together' to form and perform YouTube's copyright network. For example, I have pursued this argument by analysing how the Terms of Use is constructed when heterogeneous social, legal, and technological *actants* such as the 'tick-box', YouTube user, and legal skills are locally 'fitted together.' Here, I have also analysed how such local 'fitting together' are contingent, and precarious. For example, I have analysed how heterogeneous instances of resistance, such as the YouTube users' practices of resistance against Content ID, often prevent the maintenance of durable associations between relevant *actants*. Such resistance practices can also shed light on how actants such as YouTube users behave towards certain rules. Secondly, I

²³⁸ E.g. Max Weber, (ed.) G Roth and C Wittich, *Economy and Society: An Outline of Interpretive Sociology* (University of California Press, 1978) 668ff.

also argued that ‘materialities’ such as hyperlinks play key roles in maintaining local connections between specific heterogeneous *actants*. Here , this understanding of YouTube`s copyright network as an ‘actor-network’ has enabled me to explore how interests such as ‘economic’ interests can be understood as effects which are generated from the web of heterogeneous relations, material conditions and practices within which they are located. Finally, I have argued that through the ANT-Foucault Power Lens, new understandings of the roles of copyright legislation in protecting intellectual property interests, the concept of legality and judicial decision-making emerge. Next, I explore what this relational understanding of YouTube`s copyright network can tell me about the power effects generated by the local ‘fitting together’ of specific heterogeneous elements such as binary codes, legal skills, YouTube users and programming languages.

Chapter Five

Unmasking Regimes of Power in YouTube

Abstract

This chapter explores, through qualitative empirical analysis, the power effects generated by the local ‘fitting together’ of specific legal, social and technological elements in YouTube’s copyright network. I use my ANT-Foucauldian Power Lens, developed in Chapter Three, to capture the complex power relations in YouTube’s copyright network. I argue four points. Firstly, I argue that local ‘fitting together’ of specific legal, social, and technological elements in YouTube’s copyright network generate multiple, complex, and contingent power effects. Power effects sharing similar traits such as the power effects of surveillance generated by Content ID and the Regional Blocking Technology are often generated by the local ‘fitting together’ of distinct social, legal and technological elements. Likewise, the specific local connections between heterogeneous *actants*, forming and performing specific aspects of YouTube’s copyright network, can generate more than one power effect. Secondly, I argue that ‘materialities’ such as hyperlinks play key roles in ordering relations between specific actants over time and space. Thirdly, I argue that my relational understanding of YouTube’s copyright network generates new insights into the roles of legal elements in protecting copyright interests. In particular, it helps me to understand why specific territorial laws gain their authority not by virtue of their links to a physical border but rather by virtue of the durability of their associations with YouTube’s copyright network. Additionally, my analysis helps to understand how occasionally US Copyright Laws retreat in YouTube’s copyright network as local and multiple *actants* such as data processors carry out the act of government. Finally, I consider certain unintended consequences which are generated through the local ‘fitting together’ of heterogeneous elements such as limiting of the actual capacities of some *actants*.

Introduction

Building on the analysis in Chapter Four, what can we learn about the power effects generated when various legal, social and technological *actants* are locally, contingently, and precariously ‘fitted together’ in YouTube’s copyright network? I seek to answer this question by analysing the empirical data for the YouTube case study through my ANT-Foucauldian analytic lens of power, developed in Chapter Three (‘ANT-Foucauldian Power Lens’). I argue four main points. Firstly, I argue that the local, contingent, and precarious ‘fitted together’ of legal, technological, and social elements in YouTube’s copyright network generates complex, multiple, and contingent power effects. By this I mean that specific local connections between a specific heterogeneous *actants* can generate more than one power effect. Likewise, power effects sharing similar traits such as surveillance can be generated by distinct connections between distinct heterogeneous *actants*. Secondly, durable and mobile associations of relevant heterogeneous elements are key to maintaining the power effects generated by specific ‘orderings’. I understand order or ‘ordering effects’ as generated through translation. Power effects are the effects of such ‘orderings.’¹ Consequently, effects of order should not be understood in simplistic terms as being generated from one ‘perfect tool’ such as the opaque cyber-regulatory ‘code.’ To understand how ‘orderings’ and their power effect are maintained in YouTube when copyright is protected and/or violated, one how to analyse how the local patterning of heterogeneous *actants* such as YouTube users, Terms of Use,² and YouTube are rendered more durable when they are embodied in ‘materialities.’ Such an analysis

¹ In line with John Law, *Organising Modernity* (Oxford Blackwell 1994) 1ff, I argue that the word ‘ordering’ may be more appropriate than ‘order’ to describe that there is not only one specific regime of order and to highlight the precarity and incompleteness of regimes of order. I also adopt John Law’s distinction between power and order. From this perspective, order or ‘ordering’ effects are generated through ‘translation.’ One of the effects of order is power. John Law, ‘Notes on the theory of the actor-network: ordering, strategy, and heterogeneity,’ (1992) 5(4) *Systems Practice* 379.

² The ‘Terms of Use’ refer to various contracts which exist between YouTube and YouTube users and right-holders. Relevant contracts include the Terms of Service <<http://www.youtube.com/t/terms>> accessed 5 May 2010; YouTube’s Privacy Policy <<http://uk.youtube.com/t/privacy>> accessed 5 May 2010; YouTube’s Community Guidelines <http://uk.youtube.com/t/community_guidelines> accessed 5 May 2010 (collectively referred to as ‘Terms of Use’).

sheds light on how certain 'ordering' such as those established through the Terms of Use gain legitimacy through materially semiotics relations. Here I also consider how power effects, such as the effect of surveillance of Content ID, can occasionally be ruptured by sources of resistance such as YouTube users' resistance against Content ID. Thirdly, I argue that my relational understanding of YouTube's copyright network generates a more comprehensive view of the power effects of specific legal elements. In particular, it helps me to understand why specific territorial laws gain their authority not by virtue of their links to a physical border but rather by virtue of the durability of their association with YouTube's copyright network. Additionally, through my analysis of YouTube's Copyright Dispute Resolution Mechanism,³ I highlight a specific instance where power deployed through specific US Copyright Laws power retreats partially as local and multiple *actants* carry out specific acts of government such as the automatic processing of relevant information by data processors. Finally, I consider the unintended consequences, such as the limitation of the actual capacities of some *actants*, which are generated through the co-constructive relationships between some legal, technological and social elements.

This chapter is divided into five sections where I consider the complex, multiple, and contingent power effects which are generated in YouTube's copyright network when specific legal, technological and social elements are locally, contingently, and precariously 'fitted together.' In section 5.1, I explore how the 'orderings' established through the Terms of Use have gained legitimacy in YouTube's copyright network through the durable associations between the mobile heterogeneous legal, social and technological elements which form and perform the Terms of Use. In section 5.2, I analyse three power effects generated by local connections forming and performing Content ID, namely, surveillance, 'governmentalised' disciplines, and enacting YouTube users as consumers. In

³ YouTube's Copyright Dispute Resolution Mechanism refers to the takedown notice and the counter-notification filed by right holders and YouTube users respectively in YouTube to either complain of copyright infringement or defend a copyright infringement complaint ('YouTube's Copyright Dispute Resolution Mechanism'). The takedown notice refers to the notice which a right-holder can file to request YouTube to takedown a Video which allegedly contains copyright content which belongs to the right-holder in question ('Takedown Notice'). The Counter-Notification refers to the notice filed by a YouTube user who wishes to dispute a Takedown Notice in specific cases such as when his/her use of the content in question amounts to 'fair use' ('Counter-Notification').

section 5.3, I utilise the example of the Regional Blocking Technology to highlight that power effects sharing similar traits, such as surveillance, can often be generated by distinct local connections between heterogeneous *actants* and operate through different techniques. In section 5.4, I analyse four specific power effects generated by YouTube's Copyright Dispute Resolution Mechanism, namely, practices of governmentality, of the self, surveillance and 'governmentalised' discipline to illustrate two overall arguments of this chapter, namely that, local connections between heterogeneous *actants* can generate more than one power effect and specific legal elements generate complex power effects. For example, I analyse how specific territorial laws gain their authority not by virtue of their links to a physical border but rather by virtue of the durability of their associations with YouTube's copyright network. In the final section 5.5, I argue that no account of power would be complete if we do not talk about the unintended consequences generated by some local 'fitting together' of specific heterogeneous elements. I illustrate this point by analysing some of the unintended power effects generated in YouTube's copyright network such as limiting the capacities of some *actants*.

5.1 Mapping A Regime of Governmentality through You Tube's Terms of Use

In Chapter Four, I analysed one way in which heterogeneous legal, technological and social elements such as the 'tick-box',⁴ hyperlinks, the legal requirements on the formation of a binding contract⁵ and discussions between YouTube's legal and technological departments about the Terms of Use⁶ are locally, contingently, and precariously 'fitted together' to construct the Terms of Use in YouTube's copyright network. Interestingly, such heterogeneous bits and pieces appear to have been coaxed into interacting with one another without any direct intervention from macro-actors such as the State. This raises important questions why and how the Terms of Use have gained legitimacy in ordering relations between relevant *actants* in

⁴ The tick-box refers to the box which YouTube users have to tick when signing up to YouTube to evidence their acceptance of the Terms of Use.

⁵ For more on the legal requirements on the formation of a binding contract in the UK, see Practical Law Company, 'Contracts: formation,' <<http://www.practicallaw.com/3-107-4828>> accessed 13 June 2013.

⁶ n 2.

YouTube`s copyright network. In this section, I use my ANT-Foucauldian Power Lens to provide insights into the ‘why’ and ‘how’ of power of the Terms of Use. The ‘why’ and ‘how’ of power of the Terms of Use vary from population to population. Due to space constraints, I limit myself to discussing the Terms of Use as a regime of governmentality for YouTube users, as a population, only rather than other *actants* such as right-holders as a population. Questions about the ‘why’ and ‘how’ of power of the Terms of Use are important questions which enable me to account for how certain ‘orderings’ have power effects which are successfully but temporarily imposed in YouTube`s copyright network.

5.1.1 Legitimising Governance in YouTube: the ‘Why’ and ‘How’ of Power

As explained in Chapter Four, the Terms of Use set out a mode of governance in the YouTube`s copyright network by specifying the relationships between the governed (YouTube users and right-holders) and the governors (YouTube and right-holders).⁷ So why do YouTube users obey the Terms of Use? What practices and knowledges coax heterogeneous bits and pieces, located in different capillaries of YouTube`s copyright network, to interact with one another in accordance with specific ‘orderings’ established through the Terms of Use?

At first glance, YouTube users seem to consent to the specific ‘orderings’ set out by the Terms of Use by mundanely ticking the ‘tick-box’ at the time of signing up to YouTube.⁸ However, through my ANT-Foucauldian Power Lens, the answer to the ‘why’ question revolves around the construction of the Terms of Use as an ‘obligatory point of passage’ and partial ‘immutable mobile’ as well as the concept of consent. As analysed in Chapter Four, YouTube`s copyright network is configured in such a way that YouTube users, except lurkers,⁹ have to pass through the Terms of Use, in the sense of consenting to be legally bound by them, to join YouTube. Here consent emerges as a relational achievement which is enacted through a series of complex and local interactions between heterogeneous bits such as the ‘tick-box’,

⁷ Chapter Four.

⁸ Correct as at time of data collection.

⁹ Lurkers are YouTube users who passively view content on YouTube without uploading, creating and distributing content themselves

the hyperlinks to the Terms of Use, and the YouTube user. Moreover, the successful translation of the consent of the governed depends on the maintenance and durability of these links. Should one of the *actants* become dissociated from the chain of association, such as when the hyperlink fails to take the YouTube user to the actual Terms of Use, then the consent of the governed is not successfully obtained and governance of the governed by the governors through the Terms of Use is not justified. Additionally, the local 'fitting together' of specific legal, social and technological elements that constitute the Terms of Use does not only legitimise the mode of governance imposed by the Terms of Use but also generates an effect whereby key US Copyright Laws¹⁰ which are transposed in the Terms of Use, gain their authority not by virtue of their links to a specific sovereign or physical border, but rather by virtue of the durability of their association with other elements in YouTube's copyright network.

5.1.2 Legitimising Governance in YouTube: Of Rationalities, Knowledges and Practices

Having analysed why and how the Terms of Use establish legitimate regimes of order between the governors and the governed, I now consider the series of rationalities, knowledges, and practices through which the Terms of Use have gained their legitimacy in YouTube's copyright network.

Firstly, the Terms of Use reflect specific legal and technological ways of thinking about and solving copyright infringement, copyright disputes and intermediary liability. For example, specific US copyright statutory provisions dealing with various aspects of copyright dispute resolution such as the format and content

¹⁰ US Copyright Laws refer to US copyright legislation and case law ('US Copyright Laws'). Relevant US copyright legislation include the Copyright Act 1976 and Digital Millennium Copyright Act 1998. Relevant US copyright case law include *com Int'l v. YouTube*, No. 07-CV-02103 (S.D.N.Y. Mar. 13, 2007); *Lenz v. Universal Music Corp.*, Case No. 5:07-cv-03783-JF (N.D. Cal., Feb. 25, 2010); *Robert Tur v. YouTube, Inc.*, No. CV 06-4436-GAF (FMOX) (C.D. Cal. July 14, 2006); *Football Association Premier League et al. v. YouTube, Inc.*, No. 1:07-cv-03582-UA (S.D.N.Y. May 4, 2007), *Grisman et al. v. YouTube, Inc.*, No. 3:2007cv02518 (N.D. Cal. May 10, 2007), *New Jersey Turnpike Authority v. YouTube, Inc.*, No. 2:2007cv02414 (D.N.J. May 22, 2007), *Cal IV Entertainment, LLC v. YouTube, Inc. et al.*, No. 3:2007cv00617 (M.D. Tenn. June 7, 2007) and *Explorologist Ltd v. Brian Sapient*, Case No. 2:07-cv-01848-LP (E.D.Pa., May 7, 2007).

of the Takedown Notice are replicated verbatim in the Terms of Use.¹¹ Such legal rationalities emerge from specific legal knowledge and skills such as legal reasoning and interpretation. Thus, YouTube's legal department (through its staff) conducts a due diligence of relevant US Copyright Laws¹² and assess which provisions should be included in the Terms of Use to shield YouTube from intermediary liability. The Terms of Use also illuminate the field to be governed as it separates the lurkers, who are not governed by the Terms of Use, from the YouTube users who are governed by them.

Secondly, the members of YouTube's legal department use their legal skills and knowledge to draft the Terms of Use in accordance with specific legal rules on the formation of a binding contract,¹³ and drafting rules¹⁴ so that they constitute legally binding contracts between the relevant parties. For example, YouTube's legal department have to ensure that the YouTube users have the chance to peruse the Terms of Use before signing up to YouTube. Additionally, YouTube's legal department has to ensure that YouTube users can show their intention to be bound by the Terms of Use by a positive act such as ticking the 'tick-box' at the time of contract formation. If YouTube users do not have the chance to read the Terms of Use before ticking the 'tick-box' and/or do a positive act such as ticking the 'tick-box' to evidence their acceptance of the Terms of Use, then their consent to the Terms of Use is not valid. Such legal rationalities are intermeshed with technological ways of thinking about how YouTube users can access the Terms of Use when signing up (e.g. through hyperlinks) or accept them (e.g. by ticking the 'tick-box'). Here the legitimacy of the Terms of Use, as a mode of governance, is achieved through the successful maintenance of key associations between relevant *actants* such as the 'tick-box,' the YouTube user's practice of ticking the 'tick-box' when signing up and hyperlinks. The consent of the governed to the Terms of Use and the legitimacy of

¹¹ E.g. the statutory requirements set out in the Digital Millennium Copyright Act 1998, 17 U.S.C § 512 on the format and content of the takedown notice are repeated in Term 8, Terms of Service (n 7).

¹² n 10.

¹³ Joseph Chitty, *Chitty on Contracts*, Vol. 1. (Sweet & Maxwell, 2012).

¹⁴ Drafting rules refer to the rules on drafting contracts. Mark Anderson and Victor Warner, *Drafting and Negotiating Commercial Contracts* (A&C Black, 2012).

the mode of governance established by the Terms of Use, are only achieved through the successful and durable association of these legal, social and technological elements.

Thirdly, the Terms of Use provide the framework for the production of certain 'specific truths' such as when has copyright infringement taken place. These 'specific truths' are generated through the association of social elements such as YouTube user practices, legal elements such as what amounts to copyright infringement and technological elements such as Content ID¹⁵ which are brought together into one space and time continuum. Here, knowledge is key. The Terms of Use make provisions for the production and storage of specific knowledge about infringement such as the identity of the infringing YouTube user and the particulars of infringement. The generation of these specific knowledges depend on other elements such as Content ID which computes a minute electronic record of all aspects of any instance of infringement. This minute recording raises questions about the practices of surveillance enabled by Content ID which are comprehensively analysed in section 5.2.1 below. Additionally, the Terms of Use also provide the starting point for specific capacities of some *actants* such as the YouTube user's capacity to resolve copyright disputes through YouTube's Copyright Dispute Resolution Mechanism.

Finally, when the complex and heterogeneous associations which translate the Terms of Use are held in place in YouTube's copyright network, then the 'tyranny of distance'¹⁶ is overcome. Various human and non-human actors – YouTube users, YouTube's Copyright Dispute Resolution Mechanism,¹⁷ right-holders, audio-visual content and more – spread across YouTube's fibrous copyright network, act 'in concert'¹⁸ with one another in specific situations such as copyright infringement.

¹⁵ Content ID a filtering technology used by commercial right holders to manage their content ('Content ID'). For more, see <<http://www.youtube.com/t/contentid>> accessed May 2011

¹⁶ Bruno Latour, 'On actor-network theory: a few clarifications,' (1996) *Soziale Welt* 369, 371.

¹⁷ n 3.

¹⁸ Tore Söderqvist, William J Mitsch, and R Kerry Turner, 'Valuation of wetlands in a landscape and institutional perspective,' (2000) 35 (1) *Ecological Economics* 1.

However such achievements depend on the durability of the associations between the relevant *actants*. Various factors such as technological failure (e.g. broken hyperlink to the Takedown Notice¹⁹) and human error (programming error by YouTube's technological department) can rupture these associations at any time. As I suggested above, Content ID is a key *actant* in YouTube's copyright network. As analysed in Chapter Four, Content ID is constructed when other heterogeneous elements such as the right-holders' copyright licences, user interface of Content ID, and binary codes are 'fitted together.' In the next section, I analyse the power effects generated when these legal, social and technological elements are 'fitted together' to form and perform Content ID.²⁰ This supports one of the overall arguments of this thesis that different local 'fitting together' of heterogeneous elements generates different power effects.

5.2 Being in a Content ID world: of Visibility, Surveillance and Mixed Rationalities

In this section, I analyse three power effects generated by Content ID, namely, surveillance, 'governmentalised' disciplines, and enacting YouTube users as consumers. These analyses supports one of the overall arguments of this thesis, namely, that the local connections between specific heterogeneous *actants* can generate more than one power effect. Additionally, my analysis of surveillance in Content ID a 'situated activity' supports another overall argument of this thesis, namely, power is an 'effect' or a 'function of network configuration'²¹ which can be ruptured occasionally from sources of resistance. In this sense, power is a precarious, contingent and local effect.

5.2.1 Understanding Surveillance as a 'Situated Exercise' in Content ID

¹⁹ n 3.

²⁰ The Copyright Policy, n 2.

²¹ John Law, 'Actor network theory and material semiotics,' in B S Turner (ed) *The new Blackwell companion to social theory* (John Wiley & Sons 2009) 141, 147.

Building on the analysis of the construction of Content ID in Chapter Four, in this section, I analyse Content ID as an ‘oligopticon’²² where surveillance – one power effect- is very much a fragile, limited and ‘situated’²³ activity which depends on the local association of heterogeneous human and non-human actors such as binary codes, servers, routers, right-holders and material conditions. Before tackling this analysis, I explore four reasons why the ‘oligopticon’ is more appropriate than the Panopticon to analyse Content ID’s effect of surveillance.

Firstly, unlike the Panopticon, Content ID is not designed technologically to see everything in the YouTube’s copyright network. Rather it has a partial and detailed view of certain occurrences within the network such as demographic and geo-location data²⁴ of infringing YouTube user which are inscribed in various forms such as graphs and tables which enable the convenient and safe transportation of the data from one capillary²⁵ of the YouTube’s copyright network to another. Secondly, unlike the Panopticon, Content ID does not have a central surveillance tower with one guard who may or may not inhabit the tower. Rather, Content ID’s filtering functions are coded in every single binary code of the YouTube website.

²² This concept was developed by Gad et al (2009) by combining the ANT concept of oligopticon (Latour, 1998; 2005) with Haraway’s (1988) ideas about the importance of the ‘situatedness’ of vision and technologies in surveillance relations. Christopher Gad and Peter Lauritsen, ‘Situating Surveillance: an ethnographic study of fisheries inspection in Denmark,’ (2009) 7(1) *Surveillance & Society* 49; Donna Haraway, ‘Situating Knowledges: The Science Question in Feminism and the Privilege of the Partial Perspective,’ (1988) 14(3) *Feminist Studies* 575; Bruno Latour, *Reassembling the Social. An Introduction to Actor-Network-Theory* (Oxford University Press 2005); and Bruno Latour and Emilie Hermant, *Paris: Ville Invisible* (La Decouverte Les Empêcheurs de Penser en Rond, 1998).

²³ Ibid.

²⁴ Geo-location data refers to the wide range of data such as IP address which provides exact physical location of a computer, networking device, equipment and the user of such devices or equipment. It enables device location based on geographical coordinates and measurements.

²⁵ As Latour (n 16) argues, ANT requires a change in topology when one analyses modern society. As an actor-network, modern society has a ‘...fibrous, thread-like, wiry, stringy, ropy character that is never captured by the notions of levels, layers, territories, spheres, categories, structure, systems.’

Additionally, unlike the guard in the central tower of the Panopticon, once Content ID has detected an infringing YouTube user, it can automatically apply the sanction chosen by the right-holder such as blocking the video and the sanction imposed by YouTube such as terminating the YouTube user account. Thirdly, within the structure of the Panopticon, resistance by the inmates seems to be almost futile as the Panopticon presents this utopian image of totalising surveillance which leads to the inmates disciplining themselves. However, this utopian image does not apply in the context of Content ID, where YouTube users, actively resist the filtering of their videos by Content ID by using various means including using third-party software such as Audacity to alter the digital fingerprint of the uploaded video to avoid detection by Content ID. Finally, apart from the conventional effects of 'governmentalised' disciplines and surveillance, as explained in section 5.2.3 below, Content ID's 'track' and 'monetise' policies also have effects which are distinct from those of the Panopticon, namely, enacting the YouTube users as consumers. Having examined four reasons why the metaphor of the 'oligopticon' is more appropriate than the Panopticon for my analysis of Content ID rather, I now explore how surveillance in Content ID is a 'situated exercise' by considering how limited and detailed views are generated through specific local 'fitting together' of heterogeneous *actants*.

The vision of the watcher in Content ID is generated from the local and temporary 'fitting together' of heterogeneous human and non-human actors. Thus Content ID's effect of surveillance depends on a number of actions and relations such as the right-holders' acceptance to share the digital fingerprints of all their content with YouTube, YouTube's compilation of a reference library, and the design by YouTube's engineers of the operations and functionalities of Content ID so that it can filter and manage infringing content. These relations have to be in place before any surveillance *per se* can take place locally. Thus, the relations of surveillance are only activated once all the *actants* have accepted their roles within Content ID. For example, it is only when a commercial right-holder has submitted the digital fingerprint of his/her content to YouTube and elected a usage policy that surveillance is activated. This surveillance is generated from the local and fragile association between various *actants*. Hence, where the commercial right-holder has elected the 'track' policy each time Content ID detects the use of his/her content, the

surveillance underlying this elected usage policy is dependent on the association between specific *actants* such as binary bits which communicate information (e.g. there is match) from one server to another, routers which enable the transportation of data packets (i.e. information) between server, the engineers of the YouTube's technological department and the YouTube users.

Content ID's surveillance operations are very insidious as they are invisible and automatic. Hence YouTube users are aware that any uploaded video may be filtered by Content ID to detect infringing material but they do not know, at the time of uploading such material, whether such filtering is in effect taking place. They only become aware that their videos have been filtered and sanctioned once they receive an email notifying them of this. Moreover, it can be argued that Content ID is more powerful than other surveillance technologies such as the closed-circuit television due to its invisibility and the technological encoding of the functions of the 'gaze' in binary bits across the network which enables automatic surveillance across a distance (e.g. in the same second the video uploaded by a YouTube user in the USA and a video uploaded miles away in Africa can be equally monitored and sanctioned). The automatic element here renders Content ID, when not circumvented, quite a formidable tool of surveillance as it does not depend on human involvement and bypasses the issues faced by traditional surveillance devices such as the Panopticon where the guard cannot be present in the tower at all times due to cost.

However, various factors can easily block the vision generated by Content ID. For instance, as extensively analysed in Chapter Four, certain YouTube user practices, such as using third-party technologies to alter the digital fingerprint of an uploaded video, effectively means that the uploaded video circumvents Content ID which does not filter it due to the lack of match between the original fingerprint held in the reference library and the tampered fingerprint of the uploaded video. Having analysed how the local fitting together of heterogeneous elements constructing Content ID generates a power effect of surveillance as a 'situated exercise,' I consider next another power effect of Content ID, namely, discipline. This further illustrates the wider argument of this thesis that specific local connections between specific heterogeneous *actants* can generate more than one power effect.

5.2.2 Content ID: 'Governmentalised' Disciplines

In this section, I explore the second power effect generated by Content ID, namely, 'governmentalised' discipline to analyse that the local connections between specific heterogeneous *actants* can generate more than one power effect.

One of Content ID's aims is to shape of the conduct of YouTube users, as a population, rather than as subjects. Here Content ID is not tailored to specific YouTube users as 'subjects' who create, view and share Videos on YouTube but rather operates on YouTube users as a 'collective entity,'²⁶ 'existing within a dense field of relations between people and people, people and things, people and events.'²⁷ Content ID aims to produce disciplined and predictable YouTube users, as a population, through its filtering functions and usage policies of track, block and monetise. This means that Content ID produces rational and disciplined YouTube users by filtering infringing Videos and imposing relevant sanctions in cases of copyright infringement such as terminating the account of a YouTube user. The initial threat of coercion (strikes, termination of account, blocking of videos) is important in YouTube's copyright network and can be seen to incite self-surveillance in some YouTube users who wish to ensure that they do not infringe copyright laws by uploading infringing content or surveillance of infringing YouTube users by other YouTube users. However, such self-surveillance emerges more from specific rationalities, namely, to avoid a copyright lawsuit or to avoid account suspension or strike rather than from ethical or moral considerations such as equating copyright infringement with theft.²⁸ However, as explored in Chapter Four, the initial threat of coercion can often be powerless as YouTube users either do not care whether their accounts are suspended since they can open a new account under a different name

²⁶ Mitchell Dean, *Governmentality: Power and Rule in Modern Society* (2nd edn Sage 2010) 127.

²⁷ Nikolas Rose, Pat O'Malley, and Mariana Valverde, 'Governmentality,' (2006) 2 *Annu. Rev. Law Soc. Sci.* 83, 87.

²⁸ E.g. Analysis of comments to various videos collected during the virtual ethnography. See Rewboss, 'How not to get caught for copyright infringement,' 3 April 2009 <<http://www.youtube.com/watch?v=eVs04bm8ua4>> accessed on 18 February 2010; and TheKingofHatedHD, 'Copyright Infringement: My Two Cents,' 9 April 2010 <<http://www.youtube.com/watch?v=p88IKnbl4Bc>> accessed 10 May 2010.

or attempt to circumvent Content ID by altering the digital fingerprint of the uploaded content which contains infringing material.²⁹

Additionally, it can be argued that Content ID does not always produce rational and disciplined YouTube users due to its limited vision which does not 'induce in the [YouTube users]... a state of conscious and permanent visibility that assures the automatic functioning of power'?³⁰ Consequently, the element of coercion (strike, termination, block) cannot be removed as the perception of threat within the YouTube user's mind is not enough to discursively incorporate self-surveillance in many YouTube users. Thus, unlike the Panopticon, where '...surveillance is permanent in its effects, even if it is discontinuous in its action...' ³¹, in the context of Content ID, due to the nature of the YouTube's copyright network as a contingent, localised, and complex actor-network, the 'actual exercise of power' remains still necessary³² due to the high level of resistance.

Having analysed how Content ID produces 'governmentalised' disciplined YouTube users in YouTube's copyright network, I now consider the final power effects of Content ID, namely, that of enacting YouTube users as 'consumers'. This again shows that power effects sharing similar traits, such as enacting YouTube users as 'consumers,' are generated through different local connections.

5.2.3 Content ID: Of Enacting Users as Consumers

In this section, I analyse the final power effect generated from the local 'fitting together' of the heterogeneous *actants* forming and performing the 'track' and

²⁹ E.g. data collected during in week 5 (2nd day) PlasticKatanaProd, 'How to Resolve Copyright on YouTube,' 21 February 2009 <<http://www.youtube.com/watch?v=ir1hGMK-1Ak&feature=related>> accessed 22 June 2010; DarkLordofDebate, 'How to Dispute YouTube Copyright Notices (Content ID System),' 12 March 2010 <<http://www.youtube.com/watch?v=RtdBI-0EE0Y>> accessed 22 June 2010.

³⁰ Michel Foucault, *Discipline and punish: the birth of the prison* (1st American edn Pantheon Books, New York 1977) 201; J E Campbell & M Carlson, 'Panopticon.com: Online Surveillance and the Commodification of Privacy,' (2002) 46 (2) *Journal of Broadcasting & Electronic Media* 586, 589-90.

³¹ Foucault, *ibid*.

³² Campbell, n 30, 591.

‘monetise’ usage policies of Content ID, namely, enacting YouTube users, as a population, as ‘consumers.’

One of the power effects of Content ID’s ‘track’ usage policy is the commodification of YouTube users’ data.³³ By commodification, I mean the process by which YouTube users, as a population, are turned into ‘consumers’ through the active tracking of ‘consumption’ information, which refers to information about how a Video is consumed by a YouTube user (i.e. number of views, shares, comments). When the ‘track’ usage policy is elected by the right-holder, a new *actant*, namely, YouTube Analytics,³⁴ joins the chain of association.³⁵ This alliance extends the field of ‘action upon action’ as YouTube Analytics collects, analyses and distributes to right-holders consumption information relating to a specific Video. Mundane information such as how YouTube users discover a specific video, which part of the video is most popular, is transformed into consumption data through diverse means such as interactive graphical trend lines and graphs.³⁶ Such manipulation of YouTube user data enables right-holders to identify, assess, categorise potential consumers. Here pre-existing social constructs such as race, gender, age etc are used to categorise, identify and analyse the YouTube users as consumers.³⁷ Right-holders can use the consumption information to compile the profiles of the individuals interested in the offerings of their artists.

Similarly, one of the power effects of Content ID’s ‘monetise option’ is also to constitute the YouTube users, as a population, as consumers. However, this power effect is generated from the local connections between other heterogeneous *actants*. When right-holders elect to use the ‘monetise’ option, new *actants*, such as, the

³³ Ibid.

³⁴ Chapter Four.

³⁵ Advertising (YouTube) <http://www.youtube.com/t/advertising_insight> accessed 8January 2013.

³⁶ Ibid.

³⁷ Such pre-existing social constructs are also very prevalent when generating consumer profiles for the purposes of marketing. Oscar Gandy, ‘Coming to terms with the panoptic sort,’ (1996) Computers, surveillance, and privacy 132.

'DoubleClick' cookie³⁸ joins the chain of association. Tiny text files are quietly and insidiously installed on the YouTube user's computer and capture a partial view of the YouTube user such as his/her browsing habits and shopping preferences online to constantly refine the generated YouTube user profile. Periodic changes to YouTube's copyright network, such as Google's (YouTube's owner) recent unification of its privacy policy across all its offerings including YouTube, can generate a richer YouTube user profile as more data trails are aggregated and combined such as the YouTube user's browsing and shopping patterns across all Google products such as Google Search, Google Chrome and Google Plus.³⁹ This profiling information is used in YouTube's copyright network for the purposes of targeting advertisements to a specific audience who has an interest in the product or service in question. These relations of surveillance are often fragile as new *actants* such as firewalls,⁴⁰ anti-virus software,⁴¹ and 'Opt-Out through the Ads Preferences Manager'⁴², join the chain of association from time to time to disable the 'DoubleClick' cookie.

Arguably, the power effects of the 'track' and 'monetise' functions, namely, enacting YouTube users as consumers, are made even more insidious by the YouTube users' lack⁴³ of control over the automatically gathered and distributed information and the YouTube users' lack of awareness of either the surveillance or the extent of the surveillance. However within YouTube's copyright network, this inequitable power flow is framed as a 'normalised' transaction cost of right-holders permitting the use of their content in user-generated videos on YouTube. The automatic and veiled gathering of the information about the YouTube user, the

³⁸ Double click cookies are used for the purposes of advertising.

³⁹ <<http://geekbeat.tv/tutorial-how-to-disable-all-google-tracking/>> accessed 8 January 2011.

⁴⁰ <<http://support.google.com/youtube/bin/answer.py?hl=en&answer=87777>> accessed 8 January 2011.

⁴¹ Ibid.

⁴² <<http://support.google.com/adsense/bin/answer.py?hl=en&answer=2839090>> accessed 8 January 2013.

⁴³ Except in cases where YouTube users choose to disable the 'DoubleClick' cookie in the case of monetisation.

automatic distribution of information about the YouTube users, the focus on the utility of the information to further other aims (e.g. enable right-holder to collect information about YouTube users), the YouTube users' lack of knowledge of the extent of the collected and distributed information, and the logistics of distribution further serve to 'normalise' this transaction cost as the information collected becomes more and more disconnected from the YouTube user it concerns.⁴⁴ The surveillance is further 'normalised' by the right-holders' arguments that they are collecting this information for the purposes of delivering the right services to the right customers.⁴⁵ Thus, they argue that such information enables them to determine the popularity of a particular artist in a specific region and make marketing decisions such as the number of concerts an artist holds in a country.⁴⁶

One could contend that by uploading videos containing right-holders' content, YouTube users are implicitly agreeing to be bound by the usage policies of tracking or monetising which any given right holder may have elected to apply in cases where Content ID detects their content. However, any acceptance of surveillance is not one which can be classed as an informed acceptance as the YouTube users do not know the full extent of surveillance. For example, YouTube users do not know how their information will be used, which third parties will receive their information and how the data is being collected and distributed.⁴⁷

I now move on to analyse the multiple power effects generated when other heterogeneous *actants* are locally 'fitted together' to form and perform another aspect of YouTube's copyright network, namely, the Regional Blocking Technology. I discuss this example of the Regional Blocking Technology in order to show that

⁴⁴ See J E Campbell and M Carlson, 'Panopticon.com: online surveillance and the commodification of privacy,' 2002, 592.

⁴⁵ This is also the common reason advanced by marketers for profiling internet YouTube users online as consumers. E.g. see Direct Marketing Association, 'Building consumer trust and confidence in the Internet age,' (2001) <<http://www.the-dma.org/library/whitepapers/customertrust.shtml>> accessed 11 April 2011

⁴⁶ See S Davies, 'Re-engineering the right to privacy,' in P Agre & M Rotenberg (eds), *Technology and privacy: The new landscape* (Cambridge MA MIT Press 1997) 143.

⁴⁷ This point has also been made by various scholars in the field of consumer marketing and privacy. See Campbell and Carlson, n 44.

power effects sharing similar traits (1) are often generated from distinct local connections between other heterogeneous *actants*, and (2) often operate through different techniques. For example, Content ID's effect of surveillance operates through techniques such as filtering uploaded content and matching uploaded content to the YouTube database. However, the Regional Blocking Technology's effect of surveillance operates through other techniques such as the identification of physical location of the YouTube user and the blocking of content in an unlicensed jurisdiction.

5.3 Governing YouTube Users by Blocking Borders

In this section, I build on the ANT tracery of the construction of the Regional Blocking Technology in Chapter Four to analyse three power effects of the Regional Blocking Technology, namely, a regime of 'governmentality', 'governmentalised' discipline and surveillance.

As one regime of 'governmentality,' the Regional Blocking Technology deploys several practices including monitoring uploaded/shared/viewed YouTube user materials, matching uploaded/shared/viewed YouTube user material against the library of audio-visual content references it possesses, identifying the physical location of the YouTube users, and blocking videos in unlicensed jurisdictions. These practices take place at different points of the network and suggest the existence of multiple centres of government. The Regional Blocking Technology's practices are heterogeneous in nature as they are generated through the local, contingent and precarious 'fitting together' of specific legal, technological and social elements. For example, the Regional Blocking Technology's operations do not only rely on certain capacities such as the Regional Blocking Technology's technological capacities to block content but also on other elements such as legal interpretation, terms of the relevant copyright licence and the YouTube's technological department's engineers' technological knowledge, skills and expertise in assembling together specific binary bits to match and block content.

The Regional Blocking Technology's practices of governmentality construct the field which is to be governed, namely, the use of right holder's content in an unlicensed jurisdiction, by producing specific 'truths' through the collection of the YouTube users' geo-location information (e.g. IP address), matching uploaded

content against reference files and blocking content in unlicensed jurisdictions. The Regional Blocking Technology can be likened to an 'oligopticon' which 'sees little but sees well.' The Regional Blocking Technology gathers limited knowledge about specific 'truths' such as the geo-location of infringing YouTube users. Such 'truths' generate further 'modes of action upon action' such as automatic disciplinary actions like blocking the content in an unlicensed jurisdiction. Just like the surveillance enabled by Content ID, the surveillance facilitated by the Regional Blocking Technology is very much a 'situated' exercise which depends on the durable links between various heterogeneous *actants* such as binary bits, geo-location data and servers. The Regional Blocking Technology's disciplinary power is very much governmentalised as it manages the infringing YouTube users as a population rather than as subjects. Here the disciplinary power of the Regional Blocking Technology is aimed at the 'collectivity' of YouTube users with their own customs and characteristics such as accessing audio-visual content even in circumstances where such content may not be licensed in the jurisdiction in question.

Having examined the power effects generated through socio-legal-technological solutions which detect (Content ID) or prevent (Regional Blocking Technology) copyright infringement, I now turn to the question what power effects are generated when a specific socio-legal-technological tool is deployed in cases of copyright disputes, namely, YouTube's Copyright Dispute Resolution Mechanism? This specific example further illustrates my overall arguments that (1) power effects are 'functions' of network configuration, and (2) specific legal elements generate complex power effects, as a result of the network of local connections within which they are found.

5.4 Tracing Multiple Regimes of Government and Disciplines in YouTube's Copyright Dispute Resolution Mechanism

In this section, I build on Chapter Four's ANT tracery of YouTube's Copyright Dispute Resolution Mechanism as a socio-legal-technological *actant* and analyse the complex web of power relations it generates such as practices of governmentality, practices of the self, and practices of surveillance and discipline.

5.4.1 Expelling Formal US Copyright Law from YouTube's Copyright Dispute Resolution Mechanism

The ideology behind the discourses of copyright dispute resolution in YouTube`s Copyright Dispute Resolution Mechanism is based upon notions of self-help and bottom-up techniques which mobilise specific skills, resources, knowledge in the YouTube`s copyright network and empower *actants* to resolve copyright disputes. Here, it can be seen that YouTube`s Copyright Dispute Resolution Mechanism is an advanced and liberal form of governing which is premised on ‘action at a distance,’⁴⁸ indirect interventions⁴⁹ and an active role of *actants* in their own government. As discussed earlier, some of these self-help techniques such as how to fill in YouTube`s Copyright Dispute Resolution Mechanism`s online forms or the time frame in which a Takedown Notice can be challenged by a YouTube user, are partially constructed by US Copyright Laws.⁵⁰ However, as explained in Chapter Four, the successful translation of YouTube`s Copyright Dispute Resolution Mechanism is not solely dependent on US Copyright Laws but also dependent on the local association of multiple and heterogeneous *actants* such as binary bits, hyperlinks, YouTube users and right holders. Figure 2 below illustrates the complex set of relations between *actants* which are involved for the Takedown Notice to be successfully translated in the YouTube`s copyright network:

Legend:

Icon	Meaning	Icon	Meaning
	Server		Router

⁴⁸ Nikolas Rose, and Peter Mille, ‘Political power beyond the state: problematics of government,’ (1992) *British Journal of Sociology* 173.

⁴⁹ Nikolas Rose, ‘Government, authority and expertise in advanced liberalism,’ (1993) 22(3) *Economy and Society* 283; Nikolas Rose, ‘The death of the social? Re-figuring the territory of government,’ (1996) 25(3) *Economy and Society* 327.

⁵⁰ n 10.

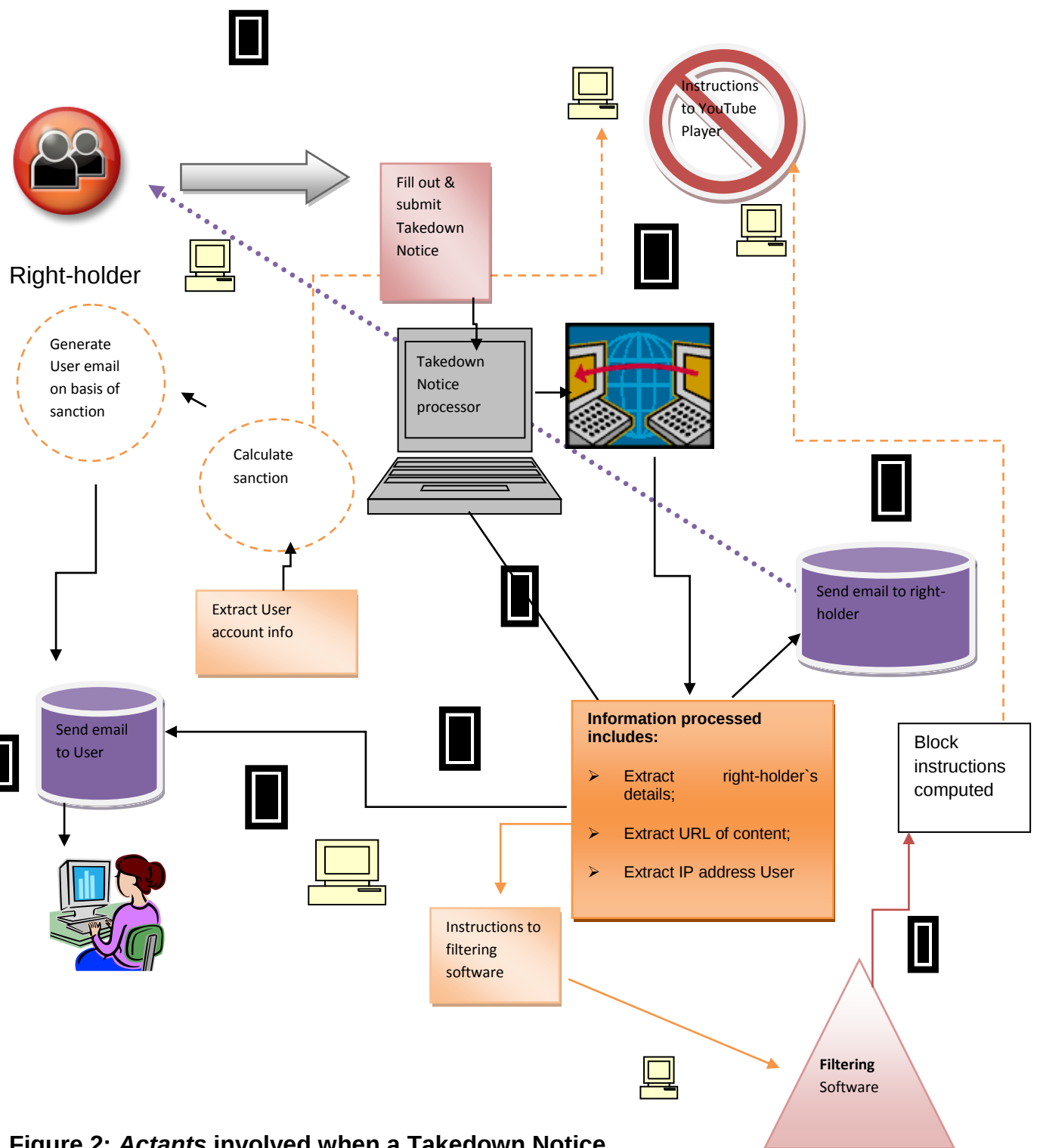


Figure 2: Actants involved when a Takedown Notice is filed

Consequently, YouTube`s Copyright Dispute Resolution Mechanism illustrates a move away from a coercive formal mode of governance, which is premised only on formal US copyright laws, to a mode of governance which depends on the durable association between multiple heterogeneous *actants* which includes formal US copyright laws.⁵¹ From this perspective, power can be seen as flowing not only from macro-actors such as the State but can rather be seen as swarming through the chain of associations between heterogeneous human and non-human actors. This insight adds to current understandings about ‘governmentality’ as it highlights the importance of accounting for roles of non-human actors when considering the ‘how’ of power.⁵²

This shift towards a more advanced and liberal mode of government in YouTube`s Copyright Dispute Resolution Mechanism has two implications. Firstly, some *actants* in the YouTube`s copyright network such as binary bits and YouTube users become increasingly involved in governing copyright disputes. Secondly, the increasing importance of local *actants* in governing copyright disputes also means the partial retreat of power deployed through specific US Copyright Laws as local and multiple *actants* carrying out the act of government. For instance, when a YouTube user files a Counter-Notification, multiple and heterogeneous mechanisms intervene. Data processors automatically extract and record a number of information from the Counter-Notification such as the identity and contact details of the right-holder, content`s URL, identity and contact details of the YouTube user (**extraction/record 1**). The software which handles the Counter-Notification then automatically generates and sends an email to the right-holder, using the information gathered in **extraction/record 1** to inform him/her of the Counter-Notification. Once the validity of Counter-Notification has been determined and the right-holder has decided between two possible outcomes - upholding the block on content and rejecting Counter-Notification or unblocking content and accepting Counter-

⁵¹ This is in line with current Foucauldian analysis of the law in society. Victor Tadros, ‘Between governance and discipline: The law and Michel Foucault,’ (1998) 18(1) Oxford Journal of Legal Studies 75. See Alan Hunt and Gary Wickham, *Foucault and law: Towards a sociology of law as governance* (Pluto Press 1994).

⁵² E.g. n 49.

Notification - the right-holder informs the software handling the Counter-Notification of his/decision. The software handling the Counter-Notification processes the right-holder`s decision (**extraction/record 2**), automatically generates an email containing the right-holder`s decision, automatically sends this email to the YouTube user by cross-referencing to the relevant information in **extraction/record 1** and automatically sends the correct instructions in binary form to the filtering software by cross-referencing to **extraction/record 2**. Agency here arises from and through the associations of different *actants* such as binary code, right-holder and YouTube user. As illustrated by this scenario, the force of US Copyright Laws here consists in steering the roles of the *actants* involved in the copyright dispute rather than enforcing sanctions such as damages. This can be seen by the number of copyright lawsuits filed against YouTube over the past number of years compared with the number of filed Takedown Notices in YouTube. US Copyright Laws only succeeds in such steering due to its co-constructive relation with other elements such as binary bits. What other power effects are generated from YouTube`s Copyright Dispute Resolution Mechanism?

5.4.2 Socio-Legal-Technological Rationalities in YouTube`s Copyright Dispute Resolution Mechanism

The local 'fitting together' of social, legal and technological elements also means that there are socio-legal-technological 'rationalities'⁵³ or 'mentalities' of government in YouTube`s Copyright Dispute Resolution Mechanism which shape the field of action for *actants*.

Legal rationalities, or systematic ways of thinking and responding to a problem which draws on formal legal knowledge or expertise, can be detected in YouTube`s Copyright Dispute Resolution Mechanism. Thus, the wording of parts of the section of the YouTube website dedicated to YouTube`s Copyright Dispute Resolution Mechanism indicates an increasing reliance upon the language used in

⁵³ On the link between the rationality and governmentality in general terms, see David Garland, 'Governmentality and the problem of crime: Foucault, criminology and sociology,' (1997) 1(2) Theoretical Criminology 173; Thomas Lemke, 'Foucault, Governmentality and Critique,' (2002) 14(3) Rethinking Marxism 49.

US Copyright Laws. For instance, the Takedown Notice and Counter-Notification are drafted to include verbatim certain statutory formalities. Additionally, objectives which are more relevant to the legal field such as case management issues, systematic filing of complaint and defence are also translated in YouTube`s Copyright Dispute Resolution Mechanism through requirements such as the imposition of a time limit for the filing and consideration of a Counter-Notification, the invalidity of a copyright complaint or defence to a complaint which is not expressed through the Takedown Notice or Counter-Notification. Moreover, in cases where a Takedown Notice is defended, the right-holder has to decide whether the Takedown Notice is valid or not. Such a decision can be likened to a judicial decision in a copyright infringement case as the right-holder is responsible for deciding whether the defence of 'fair use'⁵⁴ applies to the complaint. The decision-making process involves the right-holder carrying out a balancing exercise to decide whether the requirements for the application of the 'fair use' exception are met. The legal rationalities underlying YouTube`s Copyright Dispute Resolution Mechanism 'act at a distance' due to their embodiments in more durable material mediums such as binary bits which carry the electronic instruction to take down a specific content once a Takedown Notice is filed from one node of the YouTube`s copyright network to another. Social rationalities are also involved such as discussions between YouTube`s legal and technological departments about what information relating to the 'fair use' defence should feature in the Help Centre. Apart from legal rationalities, are there other rationalities which can be detected in YouTube`s Copyright Dispute Resolution Mechanism?

Technological rationalities can also be detected in YouTube`s Copyright Dispute Resolution Mechanism. By technological rationalities, I mean, the systematic ways of thinking and responding to a problem in the field of technology which draw upon technological knowledge and expertise such as how to design the filtering software so that specific functions such as automatic filtering of the content when a Takedown Notice is filed. YouTube`s Copyright Dispute Resolution Mechanism`s technological rationalities provide ways of solving the problem, namely, how to solve copyright disputes in the YouTube`s copyright network through technological solutions such as the operations of the filtering software (e.g. automatic expeditious

⁵⁴ Copyright Act 1976, 17 U.S.C. § 107.

removal of content when a Takedown Notice is filed), and setting up the internal automatic processes needed for YouTube's Copyright Dispute Resolution Mechanism (e.g. data processors for the Takedown Notice and Counter-Notification).

These socio-legal-technological rationalities which co-construct YouTube's Copyright Dispute Resolution Mechanism lead to distinct objectives – reducing copyright infringement, managing copyright disputes, enhancing the protection of the rights of right holders and educating YouTube users about copyright – which are achieved by acting through the involved *actants* and persuading them that it is in their interests to embrace these objectives. For instance, the 'Copyright' section in the 'Help Centre' contains countless legal information about copyright infringement, defences to copyright claims and how YouTube users can defend the Takedown Notice. The 'Copyright' section in the 'Help Centre' is thus an important *actant*, constructed as a partial '*immutable mobile*' as explained in Chapter Four, which seeks to not only educate YouTube users about their rights and responsibilities but also attempt to convince them that it is in their interests to respect the copyright of third parties by using ethical or moral arguments such as keeping their YouTube accounts in 'good standing'⁵⁵ by avoiding 'copyright strikes'.⁵⁶ Next, I analyse the techniques of government in YouTube's Copyright Dispute Resolution Mechanism which are interwoven with these socio-legal-technological rationalities.

5.4.3 Techniques of Government in YouTube's Copyright Dispute Resolution Mechanism

In this section, I analyse four local techniques⁵⁷ of government which may operate in conjunction, namely, processing, calculation, filtering, and education in order to show

⁵⁵ 'Keeping Your Account in Good Standing,' (YouTube Help Centre) <https://support.google.com/youtube/answer/2797387?hl=en&ref_topic=3164368> accessed 17 October 2012.

⁵⁶ E.g. 'Copyright Strikes Basic,' (YouTube Help Centre) <https://support.google.com/youtube/answer/2814000?hl=en&ref_topic=3164368> accessed 17 October 2003.

⁵⁷ I am using the phrase 'techniques of government' instead of 'technologies of government' to avoid missing out certain techniques due to technological reductionism and avoid losing insights into techniques of government where technology plays a crucial role. See Mitchell

that different examples of local ‘fitting together’ of heterogeneous elements generate different power effects. By this I mean that the techniques of governmentality deployed through YouTube’s copyright dispute resolution are different from the techniques of governmentality deployed through the Regional Blocking Technology such as matching and filtering as analysed in section three.

Processing is the first technique of government deployed through YouTube’s Copyright Dispute Resolution Mechanism. Various functions are performed through the processing technique such as the automatic extraction, storage, and cross-referencing of data contained in the Takedown Notice and the Counter-Notification. Automatic data extraction and data storage are used to extract and store the heterogeneous forms of data contained in the Takedown Notice and Counter-Notification. For example, technological data such as the content’s IP address, and legal data such as the right holder’s good faith statement when filing a Takedown Notice are extracted and stored. Automatic cross-referencing is used to cross-reference specific types of collected and stored data. For instance, the data collected in the Takedown Notice concerning the IP address of the infringing content is cross-referenced with the YouTube user database so as to determine the identity of the infringing YouTube user.

The automatic data extraction, data storage and cross-referencing technologies at play within YouTube’s Copyright Dispute Resolution Mechanism enable the second technique of government of YouTube’s Copyright Dispute Resolution Mechanism, namely, calculation. Here, automatic data extraction, data storage and cross-referencing technologies enable relevant features of the domain to be governed such as the infringing YouTube user and infringing content, to be represented in ‘calculable form’⁵⁸ so that these features traverse the different spaces where decisions such as what sanctions should be applied to the YouTube user, are made about them. ‘Governmentalised’ disciplinary techniques such as sanctioning an infringing YouTube users are used to optimise how YouTube users conduct

Dean, ‘*Putting the technological into government*,’ (1996) 9(3) *History of Human Science* 47, on the dangers of the phrases ‘technology of government’ and ‘technology of power.’

⁵⁸ Nikolas Rose, ‘Calculable minds and manageable individuals,’ (1988) 1 *History of the Human Sciences* 179, 184.

themselves as a population towards third-party content rather than focus on the disciplining the YouTube user as a subject.⁵⁹

Filtering, is the third technique of government used deployed through YouTube`s Copyright Dispute Resolution Mechanism. This technique is deployed after the data in the Takedown Notice and / or the right-holder`s response to a Counter-Notification has been processed to either block content or re-enable content. The final technique of government, education, deployed in different ‘capillaries’ of YouTube`s copyright network such as the Help Centre, is an important technique in YouTube`s Copyright Dispute Resolution Mechanism. It aims to empower YouTube users by increasing their awareness of their rights and obligations under US Copyright Laws. It also provides information about how a Takedown Notice can be responded to. This technique of government is made more durable by the construction of the Help Centre as a partial ‘immutable mobile’ which can travel from one ‘capillary’ of the network to another without losing its obduracy. However, as explained in Chapter Four, the success of this technique of government in intervening in the activities of *actants* in the YouTube`s copyright network depends on the ‘counter-conducts’ of certain *actants*.

These four techniques of government ‘govern at a distance’ as they act upon *actants* situated in different locations in the YouTube`s copyright network (e.g. data processors contained in a server in YouTube`s headquarters in the USA, personal computer of a right-holder situated in Australia used to upload and file the Takedown Notice). The techniques are used in combination with one another to shed light on the field which is to be governed in YouTube`s Copyright Dispute Resolution Mechanism through the production of data. For instance, automatic processing, calculation, and filtering techniques are used in conjunction with one to determine which sanction (e.g. strike or account suspension if more than three strike) should be applied to which specific YouTube user account.

Having dealt with the *techne* of governmentality in YouTube`s Copyright Dispute Resolution Mechanism, I now turn to the final axis of governmentality in YouTube`s Copyright Dispute Resolution Mechanism, namely, its *ethos*. This further

⁵⁹ See Dean, n 57 for more on the links between governmentality and other sources of power as disciplinary power in Foucault`s works.

supports one over of the overarching arguments of this thesis, which is that the local, contingent, and precarious 'fitting together' of heterogeneous elements generate complex and multiple power effects.

5.4.4 Tracing Practices of *Epimelesthai Sautou*⁶⁰ in YouTube`s Copyright Dispute Resolution Mechanism

In this section, I evaluate the notions of self (as subject and object of government) contained in YouTube`s Copyright Dispute Resolution Mechanism for YouTube users and right-holders. As explained in sections 5.1 and 5.4, certain practices such as the provisions of the Terms of Use and certain material conditions in YouTube`s Copyright Dispute Resolution Mechanism such as the Takedown Notice, generate a space⁶¹ where power relations are folded⁶² to generate a locale of conduct and capacities. My data analysis also suggests that the notions of self for YouTube users and right-holders immanent in YouTube`s Copyright Dispute Resolution Mechanism are connected to different notions of participation in YouTube.

On the one hand, YouTube users` notions of the self are inextricably bound with notions of active citizenship in YouTube which can have different meanings for different YouTube users. As explored in Chapter Four, when faced with a Takedown Notice, some YouTube users can conduct themselves in a way which is concurrent with their understandings of their identities as YouTube citizens by using the capacities of copyright dispute resolution as contained in the Terms of Use and other material conditions such as the Counter-Notification. For example, some YouTube users dispute the Takedown Notice on legitimate grounds (e.g. use in question amounts to fair use) by filing a Counter-Notification. As noted by other scholars, the notion of technologies of the self does not preclude practices which are, as is the case here, enabled by other practices or agencies.⁶³ Examples of such other

⁶⁰ Which means 'the care of the self.' Michel Foucault, *The Care of the Self* (New York Vintage 1986).

⁶¹ See Mitchell Dean, 'Governing the unemployed self in an active society,' (1995) 24(4) *Economy and Society* 559 for more on how the notion of self can be used in a 'neutral' way.

⁶² In the Deleuze sense of the spatial metaphor of folding. See *ibid*, 564.

⁶³ *ibid*, 563ff.

practices here include the discursive limits of the Counter-Notification web form and the Copyright Help Centre's hyperlinks about how to respond to a Takedown Notice. However, as detailed in Chapter Four, other YouTube users develop other practices of the self, such as practices of resistance or 'counter-conducts,' emerge from a different collective identity, namely, that of a resistance movement against the 'Nazis'⁶⁴ of the YouTube community, namely, right holders. Consequently such YouTube users govern themselves in different terms when it comes to copyright dispute resolution by issuing a Counter-Notification on the grounds of 'fair use' even when they know that their use does not fall within the 'fair use' exception. The filing of the Counter-Notification leads to the automatic and temporary re-enabling of the content in question until the right-holder adjudicate on the validity of the Counter-Notification. In such cases, it is the legal knowledge (e.g. what use amounts to 'fair use') and technological knowledge (e.g. how can the filtering technology be circumvented?) acquired by YouTube users which lead to these 'counter-conducts.'

On the other hand, right-holders' collective notions of self are connected to the notion of being stakeholders in YouTube which leads to different techniques of the self at different points in the network. Consequently, certain right-holders may adopt different conduct towards infringement depending on their own interests as stakeholders at the relevant time. For instance, in the wake of the Viacom lawsuit against YouTube, which was filed a few months after Viacom's unsuccessful attempts to purchase YouTube, YouTube notoriously alleged that Viacom in fact uploaded many videos, which were 'roughed up' to make them appear stolen, on YouTube by using fake accounts for the purposes of marketing.⁶⁵ This scenario illustrates two points. Firstly, the conduct of right-holders may be guided by different rationalities at specific points in times. Thus, the marketing rationality which guided Viacom's alleged uploading of deliberately 'roughed-up' videos on YouTube, was

⁶⁴ E.g. Comments to videos collected during the virtual ethnography. In particular vlogbrothers, 'YouTube vs. Viacom: The Battle Explained' (4 June 2010) <<https://www.youtube.com/watch?v=usaOKXVErqc>> accessed 10 June 2010; therealweeklynews, 'Viacom vs You = Boycott' (5 July 2008) <<https://www.youtube.com/watch?v=GJbCWJNQYI>> accessed 10 June 2010. Other similar terms such as 'Gestapos', 'Hitlers' and 'communists' are also used by YouTube users when they talk about right-holders.

⁶⁵ 'Youtube accuse Viacom of "secret uploads" (BBC News 19 March 2010) <<http://news.bbc.co.uk/1/hi/8575666.stm>> accessed 19 March 2010.

later on superseded by a more powerful economic rationality, namely, that of purchasing YouTube. When the objective to purchase YouTube failed, then Viacom resorted to what has widely been viewed in technological circles,⁶⁶ as an attempt to topple YouTube by launching a \$1Billion copyright infringement lawsuit against YouTube. This new rationality was accompanied by innovative techniques such as issuing over one hundred thousand Takedown Notices during one month, to further pressurise YouTube. Secondly, this example also shows the intermeshing between modes of government (e.g. Viacom`s attempt to subjugate YouTube through the excessive filings of Takedown Notices in a short space of time) and modes of self-government (e.g. ways in which Viacom governs its own conduct).

5.5 Unintended Consequences: of Technologies, ‘Fair Use’ and Domination

In the previous sections, I have analysed the various effects of power which are generated when different *actants* in YouTube`s copyright network are locally, contingently, and precariously ‘fitted together’ in specific scenarios such as copyright infringement. However, this analysis would be incomplete without considering how unintended power effects are also generated from such associations. Drawing on some associations between several legal, social, and technological elements in YouTube`s copyright network, I analyse two unintended power effects generated by such associations such as the limitations of the actual capacities of the *actants*.

Firstly, the capacities of certain *actants* can be limited by the conduct of other *actants*. For example, specific YouTube user ‘counter-conducts’ such as using third party technologies to bypass Content ID, limit the actual capacities of *actants* such as formal US copyright laws⁶⁷ and Content ID. Likewise, it can be argued that certain technological elements such Content ID`s design and operations erode legal elements such as the fair use exception.⁶⁸ In fact, Content ID automatically blocks the content of the right-holder once a match is detected or once a Takedown Notice

⁶⁶ Michael Liedtke, ‘Viacom Loses to YouTube in Landmark Copyright Case,’ (HuffPost Tech, 23 June 2010) <http://www.huffingtonpost.com/2010/06/23/youtube-viacom-lawsuit-se_n_623256.html> accessed 23 June 2010.

⁶⁷ User`s legal obligation not circumvent any technology in YouTube which protect copyright interests

⁶⁸ Copyright Act 1976, 17 U.S.C. § 107.

is filed without considering the context of use to determine whether such use falls within the ambit of the 'fair use' exception. Relatedly, Content ID's automatic filtering coupled with the allocation of role and responsibilities in YouTube's Copyright Dispute Resolution Mechanism further disturb the balance created by US Copyright Laws between the YouTube users' rights and right-holders' rights.⁶⁹ As explained in Chapter Four, YouTube's Copyright Dispute Resolution Mechanism as enacted in the YouTube's copyright network often results in a right-holder issuing or upholding an abusive Takedown Notice since the right-holder is solely responsible for determining the Takedown Notice's or Counter-Notification's validity.

Secondly, certain relations between particular legal, social, and technological *actants* also result in effects of domination in YouTube's copyright network. As explained in Chapter Four, at times, right-holders such as Warner Music Group creatively use the legal right of copyright licences. By this, I mean they agree to the use of their content on YouTube in consideration for either a fee based on advertising revenue or the receipt of specific information such as demographic information where content is most popular. As explored in Chapter Four, this erodes YouTube users' privacy rights, as personal data about the YouTube user's viewing habits, gender, location and ethnicity are gathered without in most cases the YouTube user's knowledge. Here, economic considerations drive the network resulting in the unintended erosion of the YouTube user's right to privacy. This is because YouTube users cannot easily find ways to opt-out of such data gatherings as such opt-out schemes are found in the least explored fibres of the network such as the privacy policy of a third-party website such as Nielsen. Finally, the contingency and locality of the legality of YouTube users' actions in the context of retrospective filing of Takedown Notices by right-holders, who subsequently revoke copyright licences due to disputes with YouTube, evidences the regimes of domination by right holders and YouTube over YouTube users in such licences.

Conclusion

Building on the ANT-Foucauldian tracery of YouTube's copyright network in Chapter Four, this chapter has analysed the myriad effects of power which are generated

⁶⁹ In particular, Copyright Act 1976 17 U.S.C. § 106 & 107; Digital Millennium Copyright Act 1998 17 U.S.C § 504 & 512. For see Chapter Four, Table One.

when specific legal, social, and technological *actants* are ‘fitted together’ in YouTube’s copyright network. I have argued four key points. Firstly, multiple, complex and contingent power effects are generated from specific local connections. This means that the power effects of local connections are very much context specific. For instance, the practices of governmentality generated by the Regional Blocking Technology such as blocking and identifying the physical location of the YouTube user differ from the practices of governmentality of Content ID, which can result in the termination of YouTube users’ accounts. Secondly, I have highlighted that power effects depend on the durability and mobility of the local connections which generate them. Thus, power effects, such as the ‘orderings’ established through the Terms of Use or Content ID would not circulate across the ‘capillaries’ of YouTube’s copyright network if it were not for ‘materialities’ such as web forms, hyperlinks and the ‘tick-box’ which extend the reach of such *actants*. From this perspective, power effects in YouTube’s copyright network are achieved through the durable links between mobile and heterogeneous *actants* rather than being achieved only by one element such as the opaque ‘code,’ a point that is central to the CRT literature. Such power effects, however, often meet up with resistance and have unintended effects such as limiting the actual capacities of certain *actants*. Thirdly, I have analysed what a relational understanding of YouTube’s copyright network can tell me about the power effects of legal elements. In particular, I have analysed how occasionally US Copyright Laws retreat in YouTube’s copyright network as local and multiple *actants* such as data processors carry out the act of government. I have also analysed how specific territorial laws have gained their authority not by virtue of their links to a physical border but rather by virtue of the durability of their association with YouTube’s copyright network. Finally, I have analysed the unintended effects generated when some heterogeneous *actants* are ‘fitted together’ in YouTube’s copyright network such as the limitations of the actual capacities of certain *actants*. The important question that arises now is, are the relationships between heterogeneous *actants* and their power effects different if the empirical setting changes. I answer these questions in the next two chapters where I consider the relationships between legal, social, and technological *actants* and the power effects of such relationships when another legal value, namely, personal data, is protected and/or violated in another Online Social Networking Site, namely, Facebook.

Chapter Six

An Exploration of Facebook's Data Network in Facebook as a Socio-Legal-Technological Network

Abstract

This chapter presents the findings of my qualitative empirical analysis of the construction of Facebook's data network which draws on virtual ethnographic methods, interviews and documentary analysis. I apply my Foucauldian-ANT Power Lens, developed in Chapter Three, to trace the construction of Facebook's data network in Facebook. I argue three points. Firstly, I suggest that Facebook's data network emerges when specific social, legal and technological *actants* such as binary codes, programming language, legal skills, and Facebook users are locally, contingently, and precariously 'fitted together'. This is a key theme of this chapter. I empirically explore such local, contingent, and precarious 'fitting together' and the obstacles to the maintenance of such local connections including resistance from relevant *actants*. I characterise some of these resistance practices as 'ethical' because they are attempts by Facebook users to negotiate their relationships with specific rules. Secondly, I argue that 'materialities' such as hyperlinks and reports play key roles in maintaining the local connections between heterogeneous *actants*. Thirdly, building on this relational understanding of the network, I develop micro-sociological insights into legal concepts such as 'consent' and binding contracts as well as legal mechanisms such as 'audits.'

Introduction

As explained in Chapter One, this research seeks to investigate the power effects generated when specific legal, social, and technological elements are locally 'fitted together' in Online Social Networking Sites ('OSNS'), when legal values, such as copyright and personal data,¹ are protected and/ or violated. In this chapter, I

¹ In this thesis, I define personal data as any information which relates to a Facebook user of an OSNS who is or can be identified from the data. Examples of personal data include geo-location data such as the internet protocol address, full name, characteristics, and electronic mail address of a Facebook user.

analyse how heterogeneous legal, social and technological *actants* are locally 'fitted together' in a different empirical setting, namely, Facebook's data network. By Facebook's data network, I mean the socio-legal-technological network in Facebook, which is formed and performed through the association of heterogeneous human and non-human actors such as hyperlinks,² legal skills and Facebook users in Facebook when personal data is violated and/or protected ('Facebook's data network'). By personal data, I refer to any information relating to an identifiable Facebook user. An identifiable Facebook user is a Facebook user who can be identified, directly or indirectly, through various elements such as an factors relating to the Facebook user's physical identity. A sceptical reader may ask why my empirical Facebook case study, set out in this chapter and the next, focuses on the protection of personal data rather than privacy. When focusing on the connections between the relevant *actants* in Facebook's data network, my data analysis has shown that such interactions focussed on the protection of privacy in a specific way, namely, in the sense of control over personal data.³ Thus, in this chapter, and the next, my conception of privacy is one which focusses on 'data protection' or control over information.⁴

As with the YouTube case study, I analyse how Facebook's data network is constructed as a socio-legal-technological network by using my ANT-Foucauldian Power Lens. By ANT-Foucauldian Power Lens, I mean the conceptual lens of power, developed in Chapter Three, where Actor-Network Theory ('ANT') and Foucauldian ideas about power are used in conjunction with one another ('ANT-Foucauldian Power Lens'). I build on this relational understanding of Facebook's data network, in

² A hyperlink is an electronic link providing direct access from one distinctively marked place in a hypertext or hypermedia document to another in the same or a different document. A hypertext document is a database format in which information related to that on a display can be accessed directly from the display. A hypermedia document is a database format similar to hypertext in which text, sound, or video images related to that on a display can be accessed directly from the display (Merriam-Webster Dictionary, Online Version).

³ E.g. n 23 and 28.

⁴ Such a conception of privacy is limited as it focusses only on personal data over which a specific user may lose control when such data is processed. How are other forms of privacy, other than informational privacy, protected? To what extent do users have autonomy to exercise control over their personal data in empirical contexts? See Daniel J Solove, *Understanding Privacy* (Harvard University Press 2008) 12ff.

the next chapter, to analyse the power effects generated when key legal, technological and social human and non-human actors are locally 'fitted together' in Facebook's data network. In this chapter and the next I use the terms 'human and non-human actors,' 'actants', and 'elements' interchangeably.⁵

In, what can be perhaps termed, her most influential work, Hannah Arendt, famously wrote that:

'A life spent entirely in public, in the presence of others, becomes, as we would say, shallow. While it retains its visibility, it loses its quality of rising into sight from some darker ground which must remain hidden if it is not to lose its depth in a very real, non-subjective sense.'⁶

Arendt's remarks were made in the context of her ground-breaking quest to establish the conditions of possibility for political experience in a time when the internet, in the shape of Arpanet⁷ and its contemporaries, was at a very embryonic stage. However, Arendt's remarks, although thought out in an age where participatory platforms such as Facebook could only be conceived of as an utopia, accurately capture the challenges of an almost perpetually visible life such as that lead by users of platforms such as Facebook. In particular, the quasi- permanent visibility granted to users of platforms such as Facebook threatens the user's personal data. Facebook's deep entrenchment in modern life is undeniable as evidenced by its ranking as one of the most popular websites,⁸ its massive subscription base,⁹ and its

⁵ In key ANT literature, these terms are used interchangeably. See John Law, 'Technology and Heterogeneous Engineering: The Case of Portuguese Expansion' in Wiebe E Bijker, Thomas P Hughes and Trevor J Pinch (eds) *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology* (Cambridge MA and London MIT Press 1990) 111, 114; Geoff Walsham, 'Actor-network theory and IS research: current status and future prospects' (1997) *Information Systems and Qualitative Research*. 466.

⁶ Hannah Arendt, *The Human Condition* (University of Chicago Press 1958) 71.

⁷ Peter Salus, *Casting the Net: From Arpanet to Internet and Beyond* (1st edn Addison Wesley 1995).

⁸ Facebook is currently ranked as the most popular OSNS internationally (Alexa) <<http://www.alexa.com/siteinfo/facebook.com>> accessed 13 December 2013.

⁹ Recent figures indicate that Facebook has an estimated 1.15 billion monthly active Facebook users as of June 2013. (Facebook) <<http://www.facebook.com/press/info.php?statistics>> accessed 13December 2013.

recent record-breaking IPO¹⁰ valuation of one hundred and four billion dollars.¹¹ Arguably, many factors can account for Facebook's unprecedented popularity as an OSNS including its constant technological innovations which provide Facebook users with the most up-to-date ways to interact with each other. Concurrently, Facebook's popularity has been matched with an increasing attention to its data protection issues from policy-makers,¹² academics,¹³ the judiciary,¹⁴ and supervisory authorities responsible for data protection issues ('Supervisory Authorities').¹⁵

I develop three main arguments in this chapter. Firstly, I suggest that Facebook's data network is built through a series of intricate and local alliances between heterogeneous legal, social, and technological *actants* such as binary codes,¹⁶ programming language,¹⁷ legal skills, and Facebook users. Consequently,

¹⁰ An IPO refers to an initial public offering when shares of a private company are sold to members of the public for the first time.

¹¹ 'Facebook valued at \$104bn as share price unveiled' (BBC News Business 18 May 2012) <<http://www.bbc.co.uk/news/business-18105608>> accessed 10 January 2013.

¹² See the OECD report on Online Social Networking Sites <<http://www.oecd.org/internet/consumerpolicy/e-book-social-and-economic-factors-shaping-the-future-of-the-internet-soe-cd-workshop-proceedings-31-january-2007.htm#priv>> accessed 14 August 2013.

¹³ For quantitative studies into the implications of Facebook for the protection of the Facebook user's 'personal data' see Catherine Dwyer, Starr R Hiltz, Katia Passerini, 'Trust and privacy concern within social networking sites: A comparison of Facebook and MySpace,' (Proceedings of the Thirteenth Americas Conference on Information Systems, Keystone, Colorado, 09-12 August 2007); Alessandro Acquisti and Ralph Gross, 'Imagined Communities: Awareness, Information Sharing and Privacy on The Facebook,' (Proceedings of the 6th Workshop on Privacy Enhancing Technologies, Cambridge, UK, 2006). For qualitative studies on Facebook's implications for the protection of the Facebook user's 'personal data' see Wang Yang and others, 'I regretted the minute I pressed share: A qualitative study of regrets on Facebook' Proceedings of the Seventh Symposium on Usable Privacy and Security (2011) ACM 10 <<http://dl.acm.org/citation.cfm?id=2078841>> accessed 8 August 2013.

¹⁴ Key cases brought against Facebook on the grounds of data protection and/or privacy breaches include Lane et al v. Facebook, Inc. et al, No. 5:08-cv-03845 (C.N.D.C. 12 Aug. 2008).

¹⁵ E.g. the Irish Data Protection Commissioner.

¹⁶ A binary code can be defined as a computer code that uses the binary number system. The binary number system has a base of two numbers being expressed by sequences of the digits 0 and 1. (Collins English Dictionary, Online Version).

Facebook's data network emerges as a 'hybrid collectif'¹⁸ which is neither purely social nor purely legal nor purely technological but rather socio-legal-technological.¹⁹ I trace how specific empirical instances of local 'fitting together' can be ruptured from time to time by various factors such as resistance. Whilst exploring certain resistance practices, I also analyse how such practices are arguably instances of 'ethical practices', that is, practices through which Facebook users attempt to negotiate their relationships with specific rules. Secondly, I argue that 'materialities' such as reports and hyperlinks play key roles in ordering durable relations between *actants* over time and space and overcoming sources of resistances. Thirdly, building on this relational understanding of the network, I develop micro-sociological insights into legal concepts such as 'consent' and binding contracts as well as legal mechanisms such as 'audits'. This is particularly relevant to understand the roles of legal elements in constructing Facebook's data network.

These arguments are developed in six sections in this chapter. In section 6.1, I open up Facebook's data network and analyse how it has been 'cut' in my research. I then move on to explain key aspects of Facebook's data network, in section 6.2, so that the reader has a working understanding of the network. In the remaining sections of the chapter, I analyse the roles of key elements in constructing Facebook's data network. In section 6.3, I analyse the roles of key legal elements such as EU Data Protection Laws,²⁰ the Article 29 Working Party,²¹ and Supervisory

¹⁷ A programming language refers to 'a system of precisely defined symbols and rules devised for writing computer programs.' (Oxford English Dictionary, Online Version).

¹⁸ Michel Callon and John Law, 'Agency and the Hybrid "Collectif"' (1995) 94(2) *The South Atlantic Quarterly* 481.

¹⁹ ANT scholars employ the term 'hybrid' to refer to the heterogeneous 'actor-network' which is constructed from the association of many heterogeneous elements. See Michel Callon and John Law, 'L'irruption des non-humains dans les sciences humaines: quelques leçons tirées de la sociologie des sciences et des techniques' in Jean-Pierre Dupuy and Pierre Livet (eds) *Les Limites de la Rationalité, Tome : Rationalité, éthique et cognition* (Colloque de Cerisy 1997) 99. In this thesis, I use the term 'hybrid' in the ANT sense rather than the general sense of an entity composed only of two diverse elements (Oxford English Dictionary, Online Version).

²⁰ EU Data Protection Laws refer to the binding sources of data protection laws from the European Union. EU Data Protection Laws include directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data ('Data Protection Directive'), directive 2002/58 on Privacy and Electronic Communications as amended by

Authorities in constructing Facebook's data network. In section 6.4, I analyse how Facebook's Legal and Public Policy Teams contribute to the construction of Facebook's data network through the Governing Contracts.²² I then move on to analysing the roles of Facebook's Engineering Team in constructing Facebook's data network in the last two remaining sections through an analysis of four specific technologies namely, Privacy Settings,²³ Tagging,²⁴ Apps²⁵ and Advertisements.²⁶ In

directive 2006/24/EC of the European Parliament and of the Council of 15 March 2006 on the retention of data generated or processed in connection with the provision of publicly available electronic communications services or of public communications networks and as amended by directive 2009/136/EC of the European Parliament and the Council of the 25 November 2009 ('EU Data Protection Laws').

²¹ The Article 29 Working Party refers to a 'working party on the protection of individuals with regard to the processing of personal data' established by Article 29 of directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data ('Article 29 Working Party'). It is made up of a representative from the Supervisory Authorities of each European member state and other key actants such as the European Data Protection Supervisor and the European Commission. The Article 29 Working Party is an independent body which acts in an advisory capacity. One of its aims is to harmonise the application of European data protection directives in the European Union. To this end, it publishes opinions and recommendations on current data protection issues such as its recent opinion on online social networking sites. WP163, 'Opinion 5/2009 on online social networking sites,' (12 June 2009)
<http://ec.europa.eu/justice_home/fsj/privacy/docs/wpdocs/2009/wp163_en.pdf> accessed 12 June 2012.

²² The Governing Contracts refer to the series of legally binding contracts entered by Facebook and other contracting parties such as Facebook user, third-party advertisers and third-party developers including Statement of Rights and Responsibilities – Facebook (<<https://www.facebook.com/legal/terms>>) accessed 8 October 2013, Data Use Policy - Facebook (<<https://www.facebook.com/about/privacy>>) accessed 8 October 2013, Community Standards – Facebook (<<https://www.facebook.com/communitystandards>>) accessed 8 October 2013, Promotion Guidelines – Facebook (<http://www.facebook.com/promotions_guidelines.php>) accessed 8 October 2013 Facebook Platform Policies – Facebook (<<http://developers.facebook.com/policy/>>) accessed 8 October 2013, Advertisements Guidelines – Facebook (<http://www.facebook.com/ad_guidelines.php>) accessed 8 October 2013, and Pages Terms – Facebook (<http://www.facebook.com/terms_pages.php>) accessed 8 October 2013 ('Governing Contracts').

²³ The Privacy settings refer to the settings, which are accessible on the right-hand side of all Facebook pages, in a drop-down box Facebook users can tailor these settings to their preferences to manage the visibility of their actions and interactions ('Privacy Settings').

²⁴ Tagging refers to the 'Tag Suggest' feature and its underlying facial recognition software ('Tagging'). The 'Tag Suggest' feature refers to a feature which enables Facebook users to tag other Facebook users in any photo uploaded to Facebook. The 'Tag Suggest' feature operates in various ways including grouping together the photo of a specific Facebook user,

these sections, I consider how Facebook's data network is constructed as a socio-legal-technological network and the multiple sources of resistances which threaten to derail its construction at times.

6.1 Opening Up Facebook's Data Network

The present construction of Facebook's data network is founded on many data sources. My data sources include my virtual ethnography of Facebook conducted between January and March 2012 with over sixteen thousand collected Facebook user comments;²⁷ documents on the protection and/or violation of personal data in

extracting information about the facial features of a specific user from uploaded photos of that user, and suggesting the name of a Facebook user when a photo is uploaded. For more 'How does Facebook Suggest Tags?' (Help Centre) <<https://www.facebook.com/help/?faq=122175507864081#How-does-Facebook-suggest-tags?>> accessed 13 October 2013. J Mitchell, 'Making Photo Tagging Easier,' (Facebook Blog, 15 December 2010) <<https://blog.facebook.com/blog.php?post=467145887130>> accessed 19 September 2012.

²⁵ Apps refer to applications software developed by third-party software developers on Facebook ('Apps'). Applications software refers to 'software designed to carry out a specific task or meet a specific user requirement; application programs collectively' (Oxford English Dictionary). Apps such as 'Candy Crush Saga' are designed to enhance the experience of Facebook users on Facebook by providing them with new ways to interact with other Facebook users such as playing games. See 'What is an App on Facebook?' (Help Centre) <<https://www.facebook.com/help/?faq=217453588274571#What-is-an-app-on-Facebook?>> accessed 13 October 2013.

²⁶ Advertisements refers to advertisements which appear on Facebook ('Advertisements'). 'What are Facebook Ads?' (Help Centre) <<https://www.facebook.com/help/?faq=116118951805237#What-are-Facebook-Ads?>> accessed 13 October 2013.

²⁷ E.g. Over one thousand comments by Facebook users, collected on 20th January 2012, on Facebook advertisements. 'How Advertising Works on Facebook,' (*Facebook and Privacy*, 22 December 2011) <<https://www.facebook.com/video/video.php?v=10150228703690484>> accessed 13 October 2013. Over seven hundred comments by Facebook users, collected on the 21st January 2012, on specific changes to Facebook including Timeline's launch. 'Controlling What you Share on Timeline,' (*Facebook and Privacy*, 20 December 2011) <<https://www.facebook.com/notes/facebook-and-privacy/controlling-what-you-share-on-timeline/271872722862617>> accessed 13 October 2013. Over three hundred comments by Facebook users, collected on the 26th January 2012, on Facebook's call to its users to vote on its proposed changes to its Data Use Policy. 'Facebook's Privacy Policy,' (Facebook Site Governance, 26 August 2011) <https://www.facebook.com/note.php?note_id=10150740019045301> accessed 13 October 2013.

Facebook from various sources including Facebook,²⁸ and relevant Supervisory Authorities;²⁹ email exchanges between the researcher and key Supervisory Authorities;³⁰ an interview of a senior Facebook representative conducted by the researcher;³¹ other sources of information relating to data protection issues in Facebook such as relevant Facebook videos,³² conferences,³³ and mass media

²⁸ Various documents produced by Facebook were analysed. Some examples include the Governing Contracts (n 22), relevant blog posts by Facebook such as Matt Jones, 'Link Shim - Protecting the People who Use Facebook from Malicious URLs,' (Facebook Site Integrity, 31 January 2012) <<https://www.facebook.com/notes/facebook-security/link-shim-protecting-the-people-who-use-facebook-from-malicious-urls/10150492832835766>> accessed 31 January 2012; Mark Zuckerberg, 'Our Commitment to the Facebook community,' (Facebook, 29 November 2011) <<https://blog.facebook.com/blog.php?post=10150378701937131>> accessed 1 December 2011; Paul McDonald, 'Facebook: Now Available WorldWide,' (Facebook, 15 December 2011) <<https://blog.facebook.com/blog.php?post=10150408488962131>> accessed 1 January 2012. Additionally, relevant sections of Facebook's Help Centre were also analysed such as the section on Apps. See 'About Apps,' (Help Centre) <<https://www.facebook.com/help/272999036130710?ref=contextual>> accessed 8 October 2013.

²⁹ E.g. Irish Data Protection Commissioner, 'Facebook Ireland Limited, Report of Audit,' (21 December 2011) <<http://www.dataprotection.ie/docs/Facebook-Ireland-Audit-Report-December-2011/1187.htm>> accessed 8 October 2013 ('Irish Facebook Audit'); Irish Data Protection Commissioner, 'Facebook Ireland Limited, Report of Re-Audit,' (21 September 2012) <<http://www.dataprotection.ie/docs/21-09-12--Facebook-Ireland-Audit-Review-Report/1232.htm>> accessed 8 October 2013; Elizabeth Denham, 'Report of findings into the complaint filed by the Canadian internet policy and public interest clinic (CIPPIC) against Facebook Inc. under the Personal Information Protection and Electronic Documents Act,' (Privacy Commissioner of Canada, 2009) <http://www.priv.gc.ca/cf-dc/2009/2009_008_0716_e.asp> accessed 1 January 2010.

³⁰ E.g. Email from Ms Valerie Lawton, Senior Communications Advisor at the Office of the Privacy Commissioner of Canada to author (23 March 2012); and email from Ms Kasia Krzymien, Research Analyst at the Office of the Privacy Commissioner of Canada to author (23 September 2013).

³¹ Interview of Richard Allan, Director of Policy (EMEA) at Facebook conducted by this researcher on 19 April 2011.

³² E.g. 'How do I use Facebook's Privacy Settings?' (Help Centre, 9 December 2009) <<https://www.facebook.com/video/video.php?v=366944610483>> accessed 9 December 2011; 'Behind the New Design,' (Facebook) <https://www.youtube.com/watch?feature=player_embedded&v=YaQQHYQHnMk> accessed 8 October 2013; and Simon Cross, 'Open Graph - 7: Tagging Friends and Places, adding user Messages,' (Facebook Developers, 4 July 2012) <<https://www.facebook.com/photo.php?v=10151877867880582&set=vb.19292868552&type=3&theater>> accessed 6 July 2012.

³³ E.g. F8 conference (29 February 2012) <<https://www.facebook.com/f8>> accessed 29 February 2012; Facebook Marketing Conference (18 July 2012)

outputs.³⁴ From the analysis of these data sources, Facebook's data network unfolds itself as a 'hybrid' network composed of heterogeneous humans and non-humans, such as, programming languages, servers,³⁵ routers,³⁶ legal skills such as legal reasoning, Facebook users and Supervisory Authorities, which are locally, contingently, and precariously 'fitted together.' Such local connections between heterogeneous humans and non-humans can become stronger when these connections are embodied in durable and mobile 'materialities' such as hyperlinks. The representation of Facebook's data network, which is generated from my data analysis, is not an exhaustive representation Facebook's data network. Rather, it is but one of the many representations of the 'mixed narratives'³⁷ contained in Facebook's data network.

It could be argued that this almost limitless representation of Facebook's data network is dangerous as it can take the researcher everywhere and nowhere. To avoid this issue, in this chapter and Chapter Seven, Facebook's data network has been 'cut'³⁸ by considering three factors. Firstly, Facebook's data network has

<<http://oursocialtimes.com/archivedevents/facebookmarketinglondon/>> accessed 1 August 2012.

³⁴ E.g. Christopher Williams, 'Facebook battles Germans on privacy,' The Telegraph (London, 1 December 2011) <<http://www.telegraph.co.uk/technology/facebook/8926232/Facebook-battles-Germans-on-privacy.html>> accessed 1 December 2011; 'Facebook changes privacy options,' BBC News (23 August 2011) < <http://www.bbc.co.uk/news/technology-14633427>> accessed 23 August 2011; Katie Rogers, 'Facebook users raise privacy concerns as company tweaks security settings,' The Guardian (London, 15 October 2012) <<http://www.theguardian.com/technology/2012/oct/15/facebook-users-privacy-concerns-security>> accessed 15 October 2012.

³⁵ Servers refer to the 'combination of computer and software in a network which carries out a specialised service. Usually such computers are powerful and optimized for the particular service that they carry out.' Examples of servers include web servers which receive requests from browsers for web pages. Darrel Ince, *A Dictionary of the Internet* (OUP 2009).

³⁶ *Ibid*, a router can be defined as 'a device, often a dedicated computer, used to link two networks. It takes packets of data, determines their destination, and passes them on to the network for which they are intended.'

³⁷ Marilyn Strathern, 'Cutting the network,' (1996) *Journal of the Royal Anthropological Institute* 517, 519.

³⁸ Post-Latour scholars such as Strathern (*ibid*) have argued that it is important to 'cut the network' in the sense of reducing the network to render it expressible. It could be argued that in his earlier works, Latour did not explicitly propose truncating the network by referring to

been truncated by identifying which *actants* are relevant to my research. Specifically, I have ‘followed the *actants*’ which can shed light on how Facebook’s data network is constructed as a socio-legal-technological network and the power effects generated from such localised connections. Thus, certain *actants* such as cables, routers, or servers would only figure in the tale of tracing Facebook’s data network to the extent that they help the tale along (e.g. how they provide crucial links between the Facebook user, interconnected computers, servers and Facebook) rather than unfold the ‘mixed narratives’ they may contain for the sake of unfolding such narratives (e.g. how routing takes place?) Secondly, certain *actants* such as Javascript³⁹ appear as ‘black-boxes’ which do not need to be opened due to their limited relevance to the research questions. They can therefore be treated as a cutting point of Facebook’s data network. Conversely, other *actants*, such as Facebook’s data law network, are also ‘actor-networks’ which contain relevant elements, such as data protection laws,⁴⁰ which interact with Facebook’s data network at specific points. Such *actants* thus have been further opened, where appropriate, to reveal the spatial temporalities and ‘mixed narratives’ they contain. Finally, certain *actants* such as the ‘Old Facebook Profile’ can be cut from Facebook’s data network because they are in the process of exiting the network.⁴¹

criteria such as the research questions. I would like to thank Professor Geoff Walsham for bringing this point to my attention. I would respond by raising two points. Firstly, in my view such truncation occurs implicitly in his earlier works. For instance in *Pasteurization*, Latour has to ‘cut the network’ and reduce it to the relevant *actants* such as bacillus, laboratory and individual animals to generate an understanding of Pasteur, ‘the great man.’ Bruno Latour, *The Pasteurization of France* in Alan Sheridan and John Law (trans) (Cambridge MA Harvard Univ. Press 1988). Secondly, I would argue that if the network is not ‘cut’ in empirical studies, then one would not be able to give analytical purchase to key interactions which generate power effects.

³⁹ One of the programming languages used by Facebook.

⁴⁰ Data protection laws refer to the various sources of binding laws on data protection in key jurisdictions including binding conventions such as the European Convention of Human Rights, the Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data (1981); EU Data Protection Laws (n 20); national data protection laws such as the Data Protection Act 1998 (UK) and related case law.

⁴¹ The ‘Old Facebook Profile’ has been replaced by ‘Timeline’ which is in the process of being rolled out mandatorily for all Facebook users. ‘Facebook Timeline starts replacing Facebook user profiles’ (CBS News 15 December 2011) <<http://www.cbc.ca/news/technology/story/2011/12/15/technology-facebook-timeline.html>> accessed 15 December 2012.

6.2 Wading into Facebook's 'Madding Crowd'

In this section, I briefly outline Facebook's main characteristics and the three broad categories of personal data processed by Facebook to help the reader develop a working understanding of Facebook.

Facebook is a social network site which enables its users to stay connected with one another, '...discover what's going on in the world, and to share and express what matters to them (sic).' ⁴² Facebook users leads 'li[ves] spent...in public, in the presence of others...' ⁴³ as they instantaneously share key moments in their lives with other Facebook users. Magical moments such as the moment the future spouses say 'I do' to each other and unsavoury ones such as relationship breakdowns are immediately shared with other Facebook users at the click of a button. To the Luddite, Facebook may appear as an insurmountable world filled with complex and granular technologies such as Timeline, which if not properly managed, can leave last night's insalubrious celebrations for all and sundry to see in a series of photographs posted on a Facebook user's Wall. Stepping into Facebook's 'madding crowd' means that the Facebook user has to understand how s/he can connect with other Facebook users ('Friends') through various spaces such as space on the Facebook user's profile where the Facebook user and/or his/her Friends can post and share information ('Wall') or the space where the Facebook user's photos and interactions on Facebook are aggregated ('Timeline' also known as 'Profile').

Facebook users can interact with their Friends in many ways including clicking the 'Like' button to 'give positive feedback and connect with things [the Facebook user]...cares about' ⁴⁴ ('Like'), commenting on a Friend's Wall post ('Comment'), and posting an update on their Wall ('Status Update'). Facebook users can also add various types of photos from a main photo of the Facebook user on

⁴² <<http://newsroom.fb.com/content/default.aspx?NewsAreald=22>> (Facebook) accessed 26 September 2012.

⁴³ n 4.

⁴⁴ <<https://www.facebook.com/help/?page=252088531486652>> (Facebook Glossary) accessed 26 September 2012.

his/her Timeline ('Profile Picture')⁴⁵ to uploading pictures on his/her Wall or Timeline either individually ('Photos') or as a specified collection ('Photo Albums') to a large photo at the top of the Facebook user's Timeline, right above the Facebook user's Profile Picture ('Cover Photo').⁴⁶ Facebook users can manage the visibility of their actions and interactions on Facebook by using the settings which are accessible on all pages on the right-hand side, in a drop-down box ('Privacy Settings'). Facebook users are offered many technologies to protect their personal information such as Account Settings,⁴⁷ and Activity Log.⁴⁸ Facebook users can also consult Facebook's help centre to learn more about Facebook features ('Help Centre').⁴⁹

The Help Centre can be understood as a partial 'immutable mobile' which durably carries specific information about Facebook features such as Privacy Settings from one point of the network to another without changing form, except when the information has been updated by Facebook to reflect changes in such features. It achieves its status as a partial 'immutable mobile' through the association of heterogeneous elements. Technological elements such as the Help Centre's designated unique resource locator, which never changes and can be accessed by the Facebook user at any time to consult the Help Centre; legal elements such as translation of Facebook users' rights under EU Data Protection Laws (e.g. account deletion and deactivation);⁵⁰ and social elements such as drafting the contents of the

⁴⁵ <<https://www.facebook.com/help/?page=252088531486652>> (Facebook Glossary) accessed 26 September 2012.

⁴⁶ <<https://www.facebook.com/help/?page=252088531486652>> (Facebook Glossary) accessed 26 September 2012.

⁴⁷ They are used to manage basic account preferences
<<https://www.facebook.com/help/?page=252088531486652>> (Facebook Glossary) accessed 26 September 2012.

⁴⁸ It is used to review and manage Facebook user action and interaction shared on Facebook. Glossary <<https://www.facebook.com/help/?page=252088531486652>> (Facebook) accessed 26 September 2012.

⁴⁹ The Help Centre can be defined as a space where all information relating to Facebook, its features and privacy issues is consolidated. Help Centre <<https://www.facebook.com/help/>> (Facebook) accessed 26 September 2012.

⁵⁰ Help Centre <<https://www.facebook.com/help/account-settings-and-deletion>> (Facebook) accessed 26 September 2012.

Help Centre in a 'Question and Answer format' by Facebook's Public Policy Team,⁵¹ associate with one another to form and perform the Help Centre. Certain sections of the Help Centre can be likened to 'centres of translation' as they are concentrated nodes of information or resources which may enable a specific *actant* to be translated into the network. Thus, the Help Centre's section on advertising is specifically constructed to provide enough information to allay the Facebook users' concerns about how Advertisements may violate their personal data.⁵² Layout choices such as designing the section in 'Question and Answer' format and narrative choices such as carefully worded section to normalise Facebook's practices⁵³ in relation to advertisements coupled with technological tools such as the opt-out cookie from the Nielsen programme ('Opt-Out Cookie'),⁵⁴ which underlies Advertisements, locally intermesh with one another to overcome possible Facebook user resistance. The intermeshed links are lengthened across Facebook's data network through hyperlinks which extend these links from one part of the network (e.g. Help Centre) to another (e.g. Nielsen website).⁵⁵ Arguably, the Help Centre's role as a 'centre of translation' is hampered by certain of its features such as multiple page navigation before the Facebook user reaches his/her landing page. Illustratively, to access the Opt-Out Cookie, Facebook users have to navigate from the Help Centre to an external website (Nielsen)⁵⁶ to the 'Nielsen Online Privacy

⁵¹ n 31.

⁵² 'What are Facebook Ads?' (Help Centre) <<https://www.facebook.com/help/116118951805237?sr=3&sid=08qvxaGYETw742ieA>> accessed 8 October 2010.

⁵³ 'What is the Nielsen Partnership with Facebook and how does it affect me?' (Help Centre) <<https://www.facebook.com/help/211774365532736>> accessed 20 January 2012 where it is stated that '...no personally identifiable or individual data is shared with Nielsen and Nielsen does not have access to any individual's Facebook profile data. Only aggregate anonymous Facebook data is shared with Nielsen.'

⁵⁴ 'Opting Out,' (Cookie and Privacy Policy, Nielsen, 29 May 2012) <<http://www.nielsen.com/content/corporate/policy/en/cookie-policy.html>> accessed 30 May 2012.

⁵⁵ Ibid.

⁵⁶ Nielsen <<http://www.nielsen.com/content/corporate/uk/en.html>> accessed January 2012.

Policy'⁵⁷ to the 'Nielsen Web Analytics Privacy and Cookie Policy.'⁵⁸ Facebook users then have to steer through several sections of the 'Nielsen Web Analytics Privacy and Cookie Policy' and hyperlinks before accessing the Opt-Out Cookie.

To understand data protection issues in Facebook, it is also useful to know the three broad categories of personal data processed by Facebook,⁵⁹ namely, 'Registration Information' (mandatory information which Facebook users provide to Facebook when signing-up such as their name, email address, and birthday);⁶⁰ information about a Facebook user shared by other Facebook users such as location;⁶¹ and information about a Facebook user received from other sources such as metadata (e.g. when a Facebook user posts a Photo, Facebook receives metadata such as the place where the Photo has been taken).⁶²

In the remaining sections of this chapter, I apply my ANT-Foucauldian Power Lens, developed in Chapter Three, to trace the construction of Facebook's data network as a socio-legal-technological network. As analysed in Chapter Three, the first stage of network construction is 'problematization.' My data analysis suggests that four *actants*, namely, Facebook's data law network,⁶³ Facebook's Public Policy, Legal, and Engineering Teams play key roles in defining the 'problematic field' in Facebook. By Facebook's data law network, I mean the heterogeneous' and decentred actor-network which is formed and performed when diverse humans and non-humans such as judges, legal skills, Supervisory Authorities, and reports are locally 'fitted together' when personal data is protected and/or violated in Facebook.

⁵⁷ Nielsen (<http://www.nielsen-online.com/corp.jsp?section=leg_prs>) accessed January 2012

⁵⁸ *ibid.*

⁵⁹ Section I, Data Use Policy (n 22).

⁶⁰ *Ibid.* This category covers a wide range of Facebook user action and interaction such as adding a Friend, Likes and Shares.

⁶¹ E.g. If a Facebook user enables the 'Place' functionality, his/her Friends can tag his/her location at any time.

⁶² n 22.

⁶³ Section 6.3.

Consequently, in sections 6.3 to 6.6. below, I analyse how these four *actants* construct the 'problematic field' in Facebook and how they seek to 'interesse' and enrol other *actants* in their schemes as well as attempt to mobile their 'problems-solutions.' For avoidance of doubt, when I conducted my data collection, I followed the '*actants*' which became embroiled in specific local connections that generated power effects when personal data was protected and/or violated in Facebook. Thus, I did not go in the field looking for specific *actants* such as Facebook's Public Policy Team. Rather such *actants* emerged as relevant *actants* to my research during my data collection and/or data analysis.

Before analysing how Facebook's data network is constructed, it is important to note that three similar findings emerge from my YouTube and Facebook case studies. Firstly, more than one *actant* defines the 'problematic field'. Here the 'problem-solution' or 'problematization' changes as it passes from one *actant* to another. Secondly, heterogeneous strategies are used by such *actants* to 'interesse' and enrol other *actants* in their 'problems-solutions'. Thirdly, there are also multiple sources of resistance which may at times prevent the 'mobilisation' of a specific 'problem-solution.' I explore what we can learn from these similar findings, despite different empirical settings, in Chapter Eight. For example, in Chapter Eight, I argue that such similarities suggest that no single element has a privileged role in constructing OSNS such as Facebook and YouTube as 'actor-networks.' In the next section I, first of all, analyse how certain *actants* from Facebook's data network impact on the construction of Facebook's data network.

6.3 Regulating the 'Processing' of Personal Data in Facebook

In this section, I argue that elements of Facebook's data law network impact on the construction of Facebook's data network. To assist me in arguing this point, I analyse three points. Firstly, I analyse how Facebook's data law network is constructed as a heterogeneous 'actor-network'. Secondly, I analyse how Facebook's data law network impacts on the construction of the Facebook's data network. Here I analyse how specific local, contingent, and precarious connections are made between legal elements such as binding sources of data protection laws

from the European Union⁶⁴ ('EU Data Protection Laws'), Supervisory Authorities, and Article 29 Working Party⁶⁵ and Facebook's data network. Thirdly, I argue that 'materialities' such as reports lend obduracy to specific local connections between heterogeneous *actants* such the relations which form and perform Facebook audits by Supervisory Authorities.

6.3.1 Exploring Facebook's Data Law Network

My data analysis suggests two important points about Facebook's data law network. Firstly, as illustrated by Figure 3, Facebook's data law network is composed of heterogeneous *actants* such as EU Data Protection Laws, European member states implementing statutory provisions,⁶⁶ Article 29 Working Party, European Commission's decisions,⁶⁷ and the US- EU safe harbour scheme which regulates the flow of personal information between European member states and the United States of America ('Safe Harbour Scheme').⁶⁸

⁶⁴ n 20.

⁶⁵ n 29.

⁶⁶ E.g. the Data Protection Act 1998 the Data Protection Directive (n 19) in the United Kingdom.

⁶⁷ E.g. EU Commission Decision 2000/520/CE about the 'Safe Harbor Principles' published by the US Ministry Department of Commerce (July 21, 2000), OJCE, August 25, 2000, L. 215.

⁶⁸ Safe Harbour Scheme at <<http://export.gov/safeharbor/>> accessed 10 January 2013.

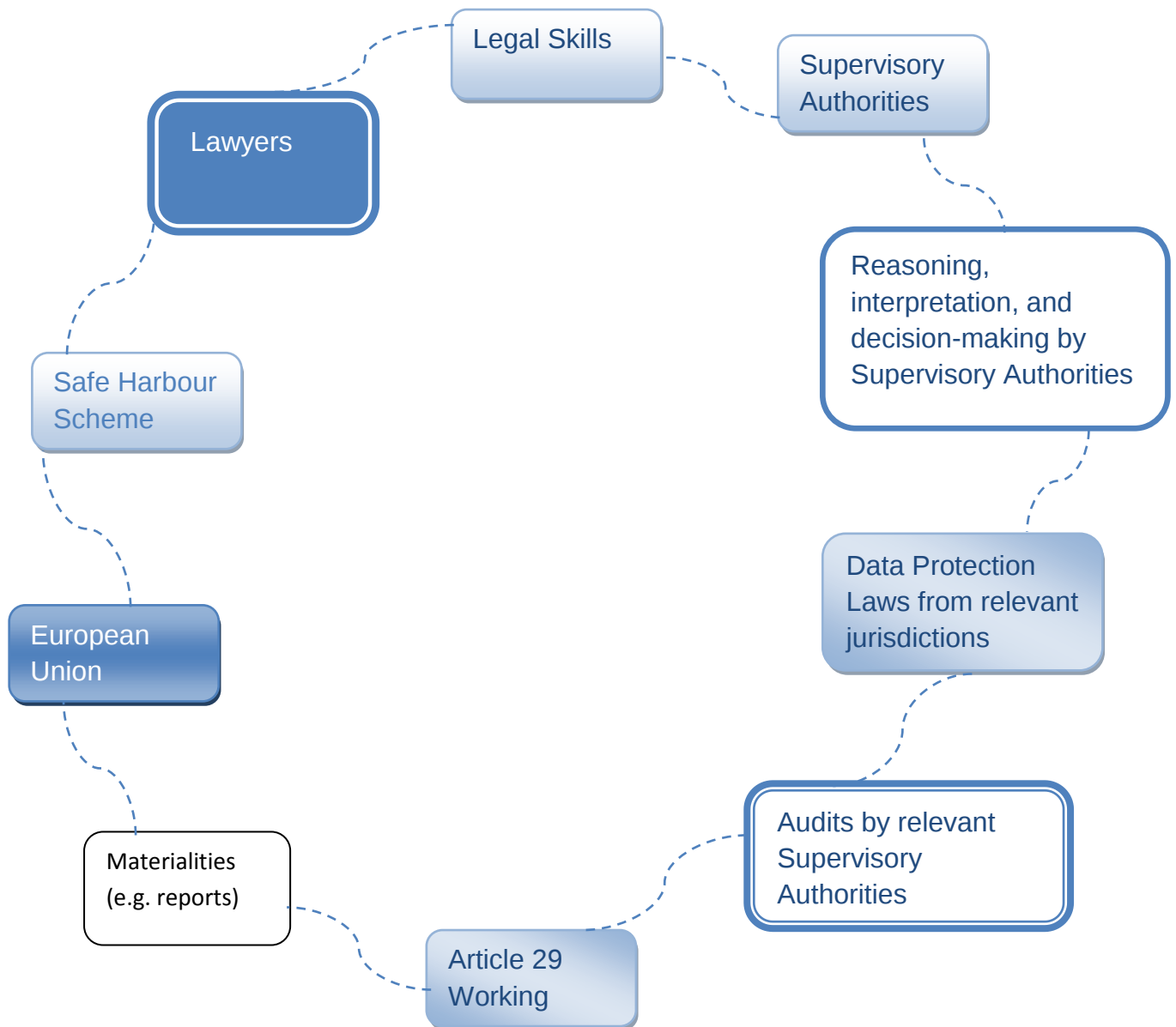


Figure 3: Non-Directional Representation of Facebook`s Data Law Network

Secondly, different elements of Facebook`s data law network play key roles in constructing Facebook`s data network at different points in the network. For instance, the Safe Harbour Scheme can be viewed as a black-box containing the different standards, principles, and procedures through, which specific *actants* such as personal information, US-based servers and EU Facebook user pass, to

legitimise the processing of the personal information of an EU Facebook user by US-based servers.⁶⁹ In other words, it orders relations between these *actants* through time and space. It becomes an important *actant* in network construction, at specific points in the network such as when EU Facebook user's personal data is processed by Facebook-USA, as it legitimatises such processing. Its appearance as a 'black-box may' change when specific problems occur such as enforcement issues.⁷⁰ Here, the 'black-box' of the Safe Harbour Scheme opens itself to reveal its constituting elements such as the principles, procedures and key Supervisory Authorities such as the Federal Trade Commission.⁷¹ Likewise, as explored in section 6.3.3, certain *actants* in Facebook's data law network, such as courts and judges, may become less significant at times in network construction as other *actants* such as the Supervisory Authorities become more involved in ordering relations in Facebook's data network.

6.3.2 Exploring How Legal Elements Construct Facebook's Data Network

In this section, I analyse the roles of three specific *actants* from Facebook's data law network in constructing Facebook's data network, namely, EU Data Protection Laws,⁷² Supervisory Authorities, and the Article 29 Working Party. I argue that EU Data Protection Laws play key roles in defining the 'problematic field' in Facebook's data network. The 'problems-solutions' defined initially by EU Data Protection Laws are further fleshed out by two other legal elements, namely, the Supervisory Authorities (in particular, the Irish Data Protection Commissioner) and the Article 29 Working Party at specific points in the network. Before delving into these further, I

⁶⁹ For more on the US-EU safe harbour scheme, see JM Assey Jr and D A Eleftheriou, 'The EU-US privacy safe harbour: smooth sailing or troubled waters?' (2001) 9 Comm Law Conspectus 145.

⁷⁰ For more on enforcement issues relating to the safe harbour scheme, see Robert R Schriver, 'You Cheated, You Lied: The Safe Harbor Agreement and its Enforcement by the Federal Trade Commission,' 70 (2001-2002) Fordham L. Rev 2777.

⁷¹ n 70.

⁷² In this thesis, I often refer to EU Data Protection Laws as 'black-boxes.' However, the emergence of EU Data Protection Laws, as 'black-boxes', forms part of a wider process of translation where key *actants* are enrolled and mobilised into accepting specific roles or resist the allocation of such roles. However such enquiries are not relevant to my thesis.

explain the two reasons why I focus mostly on EU Data Protection Laws and the Irish Data Protection Commissioner.

Firstly, as I am a researcher based in England, EU Data Protection Laws, as transposed in England & Wales,⁷³ are the applicable regulatory regime. Secondly, key *actants* in Facebook's data network such as the Irish Data Protection Commissioner, other European Supervisory Authorities⁷⁴ and Facebook have recognised that Facebook-Ireland is the 'data controller'⁷⁵ of data processed by Facebook outside the USA and Canada, because Facebook is established in Ireland.⁷⁶ Consequently, the Irish Data Protection Commissioner has immediate jurisdiction over any data protection law breaches in relation to data processed outside the USA and Canada ('EU Data Protection Law Breaches'). However, this does not mean that the Irish Data Protection Commissioner has *sole* jurisdiction on EU Data Protection Law Breaches as it often works in collaboration with other European Supervisory Authorities to adjudicate such breaches.⁷⁷ Therefore, at times, I analyse the interactions between the Irish Data Protection Commissioner and other Supervisory Authorities. I focus on these interactions and the ways in which they are mediated because they can help me to understand the occasionally layered approach to data protection regulation and jurisdictional heterogeneity in Facebook's data network. I analyse these two points further in Chapter Eight. Going back to the issue at hand, how do EU Data Protection Laws define the 'problematic field' in Facebook?

⁷³ n 20.

⁷⁴ E.g. the German Data Protection Commissioner.

⁷⁵ Article 2(d) of the Data Protection Directive (n 20) defines a 'data controller' as a 'natural or legal person, public authority, agency or any other body which alone or jointly with others determines the purposes and means of the processing of personal data.' Article 1(1) of the Data Protection Directive defines 'processing' in wide terms as carrying out any operation or set of operations on the data, including, collecting, recording, storing, organising, and retrieving.

⁷⁶ n 29.

⁷⁷ Email from a representative of the Irish Data Protection Commissioner to the author (21 August 2012).

EU Data Protection Laws define the ‘problematic field’ in terms of balancing the Facebook users’ rights in relation to the automatic⁷⁸ processing⁷⁹ of their personal,⁸⁰ including, sensitive⁸¹ data against the free flow of personal data between EU member states.⁸² EU Data Protection Laws contribute to the ‘problematic field’ by defining the problem for four key *actants* in Facebook’s data network, namely, Facebook, Facebook users, Supervisory Authorities and Article 29 Working Party in terms of a series of solutions which occasionally constitute ‘obligatory points of passage’ for relevant *actants* in Facebook’s data network.

Firstly, EU Data Protection Laws define the problem for Facebook in terms of how can Facebook, as a ‘data controller,’⁸³ avoid or limit its liability for ‘processing’ Facebook users’ ‘personal’⁸⁴ and ‘sensitive’⁸⁵ data? To this problem, EU Data Protection Laws offer certain solutions to Facebook, as a ‘data controller,’⁸⁶ which occasionally become ‘obligatory points of passage.’ Solutions include complying with the notification, registration,⁸⁷ and justification⁸⁸ requirements; data protection

⁷⁸ Whether in parts or as a whole. Article 3(1), Data Protection Directive (n 20).

⁷⁹ Article 2(b), Data Protection Directive (n 20).

⁸⁰ Article 1(1), Data Protection Directive (n 20).

⁸¹ Article 8(1), Data Protection Directive (n 20) defines ‘sensitive data’ as ‘... personal data revealing racial or ethnic origin, political opinions, religious and philosophical beliefs, trade union membership, and ... data concerning health or sex life.’

⁸² Article 1(2), Data Protection Directive (n 20).

⁸³ Article 2(d), *ibid.*

⁸⁴ Article 2(a), *ibid.*

⁸⁵ n 83.

⁸⁶ Article 2(d), Data Protection Directive (n 20).

⁸⁷ Under Article 18(1), Data Protection Directive (n 20), as a ‘data controller’, Facebook has to notify the appropriate Supervisory Authority before the commencement of processing. Such notification should include at least the name and address of the controller, the purposes for which the data is to be processed, the categories of individuals about whom information is to be processed, the type of information to be processed, the categories of recipients to whom the data might be disclosed, the countries outside the EU to which information is proposed to be transferred and a general description of the measures to be taken to ensure security of the processing (Article 20, the Directive).

⁸⁸ Articles 7(a) – (e), Data Protection Directive (n 20).

principles;⁸⁹ and providing its users with adequate technical measures to protect their ‘personal information.’⁹⁰ As analysed later, the successful translation of such solutions in Facebook depends on the local and durable associations of *actants* other than EU Data Protection Laws. For example, one of the solutions proposed by EU Data Protection Laws are the information rights provisions which require Facebook to publicly declare, through a privacy statement, how it complies with the EU Data Protection Laws.⁹¹ Here, other *actants* such as the Irish Data Protection Commissioner, also contribute to ‘problematization’ by further refining the shape of the ‘problem-solution’. Here, the Irish Data Protection Commissioner issues detailed guidance on the content, format, and language which Facebook should use when drafting such privacy statements.⁹² My data analysis shows that Facebook is, to some extent, enrolled into the scheme of EU Data Protection Laws by accepting these solutions. Facebook’s registration as a ‘data controller’ in Ireland and Facebook’s provisions of the mandatory information to its users are a few empirical examples of such enrolment. However, the successful mobilisation of such solutions depends on the durable association of heterogeneous and often mobile *actants*. For example, in section 6.4, I argue that the successful translation of the Governing Contracts⁹³ in Facebook’s data network also depends on maintaining durable links with other heterogeneous elements such as content management systems,⁹⁴ legal skills and Facebook’s Engineering Department’s practices.

⁸⁹ Set out in Articles 6(1) a – 6(1) (e), Data Protection Directive (n 20). Article 6(1)(a), Data Protection Directive (n 20) provides that as the ‘data controller’, Facebook has to ‘process’ the data of its Facebook users ‘fairly’ and ‘lawfully.’

⁹⁰ Article 17(1), Data Protection Directive (n 20).

⁹¹ Article 10, Data Protection Directive (n 20).

⁹² Irish Data Protection Commissioner, ‘Guidelines for the contents and use of Privacy Statements on Websites,’ <<http://www.dataprotection.ie/docs/PrivStatements/290.htm>> accessed 8 October 2012.

⁹³ n 21.

⁹⁴ Content management systems are computer programs which enable the publication, editing, and modification of content as well as maintenance from a central interface. From my discussions with other software developers, it seems likely that Facebook uses content management systems to upload various documents to its website such as the Governing Contracts. Email from Harry Arbasa, Software Developer at Eyedelabs to the author (14 September 2013).

Secondly, EU Data Protection Laws define the ‘problematic field’ for Facebook users in terms of how the Facebook users’ personal and sensitive data⁹⁵ can be protected when such data are ‘processed’⁹⁶ by automated means. ⁹⁷The problem is defined in terms of solutions which are offered to Facebook users, as ‘obligatory points of passage’ when they exercise their rights as ‘data subjects’.⁹⁸ Consequently, Facebook users have rights such as the rights of access to any ‘personal data’ held by Facebook relating to the Facebook user,⁹⁹ and the right to object to the ‘processing’ of the Facebook user’s data in certain circumstances¹⁰⁰. Additionally, Facebook users also have recourse to various remedies, such as complaining to the relevant Supervisory Authority,¹⁰¹ when their data protection rights have been breached. Such solutions are successfully translated into Facebook’s data network when links are durably established between heterogeneous *actants* and material conditions such as hyperlinks as further explored in Sections 6.3.3 and 6.4 below.

Thirdly, EU Data Protection Laws contribute to the ‘problematic field’ in Facebook’s data network by creating Supervisory Authorities in each Member State to monitor the application of EU Data Protection Laws nationally. EU Data Protection Laws outline some aspects of this solution by providing key elements such as the

⁹⁵ Article 2(a), Data Protection Directive (n 20) defines a ‘data subject as the identified or identifiable person to whom the personal data relates. A person is identifiable if s/he ‘...can be identified, directly or indirectly, in particular by reference to an identification number or to one or more factors specific to his physical, physiological, mental, economic, cultural or social identity.’

⁹⁶ Wholly or partly.

⁹⁷ Article 2(1), Data Protection Directive (n 20).

⁹⁸ Article 2(a), Data Protection Directive (n 20) defines a ‘data subject as the identified or identifiable person to whom the personal data relates. A person is identifiable if s/he ‘...can be identified, directly or indirectly, in particular by reference to an identification number or to one or more factors specific to his physical, physiological, mental, economic, cultural or social identity.’

⁹⁹ Article 12(a), Data Protection Directive (n 20).

¹⁰⁰ Articles 14(a) and (b), Data Protection Directive (n 20).

¹⁰¹ Article 28, Data Protection Directive (n 20).

Supervisory Authorities` power to engage in legal proceedings and conduct audits.<sup>102</sup> Such solutions become ‘obligatory points of passage’ occasionally in Facebook`s data network for relevant *actants* such as an EU Facebook user who wishes to complain about the data protection issues raised by a specific Facebook feature, a point further examined in section 6.3.3. Specific empirical instances such as Facebook audits and investigations conducted by Supervisory Authorities suggest that some of the roles of the Supervisory Authorities¹⁰³ have been successfully translated in Facebook.¹⁰⁴ As examined in section 6.3.3, the successful translation of specific solutions revolving around Supervisory Authorities such as auditing Facebook`s data protection practices depends on maintaining the durable links between heterogeneous (and often mobile) *actants*.

Finally, EU Data Protection Laws define part of the problem in Facebook`s data network in terms of ensuring equivalent protection of the Facebook users` data rights in all member states. The problem is defined in terms of creating the Article 29 Working Party which becomes occasionally an ‘obligatory point of passage’ in specific cases such as when a specific provision of the EU Data Protection Laws is unclear.¹⁰⁵ In section 6.3.3, I also analyse how the successful translation of Article 29 Working Group in Facebook`s data network depends on creating and maintaining obdurate and mobile links between relevant *actants* at specific points in the network.

Despite the pronounced roles of EU Data Protection Laws during ‘problematisation’, I am not arguing that EU Data Protection Laws have a privileged role in defining the ‘problematic field’ for two reasons. Firstly, as analysed in sections 6.4 to 6.6 below, other *actants* such as Facebook`s Public Policy, Legal, and Engineering Teams also play key roles in constructing the ‘problematic field’ in

¹⁰² Ibid.

¹⁰³ Non-EU Supervisory Authorities are brought into the network through different links such as the relevant data protection laws of the jurisdiction in question. It is beyond the scope of this thesis to explore how non-EU Supervisory Authorities are brought into Facebook`s data network. As a general point, this would be a localised finding which vary from one empirical setting to another.

¹⁰⁴ E.g. *Irish Facebook Audit* and *Denham* (n 29).

¹⁰⁵ E.g. the requirements relating to ‘consent.’

Facebook's data network. Secondly, as analysed next, certain 'problems-solutions,' as initially defined by EU Data Protection Laws, such as audit and 'consent' are further refined and fleshed out as they pass in the hands of other legal elements such as Supervisory Authorities and the Article 29 Working Party.¹⁰⁶

6.3.3 Auditing: of 'Enrolment Strategies' and 'Materialities'

In this section, I analyse how certain *actants* from Facebook's data law network, such as Supervisory Authorities, contribute to the construction of Facebook's data network through audits. Because of reasons of scoping and relevance, I focus on the Facebook audit¹⁰⁷ conduct by the Irish Data Protection Commissioner in 2011 as a paradigmatic case ('Irish Facebook Audit') and seek to understand it in relational terms. The Irish Facebook Audit is paradigmatic as it is similar, in terms of ambit and impact, to other Facebook audits and/or investigations carried out by other Supervisory Authorities.¹⁰⁸ Whilst analysing the Irish Facebook Audit, I also highlight how certain *actants* from Facebook's data law network such as Supervisory Authorities and the Article 29 Working Party refine certain 'problems-solutions' initially defined by EU Data Protection Laws.

The Irish Facebook Audit can be understood as a three-staged process consisting of the pre-audit, audit and post-audit stage. The pre-audit stage includes the wide range of circumstances leading to the audit such as third-parties' complaints against Facebook,¹⁰⁹ regular discussions between the Irish Data

¹⁰⁶ n 29.

¹⁰⁷ Irish Facebook Audit, n 29.

¹⁰⁸ Similar audits or investigations of Facebook have been carried out by various Supervisory Authorities such as the 2008 Information Commissioner's Office's (UK) investigation of Facebook's data retention practices. See Interview of Dave Evans, Senior Data Protection Practice Manager, ICO by BBC Radio 4's iPM programme as reported by C Vallance, 'Facebook faces privacy questions' BBC News Channel <<http://news.bbc.co.uk/1/hi/7196803.stm>> accessed 14 Feb. 12. Other investigations include *Denham*, n 28. Also note the settlement reached between Facebook and the Federal Trade Commission pursuant to which Facebook agreed to submit itself to regular privacy and data protection audits for the next twenty years. Shayndi Raice and Julia Angwin, 'Facebook 'Unfair' on Privacy,' (Wall Street Journal, 30 November 2011) <<http://online.wsj.com/news/articles/SB10001424052970203441704577068400622644374>> accessed 1 December 2012.

¹⁰⁹ *Irish Facebook Audit*, Appendix 2, n 29.

Protection Commissioner and Facebook on various issues such as product development,¹¹⁰ the Irish Data Protection Commissioner's visits to Facebook's headquarters, and correspondence between the Irish Data Protection Commissioner and Facebook on EU Data Protection Law Breaches.¹¹¹ Specific 'materialities' are involved during the pre-audit stage such as the third-parties' complaints against Facebook,¹¹² which bring disparate *actants* such as the Norwegian Consumer Council, the Norwegian Facebook user, Facebook's features such as Privacy Settings and Governing Contracts, within one space and time continuum. 'Materialities' such as the Irish Data Protection Commissioner's 'data protection audit resource'¹¹³ ('Audit Resource'), can be likened to 'interessement' and enrolment strategies as they aim to persuade Facebook, as a 'data controller', to be enrolled into the scheme of the EU Data Protection Laws, by opening itself to an audit to investigate Facebook's compliance with EU Data Protection Laws. The Irish Data Protection Commissioner's issuance of the Audit Resource evidences the Irish Data Protection Commissioner's enrolment into EU Data Protection Laws' scheme as it accepts the roles and obligations conferred to it by such laws.¹¹⁴ What is the role of the Audit Resource in successfully translating auditing as a mechanism to determine Facebook's compliance with EU Data Protection Laws?

An analysis of the Audit Resource highlights its key contribution to the successful translation of auditing in Facebook's data network. Through the Audit Resource, the Irish Data Protection Commissioner further refines the audit, one of the 'problems-solutions' defined by EU Data Protection Laws during 'problematization', by defining key aspects of the audit process such as the relevant *actants'* rights and obligations during the audit stage,¹¹⁵ and how best Facebook, as

¹¹⁰ *ibid*, 24ff.

¹¹¹ *ibid*, 21.

¹¹² n 29.

¹¹³ Irish Data Protection Commissioner, 'Data Protection Audit Resource' (January 2009) <<http://www.dataprotection.ie/documents/enforcement/AuditResource.pdf>> accessed 8 July 2010.

¹¹⁴ Article 28, Data Protection Directive (n 20).

¹¹⁵ E.g. the power of the Irish Data Protection Commissioner to conduct an audit (n 29, 4ff).

a 'data controller,' can prepare itself for the audit.¹¹⁶ Here, the Audit Resource can be likened to an 'immutable mobile' which is durable as it is irreversibly embodied in a document and mobile as it can easily be carried from *actant* to *actant* through a hyperlink. As an 'immutable mobile', the Audit Resource generates a stable network of association between relevant *actants* such as Facebook and the Irish Data Protection Commissioner. Additionally, the Audit Resource associates old *actants* involved during the pre-audit stage such as Facebook's teams, and the complaint with new *actants* such as the eight data protection principles through other documents such as the 'self-help checklist.'¹¹⁷ The 'self-help checklist' can be likened to an 'interessement' and enrolment strategy, as it aims to enlist Facebook into the scheme of EU Data Protection Laws, by self-evaluating its level of compliance with the eight data protection principles.¹¹⁸ Finally, the Audit Resource also introduces a set of heterogeneous practices which underlie the audit process including the audit methodology,¹¹⁹ the audit practices,¹²⁰ and the practices which Facebook can derive from the audit such as using the audit as training aid.¹²¹ What other elements, besides the Audit Resource, aid the successful translation of auditing?

The construction of the audit also involves employing various legal skills such as legal reasoning, interpretation and decision-making to determine key issues such as the grounds for the lawful processing of the Facebook users' data by Facebook.¹²² During the audit, the Irish Data Protection Commissioner also has to draw links between legal skills such as legal reasoning, and decision-making and technological knowledge such as the technical expert's report on key Facebook¹²³

¹¹⁶ n 29, section 4.3.

¹¹⁷ Ibid, section 5.

¹¹⁸ Ibid, Appendix 8.2.

¹¹⁹ Ibid, section 6.

¹²⁰ Ibid.

¹²¹ Ibid, section 1.3.

¹²² Irish Facebook Audit, 36ff, n 29.

¹²³ Ibid, 23.

features to assess Facebook`s compliance with existing EU Data Protection Laws. Moreover, various practices construct the audit including on-site visits to key Facebook teams such as `Facebook user Operations`,<sup>124</sup> provision of key documents by Facebook to the Irish Data Protection Commissioner such as staff training documents.<sup>125</sup> Some of the Irish Data Protection Commissioner`s practices, such as the practice of not publicising the findings of its audit, may be applied flexibly depending on the particular circumstances of the audit. Thus, in the Irish Facebook audit, both parties agreed to publicise the audit report due to the substantial public interest in the audit.¹²⁶

The local connections between the different *actants* involved in the audit are further strengthened in the report published by the Irish Data Protection Commissioner at the end of the audit (`Audit Report`). The Audit Report is another empirical instance of an `immutable mobile` as it contains in a durable form, namely, the report, the findings of the audit process which can irreversibly be carried to disparate *actants* in Facebook`s data network by a hyperlink. The Audit Report brings in one space-time continuum different *actants* which are located at different points of Facebook`s data network such as the Article 29 Working Party`s opinions,<sup>127</sup> audits carried out by other Supervisory Authorities, binary codes, hyperlinks, and EU Data Protection Laws. Through its opinion, the Article 29 Working Party refines one of the `problems-solutions,` initially defined by EU Data Protection Laws, namely, `consent` by clarifying the requirements which Facebook has to fulfil in order to obtain full, informed and specific Facebook user consent.<sup>128</sup> The Audit Report`s material form is significant as it enables the Irish Data Protection Commissioner`s findings to be carried from one point of the network (e.g. the Irish Data Protection Commissioner) to another (e.g. Facebook`s engineers worldwide).

¹²⁴ Ibid, 24 ff.

¹²⁵ Ibid.

¹²⁶ Ibid, 22.

¹²⁷ E.g. n 129 as cited in ibid, 22.

¹²⁸ WP 187, `Opinion 15/2011 on the definition of consent,` (13 July 2011) <http://ec.europa.eu/justice/policies/privacy/docs/wpdocs/2011/wp187_en.pdf> accessed on 10 January 2013.

The obduracy of the links between the *actants* is maintained through other strategies such as the Irish Data Protection Commissioner's 'recommendations' on specific Facebook features such as Apps.¹²⁹ Such 'recommendations' are usually implemented by Facebook within a designated time frame. In this sense, it can be argued that 'recommendations' by the Irish Data Protection Commissioner have a 'quasi-binding' effect on Facebook which is generated when heterogeneous elements such as Audit report, specific 'recommendation' on Apps, Facebook, and Apps are locally 'fitted together.' Additionally, the 'quasi-binding' effect of such 'recommendations' is further strengthened during the post-audit stage when the Irish Data Protection Commissioner uses other practices such as following-up on Facebook's implementation of its 'recommendations'.¹³⁰ Interestingly, although the Irish Data Protection Commissioner can force Facebook to comply with its 'recommendations' through litigation, it has not done so yet. This also ties in with the Irish Data Protection Commissioner's practice of producing a preliminary Audit Report whose content, including 'recommendations,' is discussed with key Facebook officials, before publishing the final version of the 'Audit Report' publicly.

Consequently, the successful translation of the audit process is dependent on discussions with a view to bending the interests of specific *actants* in a specific direction rather than the coercive power of EU Data Protection Laws. I will build on this discussion of audits in Chapter Seven to explore the power implications of the current move towards an auditing¹³¹ culture in Facebook. Apart from Facebook's data law network's elements, what other *actants* contribute to construction of Facebook's data network?

6.4 Translating Governing Contracts

In this section, I analyse how Facebook's Public Policy and Legal Teams construct Facebook's data network through the Governing Contracts. I argue three points. Firstly, I argue that Facebook's Public Policy and Legal Teams contribute to various

¹²⁹ n 29, 86ff.

¹³⁰ Ibid, 5 ff.

¹³¹ Or investigative in other jurisdictions such as Canada.

stages of the construction of Facebook`s data network through the Governing Contracts. Secondly, I argue that ‘materialities’ such as hyperlinks and statements lend obduracy to certain links and enable relations between *actants* to be ordered over time and space. Thirdly, I analyse how certain legal notions such as ‘binding contracts’ and ‘consent’ are relationally constructed. These key points feeds into the overall argument of this chapter that Facebook`s data network is constructed as socio-legal-technological network

By drafting the Governing Contracts in compliance with relevant EU Data Protection Laws, Facebook`s Public Policy and Legal Teams accept the role of the Facebook as ‘data controller’ as defined by certain legal elements. For example, the Governing Contracts are drafted in specific ways to ensure that key obligations, imposed on Facebook by EU Data Protection Laws, are met such as Facebook`s obligations to inform its users of its contact details¹³² and provide them with appropriate technical measures such as Privacy Settings to protect their personal data on Facebook.¹³³ Various skills are involved here such as legal reasoning and interpretation which are employed by Facebook`s Public Policy and Legal Teams to determine what are Facebook`s rights and obligations as a ‘data controller’ under EU Data Protection Laws. Additionally, drafting skills are also used here to draft the Governing Contracts according to relevant drafting rules.¹³⁴ As Facebook`s Public Policy and Legal Teams have the ‘problematic field’ in their hands, they also shape it according to their own interests.

Whereas specific legal elements define the ‘problematic field’ in Facebook in terms of balancing the Facebook users` rights in relation to the automatic¹³⁵ processing of their personal¹³⁶ data against the free flow of personal data between

¹³² Statement of Rights and Responsibilities (n 21).

¹³³ Article 17 (1), Data Protection Directive (n 20). Data Use Policy (n 22).

¹³⁴ Drafting rules refer to the rules on drafting contracts. Mark Anderson and Victor Warner, *Drafting and Negotiating Commercial Contracts* (A&C Black, 2012).

¹³⁵ Whether in parts or as a whole. See Article 3(1), Data Protection Directive (n 20).

¹³⁶ Article 1(1), Data Protection Directive (n 20).

EU member states,¹³⁷ Facebook's Public Policy and Legal Teams define the 'problematic field' in terms of providing Facebook users with a free and lawful platform which they can use to connect with others Facebook users.¹³⁸ Consequently, for Facebook's Public Policy and Legal Teams, EU Data Protection Laws can often be 'deal-breakers'¹³⁹ for a proposed or current Facebook product. However, EU Data Protection Laws are not the only parameters through which the 'problematic field' is defined. Other criteria such as how can Facebook offer a free service to Facebook users also define the 'problematic field'. Consequently, Facebook's Public Policy and Legal Teams also establish the 'basic deal'¹⁴⁰ between Facebook users, Facebook and advertisers in the Governing Contracts by allocating additional rights and responsibilities to the relevant parties such as Facebook's right to use the Facebook user's personal data in Advertisements¹⁴¹ and the advertisers' responsibilities.¹⁴² Arguably, Facebook's Public Policy and Legal Teams' provision of additional matters such as Advertisement in the Governing Contracts is in itself an effect generated through their enrolment into the schemes of other *actants* such as Facebook's Management Team.¹⁴³ It is important to remember though, that from an ANT perspective, the 'problematic field' could have been

¹³⁷ Article 1(2), Data Protection Directive (n 20).

¹³⁸ n 30.

¹³⁹ *ibid.*

¹⁴⁰ As recognised by Facebook in its discussions with the Irish Data Protection Commissioner, n 124.

¹⁴¹ Term 10, Statement of Rights and Responsibilities, and 'How Advertisements and Sponsored Stories Work,' Data Use Policy both at n 22.

¹⁴² Term 11, Statement of Rights and Responsibilities, and Advertisements Guidelines (*ibid.*).

¹⁴³ For instance, Facebook's Chief Executive Officer, Mark Zuckerberg, has often highlighted that Facebook's business model is premised on offering a free service to Facebook users by charging advertisers to deliver advertisements which are targeted on various information disclosed by the Facebook users on Facebook. See, 'Facebook CEO Mark Zuckerberg Talks to Diane Sawyer as Website Gets 500-Millionth Member,' (ABC News, 2 July 2010) <<http://abcnews.go.com/WN/zuckerberg-calls-movie-fiction-disputes-signing-contract-giving/storynew?id=11217015&page=2#.UdQP6G2Bld0>> accessed 3 July 2013. Here, he states that: '...I mean, this is our commitment to Facebook users. And the people who use our service is that Facebook's a free service. It's free now. It will always be free. We make money through having advertisements and things like that...'

understood in different terms, if Facebook's Public Policy and Legal teams would not have shaped the 'problematic field' in the ways they did, as analysed above.

Facebook's Public Policy and Legal Teams enrol Facebook's Engineering Team to further ensure the successful translation of the Governing Contracts through a wide array of practices such as informal discussions in the hallway, for instance about the uploading of content of the Governing Contracts on Facebook's website.¹⁴⁴ The successful translation of the Governing Contracts depends on the durable association of key links between not only Facebook's teams but also other *actants* such as the content management systems,¹⁴⁵ and hyperlinks to the Governing Contracts. Additionally, Facebook's Public Policy and Legal Teams enrol Facebook's Engineering Team to construct the Governing Contracts as 'obligatory points of passage,' through which the relevant *actants* such as the Facebook user, and personal data etc **have** to occasionally pass. This is a complex and localised construction which depends on the durable association of legal, social and technological elements at a specific point in time. The Governing Contracts are crafted as a series of binding contracts between Facebook, its users and relevant parties such as advertisers¹⁴⁶ and third-party application developers¹⁴⁷ which have to be agreed by all parties when they join Facebook. The Governing Contracts are constructed as 'obligatory points of passage' as if the Facebook user or third party does not click the 'Sign Up' button¹⁴⁸ at the time of joining Facebook and agrees to be bound by the Governing Contracts, then s/he is not allowed to join Facebook. Here the Governing Contracts gain the 'actuality' of being 'binding contracts' through the association of various technological, social and legal elements. Consequently, the local 'fitting together' of the Sign Up' button which the Facebook user has to click to sign up to Facebook (technological), the Facebook user's practice to agree to the

¹⁴⁴ n 31.

¹⁴⁵ n 100.

¹⁴⁶ Term 11, Statement of Rights and Responsibilities, n 22.

¹⁴⁷ Term 9, *ibid*.

¹⁴⁸ The 'Sign-Up' button is the button which Facebook users have to click when they sign up to Facebook for the first time.

terms of the online communities s/he joins (social) and legal requirements¹⁴⁹ on the formation of a binding contract such as the requirement that the Facebook user should be informed that s/he is agreeing to be bound by a specific contract by clicking a button¹⁵⁰ associate themselves with one another to form and perform the Governing Contracts as binding contracts.

The Governing Contracts do not only establish binding contracts between relevant *actants* in Facebook but also set the essential building blocks for eliciting the Facebook user's consent to the processing of his/her personal data by Facebook. 'Valid consent' constitutes one of the grounds under which the Facebook user's 'personal data' can be legitimately processed by Facebook. Consent is only valid if it is 'informed,' 'specific,' and 'freely given,' and 'unambiguous.'¹⁵¹ The translation of 'valid consent' in Facebook's data network depends on the durable association of social, legal and technological elements in three key respects. Firstly, the Facebook user gives 'specific' consent when s/he agrees to the Data Use Policy¹⁵² at the time of signing up to Facebook, by clicking on the 'Sign Up' button.¹⁵³ The Facebook user can access the Data Use Policy via a hyperlink when s/he signs up. The significance of this act is further reinforced by a statement, situated immediately under the 'Sign Up' button on the registration page, which specifies: '*By clicking Sign Up, you agree to our Terms and that you have read our Data Use Policy, including our Cookie Use.*'¹⁵⁴ Secondly, Facebook obtains 'informed consent' by ensuring that the Governing Contracts detail all the purposes for which the information will be processed. Finally, Facebook users give their consent freely to Facebook, to process personal data. Here it is the association between legal (e.g.

¹⁴⁹ Joseph Chitty, *Chitty on Contracts*, Vol. 1. (Sweet & Maxwell, 2012).

¹⁵⁰ The requirements for the formation of a binding contract are discharged in various ways in Facebook such as providing the Facebook users with a statement underneath the 'Sign Up' button which states that by clicking the 'Sign-Up' button the Facebook user agrees to be bound by specific governing contracts.

¹⁵¹ Article 2(h), Data Protection Directive, n 20.

¹⁵² n 22.

¹⁵³ Date Use Policy, n 22.

¹⁵⁴ Notice accurate as at 14.08.12. 'Sign Up Page,' (Facebook) <<https://www.facebook.com/>> accessed 8 January 2013.

legal grounds under which a data controller legitimately process personal information), social (e.g. practice of agreeing to the rules of a specific community when joining the community) and technological (e.g. hyperlinks, 'Sign-Up' buttons) elements held together by specific 'materialities' such as the binary codes underlying the 'Sign Up' button, which enables the successful translation of 'valid consent' in the network. What constitutes 'valid consent' in Facebook's data network evolves continuously as *new actants* are involved. Thus, Facebook may have to comply with changing requirements to satisfy all the requirements for 'valid consent.'¹⁵⁵

To facilitate the uptake or 'mobilisation' of the Governing Contracts in Facebook's data network, various strategies are deployed such as translating the Statement of Rights and Responsibilities in various languages to increase its uptake in zones of the network where English is not the main language,¹⁵⁶ updating the Governing Contracts regularly to reflect either changes in Facebook or changes required by a specific data protection supervisory body,¹⁵⁷ and giving Facebook users the right to vote on proposed changes to the Data Use Policy.¹⁵⁸ Despite such strategies, there are three key obstacles to the successful translation of the Governing Contracts in Facebook, namely their undue lengths which may discourage Facebook users from reading the Governing Contracts, the intertextuality between the Governing Contracts¹⁵⁹ and the constant changes to the Governing

¹⁵⁵ E.g. following its investigation of Facebook's practices and policies, the Canadian Office of Privacy Commissioner, required Facebook to provide further explanation to its users why it requests specific registration information (e.g. names, date of birth and email address) when the users sign up. (*Denham*, n 29).

¹⁵⁶ Although Governing Contracts such as the Statement of Rights and Responsibilities (n 22) are translated in many languages, the English (US) version is the definitive version and takes precedence in cases of conflict with a Statement of Rights and Responsibilities translated in another language. The Facebook user can access the Statement of Rights and Responsibilities in another language by changing the language setting for his /her Facebook session by clicking on the language links which is visible on most Facebook pages.

¹⁵⁷ The Statement of Rights and Responsibilities which was analysed for this case study is the one which was updated on 8 June 2012. This update reflected changes to the Statement of Rights and Responsibilities which were required by the Canadian Office of Privacy Commissioner (*Denham*, n 29).

¹⁵⁸ n 22.

¹⁵⁹ For instance, the Statement of Rights and Responsibilities (n 22) cross-refer the Facebook user **seventeen** times to other Governing Contracts such as Facebook Principles and other information such as information on Privacy Settings. Moreover, the Facebook user

Contracts.¹⁶⁰ Facebook has developed certain practices to counter such obstacles such as voting.¹⁶¹ Voting is translated in Facebook's data network through diverse heterogeneous means such as technological means (e.g. binary codes constructing the voting app through which Facebook users can vote), social means (e.g. diffusing the app and the voting process through various means such as Facebook users' News Feed¹⁶²), and legal means (e.g. provisions in the Governing Contracts on voting).¹⁶³ Data analysis suggests that voting practices have not been successfully enacted in Facebook.¹⁶⁴ Factors such as low participation, Facebook users' apathy due to the frequency of changes to the governing documents and Facebook users' perception of the lack of democratic value of such a voting process, prevent the successful translation of the voting mechanism.¹⁶⁵

Earlier, I argued that the Governing Contracts set the essential building blocks for key technologies, such as Apps and Privacy Settings, which may occasionally have the effect of protecting and/or violating the Facebook users' data protection rights ('Facebook Technologies'). In the next sections, I analyse how four

is also directed to **ten** further links at the bottom of the Statement of Rights and Responsibilities (n 22) which takes him or her to the relevant Governing Contracts. A Facebook user who has no legal training may find having to navigate through a myriad of documents which are interlinked quite daunting.

¹⁶⁰ E.g. Alex Wilhem, 'Facebook Updates Its Policy Documents Regarding How It Uses and Shares Your Data,' (Techcrunch, 29 August 2013) <<http://techcrunch.com/2013/08/29/facebooks-new-rules-change-how-it-treats-your-data-and-who-can-access-it/>> accessed 29 August 2013.

¹⁶¹ Elliott Schrage, 'Results of the Facebook Site Governance Vote' (Facebook 8 June 2012) <<https://www.facebook.com/notes/facebook-site-governance/results-of-the-facebook-site-governance-vote/10151840534290301>> accessed 8 July 2012.

¹⁶² News Feed is used to indicate the central column of the Facebook user's home page where a constantly updated list of stories from Friends, Groups and Pages which the Facebook user follows on Facebook is provided. 'How News Feed Works?' (Help Centre) <<https://www.facebook.com/help/327131014036297/>> accessed 11 January 2013. The home page is the page the Facebook user lands on after logging on to the website.

¹⁶³ Term 14.3, Statement of Rights and Responsibilities (n 21).

¹⁶⁴ n 161 where only 342, 632 Facebook users out of 900 Million Facebook users voted on the proposed changes to some of the Governing Contracts.

¹⁶⁵ Analysis of over one thousand Facebook user comments to the announcement of the election result, n 161.

Facebook Technologies, namely, Apps, Tagging, Privacy Settings and Advertisements become embroiled with Facebook's data network.

6.5 Coding Solutions

In this section, I argue three key points. Firstly, I argue that Facebook's Engineering Team contributes to the construction of the 'problematic field' in Facebook's data network through two Facebook Technologies, namely, Apps and 'Tag Suggestions' feature¹⁶⁶ and its underlying facial recognition software ('Tagging'). Secondly, through my analysis of the construction of Apps, I provide one empirical account of how the connections forming and performing Apps are maintained in the network. I also analyse how the lawful processing of the Facebook user's personal information by Apps is a relational achievement. Thirdly, through my analysis of Tagging, I argue that local and empirical factors can prevent the successful translation of these technologies. I also argue that relevant *actants* in the network respond to such obstacles through various strategies, thereby, showing the dynamic nature of the network.

6.5.1 Of Apps, Tagging and 'Problems-Solutions'

Facebook's Engineering Team contributes to the 'problematic field' in Facebook by offering certain technologies such as Apps and Tagging as solutions to the problem of how to provide Facebook users with lawful¹⁶⁷ and new technological ways to connect and share their personal information with each other.¹⁶⁸ Hence, through Apps, Facebook users can '...tell [their] stories' in new ways, discover new things such as recipes, and 'bring [their] Timeline to life.'¹⁶⁹ Through Tagging, Facebook

¹⁶⁶ Justin Mitchell, 'Making Photo Tagging Easier,' (Facebook Blog, 15 December 2010) <<https://blog.facebook.com/blog.php?post=467145887130>> accessed 19 September 2012.

¹⁶⁷ Technologies which do not violate EU Data Protection Laws.

¹⁶⁸ n 169, 170.

¹⁶⁹ Carl Sjogreen, 'Introducing New Apps for Timeline,' (Facebook Blog, 19 January 2012) <<https://blog.facebook.com/blog.php?post=10150469721182131>> accessed 5 July 2013.

users are able ‘...to identify and reference people in photos, videos and notes.’¹⁷⁰ So how are Apps and Tagging translated in Facebook’s data network? How are locally connections forming and performing such technologies maintained? For how long? Such relational understandings of Apps and Tagging are important in my research so that I can investigate the power effects generated from the local, contingent, and precarious connections which form and perform Apps and Tagging in Chapter Seven. In order to capitalise on the richness of my empirical data, I answer how Facebook Technologies are translated in Facebook’s data network by focussing on one Facebook Technology only, namely Apps. I answer the question about what disruptive forces may prevent the successful mobilisation of Facebook Technologies by focussing on another technology, namely, Tagging.

6.5.2 Preserving Facebook Users’ Data Protection Rights in the Application World

Apps are successfully translated in Facebook’s data network when durable links are maintained between various social, legal, and technological elements such as Facebook Platform,¹⁷¹ Graph API,¹⁷² third-party developers, programming

¹⁷⁰ Tom Occhino, ‘Tag Friends in Your Status and Posts,’ (Facebook Blog, 10 September 2009) <<https://blog.facebook.com/blog.php?post=109765592130>> accessed 5 July 2013.

¹⁷¹ Facebook Platform offers to Apps’ developers a set of programming interfaces and tools which enable developers to integrate with the ‘open graph’ of social relations through Apps. Facebook Platform is composed of various technological elements such as the Open Graph Protocol, which developers can use to connect their product to the social graph, Social Plug-Ins, such as Likes, and Graph API (n 187). The Open Graph Protocol enables Apps to tell stories on Facebook through an application programming interface (‘API’). An API is an acronym denoting Application Programming Interface. It refers to a ‘protocol intended to be used as an interface by software components to communicate with one another.’ <http://en.wikipedia.org/wiki/Application_programming_interface> accessed 10 January 2013. Facebook Developers, ‘Open Graph API,’ <<https://developers.facebook.com/docs/opengraph/overview/>> accessed 10 January 2013. The ‘social graph’ is a term used during the f8 conference (n 34) and refers to relations between Facebook users. Social Plug-Ins are ‘tools that third-party websites such as Lovefilm can use to provide people with personalized and social experiences. When a Facebook user interacts with social plugins (e.g. rent a movie from ‘Lovefilm’), s/he also can also opt to share his/her experiences off Facebook with other Facebook users.’ Thus if I rent a film from ‘Lovefilm’ and agree to share this information on the Lovefilm website to my Facebook friends, then my Facebook friends can see this information. ‘What are Social Plug-Ins?’ (Help Centre) < <https://www.facebook.com/help/443483272359009>> accessed 8 June 2013.

¹⁷² The Graph API is Facebook’s new, simplified API. It uniformly represents objects in the social graph as well as the connections between them. Each object in the graph has a unique ID and drastically simplifies the way developers read and write data to

languages,¹⁷³ and Facebook Teams such as Platform Operations. For instance, third-party developers can only introduce their Apps in Facebook's data network technologically by using Facebook's Application Platform to integrate their Apps to the Facebook Platform by using specific programming languages.¹⁷⁴

Additionally, crucial links are locally established among elements such as the Governing Contracts,¹⁷⁵ Facebook users, and third-party developers through 'materialities'. For example, as a material condition, the 'Sign Up' button, creates a legally binding contract between Facebook users, Facebook and third-party developers when Facebook users and third-party developers click on the button to join Facebook. Moreover, key Facebook Teams such as Developer Relations and Platform Operations play prominent roles in further translating the Apps in Facebook's data network through a number of means such as fixing bugs, and enforcing Platform Policy.¹⁷⁶ Finally, specific strategies such as the 'Report App' button;¹⁷⁷ automatic self-regulatory tools such as tools to identify and disable Apps engaged in inappropriate activity such as spamming; extensive guides,¹⁷⁸ and

Facebook. <<https://www.facebook.com/help/221607984627895/>> accessed 10 January 2013. For the meaning of API, see *ibid*.

¹⁷³ HTML (acronym for HyperText Markup Language) denotes 'a standard system for tagging text files to achieve formatting, graphics, and linking when they are stored as web pages' (Oxford English Dictionary, online version). JavaScript (a scripting language which is used as part of a web browser to create 'enhanced Facebook user interfaces and dynamic websites' - <<http://en.wikipedia.org/wiki/JavaScript>> accessed 10 January 2013) and CSS (acronym for Cascading Style Sheet which refers to a '...style sheet language used for describing the the look and formatting of a documents written in a mark-up language' <http://en.wikipedia.org/wiki/Cascading_Style_Sheets> accessed 10 January 2013) are the programming language used for Apps at the time of writing. <<https://developers.facebook.com/docs/reference/fbml/>> accessed 10 January 2013.

¹⁷⁴ <<https://developers.facebook.com/docs/guides/canvas/>> accessed 10 January 2013. Due to space constraints, I do not deal with features such as social plugins and mobile platforms which provide additional ways for other *actants* such as third-party websites and mobile applications to connect with the Facebook Platform. See <https://developers.facebook.com/>.

¹⁷⁵ Facebook Platform Policies, n 22.

¹⁷⁶ This function is performed by Platform Operations, *ibid*.

¹⁷⁷ 'How do I report an App?' (Help Centre) <<https://www.facebook.com/help/263149623790594>> accessed January 2013.

¹⁷⁸ E.g. 'Fluid Canvas,' (Facebook Developers) <<https://developers.facebook.com/docs/fluidcanvas/>> accessed 8 June 2013.

developers' best practices¹⁷⁹ are deployed to overcome specific obstacles to the translation of such Apps such as an App's violation of the Platform Policy.¹⁸⁰ These strategies are further ingrained in Facebook's data network through specific material conditions such as screen shots showing Facebook users how to configure the App settings, hyperlinks to the Help Centre¹⁸¹ which enable relations between disparate *actants* (e.g. server in China where the Apps is located and British user) to be ordered. The obduracy of these links is further strengthened by material conditions such as links to the Apps' privacy policies,¹⁸² permissions screens and command buttons such as 'Save Changes', in the relevant Privacy Settings section.¹⁸³ Next I analyse how consent to the processing of personal information by Apps – another element which needs to join the chain of association to successfully translate Apps in Facebook- is locally enacted.

The legality of the processing of personal information by Apps depends on obtaining informed and specific Facebook user consent which in turn relies maintaining durable associations between *actants* such as Data Use Policy, Facebook user, Apps, and drop-down box. Such associations are mediated by material conditions such as 'Permission Screens' through which Facebook users consent to the processing of specific categories of personal information and 'drop-down' box through which Facebook users can tailor the relevant 'Privacy Settings'. Many obstacles can prevent the successful and local enactment of 'consent' here

¹⁷⁹ E.g. '8 Steps for games,' (Facebook Developers)
<<https://developers.facebook.com/docs/guides/games/8steps/>> accessed 8 June 2013.

¹⁸⁰ Platform Policy, n 22.

¹⁸¹ E.g. 'Games on Facebook,' (Facebook Developers)
<<https://developers.facebook.com/docs/guides/canvas/>> where there are hyperlink to the Data Use Policy and Platform Policy (n 21).

¹⁸² E.g. The Privacy Policy of the 'Horoscopes' App. See Horoscopes, 'Privacy Policy'
<<https://apps.facebook.com/getyourhoroscope/privacy.php>> accessed January 2013.

¹⁸³ 'Privacy Settings and Tools,' (Facebook)
<<https://www.facebook.com/settings/?tab=privacy§ion=apps&h=AQPJ0BWGR8WLEO6a>> accessed 10 January 2013, 'How people bring your info to apps they use.' This enables Facebook users to limit the categories of personal information which their Friends can bring to Apps they use.

such as the granularity between the 'drop-down' box which can be used on the 'Permission Screen' to change the App's preset and the additional section of the Privacy Settings which enables Facebook users to further tailor how other Facebook users bring their information to Apps. Here, unless the Facebook users tailor this additional section of the 'Privacy Settings,' their information is accessible to any App added by their Friends.

Having provided one empirical account of how a Facebook technology, namely, Apps can be translated in Facebook's data network, I now consider what obstacles may prevent the successful translation of such technologies by focussing on another Facebook technology, namely, Tagging.¹⁸⁴

6.5.3 'Mixed Narratives' Constructing the 'Legitimate Processing' of Biometric Data

As mentioned earlier, Facebook's Engineering Team contributes to the 'problematic field' in Facebook through technologies such as Tagging. In this section, I focus on Tagging to show how specific local connections between humans and non-humans forming and performing a specific technology can be ruptured and how such disruptive forces can be countered.

Firstly, the lack of clear information about when Tagging would roll out in each jurisdiction prevented its successful translation in Facebook's data network. This meant that in many jurisdictions, Facebook users were not notified and/or aware that Tagging was automatically operating.¹⁸⁵ The implication of such a lack of notice becomes even more apparent when one considers that the practice of tagging photos on Facebook is performed over 100 million times a day.¹⁸⁶ Secondly, various

¹⁸⁴ Tagging refers to Facebook's 'Tag Suggestions' feature and its underlying facial recognition software. See J Mitchell, 'Making Photo Tagging Easier,' (Facebook Blog, 15 December 2010) <<https://blog.facebook.com/blog.php?post=467145887130>> accessed on 19 September 2012.

¹⁸⁵ Alexei Oreskovic and Georgina Prodhan, 'Facebook gives regulators info on facial recognition,' (Reuters US Edition, 8 June 2011)<<http://www.reuters.com/article/2011/06/08/us-facebook-idUSTRE7570C220110608/>> accessed 8 June 2012.

¹⁸⁶ Kyle James, 'Facebook facial recognition raises eyebrows in Germany, EU,' (Deutsche Welle, 9 June 2011) < <http://www.dw.de/dw/article/0,,15144128,00.html>> accessed 10 June 2011.

Supervisory Authorities¹⁸⁷ have formally and informally considered whether Tagging breaches the applicable data protection laws.¹⁸⁸ The lack of consensus on the legality of Tagging amongst the different Supervisory Authorities, as exemplified by the current¹⁸⁹ disagreement between the Irish Data Protection Commissioner and the Hamburg data protection authority, is another significant obstacle to the successful uptake of the feature in Facebook's data network. Such disagreements are heavily featured on key Facebook pages which receive a lot of Facebook user traffic.¹⁹⁰

To circumvent these obstacles, Facebook has deployed heterogeneous strategies involving diverse legal, technological and social elements. Illustratively, Facebook's has combined carefully crafted provisions in its Data Use Policy¹⁹¹ with appropriate technological tools, such as tool to disable Tagging and delete any collected Biometric Data, to legitimise the processing of the facial recognition identifier generated by Tagging ('Biometric Data'). Such strategies are enacted in Facebook's data network through various practices such as the Facebook user's practice of enabling or disabling the Tagging,¹⁹² Facebook's practice of revising the wording of relevant Governing Contracts to reflect changes related to Tagging, detailed information on Tagging in the Help Centre,¹⁹³ and automatic operations such as reviewing the image of a Facebook user's face, calculating unique identifiers based on distinguishing characteristics such as eye shape ('Original Identifier'),

¹⁸⁷ E.g. the Hamburg data protection authority.

¹⁸⁸ E.g. EU Data Protection Laws as transposed in Germany. See 'Germany: Data Protection Laws,' (Linklaters, January 2013) <<https://clientsites.linklaters.com/Clients/dataprotected/Pages/Germany.aspx>> accessed January 2013.

¹⁸⁹ At the time of writing this chapter.

¹⁹⁰ E.g. Such disagreements feature on various Facebook Pages such as 'Europe vs. Facebook,' (Facebook Page) <<https://www.facebook.com/eversusf>> accessed 10 October 2013 with over six thousand 'Likes' by Facebook users.

¹⁹¹ E.g. n 22, Data Use Policy, 'How we use information we receive about you,' <<https://www.facebook.com/about/privacy/your-info>> accessed on 10 September 2012.

¹⁹² 'Privacy Settings and Tools' (Facebook) <<https://www.facebook.com/settings/?tab=privacy>> accessed on 10 September 2012.

¹⁹³ 'How can I turn off Tag Suggestions,' (Help Centre) <<https://www.facebook.com/help/?faq=187272841323203#How-can-I-turn-off-tag-suggestions?>> accessed on 10 September 2012.

generating a new calculation for each uploaded photo ('New Identifier'), and comparing and/or matching the Original Identifier to the New Identifier. Resistance practices can also be observed here either from privacy advocacy bodies such as the Electronic Frontier Foundation¹⁹⁴ or from Facebook users who seek to educate other Facebook users on how to disable or bypass the facial recognition software.¹⁹⁵ Having considered the role of Facebook's Engineering Team in defining the 'problematic field' in Facebook, I consider in the next two sections Facebook's Engineering Team's roles in translating two other Facebook Technologies in Facebook's data network, namely, Privacy Settings and Advertisements. I utilise such relational understandings of the Privacy Settings and Advertising in Chapter Seven to analyse the power effects generated through the heterogeneous associations forming and performing the Privacy Settings and Advertisements.

6.6 Privacy Settings and Advertisements: A Tale of Push, Pull and 'Materialities'

In this section, I argue three key points. Firstly, building on my earlier analysis of how the Privacy Settings, is defined as a 'solution' by certain *actants*, I now analyse how the Privacy Settings continue to be translated as an 'obligatory passage point' in Facebook's data network. In particular, I focus on how the Privacy Settings are constructed as socio-legal-technological *actants* formed and performed through the local, contingent, and precarious 'fitting together' of heterogeneous *actants*. I draw attention to the various obstacles which can occasionally disconnect such associations. Secondly, I argue that certain effects such as ordering relations between distant '*actants*' and lawful processing of the Facebook user's 'personal information' are produced through the construction of the Privacy Settings as a 'hybrid' 'actor-network.' Thirdly, I highlight the roles of 'materialities' such as screen shots in making certain associative links, which construct a specific technology, namely Advertisements, more durable.

¹⁹⁴ E.g. EFF, 'How to disable facial recognition software,' (YouTube, 8 June 2011) <<http://www.youtube.com/watch?v=JJOffOX98nY>> accessed on 10 September 2012.

¹⁹⁵ E.g. Suzanna Vara, 'How to Disable & Opt Out of Facebook Photo Tagging' (Brand Marketing Integration, 11 April 2011) <<http://kherize5.com/how-to-disable-opt-out-of-facebook-photo-tagging/>> accessed 2 June 2012.

6.6.1 Constructing the Privacy Settings as ‘Obligatory Passage Points’

I now analyse how the Privacy Settings continue to be translated as an ‘obligatory passage point’ in Facebook’s data network. Before tackling this task, I briefly outline the Privacy Settings to the reader.

The Privacy Settings enable Facebook users to control how (a) their personal data is presented to other Facebook users and (b) Facebook can use their personal data. Consequently they are important *actants* involved in the protection of the Facebook user’s personal data in Facebook. Unless the Facebook users tailor the Privacy Settings to their preferences when they join Facebook, the presets chosen by Facebook’s Engineering Team apply. However, Facebook’s Engineering Team can change occasionally the default settings of the Privacy Settings for a specific information. In such cases, the new presets chosen by Facebook’s Engineering Team automatically apply until the users tailor their settings to their preferences again. Facebook’s Engineering Team can occasionally change the presets for reasons such as the introduction of a new feature, and external factors such as ‘recommendations’ by a Supervisory Authority. Additionally, the presets categories evolve intermittently for various reasons including changes in Facebook such as the phasing out of the network architecture as a basis for connection.¹⁹⁶ The preset categories construct other Facebook users as ‘Friends’ - Facebook users with whom other Facebook users connect and share information with, ‘Friends of Friends’ – Facebook users’ Friends, or the ‘Public’ –members of the public whether or not they are Facebook users.¹⁹⁷ Facebook users can further categorise their Friends in different spatial dimensions through the ‘Friend List’ where they list Friends who can either view or be prevented from viewing specific data. Arguably, Facebook’s aim is to construct the Privacy Settings and related tool such as the Lock Icon¹⁹⁸ as

¹⁹⁶ Paul MacDonald, ‘Growing Beyond Regional Networks,’ (Facebook Blog, 2 June 2009) <<https://blog.facebook.com/blog.php?post=91242982130>>.

¹⁹⁷ Correct at time of data collection.

¹⁹⁸ The ‘Lock Icon’ is a little icon in the shape of a padlock which appears on the Home Page of the Facebook user. The latter can use the ‘lock icon’ to manage who can view his/her posts on Facebook. Monika Horak, ‘Answering Recent Questions on Privacy Controls,’ (Facebook, 18 June 2010) < <https://www.facebook.com/notes/facebook/answering-recent-questions-on-privacy-controls/399994657130>> accessed 18 June 2011.

‘obligatory points of passage’ in Facebook’s data network through which relevant *actants* such as the Facebook user, personal data, Friends, and Likes, have to pass. Facebook users can pass through the ‘Privacy Settings’ by *default* –automatic passage without changing Facebook’s presets, *consciously* – tailoring the presets for each item, or in a *mixed way* –tailoring the presets for some items and maintaining the default for others. So how are the Privacy Settings constructed as ‘obligatory points of passage’ in Facebook?

This depends on two key factors, namely, establishing durable connections between a specific set of heterogeneous *actants*, and rupturing connections with *actants* which may seek to disrupt such connections. Firstly, the connections between diverse *actants* such as Facebook’s Engineering Team, binary codes, programming language, ‘Lock Icon’ and key provisions of the Governing Contracts needs to be durable. Thus, the ‘Lock Icon,’ which appears as a black-box enclosing specific associative links between various *actants* such as algorithms, the Engineering Team and Facebook user interface,¹⁹⁹ is a relational representation of the existence of the Privacy Settings throughout Facebook and can be used by Facebook users at any time to tailor their Privacy Settings. The ‘Lock Icon’ contains folded spaces which are revealed when the Facebook user clicks on it. In relation to Registration Information, when Facebook users opt to provide their contact information, the ‘Lock Icon’ appears on the right-hand side beside each entry in the contact information section. If the Facebook users click on the ‘Lock Icon,’ then they are taken to a pop-up box which queries: ‘Who can see this?,’ indicates the applicable default setting, and takes them to a ‘drop-down’ box which they can use to tailor the settings.

Additionally, the personal data category (e.g. Photo) triggers a different set of connections between different *actants* to enable the successful translation of the Privacy Settings. If a Facebook user uploads a Photo to his/her account, the successful construction of the Privacy Settings as a conscious or mixed ‘obligatory point of passage’ depends on the durable connections between relevant sections of

¹⁹⁹ The Facebook user interface refers to ‘a means by which a Facebook user interacts with a computer, typically in the form of graphics or text on a screen which are manipulated using a mouse, keyboard, or other input device.’ (Oxford English Dictionary, online version).

the Data Use Policy,²⁰⁰ pop-up screen,²⁰¹ pop-up screen`s statement<sup>202</sup> default preset, drop-down box, and the Privacy Settings options such as 'Friends.' Through the construction of the Privacy Settings as a 'hybrid,' the 'science of nearness and rifts'<sup>203</sup> is achieved as seemingly distant spatial relations such as Facebook user`s data on a server in USA, Facebook user`s computer in the UK, Facebook user`s Friends in various jurisdictions are managed at the same time, thereby, 'overthrowing the tyranny of distance.'²⁰⁴ The power implications of this phenomenon are further explored in Chapter Seven. The *actants* involved in such local alliances vary from time to time as new features are introduced leading to complications or simplifications in the network. Recently, Timeline` rollout has introduced a corresponding level of granularity between photos` categories and the applicable presets.²⁰⁵ Depending on the type of Photo, different levels of data protection are afforded either as a minimum or as a maximum. Thus, Cover and Profile photos are treated as public information and are automatically viewable to the Public.²⁰⁶ Conversely, Wall Photos are by default viewable by Friends of Friends.²⁰⁷ The constant technological innovations impact on how the Privacy Settings work in practice.

²⁰⁰ n 22, Data Use Policy, 'Information you choose to share.'

²⁰¹ Presented to the Facebook user when s/he uploads a Photo.

²⁰² The pop up screen statement asks: 'Who can see this?'

²⁰³ Michel Serres and Bruno Latour, *Conversations on Science, Culture and Time* (Univ. of Michigan Press Ann Arbor Michigan 1995).

²⁰⁴ Bruno Latour, 'On actor-network theory: a few clarifications,' (1996) *Soziale Welt* 369, 371.

²⁰⁵ Zack Whittaker, 'Facebook Timeline a 'stalker's paradise': Mass exodus on the way?' (ZDNet UK edition, 27 September 2011) < <http://www.zdnet.com/blog/igeneration/facebook-timeline-a-stalkers-paradise-mass-exodus-on-the-way/12931> > accessed 27 September 2011.

²⁰⁶ Correct as at 02.03.12.

²⁰⁷ Ibid.

Such constant, but inevitable,²⁰⁸ technological innovations may hinder the uptake of the Privacy Settings by the Facebook users for multiple reasons including its perceived complexity and granularity and the Facebook users` inability to keep up-to-date with the constant changes to the Privacy Settings.²⁰⁹ To counter these, Facebook uses various heterogeneous means such as regularly updating the ‘Help Centre’, and publicising any amendment to the Privacy Settings through press releases, and updates on key Facebook pages.²¹⁰ Hence, when Facebook released a new version of the ‘Privacy Settings’ in 2010, it employed numerous material means such as updating the ‘Help Centre,’ use of screen shots to provide a step-by-step instruction on how the new settings function,²¹¹ and presentation at Facebook`s annual conference<sup>212</sup> to translate the new settings into the network. Interestingly enough, an analysis of the discourse used during the presentation demonstrates an attempt to further entrench the new Privacy Settings in Facebook`s data network by associating its launch with accepted values of the community such as ‘openness,’ increased connectivity and ‘more ...[and] simpler...controls.’²¹³

Finally, other *actants* such as Facebook`s data law network`s *actants* may also impact on the construction of the Privacy Settings in three ways. Firstly, as extensively analysed in section 6.3, *actants* such as Supervisory Authorities can

²⁰⁸ In the sense that OSNS such as Facebook have to keep innovating and offering new products and services to retain its Facebook user base.

²⁰⁹ ‘The Evolution of Privacy on Facebook’ (Matt McKeon) <<http://mattmckeon.com/facebook-privacy/>> accessed 8 August 2013.

²¹⁰ E.g. Ruchi Sanghvi, ‘New Tools to Control your Experience,’ (Facebook, 9 December 2009) <<https://www.facebook.com/notes/facebook/new-tools-to-control-your-experience/196629387130>> accessed 9 December 2009; and ‘How do I use the New Privacy Settings?’ (Facebook, 9 December 2009) <<https://www.facebook.com/video/video.php?v=366944610483>> accessed 9 December 2009.

²¹¹ Nicholas Carson, ‘Facebook Rolls Out New Privacy Options’ (Business Insider 26 May 2010) <<http://www.businessinsider.com/live-facebook-rolls-out-new-privacy-options-2010-5#ixzz1U9UVIf01>> accessed 20 June 2012.

²¹² n 213.

²¹³ M Zuckerberg, ‘Making Control Simpler,’ (Facebook Blog, 26 May 2010) <<https://blog.facebook.com/blog.php?post=391922327130>> accessed 8 August 2012.

further entrench the position of the 'Privacy Settings' as a 'obligatory point of passage' for Facebook users. The Irish Data Protection Commissioner, through its conclusion, that the 'bigger picture' relating to EU Data Protection Law Breaches revolves mainly around informed and meaningful consent coupled with the provision of 'easy to use' and 'accessible' tools to protect Facebook users' data rights,²¹⁴ goes beyond the initial problematisation by EU Data Protection Laws by specifying additional roles and obligations for *actants* such as Privacy Settings.²¹⁵ Secondly, Supervisory Authorities can use their investigative powers to recommend that certain aspects of the Privacy Settings should be amended or clarified. Thus, following its investigation, the Canadian Office of Privacy Commissioner recommended, inter alia, that Facebook should make the Privacy Settings more visible to Facebook user at the time of registration through hyperlinks and pop-up windows.²¹⁶ Thirdly, an analysis of the recent Facebook investigations by Supervisory Authorities,²¹⁷ also suggests that the elected Presets of the Privacy Settings are often an outcome of constant negotiations, discussions, 'recommendations,' and follow-up between relevant *actants* which lead to the redefining of such technologies as technological artefacts. Having analysed the contributions of Facebook's Engineering Team in constructing the 'Privacy Settings' as 'obligatory points of passage' in Facebook, next I consider how Facebook's Engineering Team contributes to Facebook's data network through Advertising.

6.6.2 Advertisements: Of the Economics, 'Materialities' and Sociality²¹⁸ of Data Protection

As analysed in section 3, Advertisements²¹⁹ are defined as a 'problems-solutions' by a number of *actants* including Facebook's Management which occasionally become

²¹⁴ n 29, 40.

²¹⁵ Denham, 29, Paras. 96ff.

²¹⁶ *ibid.*

²¹⁷ n 29.

²¹⁸ Sociality here refers to interactive practices but all three elements (economy, materiality and sociality) construct and perform one another.

‘obligatory points of passage’ for key *actants* such as Facebook users, Status, and advertisers. However, the successful translation of the Advertising in Facebook’s data network depends on the durable connection of key legal, technological and social *actants* such as algorithms and Facebook user’s full and informed ‘consent’ to such processing.

Various strategies are used to ‘interesse’ and enrol the relevant *actants*. Firstly, as analysed in section three, Facebook’s Public Policy and Legal Teams include relevant provisions in various Governing Contracts, such as the Data Use Policy, to ensure that the legal requirement of valid, informed and specific Facebook user consent, for the lawful processing of Facebook user personal information, for the purposes of advertisement, is met.²²⁰ Such provisions disclose the type of Facebook user information targeted (e.g. Likes), limit advertisers’ rights to use Facebook user information only on Facebook,²²¹ highlight that Facebook users consent to the sharing of their information to advertisers (by signing up to Facebook and accepting to be bound by the different Governing Contracts),²²² and outline how different bits of information are associated together to construct the Facebook user as a ‘bundled person.’ Thus, specific characteristics, such as a Facebook user liking a ‘Star Trek’ Facebook Page and mentioning on Facebook that s/he has checked into the local cinema to watch the ‘Star Wars’ movie, are associated together to construct the Facebook user as a science fiction genre fan. There is an interesting level of intertextuality between various Governing Contracts which are linked to one another, deep into the network, through hyperlinks and cross-references, which gives Facebook’s data network a ‘paper chain’ pattern.

Secondly, Facebook’s Engineering Team adds to the ‘problematic field’ by providing new ‘interessement’ and enrolment strategies such as Privacy Settings²²³

²¹⁹ Facebook offers two basic Advertisements models, namely, advertisements which appear unique on a Facebook user’s profile, Timeline and/or Newsfeed and advertisements which appear on the right-hand side of all Facebook pages. n 29, Irish Facebook Audit, 44 ff.

²²⁰ See DUP (n 22) ‘How Advertisements and sponsored stories work?’

²²¹ Facebook Advertisements Guidelines, n 22.

²²² DUP (n 22), Advertisements Guidelines section on ‘Data and Privacy’ (n 22).

²²³ <https://www.facebook.com/settings?tab=ads>.

for advertisements, 'Edit Social Ads' settings which Facebook users can use to opt-out of advertisements where the Facebook user's actions relating to a product or service or advertisement are linked to that Facebook user in advertisements appearing to their Friends ('Social Ads Settings') or blocking mechanisms.²²⁴ Arguably, the fact that these strategies are found at disparate locations in the network (e.g. the Privacy Settings option for advertising can be accessed by the Facebook user on each page but the Social Ads Settings is hidden in the Account Settings),²²⁵ can act as an obstacle to their uptake in Facebook's data network.

Thirdly, 'materialities' such as screen shots showing the Facebook user how an advertisement is created are also used in the Data Use Policy for various reasons such as counteracting Facebook users' reservations about advertisements, creating links between the Facebook user and the technology used to create advertisements ('Ad Creation Tool').²²⁶ Such 'materialities' are further reinforced through practices such as encouraging the Facebook user to try out the Ad Creation Tool or to use the Social Ads Settings.²²⁷ Additionally, the Help Centre operates as a 'centre of translation,' containing a myriad of information related to every aspect of advertising such as pricing, advertisement creation and management, and bringing new *actants* to the fore such as Nielsen - an advertising measurement company which assesses the effectiveness of advertising campaigns according to a set of pre-defined criteria- and opt-out cookies.²²⁸ The 'Help Centre' attempts to circumvent or prevent Facebook user resistance by illustrating the practices of companies such as Nielsen (e.g. practice of analysing Facebook user data, practice of compiling anonymous aggregate reports to advertisers on how Facebook users respond to advertisement); reassuring Facebook users that such practices are in accordance with the Governing

²²⁴ The 'X' mechanisms which appears on the top right-hand side of an advertisement which can be used by the Facebook user if s/he does not want to see an advertisement or all advertisements from a specific advertiser.

²²⁵ There is also a link to the Social Ads Settings in the Data Use Policy.

²²⁶ See the section 'How Advertisements and sponsored stories work?' in the Data Use Policy <<https://www.facebook.com/about/privacy/Advertisements>>

²²⁷ Ibid.

²²⁸ <https://www.facebook.com/help/?faq=211774365532736#How-does-Facebook-partner-with-outside-companies-for-campaign-impact-measurement?-How-does-it-affect-me?>

Contracts, and also informing Facebook users that they can opt out of relevant programs such as the Nielsen program²²⁹ or control whether other Facebook users can see whether they are featured in Sponsored Stories.²³⁰ The associative links between these different *actants* can change at different points in Facebook's data network as new *actants* are introduced in the network or old *actants* leave the network. For example, in January 2011, Facebook introduced a new element in the network, namely, that advertisers had to agree to a new advertising data protection agreement which limit the number of cookie that can be dropped on the computers of Facebook users to only one.²³¹

Material conditions and the Help Centre are not always successful in hindering resistance practices such as the Facebook user's use of technologies such as Adblock²³² to block advertisements,²³³ videos,²³⁴ and advice²³⁵ on external websites such as YouTube on how to block Advertisements. Such resistance practices are arguably instances of 'ethical practices' through which Facebook users attempt to negotiate their relationships with specific rules relating to advertising.²³⁶

²²⁹ Hyperlink via the Help Centre <<https://www.facebook.com/help/search/?q=opt+out> > to 'Opt-Out Cookie,' (Nielsen) <http://www.nielsen.com/content/corporate/policy/en/cookie-policy.html>

²³⁰ 'Can I opt out of being featured in Sponsored Stories?' (Help Centre) <<https://www.facebook.com/help/?faq=173332702723681#Can-I-opt-out-of-seeing-or-being-featured-in-sponsored-News-Feed-stories?>> accessed 21 September 2012.

²³¹ n 29, Irish Facebook Audit, 58.

²³² Adblock is an extension which can be used in various browsers such as Safari and Google Chrome to filter and block advertisements. Adblock <<https://getadblock.com/>> accessed 8 October 2013.

²³³ E.g. Analysis of over one hundred Facebook user comments on 'Adblock for Chome and Safari' (Facebook Page) <<https://www.facebook.com/heres.adblock>> accessed February 2012 where Facebook users state they use such technologies to block Advertisements; analysis of over eighty Facebook user comments on 'Adblock Plus,' (Facebook Page) <<https://www.facebook.com/adblockplus>> accessed February 2012.

²³⁴ E.g. 'How to change your Facebook Ad Privacy Settings,' (YouTube, 1 June 2012) <<http://www.youtube.com/watch?v=E84joby8VN0>> accessed 21 September 2012.

²³⁵ E.g. 'How to block Facebook Ads,' (Gawker, 9 November 2007) <<http://gawker.com/320967/how-to-block-facebook-ads>> accessed 8 July 2013.

²³⁶ Michel Foucault, *The History of Sexuality. The Use of Pleasure* (Vol. 2) (Penguin Books Limited, 1992); Michel Foucault, *The History of Sexuality. The Care of the Self* (Vol. 3) (Random House Digital, Inc., 2012).

As was the case in Chapter Four, such forms of resistance can only be developed if there are suitable spaces or assemblages sustaining such practices such as binary codes and programming languages constructing third-party technologies such as AdBlock. Facebook users here question certain rules such as rules prohibiting the use of third-party technologies such as AdBlock to block Advertisements and interpret them creatively in an ethics of resistance. Arguably Facebook users are exercising their agency here by resisting certain normalising forces such as using Privacy and Account Settings only to manage Advertisements. Facebook users also challenges the rules prescribing how Facebook users can manage Advertisements, or 'morality', through their own personal ethical conducts. ²³⁷

Conclusion

In this chapter, I have empirically traced the construction of Facebook's data network as a socio-legal-technological network. I have argued three points. Firstly, I have suggested that Facebook's data network is constructed through the local, contingent, and precarious 'fitting together' of specific human and non-human actors. Here I have charted how heterogeneous *actants* such as programming language, elements of Facebook's data law network and the Facebook user's practices are locally associated with one another to form and perform key aspects of Facebook's data network such as the Governing Contracts and the Privacy Settings. I have also highlighted how specific obstacles such as Adblock can disrupt the associative links between relevant legal, social and technological elements. Whilst exploring such resistance practices, I have also analysed how they can amount to 'ethical practices' through which Facebook users attempt to negotiate their relationships with specific rules. Secondly, I have argued that a diverse range of 'materialities' such as hyperlinks and reports play a crucial role ordering relations between *actants* over time and space. Thirdly, building on my relational understanding of Facebook's data network, I have explored how certain legal notions such as 'consent' and 'binding contract' and legal mechanisms such as audits can be understood in relational

²³⁷ Michel Foucault, 'The Ethic of the Care for the Self as a Practice of Freedom,' in J Bernauer and D Rasmussen (eds) *The Final Foucault* (Cambridge Mass. Massachusetts Institute of Technology Press 1988) 1.

terms. For example, I have analysed how the 'consent' to the processing of the Facebook user's personal data is local, contingent and at times precarious achievement formed and performed through heterogeneous connections between humans and non-humans which are embodied in diverse 'materialities'

Chapter Seven

Investigating Regimes of Power in Facebook

Abstract

In Chapter Six, I analysed how Facebook's data network is constructed when heterogeneous *actants* such as Facebook users, binary codes, reports and legal skills are locally, contingently, and precariously 'fitted together'. In this chapter, I build on this analysis to investigate the complex, multiple, and contingent power effects which are generated through specific local connections. I argue three key points. Firstly, I argue that complex, multiple, and contingent power effects such as 'dataveillance' and 'governmentalised discipline' are generated from the local, contingent, and precarious connections between heterogeneous humans and non-humans in Facebook's data network. I analyse how specific local connections can generate more than one power effect. I also analyse how power effects sharing similar traits such as surveillance can be generated from distinct local connections. Additionally, I also analyse how certain power effects, such as surveillance, can be contested through specific practices such as the Facebook's user practice of blocking advertisements in Facebook. Secondly, I argue that mobile and durable 'materialities', which often amount to 'immutable mobiles,' such as reports are important in rendering certain connections more powerful. For example, I analyse the links between power and 'materialities' when analysing the power effects generated by audit of Facebook by the Irish Data Protection Commissioner. Thirdly, I examine how power is intertwined with 'spatialities' and how 'spatialities' are imbued with power when analysing the power effects generated by the local, contingent, and precarious connections forming and performing specific aspects of the Facebook's data network such as the Privacy Settings and Tagging.

Introduction

Having analysed the construction of Facebook's data network as a socio-legal-technological network in Chapter Six, I now draw on this micro-sociological empirical understanding of the co-constructive relationships between key legal, social and technological elements in Facebook's data network to analyse the power effects of such relationships. I argue three key points. Firstly, I argue that complex, multiple,

and contingent are generated from the local, contingent, and precarious connections between heterogeneous humans and non-humans in Facebook's data network. I pursue this argument by exploring how specific local connections between heterogeneous *actants* can generate more than one power effect. I also pursue this argument by investigating how power effects sharing similar traits such as governmentality can be generated by distinct connections between distinct heterogeneous *actants*. Here, I also analyse how certain power effects can be disrupted as old or new *actants* leave or join specific connections. Secondly, I argue that mobile and durable 'materialities' play key roles in maintaining the power effects generated by specific local connections between heterogeneous *actants*. I pursue this argument by analysing the roles of 'materialities' such as hyperlinks and report in maintaining the power effects of specific 'orderings.'¹ Here I also consider how power effects, such as the effect of surveillance of advertisements can occasionally be ruptured by sources of resistance such as Facebook users' resistance against advertisements. Aside from the links between power and 'materialities,' thirdly, I examine how power is also intertwined with 'spatialities' and how 'spatialities' are imbued with power through my analysis of the Privacy Settings and Tagging.

I pursue these three points in six sections in this chapter. In section 7.1, I analyse one power effect generated by the local, contingent, and precarious connections forming and performing the Governing Contracts, namely, a regime of governmentality. In section 7.2, I analyse another power effect generated when other heterogeneous humans and non-humans are locally, contingently, and precariously 'fitted together' to form the audit process, namely, another regime of governmentality. I explore possible reasons, such as accountability and co-operation culture, why audits are becoming more popular in Facebook's data network to assess Facebook's compliance with relevant data protection laws. In section 7.3, I analyse two specific power effects generated by the local connections forming and

¹ In line with Law I argue that the word 'ordering' may be more appropriate than 'order' to describe that there is not only one specific regime of order and to highlight the precarity and incompleteness of regimes of order. John Law, *Organising Modernity* (Oxford Blackwell 1994) 1ff. I also adopt John Law's distinction between power and order. From this perspective, order or 'ordering' effects are generated through 'translation.' One of the effects of order is power. John Law, 'Notes on the theory of the actor-network: ordering, strategy, and heterogeneity,' (1992) 5(4) *Systems Practice* 379.

performing the Report Button,² namely, ‘governmentalised’ discipline and surveillance. In section 7.4, I analyse two power effects of the Privacy Settings, namely, another regime of governmentality and one type of social control. Here I also explore the close links between certain power effects and ‘spatialities.’ In section 7.5, I explore two power effects generated from advertisements, namely ‘dataveillance’ and the commodification of the Facebook user’s personal data. Finally, in section 7.6, I analyse three distinct power effects generated by Tagging, namely, eroding specific ‘problematisations’, another type of social control and ‘algorithmic surveillance’. Here, I also explore the links between ‘spatialities’ and Tagging’s power effect of ‘algorithmic surveillance’.

7.1 From Governing Contracts to Governmentality

Building on the relational understanding of the Governing Contracts³ developed in Chapter Six, I now explore one power effect generated from the local connections between the social, legal, and technological elements which form and perform the Governing Contracts, namely, a regime of governmentality. As analysed previously, the Governing Contracts are relationally constructed as ‘obligatory points of passage’ in Facebook’s data network through the local connection of heterogeneous *actants*

² By Report Button, I refer to the buttons and hyperlinks which the Facebook users can click to report infringing actions such as identity theft (‘Report Button’). For instance, Facebook users can click on the ‘Report App’ button to report an App which infringes their data protection rights. Additionally, Facebook users can click on the ‘Report’ hyperlink to report instances of identity theft. See ‘How do I report a Fake Account?’ (Help Centre, Facebook) <<https://www.facebook.com/help/167722253287296?q=fake%20profile&sid=0FYJ3uLmltX8lOkY>> accessed 8 June 2013.

³ The Governing Contracts refer to the series of legally binding contracts entered by Facebook and other contracting parties such as Facebook user, third-party advertisers and third-party developers including Statement of Rights and Responsibilities – Facebook (<<https://www.facebook.com/legal/terms>>) accessed 8 October 2013, Data Use Policy – Facebook (<<https://www.facebook.com/about/privacy>>), Community Standards – Facebook (<<https://www.facebook.com/communitystandards>>) accessed 8 October 2013, Promotion Guidelines – Facebook (<http://www.facebook.com/promotions_guidelines.php>) accessed 8 October 2013, Facebook Platform Policies – Facebook (<<http://developers.facebook.com/policy/>>) accessed 8 October 2013, Advertisements Guidelines – Facebook (<http://www.facebook.com/ad_guidelines.php>) accessed 8 October 2013, and Pages Terms – Facebook (<http://www.facebook.com/terms_pages.php>) accessed 8 October 2013 (known collectively as the ‘Governing Contracts.’)

such as 'Sign Up' Button,⁴ legal requirements on the formation of a binding contract,⁵ legal skills such as drafting skills and hyperlinks. These local connections generate one regime of governmentality in three specific ways.

Firstly, these local connections enact one form of advanced neo-liberal governance in Facebook's data network which is premised on the active consent of the relevant *actants* such as Facebook users⁶ and advertisers⁷ and subjugation of these *actants* as subjects. Thus, key *actants* such as Facebook users and third-party developers willingly enter into the Governing Contracts by clicking the 'Sign-Up' button. By doing so, they accept different modes of subjugations such as the identities of Facebook users as 'data subjects'⁸ and the data protection obligations of advertisers.⁹ Such subjugations are not ends in themselves but rather seek to normalise interactions between *actants* through strategies of institutional governance, which organise relations between *actants* and self-governance of *actants* – used by an *actant* to organise himself or herself. For example, the Governing Contracts provide Facebook users with technologies, such as the Privacy Settings, which are used to organise how other *actants* such as Facebook can interact with the personal data of the Facebook user.¹⁰ The Governing Contracts also

⁴ The 'Sign-Up' button is the button which the Facebook user has to click when signing up to Facebook for the first time. See Section Four, Chapter Six for more.

⁵ Joseph Chitty, *Chitty on Contracts*, Vol. 1. (Sweet & Maxwell, 2012).

⁶ Facebook users accept to be bound by the Governing Contracts when they click on the 'Sign-Up Button' at the time they join Facebook.

⁷ Advertisers accept to be bound by the Governing Contracts when they click on the 'Place Order Button' to create an advertisement on Facebook.

⁸ Article 2(a), directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data ('Data Protection Directive') defines a 'data subject' as the identified or identifiable person to whom the personal data relates. A person is identifiable if s/he '...can be identified, directly or indirectly, in particular by reference to an identification number or to one or more factors specific to his physical, physiological, mental, economic, cultural or social identity.'

⁹ E.g. Section II, Facebook Advertising Guidelines (n 3).

¹⁰ Term 2, Statement of Rights and Responsibilities (n 3).

provide *actants*, such as Facebook users, with self-governance tools such as ‘Report Button’ which can be used to report instances of identity theft.¹¹

Secondly, the Governing Contracts order relations between diverse key *actants*, located at disparate capillaries of Facebook’s data network such as Facebook user, binary codes, and third-parties such as advertisers. In Facebook’s complex data protection network, which extends over wide distances, there can be a lack of ‘common practical consciousness’¹² or ‘sensemaking frame’¹³ which leaves the organisation of multiple *actants*’ roles to chance. By bounding multiple, overlapping and often conflicting rationalities (as explained next) to the binding form of the Governing Contracts (which is a relational construct),¹⁴ a level of certainty is attached to what would otherwise be a fragmented effort at organising roles and balancing conflicting interests such as the Facebook user’s data protection rights and the importance of maintaining free transborder flow of information – a key ‘problematisation’ in Facebook’s data network.¹⁵ However, such level of certainty is very much context-bound and can unravel as new *actants* are brought in or old *actants* leave the connective chain. For example, during its audit of Facebook, the Irish Data Protection Commissioner made a number of ‘recommendations’ relating to Apps.¹⁶ Here the Irish Data Protection Commissioner joined the local associative chain forming and performing Apps, through the audit and its accompanying practices and ‘materialities’. As this new *actant* joined the associative chain forming and performing Apps, it also introduced a new set of interests such as its interest in providing Facebook users with more technical measures to protect their data

¹¹ E.g. ‘Identity and Privacy,’ Facebook’s Community Standards, n 3.

¹² Mark Haugaard, ‘Power, ideology and legitimacy,’ in Henry Goverde and others (ed) *Power in Contemporary Politics: Theories, Practices, Globalisations* (London Sage 2000) 59.

¹³ Thomas J Peters and Robert H Waterman, *In Search of Excellence: Lessons from American’s Best-Run Companies* (New York Harper & Row 1982).

¹⁴ Chapter Six.

¹⁵ Chapter Six.

¹⁶ Apps refer to applications software developed by third-party software developers on Facebook (‘Apps’). Applications software refers to ‘software designed to carry out a specific task or meet a specific user requirement; application programs collectively’ (Oxford English Dictionary).

protection rights¹⁷ when they use Apps. This resulted in specific changes to the design and functionality of Apps as well as amendments to relevant provisions of the Governing Contracts relating to Apps. This specific example shows how this 'balancing act', is empirically more than a 'rhetorical device' and is performed locally. Here, the often fragile connections between heterogeneous *actants* can be ruptured as new *actants* come into the equation. However, the binding form of the Governing Contracts does not in itself guarantee that the *actants* will comply with their obligations or that their interests have been aligned. Some empirical examples of resistance include fake profiles, Facebook users using technologies such as Adblock¹⁸ to block advertisements. To counter such resistance, various techniques may be used such as appealing to values such as data protection rights and community in other fibres of the network such as Help Centre,¹⁹ and blogs.²⁰

Thirdly, the Governing Contracts offer one way of accommodating different modes of rationality on how *actants`* diverging interests should be balanced and how roles should be distributed between *actants*. For instance, the Governing Contracts clearly delimit the roles and obligations of *actants* such as Facebook users, advertisers and Facebook.²¹ Legal modes of rationality can be traced in the Governing Contracts` subjectification of Facebook users as 'data subjects' who need to be imbued with certain rights such as access rights²² and subject to certain

¹⁷ Irish Data Protection Commissioner, 'Facebook Ireland Ltd: Report of Audit,' (December 2011) <http://www.dataprotection.ie/docs/Facebook_Ireland_Audit_Report_December_2011/1187.htm> accessed 1 January 2012 ('Audit Report').

¹⁸ Adblock is an extension which can be used in various browsers such as Safari and Google Chrome to filter and block advertisements. Adblock <<https://getadblock.com/>> accessed 8 October 2013. An extension is an 'add-on program that provides additional features to an existing program.' John Daintith and Edmund Wright, *A Dictionary of Computing*, (6th edn, OUP 2008).

¹⁹ Facebook users can also consult Facebook`s help centre to learn more about Facebook features ('Help Centre'). Help Centre <<https://www.facebook.com/help/117152291702875>> accessed 8 July 2013.

²⁰ P C Jeffries, 'Respecting Rules about Reviews and Fake Accounts,' (Facebook Developer Blog, 8 April 2008) <<https://developers.facebook.com/blog/post/102/>> accessed 8 July 2013.

²¹ Chapter Six.

²² Data Use Policy, n 3.

sanctions such as account suspension in case of identity theft.²³ Economic modes of rationality can also be detected in the Governing Contracts` provision of the building blocks of the ‘basic deal’ between Facebook and Facebook users in economic terms. Indeed, the Governing Contracts make provisions for Facebook`s business model of offering a free service to its users and charging advertisers to deliver targeted advertisements to its users.²⁴ Such provisions pave the way for specific contractual surveillance which is then later on deployed by other *actants* such as tracking cookies and enacts Facebook users as consumers – a point further explored in section 7.5.2. Technological rationalities can be seen in the Governing Contracts which feature highly technical matters such as caching,²⁵ the Graph API,²⁶ and Open Graph.²⁷ Crucially, these technologies of government, whether individual (e.g. disciplining the Facebook user as subject) or institutional (e.g. operating on Facebook users as a population) are also articulated with one another. For instance institutional techniques such as how Facebook users, as a population, can protect access to their data by using technologies, such as the Privacy Settings, can include

²³ E.g. Term 3, Statement of Rights and Responsibilities, n 3.

²⁴ E.g. Term 10, Statement of Rights and Responsibilities, and ‘How Advertisements and Sponsored Stories Work,’ Data Use Policy both at n 3.

²⁵ Caching refers to ‘...storing files such as data and images in a cache or part of a memory used as a cache...’ (Oxford English Dictionary, Online Version).

²⁶ The Graph API is Facebook’s new, simplified API. It uniformly represents objects in the social graph as well as the connections between them. Each object in the graph has a unique ID and drastically simplifies the way developers read and write data to Facebook. <<https://www.facebook.com/help/221607984627895/>> accessed 10 January 2013. An API is an acronym denoting Application Programming Interface. It refers to a ‘protocol intended to be used as an interface by software components to communicate with one another.’ <http://en.wikipedia.org/wiki/Application_programming_interface> accessed 10 January 2013

²⁷ The Open Graph is another application programming interface which enables specific interactions such as a Facebook user’s interaction with an App such as reading a book. See ‘Open Graph API: Overview,’ (Facebook Developers) <<https://developers.facebook.com/docs/opengraph/overview/>> accessed 8 July 2013.

a disciplinary dimension such as the Facebook user monitoring which Friend²⁸ interacts with his/her data and blocking²⁹ specific Facebook users.

Leaving aside one regime of governmentality established through the Governing Contracts, I now consider the power effect generated by the Facebook audit conducted by the Irish Data Protection Commissioner ('Irish Facebook Audit').

7.2 Auditing or the art of 'calculability'

In this section, I explore three points. Firstly, I explore the power effect generated by the local connections forming and performing the Irish Facebook Audit, namely, another regime of governmentality. This supports one of the overall arguments of this chapter that power effects that share similar traits, such as governmentality, can be generated by distinct connections. Secondly, I explore the roles of 'materialities' such as reports and resources in ordering relations between disparate *actants* in Facebook's data network. This supports another overall argument of this chapter that the power effects of local connections become more durable when such connections are embodied in 'materialities'. Finally, I explore the possible reasons, such as visibility, and mutual co-operation, why audits are becoming more popular in Facebook's data protection to determine Facebook's compliance with relevant data protection laws. As Latour has noted, '... orders are not the rule but the exceptions that have to be accounted for.' Consequently, it is interesting to my research to explain why specific 'orderings' generated through audits and/or similar investigations are becoming so popular in Facebook's data network.³⁰

7.2.1 Audit: Of Rationalities and Practices

So what rationalities and practices sustain auditing in Facebook's data network? Legal rationalities can be detected in the three stages³¹ of the Irish Facebook Audit

²⁸ Friends refer to other Facebook users with whom a specific Facebook user has connected himself or herself ('Friends').

²⁹ 'How to block someone?' (Facebook Help Centre)
<<https://www.facebook.com/help/www/168009843260943?rdhrc>> accessed 8 July 2013.

³⁰ Bruno Latour, 'On actor-network theory. A few clarifications plus more than a few complications,' (1996) 47 *Soziale Welt* 369, 372.

³¹ The Irish Facebook Audit can be understood as a three-staged process. Chapter Six, Section 3.

including a normative way of thinking about the issue of data protection in the network that revolves around the factual matrix raised by specific complaints, assessing the merits of the complaints with close reference to data protection laws from the European Union³² ('EU Data Protection Laws') and ruling on the outcome of such complaints by applying a quasi-judicial approach of applying the law to the facts of the case. Technological rationalities can also be detected, to varying degrees, in the three stages of the Irish Facebook Audit such as thinking about Apps in terms of their basic architecture,³³ understanding the technical operations of cookies³⁴ in terms of domain name system³⁵ response and hypertext transfer protocol³⁶ requests or responses to an internet protocol³⁷ address.³⁸ Economic rationalities of efficiency

³² E.g. Data Protection Directive (n 9); Directive 2002/58 on Privacy and Electronic Communications ('e-Privacy Directive') as amended by Directive 2006/24/EC of the European Parliament and of the Council of 15 March 2006 on the retention of data generated or processed in connection with the provision of publicly available electronic communications services or of public communications networks ('Data Retention Directive') and as amended by Directive 2009/136/EC of the European Parliament and the Council of the 25 November 2009 ('Cookie Directive') (collectively known as 'EU Data Protection Laws')

³³ Appendix One, n 217.

³⁴ Ibid. Appendix One, Audit Report, pp. 172 ff. A cookie refers to 'a token or packet of data that is passed between computers or programs to allow access or to activate certain features; (in recent use *spec.*) a packet of data sent by an Internet server to a browser, which is returned by the browser each time it subsequently accesses the same server, thereby identifying the Facebook user or monitoring his or her access to the server.' (Oxford English Dictionary, Online Version)

³⁵ See 'DNS Best Practices, Network Protections, and Attack Identification,' (Cisco website) <<http://www.cisco.com/web/about/security/intelligence/dns-bcp.html>> accessed 8 July 2013.

³⁶ The hypertext transfer protocol '...supports the retrieval of data on networks.' (Oxford English Dictionary, Online Version). An http request is sent each time a browser requests access to a file such as photo from a webserver. (Djce website) <<http://djce.org.uk/dumprequest>> accessed 8 July 2013.

³⁷ The Internet Protocol address is 'a binary number that uniquely identifies computers and other devices on a TCP/IP network.' B Mitchell, 'IP Address,' (About.com) <<http://compnetworking.about.com/od/workingwithipaddresses/g/ip-addresses.htm>> accessed 8 July 2013. A TCP/IP network is a term used to refer to two distinct network protocols namely Transmission Control Protocol and Internet Protocol respectively. TCP and IP are commonly used together and TCP/IP is the standard terminology to refer to either or both of the protocols. 'IP corresponds to the Network layer (Layer 3) in the OSI model, whereas TCP corresponds to the Transport layer (Layer 4) in OSI.' B Mitchell, 'TCP/IP,' (About.com) <http://compnetworking.about.com/cs/basictcpip/g/bldef_tcpip.htm> accessed 8 July 2013. The OSI model defines '...internetworking in terms of a vertical stack of seven layers.' For more see B Mitchell, 'OSI Model,' (About.com)

can also be observed in the Irish Facebook Audit. Thus, the Irish Data Protection Commissioner has set out a rigorous and systematic framework to conduct audits by detailing how relevant *actants*, such as the auditee, can optimally prepare themselves for the audit process.³⁹ Furthermore, such economic rationalities also entrench the audit process as an 'arranged production,' constructed out of multi-faceted practices such as 'critical success factors'⁴⁰ and documents such as the sample audit questions⁴¹ which further produce the audit as an efficient process. Concurrently, *actants* such as Facebook's employees and the Irish Data Protection Commissioner are also rendered subjects through such modes of thinking by not only performing the audit but also being performed through the audit as auditees and auditors respectively.

Moving on to the diverse set of practices which sustain the audit process in Facebook's data network, these multi-faceted practices vary from Supervisory Authority⁴² to Supervisory Authority. Focussing on the Irish Data Protection Commissioner's practices in the Irish Facebook Audit, heterogeneous practices operate at different points in the course of the audit to sustain it as a '...way of rendering reality thinkable in such a way that it is amenable to political programming.'⁴³ I am not talking here about power imposed by external sources but rather of the 'complex assemblage of diverse forces...techniques...devices

<http://compnetworking.about.com/cs/designosimodel/g/bldef_osi.htm> accessed 8 July 2013. The TCP/IP protocol '...enables data to be transmitted between computers on the Internet or other network.' (Oxford English Dictionary, Online Version)

³⁸ Appendix One, Audit Report, pp 171ff, n 17.

³⁹ Audit Resource (Office of the Data Protection Commissioner, January 2009, Version 1.0) <<http://www.dataprotection.ie/documents/enforcement/AuditResource.pdf>> accessed 8 July 2013 ('Audit Resource')

⁴⁰ Section 6.2, *ibid*.

⁴¹ See section 8, *ibid*.

⁴² Supervisory Authorities refer to supervisory authorities responsible for data protection issues in different jurisdictions such as the Irish Data Protection Commissioner who is responsible for the data protection issues raised by data processed by Facebook Ireland.

⁴³ Nikolas Rose, 'The death of the social? Re-figuring the territory of government,' (1996) 25(3) *Economy and Society* 327.

which....regulate decisions and actions...in relation to authoritative criteria.'⁴⁴ Thus, as analysed in Chapter Six, diverse standardised procedures such as on-site meetings, 'self-help checklist'⁴⁵ and discussions between the Irish Data Protection Commissioner and Facebook lend certainty to the processes of the audit. Some procedures such as a self-help checklist⁴⁶ have disciplinary effects as they encourage Facebook to monitor its own compliance with the requirements of EU Data Protection Laws⁴⁷ before the audit takes place. 'Materialities' such as the Irish Data Protection Commissioner's 'data protection audit resource'⁴⁸ ('Audit Resource'), the report published by the Irish Data Protection Commissioner at the end of the audit ('Audit Report') and the 'self-help checklist'⁴⁹ lend durability and mobility to the 'orderings' inscribed in such document and enable relations between key *actants* such as Facebook and the Irish Data Protection Commissioner to be ordered through time and space respectively. They also further entrench the audit's varied practices in Facebook's data network by making them appear routinised, internalised and reasonable. For instance, the Audit Resource internalises the processes and practices of the three stages of the audit in the sense of the audit representing a familiar and/or accepted way to ascertain the legality of an action in Facebook's data network. However, it hides from view that these very processes and practices are very much dependent on the local connections between key *actants* such as Facebook's teams, legal skills, technological knowledge and 'materialities' such as reports. Additionally, key *actants* such as Facebook, Facebook's Legal Team, and technologies such as Tagging, come to be viewed as measurable units of performance or as 'calculable' entities which can be assessed and observed in specific ways. It, thus, becomes possible to ascertain to what extent Tagging complies with the eight data protection principles set out in EU Data Protection Laws

⁴⁴ Ibid.

⁴⁵ n 38, section 5.

⁴⁶ See Section 8.2, n 38.

⁴⁷ n 31.

⁴⁸ Irish Data Protection Commissioner, 'Data Protection Audit Resource' (January 2009) <<http://www.dataprotection.ie/documents/enforcement/AuditResource.pdf>> accessed 8 July 2010.

⁴⁹ n 45.

such as fair obtaining.⁵⁰ Finally, precise guidelines also hold the Irish Data Protection Commissioner accountable in its capacity as auditor by laying down the procedures which the Irish Data Protection Commissioner has to follow during the three stages of the audit such as sending a letter of intention to audit before auditing Facebook.⁵¹ The *actants* are arguably consciously compliant here but what can further account for their commitment to the audit process? It is important to address this question in order to further understand reasons for key *actants* accept specific 'orderings' established through Facebook audits.

7.2.2 Accounting for the Popularity of Audits

My ANT-Foucauldian analysis of the Irish Facebook Audit suggests that the notion of accountability is a possible explanation for this commitment to audit in Facebook's data network. Accountability refers to the

'...ways in which actions are organised: that is, put together as publicly observable, reportable occurrences. They are not only done, they are done so that they can be seen to have been done.'⁵²

In Facebook's data network, accountability is constructed at a micro-sociological level through the audit and its practices which organise the Irish Data Protection Commissioner's findings and recommendations in a publicly available online and offline Audit Report. Relevant practices here which further disseminate the Audit Report include offline and online press releases summarising the key findings of the Irish Facebook Audit by the main *actants* such as the Irish Data Protection Commissioner and Facebook, and other public communications such as Facebook Status Updates by its Public Policy Team alerting Facebook users that the Audit Report has been published and providing the Facebook users with relevant hyperlinks.⁵³ An analysis of the various press releases following the publication of

⁵⁰ n 31.

⁵¹ Section 4.2, Audit Resource, n 38.

⁵² G Button and W Sharrock, 'The organizational accountability of technological work', (1998) 28(1) *Social Studies of Science* 73, 74.

⁵³ RIC Allan, 'Facebook and the Irish Data Protection Commission,' (Facebook, 21 December 2011) <<https://www.facebook.com/notes/facebook-public-policy->

the Audit Report suggests a shared concern both by the Irish Data Protection Commissioner and Facebook that the audit should be seen to 'have been done' by relevant *actants*. Such concern arose from the various complaints made to the Irish Data Protection Commissioner against Facebook in relation to data protection law breaches.⁵⁴ Viewed as an 'immutable mobile', the Audit Report can be accessed by any interested *actant*, irrespective of its space-time location, by a hyperlink which takes the *actant* to the report's content. Accountability is translated from 'centres of calculation' such as the space folded in the Audit Report, to the local capillaries of the network such as the Facebook user's computer located e.g. in Hammersmith. The Audit Report has an almost unspecified audience as it is oriented to *actants* who are immediately involved in the audit such as Facebook and to *actants* who may later on develop an interest in the audit such as an academic who investigates the rise of the audit mechanism in the Digital Age or future Facebook users. In the context of the Facebook Irish Audit, accountability does not involve merely recognition of something being done publicly but also the recognition of consequences akin to sanctions such as Facebook being compelled to implement key 'recommendations.'⁵⁵ So does this mean that auditing will remain the most employed mechanism used to ascertain the legality of actions Facebook's data network?⁵⁶

Three key considerations may very well mean that audits will remain the most popular option to ascertain the legality of actions in Facebook's data network. Firstly, audits are very much visible processes which can, if performed accurately, assuage the Facebook users' ever-growing concerns about the legality of specific actions in Facebook. The complex interplay between visibility, accountability and a culture of mutual co-operation in the Irish Facebook Audit also contributes to the

europe/facebook-and-the-irish-data-protection-commission/288934714486394> accessed 20 January 2012.

⁵⁴ n 31.

⁵⁵ n 17.

⁵⁶ This raises interesting questions about which actants call for accountability. The answer differs from context to context. For instance in the case of the Irish Facebook audits calls for accountability are raised by complaints by Facebook users, complaints by other EU Supervisory Authorities. However such calls also occur routinely (e.g. when the Irish Data Protection Commissioner has to routinely audit Facebook from time to time).

entrenchment of the practice as a method of ascertaining legality of specific actions. Secondly, the audit's high level of internalisation and routinisation also mean that it may not be easy to overturn it as a mode of 'calculating,' assessing and observing compliance of relevant *actants* with EU Data Protection Laws. Finally, the Irish Facebook Audit's appeal to the positive value of compliance makes resistance harder. Ultimately, auditing will only maintain its popularity as a way to hold websites like Facebook accountable and ascertain the legality of its actions; if Supervisory Authorities can maintain and exercise their clout⁵⁷ rather than remain 'toothless.'⁵⁸ The retention of such clout is in itself contingent upon maintaining key local connections, traced in Chapter Six, and successfully overcoming resistance.

Are there also regimes of governmentality established through *actants* other than audits and the Governing Contracts in Facebook's data network? I consider this question next by analysing how another regime of governmentality is generated the Report Button.⁵⁹

7.3 Report Button: Of 'Governmentalised' Discipline and Surveillance

In this section, I analyse *two* power effects generated by the Report Button, namely, surveillance and 'governmentalised' disciplines. This illustrates two overall arguments of this chapter, that, (1) specific local connections between heterogeneous *actants* can generate more than one power effect, and (2) power

⁵⁷ M Braga, 'Privacy Commissioner wants more clout to go after those who violate privacy laws,' (Financial Post, 23 May 2013) <http://business.financialpost.com/2013/05/23/privacy-commissioner-reveals-roadmap-for-privacy-policy-reform/?__lsa=c010-db00> accessed 9 July 2013.

⁵⁸ Many Supervisory Authorities such as the Information Commissioner's Office in the UK have been labelled as 'toothless' in the past due to their attempts to exercise their powers and protection data protection rights. See J A Cannatacia and P M Bonnicib, 'The UK 2007–2008 data protection fiasco: Moving on from bad policy and bad law?', (2009) 23(1) International Review of Law, Computers and Technology 47; D H Flaherty, 'The emergence of surveillance societies in the western world: Toward the year 2000, (1988) 5(4) Government Information Quarterly, 377, 383. Although in recent years, some Supervisory Authorities are more actively enforcing data protection laws. See K Legg, 'Solicitor warns the toothless data protection dog is biting back,' (Higgs and Sons Solicitor, 15 March 2012) <<http://www.higgsandsons.co.uk/news--events/press-releases/2012/03/15/solicitor-warns-the-toothless-data-protection-dog-is-biting-back.aspx>> accessed 9 July 2013.

⁵⁹ n 2.

effects that share similar traits such as 'governmentalised' disciplines can be generated the local connections between other heterogeneous *actants*.

7.3.1 The 'What' of Power in Social Reporting

In Facebook's data network, Report Buttons are spread across the various capillaries of the network.⁶⁰ Report Buttons can be used in various circumstances such as reporting impostor Facebook accounts by other Facebook users⁶¹ and reporting Apps which violate the Governing Contracts and/or relevant data protection laws.⁶² So what power effects are generated from the local connections forming and performing the Report Button?

The Report Button aims to shape the conduct of the Facebook user and App developers as a population rather than as 'subjects'. In this sense, it can be argued that one of the power effects of the Report Button is 'governmentalised discipline.' The Report Button produces disciplined Facebook users and/or App developers through various practices such as compiling a report of the alleged infringing act, transmitting the report to the relevant Facebook team, and applying the relevant sanction to the Facebook user and/or App developer. Its invisible (the offending Facebook user does not know that s/he has been reported by another Facebook user), insidious (the Facebook user does not know that s/he has been observed until a sanction is applied to his/her account) and semi-automatic operations (e.g. automatic creation of a report, social reporting by the Facebook user, review of the report by a human) ensures a semi-automatic functioning of power once the Facebook user initiates the process of social reporting. By social reporting, I refer to the process when Facebook user clicks on the Report Button to report an impostor account or an infringing App

⁶⁰ For instance, Facebook users can click on the 'Report App' button to report an App which infringes their data protection rights. Additionally, Facebook users can click on the 'Report' hyperlink to report instances of identity theft. See 'How do I report a Fake Account?' (Help Centre, Facebook) <
<https://www.facebook.com/help/167722253287296?q=fake%20profile&sid=0FYJ3uLmltX8lOkY>> accessed 8 June 2013.

⁶¹ E.g. Imposter or hacked accounts.

⁶² See Na Wang et al, 'Third- Party Apps on Facebook: Privacy and the Illusion of Control' (Proceedings of the 5th ACM Symposium on Computer Human Interaction for Management of Information Technology, 2011).

('Social Reporting').⁶³ This renders the effects of surveillance and discipline of the Report Button much more potent as they can be semi-automatically put into action at the click of a button irrespective of where the relevant *actants* such as Facebook users and servers are located in time and space.

As was the case with Content ID in YouTube, the surveillance and disciplinary effects generated by the Report Button are also limited in scope. The report generated by the Social Reporting only provides a very limited vision, namely, of how and when the Facebook user or App has infringed the Governing Contracts and/or relevant data protection laws. However, the report does not shed light on other actions such as other instances of infringement by the App which could equally impinge of Facebook's data network. For instance, in 2010, a Wall Street Journal investigation found that ten popular Apps on Facebook, such as Farmville,⁶⁴ which has over fifty-nine million Facebook users, were breaching data protection laws and the Governing Contracts.⁶⁵ Here, a specific instance of Social Reporting would only shed light on how and when Farmville infringed relevant data protection laws and/or Governing Contracts in relation to the Facebook user who has filed the report rather than shed light on all of Farmville's data protection breaches in Facebook.

The 'governmentalised' disciplinary effect of the Report Button is performed through a series of interactions such as Social Reporting, the automatic compilation of the report of the alleged infringing act by an assemblage of binary codes, the automatic transmission of the report to the relevant Facebook team through server to server communication, and the manual or automatic application of the relevant sanction to the Facebook user or third-party such as disabling an App which

⁶³ 'How do I report a fake account that's pretending to be me or a public figure?' (Facebook Help Centre)
<<https://www.facebook.com/help/174210519303259?q=impostor%20account&sid=0EnyF3cKJd8eaGv63>> accessed 8 July 2013.

⁶⁴ Farmville is a farming simulation networking game on Facebook developed by Zynga Game Network Inc. For more see 'Farmville,' (Facebook Page)
<<https://www.facebook.com/FarmVille>> accessed 8 July 2013.

⁶⁵ E Steel and G Fowler, 'Facebook in Privacy Breach,' (Wall Street Journal, 17 October 2010)
<http://online.wsj.com/article/SB10001424052702304772804575558484075236968.html?mod=WSJ_hpp_LEFTTopStories> accessed 12 November 2010.

breaches the Governing Contracts.⁶⁶ The series of interactions needed to perform the Report Button's disciplinary effect are set into motion by the surveillance of a Facebook user or an App by another Facebook user and the Social Reporting. Such surveillance can be explained by the Facebook user's self-interests as s/he is often reporting a breach of the Governing Contract which affects his/her data protection rights such as an instance when an imposter account has been created in his/her name. The threat of coercion through the wide range of sanctions which can be applied to the offending Facebook user account is important here. For instance, impostor accounts are disabled and their creators are barred from creating another Facebook account.⁶⁷ In this section I have analysed the complex power effects of the Report Button such as surveillance and 'governmentalised' discipline. Next, I analyse the power effects of the Privacy Settings to support two overall arguments of this thesis, namely, that (1) complex and multiple power effects are generated from local, contingent, and precarious connections between humans and non-humans in Facebook's data network, and (2) there are close links between power and 'spatialities' in Facebook data protection network.

7.4 Privacy Settings and their Politics of Spatiality

In this section, I argue two key points. Firstly, I argue that there close links between certain power effects such as surveillance and 'spatialities'. Secondly, I argue two power effects, such as another regime of governmentality and social control, are generated from the local, contingent, and precarious connections forming and performing the Privacy Settings.

As analysed in Chapter Six, the Privacy Settings are formed and performed through the local connections between heterogeneous *actants* such as 'Lock Icon',⁶⁸

⁶⁶ See Section V, Facebook Platform Policies, n 3.

⁶⁷ See Section 4, Statement of Rights and Responsibilities, *ibid*.

⁶⁸ The 'Lock Icon' is a little icon in the shape of a padlock which appears on the Home Page of the Facebook user. The latter can use the 'lock icon' to manage who can view his/her posts on Facebook. Monika Horak, 'Answering Recent Questions on Privacy Controls,' (Facebook, 18 June 2010) < <https://www.facebook.com/notes/facebook/answering-recent-questions-on-privacy-controls/399994657130> > accessed 18 June 2011.

Governing Contracts, pop-up box⁶⁹ and Facebook users. The Privacy Settings automatically limit the mobility of the Facebook user's data by constructing spatial dimensions through which the Facebook user's information is allowed or prohibited from passing. For example, if I post a Photo⁷⁰ on Facebook and tailor my Privacy Settings so that the Photo cannot be viewed by my Friends who are on the Restricted List,⁷¹ then the Photo cannot pass through specific spatial dimensions, namely, the spaces demarcated by the Restricted List. By demarcating certain spaces where data can or cannot flow (e.g. Friend X can view Photo A but Friend Z cannot view Photo A), certain surveillance relations are enacted locally in the network (e.g. Friend A can view all your Photos). Such surveillance relations, in the sense of what Facebook user A can view about Facebook user B, are enacted through automatic sorting of data according to the Privacy Settings chosen by Facebook user B. As was the case with Content ID in YouTube, surveillance here is very much a 'situated exercise' which is generated from the local and temporary 'fitting together' of heterogeneous human and non-human actors such as Photo, drop-down box, Facebook user, and Friends.

The boundaries surrounding specific types of personal data are permeable and can often be recast by Facebook users by removing or adding a Friend to a specific list. Moreover, Facebook's Engineering Team can also extend or restrict the spatial dimensions demarcated in such lists when they occasionally reset the default settings of the Privacy Settings.⁷² Such recasting forms part of a wider process of translation that may occur in the network as the interests of *actants* change or new *actants* such as Supervisory Authorities enter the local connective chain. Maintaining the surveillance relations generated by such spatial dimensions depends on whether the Facebook user tailors his/her Privacy Settings to his/her preferences at all

⁶⁹ Presented to the Facebook user when s/he uploads a Photo or Status Update.

⁷⁰ A Photo refers to a photograph which a Facebook user can upload to his/her Wall or Timeline ('Photo').

⁷¹ A Restricted List refers to a list compiled by a Facebook user where s/he lists specific Friends who cannot view specific data ('Restricted List').

⁷² Facebook regularly changes the default settings of the Privacy Settings. In such cases, any preset elected by the Facebook user is overridden and the default settings apply to the specific account until the Facebook user tailors the setting again to his/her preference.

relevant times (not only when signing up but consistently when the Privacy Settings are changed by Facebook). The Privacy Settings operate either in full automation (Facebook user does not alter his/her Privacy Settings and the default settings apply automatically) or in semi-automation (Facebook user alters some or all his/her Privacy Settings and the elected settings are then automatically applied). Irrespective of the type of automation involved, automation itself is significant as the legality of viewing a specific Facebook user data is removed from the sphere of social negotiations.⁷³ Here, social control arises not necessarily as the intended effect of the *actants`* linkages, but perhaps unintentionally from an assemblage aimed at ordering the flow of information by creating restricted and unrestricted spatial dimensions in the network. The local 'fitting together' of the heterogeneous elements constructing the Privacy Settings generates a second power effect, namely, another 'regime of governmentality' which I analyse next.

The Privacy Settings can be understood as a regime of 'governmentality' which aims to shape the conduct of Facebook users as a population and empower Facebook users to be in control of their data`s visibility. Legal rationalities such as the need to preserve the balance between the Facebook user`s data protection rights and free transborder flow of data can be detected in the Privacy Settings` focus on affording protection to categories of Facebook user data which are covered by EU Data Protection Laws. Technological rationalities are also evident in the way in which the interface of the Privacy Settings is designed such as the use of drop-down boxes to customise settings or automating specific actions such as blocking the visibility of a specific data category to a restricted Facebook user by using programming language. The Privacy Settings also reflect social ways of thinking such as how relationships of friendship or kinship are created and maintained. Thus, the settings for certain data categories such as the Facebook user`s real name and the Profile Photo cannot be altered as these are essential building blocks for ties to be formed on Facebook.

⁷³ M Lianos and M Douglas, 'Dangerization and the end of deviance: the institutional

Environment,' (2000) British Journal of Criminology 40 make a similar point in the context of socio-technical environments.

Additionally, as a mode of government, the Privacy Settings are enacted through various practices including customising the audience for various data categories, creating Friend lists, and automatically applying the elected Facebook user settings to the data. Such enactments are not hampered by the spatial-time continuum in which all the relevant *actants* such as servers, binary codes, data and Facebook user are located. Crucially, it is the assemblage of legal, social and technological elements which contributes to the effect of Privacy Settings as a mode of government rather than merely one element (e.g. binary code) being responsible for this effect. Additionally, combining the operations of the Privacy Settings with the Block Button⁷⁴ ensures that the Facebook user can limit the audience to which a specific data category is visible and can actively block specific Facebook users from viewing his/her account at all. Certain factors can impede the effect of the Privacy Settings as a 'mode of government' such as the Facebook user's lack of technological proficiency about how to tailor his/her Privacy Settings, the Facebook user's unawareness that s/he has to update his/her Privacy Settings due to changes to the website,⁷⁵ and the constant changes to the design and content of the Privacy Settings.⁷⁶

I now leave the Privacy Settings aside and explore what we can learn about the power effects generated from the local connections which form and perform another aspect of Facebook's data network, namely, advertisements.

⁷⁴ This is the button a Facebook user can use to block another Facebook user.

⁷⁵ Ibid. For more on the issues caused by the constant changes to Facebook's policies and technologies including the Privacy Settings see Elizabeth Butler, Elizabeth McCann and James Thomas, 'Privacy setting awareness on Facebook and its effect on user-posted content,' (2011) 14(1) Human Communication 39.

⁷⁶ Facebook often alters the Privacy Settings. See 'Facebook Changes Privacy Settings For Teens,' (Sky News 17 October 2013) <<http://news.sky.com/story/1155866/facebook-changes-privacy-settings-for-teens>> accessed 17 October 2013.

7.5 The 'Basic Deal' or the Art of Advertising

In this section, I utilise the relational understanding of Facebook advertising, developed in Chapter Six, to explore two power effects of Advertisements, namely, 'dataveillance' and the commodification of the data of the Facebook user. This analysis supports one of the overall arguments of this chapter that different local 'fitting together' of heterogeneous elements generates different power effects.

7.5.1 While You Were Sleeping, You Have Been 'Profiled'

In this section, I analyse how the power effect of 'dataveillance' is generated when heterogeneous *actants* are locally, contingently, and precariously 'fitted together' to form and perform advertisements. 'Dataveillance' refers to the 'systematic monitoring of people's actions or communications through the application of information technology.'⁷⁷

Both mass and personal 'dataveillance' are generated by advertisements.⁷⁸ By 'mass dataveillance,' I refer to the surveillance of large groups of Facebook users to sort them according to specific criteria such as demographic, location, interests and marital status. 'Personal surveillance' relates to the surveillance of an identified Facebook user in the public interest by law enforcement organisations such as the police.⁷⁹ Arguably, mass 'dataveillance' is the more dominant form of surveillance which occurs on Facebook. I focus mainly on 'mass dataveillance' in this section due to its relevance to the infringement of Facebook users' data protection rights and the arguably less objectionable nature of 'personal dataveillance' for public interest

⁷⁷ See Roger A Clarke, 'Information Technology and Dataveillance,' (1998) 31(5) Communications of the ACM 498 for a rational expose on 'dataveillance.' See C Ackroyd, K Margolis, J Rosenhead, T Shallice, *The Technology of Political Control* (Penguin Books New York 1977); D Burnham, *The Rise of the Computer State* (Random House/Weidenfeld and Nicolson 1983) for a more Orwellian take on the subject.

⁷⁸ Clarke, *ibid*, 499.

⁷⁹ E.g. M Weiss, 'High-Tech NYPD Unit Tracks Criminals Through Facebook and Instagram Photos,' (DNAinfo New York, 25 March 2013) < <http://www.dnainfo.com/new-york/20130325/new-york-city/high-tech-nypd-unit-tracks-criminals-through-facebook-instagram-photos#ixzz2OwnQRgPs>> accessed 8 June 2013; T Roufar, 'Discover How Police Are Using Social Media to Solve Crimes and Build Trust,' (About.com) < http://criminologycareers.about.com/od/Career_Trends/a/Social-Networking-And-Law-Enforcement.htm> accessed 8 June 2013; n 23, 97ff where the law enforcers' use of Facebook is detailed.

reasons such as national security.⁸⁰ 'Mass dataveillance' in Facebook is supported by a series of specific, local and often fragile relations between heterogeneous *actants* such as a text file (e.g. Facebook cookie used to track Facebook user's activity online whether they are logged in or not),⁸¹ pixel tags (small blocks of binary codes on a webpage allowing a website to read or place a cookie),⁸² images (used in advertisements), Facebook users' data (e.g. geo-location data), and advertising reports (e.g. performance report⁸³). Through these relations, a systematic surveillance of various actions and interactions of Facebook users such as Likes,⁸⁴ Status Updates,⁸⁵ and Tags⁸⁶ are carefully and continuously carried out. Such actions and interactions are acted upon through four techniques, namely, processing, aggregating, anonymisation, and filtering as detailed in section 7.5.2.

Contrary to popular belief, the 'mass dataveillance' is not insidious or veiled. It is at the very heart of Facebook's business model, highly visible to Facebook

⁸⁰ Recent news reports have highlighted that personal surveillance in Facebook is taking place in a larger proportions than initially thought. Owen Bennett, 'Surveillance State UK: Watchdog's warning over police use of Facebook,' (Express 27 August 2013) <<http://www.express.co.uk/news/uk/425010/Surveillance-State-UK-Watchdog-s-warning-over-police-use-of-Facebook>> accessed 27 August 2013. This raises interesting questions about the personal surveillance in Facebook which are not explored in this chapter.

⁸¹ E.g. 'How does Facebook use cookies?' (Facebook, Help Centre) <<https://www.facebook.com/help/115180708570932/>> accessed 8 July 2013.

⁸² 'What are pixel tags ("pixels")? How does Facebook use them?' (Facebook Help Centre) <<https://www.facebook.com/help/236257763148568>> accessed 8 July 2013.

⁸³ This is report produced by Facebook to inform advertisers about the performance of their advertising campaigns on Facebook. Advertisers can obtain various information about their advertising campaigns including the number of times the Advertisement was shown with social context (i.e. with information about a viewer's friend(s) who connected with the Advertiser's Page, Event, or App). See 'In the old reports, what do the terms in my exported Advertising Performance report mean?' (Facebook Help Centre) <<https://www.facebook.com/help/213861005301603/>> accessed 8 July 2012.

⁸⁴ This refers to the action of clicking on the 'Like' button to give positive feedback and connect with products and/or services of interest to the Facebook user. <<https://www.facebook.com/help/?page=252088531486652>> (Facebook Glossary) accessed 26 September 2012.

⁸⁵ This refers to the action of a Facebook user who posts an update on his/her Wall.

⁸⁶ This refers to the tags suggested by Tagging when a Facebook user upload a photo containing other users.

users at the time of signing up through the Governing Contracts⁸⁷ and highly evident to the Facebook user who constantly sees advertisements about goods or services which they have either previously searched for online or talked about to their Friends on Facebook. What is perhaps veiled is the actual way in which such 'mass dataveillance' occurs. So how much of the Facebook user is visible on Facebook? Quite surprisingly, a lot of the 'mass dataveillance' can be partial as only specific Facebook user data such as demographic and geo-location data is extracted. However, the vision of the technologies underlying Advertisements such as Facebook Cookie, 'Ad Manager'⁸⁸ and 'Power Editor'⁸⁹ is far wider than the vision of the technologies supporting Content ID in YouTube because they extract a wider variety of data such as interests, Likes and Tags. Arguably, a Facebook user who is concerned about revealing too much on Facebook can easily refrain from providing non-mandatory information such as interests, marital status, and can also refrain from Liking brand Pages such as Coca Cola. However, in their daily Facebook interactions, it is quite easy for Facebook users to forget that the gaze of the watcher is automatically and invisibly encoded within each fibre of Facebook's data network.⁹⁰ Additionally, the constant technological innovations which provide new ways for Facebook users to share more private information also contribute to a

⁸⁷ n 3.

⁸⁸ Advertisers can manage their Advertisements and track how their campaigns are performing through the Ad Manager. 'General Questions,' (Facebook Help Centre) < <https://www.facebook.com/help/415745401805534/>> accessed 8 July 2013.

⁸⁹ 'Power Editor' is a tool which '...improves [A]dvertisers' efficiency in creating, editing and managing a large number of campaigns and ads.' 'Managing Ads with Power Editor,' (Facebook Help Centre) < <https://www.facebook.com/help/www/332626706817162?rdhrc>> accessed 8 July 2013.

⁹⁰ Various reasons can account for why Facebook users share their personal data on Facebook despite their privacy concerns such as misconceptions about which Facebook users can see their personal data. For more see, Alessandro Acquisti and Ralph Gross, 'Imagined communities: Awareness, information sharing, and privacy on the Facebook,' (*Privacy enhancing technologies* Springer Berlin Heidelberg 2006).

reality where the Facebook user forgets that s/he is being watched and succumbs to the 'norm' of sharing every single second of one's life on Facebook.⁹¹

Furthermore, the vision of the technologies underlying Advertisements depends on local relations such as the Facebook user's consent to data collection (by clicking on the Sign-Up Button at registration), binary codes, text files, Facebook user's computer, and communications between servers. The scope of the generated vision changes as new *actants* join the associative chain. For example, Facebook's recent partnership with Datalogix means that a richer Facebook user profile can be created by bundling the anonymised data traditionally collected about the Facebook user by Facebook with the anonymised data collected by Datalogix when Facebook users use their loyalty cards to assess whether a Facebook user has brought a specific product after seeing an advertisement about the product on Facebook.⁹² Here, a more comprehensive vision of the Facebook user as consumer is generated by mashing up two different data sources. However, such data interchange is quite common between companies for marketing purposes as they seek to increase the reach of the advertising campaigns by fine-tuning the profile of their audience.⁹³ A lone wolf might argue that as long as certain safeguards are in place such as Facebook user consent and data anonymisation, such surveillance is not really constricting or objectionable. In response, I would contend that when existing data trails are combined to generate new data trails, certain impacts may be generated such as influencing certain behaviour by Facebook users (e.g. purchase decisions) as a population. Factors such as Facebook users opting out of such data sharing schemes⁹⁴ or Supervisory Authorities objecting to certain practices relating to

⁹¹ An analysis of Facebook users comments collected on the 26th January 2012 showed that Facebook users find it hard to keep up with the constant technological innovations and the concurrent changes to the Privacy Settings and the default settings brought by such innovations. 'Facebook's Privacy Policy,' (Facebook Site Governance 26 August 2011) <<https://www.facebook.com/fbsitegovernance/posts/10150292934144323>> accessed 26 January 2012.

⁹² n 99.

⁹³ E.g. see Roger Clarke, 'While you were sleeping...Surveillance Technologies Arrived' (2001) 73(1) Aq-East Melbourne 10.

⁹⁴ Facebook users can opt out of Datalogix by clicking the opt-out cookie situated on the Datalogix website. <<https://www.datalogix.com/privacy/rel-opt-out-confirmation/>> accessed 8 July 2013.

advertising may hamper the generated vision about the Facebook user. However, in Facebook's data network such factors impact less on the obduracy of the generated vision as new technologies are constantly developed to further refine ways in which Facebook user data can be collected and Facebook users can be profiled and targeted.⁹⁵ For instance, at the time of writing, Facebook launched 'Reach Generator'⁹⁶ to increase the reach and efficiency of advertisements. However, within seven months of its launch, 'Reach Generator' was replaced by 'Promoted Posts' which enable advertisers, with a Page, to increase the reach of their Posts without using the 'Ad Manager'.⁹⁷ Having analysed one of the power effects of advertisements, namely, 'dataveillance', I now explore its second power effect, namely, the commodification of the Facebook user's data.

7.5.2 Commodification of the Facebook User's Data

In this section, I analyse the second power effect of advertisements, namely the 'commodification' Facebook user data in Facebook's data network. This supports one of the overall arguments of this chapter that local connections of specific heterogeneous *actants* can generate more than one power effect.

Raw Facebook user data (e.g. London location) which has not been manipulated in specific ways has little commercial value to advertisers. However, bundled Facebook user data (e.g. 20 year old man living in London who likes musicals) turns a potentially mundane piece of Facebook user information into a very valuable marketing tool. Facebook users participate a lot in the gathering of information about the products and services they like by actively clicking on advertisements, Sponsored Stories,⁹⁸ Liking Brand Pages and talking about specific

⁹⁵ See the 'Reach Generator' and 'Optimized CPM bidding' which were at the beta phase at the time this chapter was written.

⁹⁶ Brittany Darwell, 'Facebook ends Reach Generator program in favor of Promoted Posts product' (Inside Facebook 13 September 2012) <<http://www.insidefacebook.com/2012/09/13/facebook-ends-reach-generator-program-in-favor-of-promoted-posts-product/>> accessed 13 September 2012.

⁹⁷ Ibid.

⁹⁸ E.g. The Irish Data Protection Commissioner objected to Facebook's practice of retaining the Facebook user's data relating to the Facebook user's interaction with a specific Advertisement. For more see, Charles Arthur, 'Facebook told to stop indefinitely holding Facebook users' advertising data,' (The Guardian, 21 December 2011)

products or services with their Friends. Relatedly, 'participatory surveillance' also takes place as Facebook users keep track of their Friends' recent purchases, Likes and interests with the effects of Facebook users monitoring other Facebook users' behaviour. Arguably such 'participatory surveillance' can also have normalising effects as certain patterns of behaviour (e.g. purchasing the latest tablet) come to be viewed as 'normalised.' So what techniques are used to manipulate raw Facebook user data into 'bundled' Facebook user data?

Through the processing technique, a wide range of raw Facebook user data such as age and education is automatically extracted from various nodes of the network. The Facebook user data is then aggregated and anonymised to generate an anonymised dataset that joins the existing Facebook dataset. Certain filters are then applied by the advertisers such as location and age to determine its target audience for a specific advertising campaign. These techniques enable Facebook user data to be governed at a distance irrespective of where the various *actants* such as the Facebook user's computer, Facebook's servers, geo-location data are located. Such techniques transform raw Facebook user data into a form where the Facebook user becomes 'calculable' as his/her interests, brand preferences, educational background and age are all associated to generate a new form of knowledge of the Facebook user as a consumer. In this sense, advertising in Facebook is very much like advertising through other media such as television, bill board posters and icons, in the sense that it constitutes the individual as consumer-subjects in acts of consumption.⁹⁹ As is the case in other types of advertisements, advertisements employ narrative as well as image-based modes of signification.¹⁰⁰ For reasons of scope, I will not delve into the implications of these two modes of signification nor analyse how these modes of signification have evolved in

<<http://www.guardian.co.uk/technology/2011/dec/21/facebook-advertising-data>> accessed 8 June 2012.

⁹⁹ E.g. see Ali Yakhlef, 'Mapping the consumer-subject in advertising,' (1999) 3(2) *Consumption, Markets and Culture* 129.

¹⁰⁰ Scott Lash, *The Sociology of Postmodernism* (London Routledge 1990).

Facebook.¹⁰¹ The aim of advertising on Facebook is not so much to make Facebook users aware of the latest 'belly-busting exercise' or where the Facebook user can buy the latest fashion for under £20 but rather to provide Facebook users, as a population, with various forms of selfhoods and social roles. The act of consuming a specific product such as the latest model of a 'Galaxy Samsung' mobile phone, either by 'Liking' it (and the 'like' action appearing as a Sponsored Story to the Facebook user's Friend) or clicking on the advertisement itself has implications on various aspect Facebook users, as a population, such as the status and spending power of Facebook users.

Having analysed two power effects generated by the local connections which form and perform Advertisements, I now explore the power effects generated when other heterogeneous *actants* are locally, contingently and precariously 'fitted together' to form and perform another aspect of Facebook's data network, namely, Tagging.

7.6 'Who Art Thou?': the Implications of Tagging

In this section, I analyse three power effects, namely, eroding certain 'problematisations,' another type of social control and 'algorithmic surveillance' which are generated when heterogeneous elements such as Facebook user, Data Use Policy, Opt-In box,¹⁰² algorithm and Photo are locally 'fitted together' to construct Tagging in Facebook's data network. This supports three overall arguments of this chapter that (1) local connections between specific heterogeneous *actants* can generate more than one power effect, (2) Facebook's data network is dynamic in the sense that certain 'problematisations' can be eroded as new *actants* join specific connections, and (3) 'spatialities' play key roles in maintaining certain power effects such as surveillance in Facebook's data network.

7.6.1 There Goes Your Right to Data Protection...

Occasionally in Facebook's data network, the local fitting together of the heterogeneous *actants* constructing Tagging can generate one specific power effect,

¹⁰¹ n 104.

¹⁰² This is the box which the Facebook user clicks on to opt in Tagging.

namely, eroding some solutions proposed by key *actants* such as legal elements and Facebook's Public Policy Team during 'problematisation.' As analysed in Chapter Six, *actants* such as EU Data Protection Laws¹⁰³ and Facebook's Public Policy Team¹⁰⁴ define the 'problematic field' in multiple ways. For instance, Facebook's Public Policy Team defines the 'problematic field' in terms of providing Facebook users with a free and lawful platform with which they can connect with others Facebook users.¹⁰⁵

However, such definitions of the 'problematic field' in Facebook's data network by key *actants* can often be thrown off kilter as other *actants* such as Facebook's Engineering Team also contribute to the 'problematic field' by pursuing their own interests. Consequently, Facebook's Engineering Team can at times offer technologies such as Tagging as solutions to the problem of how to provide Facebook users with lawful¹⁰⁶ and new technological ways to connect and share their personal information with each other.¹⁰⁷ At times, Facebook's Engineering Team may focus more on providing Facebook users with new ways to interact with one another rather than focussing on providing them with new *and lawful* ways of interacting with one another. For instance, at its launch, Tagging was constructed as a technology which Facebook users could opt-out of.¹⁰⁸ Consequently, in breach of EU Data Protection Laws, Facebook users were by default opted in the collection of biometric data by Facebook without 'consenting' to such collection. This had the effect of eroding the 'problematic field' as defined by key *actants* such as EU Data Protection Laws.

Interestingly, the network does not remain static when such erosion takes place. On the contrary, at particular times in the network, certain *actants* like the

¹⁰³ Section 3, Chapter Six.

¹⁰⁴ Section 4, Chapter Six.

¹⁰⁵ *Ibid.*

¹⁰⁶ Technologies which do not violate EU Data Protection Laws.

¹⁰⁷ n108.

¹⁰⁸ Mark Milian, 'Facebook lets Facebook users opt out of facial recognition,' (CNN, 9 June 2011) < <http://edition.cnn.com/2011/TECH/social.media/06/07/facebook.facial.recognition/> > accessed 11 July 2012.

Hamburg Data Protection Commissioner succeed in speaking on behalf of a collective, here, all EU Supervisory Authorities, to counter-enrol Facebook in altering some of the features of Tagging.¹⁰⁹ This counter-enrolment is carefully constructed as a considered response to the erosion of EU Data Protection Laws by Facebook. Value-laden phrases such as ‘photographic databases of faces’ and ‘grave implications for privacy’ are used to pressurise *actants* such as Facebook and the Irish Data Protection Commissioner to review their positions.¹¹⁰ For instance, both Facebook and the Irish Data Protection Commissioner maintained that Tagging was in compliance with EU Data Protection Laws despite Tagging’s default Opt-in setting. In this instance, the Hamburg Data Protection Commissioner successfully lobbied the Irish Data Protection Commissioner to change its view on the compliance of Tagging with EU Data Protection Laws.¹¹¹ In turn, the Irish Data Protection Commissioner successfully enrolled Facebook Ireland to change certain features of Tagging so that new Facebook users have to explicitly consent to the practice.¹¹² Additionally, the Irish Data Protection Commissioner successfully enrolled Facebook Ireland to provide current Facebook users with more technical measures to manage Tagging such as notifying Facebook users of Tags and providing Facebook users with the ability to remove a Tag.¹¹³ This highlights that the relation (and its effect)

¹⁰⁹ Adi Robertson, ‘Facebook deletes European facial recognition data, satisfying German privacy agency,’ (The Verge, 7 February 2013) < <http://www.theverge.com/2013/2/7/3964550/facebook-deletes-european-facial-recognition-data>> accessed 8 February 2013.

¹¹⁰ Interview of Johannes Caspar, the Hamburg Data Protection Commissioner as reported in Kevin O’Brien, ‘Germans Reopen Investigation on Facebook Privacy,’ (The New York Times, 15 August 2012) < http://www.nytimes.com/2012/08/16/technology/germans-reopen-facebook-privacy-inquiry.html?_r=0> accessed 15 August 2012.

¹¹¹ *Ibid.*

¹¹² Stephanie Bodini, ‘Facebook Agrees to Delete EU Facial-Recognition Data’ (Bloomberg News, 21 September 2012) <<http://www.businessweek.com/news/2012-09-21/facebook-agrees-to-delete-facial-recognition-data-across-eu>> accessed 21 September 2012.

¹¹³ Facebook Ireland Ltd, Report of Re-audit by the Irish Data Protection Commissioner (21 September 2012) < http://dataprotection.ie/docs/Facebook_Audit_Review_Report/1232.htm> accessed 22 September 2012, 46ff.

between legal, social and technological elements in Facebook is not immutably set in stone. Rather the relation (and its effect) is a dynamic one which is contingent on its constituting legal, social and technological elements.

Having analysed the first power effect of Tagging, I now analyse two other power effects of Tagging, namely, another type of social control and 'algorithmic surveillance.' This analysis is limited to the power effects of the new (at the time of writing this chapter)¹¹⁴ default 'Opt-Out' system of Tagging. I do not consider the power effects of the old 'Opt-In' system.

7.6.2 Differential Mobility and Inclusionary Politics

Social control may not always be the intended effect of Tagging. Instead Tagging (and its underlying connections) gives rise to control albeit in an unintended way over how facial recognition data is processed and categorised. From this perspective, Tagging is not a form of deliberate oppression but rather a manifestation of an institutional concern with smooth flow of Facebook user data and aiding certain Facebook user interactions to enable Facebook as a community to function effectively.¹¹⁵ This gives rise to a new form of 'institutional sociality' which becomes governed by automatic rules concerning flow of facial recognition data such as calculating unique identifiers based on the Facebook user's features. Such a system is inclusionary in nature as it is operationalised by a quasi-automatic mode of ordering, enacted firstly by the Facebook user's election of the Privacy Settings for Tagging and subsequently by a series of seemingly mundane and automatic rules on managing and ordering facial recognition data such as automatic review of uploaded Photo. Facebook's literature on Tagging and its default Privacy Settings' preset of 'Enable' for Tagging point to an inclusionary and silent (as Facebook users

¹¹⁴ At the time of completion of this thesis, Facebook elected to disable Tagging for new Facebook users and also indicated its intention to ensure that Tagging would comply with EU Data Protection Laws when it is re-introduced in Facebook. See Zoe Kleinman, 'Facebook suspends photo tag tool in Europe,' (BBC News Technology, 21 September 2012) <<http://www.bbc.co.uk/news/technology-19675172>> accessed 17 July 2013.

¹¹⁵ This point has been made elsewhere in a different context by Michaelis Lianos, 'Dangerization and the End of Deviance in The Institutional Environment,' (2000) 40(2) British Journal of Criminology 261.

do not see the underlying connections) politics in the sense of encouraging Facebook users to use Tagging. So what can we learn from an analysis of the Privacy Settings` options for Tagging?

By either enabling or disabling Tagging, Facebook users are creating boundaries through which facial recognition data can pass or not. Here power is imbued in 'spatialities' and 'spatialities' are imbued with power, a point also made in section 7.4. Facial recognition data traverses (or not) specific spatial dimensions through a complex series of automatic processing, calculation and matching. As noted in section 7.4, successful boundaries (in the sense of enabling surveillance through spatial demarcations) are highly flexible and enable various *actants* such as identifiers, Facebook user`s facial characteristics (as defined in chapter Six) to move in and out of the spatial dimensions in variable ways. This results in a subtle 'algorithmic surveillance'¹¹⁶ where the identity of a Facebook user is suggested when another Facebook user uploads a Photo of that Facebook user. 'Algorithmic surveillance' uses automatic step-by-step instructions.¹¹⁷ No Facebook user action is specifically required once a Photo is uploaded as Tagging runs seamlessly in the background, processing the uploaded Photo, identifying facial characteristics and calculating unique identifiers. It is a 'silent'¹¹⁸ form of surveillance which operates in the background once a Facebook user uploads a Photo. Apart from its embeddedness in Facebook`s data network, it requires minimum Facebook user participation and is obscure as it is enacted through various local interactions between various *actants*. Some of these *actants* such as algorithms are highly sophisticated, can only be understood by a handful of experts such as software engineers as they are based on complex statistical methods, are not easily

¹¹⁶ Lucas Introna, and David Wood, 'Picturing algorithmic surveillance: The politics of facial recognition systems,' (2002) 2(2-3) *Surveillance & Society* 177.

¹¹⁷ C Norris and G Armstrong, *The Maximum Surveillance Society, The Rise of CCTV* (Oxford Berg 1999) as cited in n 115.

¹¹⁸ Lucas Introna, 'Oppression, Resistance and Information Technology: Some Thoughts on Design and Values,' (Design for Values: Ethical, Social and Political Dimensions of Information Technology workshop, Princeton University, USA, 27 February - 1 March, 1998) as cited in n 115.

accessible, are impossible to inspect in operation as they are executed through various layers such as silicon chips and programme instructions.¹¹⁹

The surveillance system supported by Tagging and related technologies can, at times, emerge as a black-box in the sense that some underlying connections disappear from view and some automatic operations such as Tag Suggest gain more visibility. Thus what may appear to others as a technologically deterministic system is in fact rather a 'technological lock-in of a punctualised collective.'¹²⁰ This surveillance system is rendered even more powerful as technological operations such as calculating unique identifiers and social practices such as Facebook users tagging their Friends in a Photo interrelate with one another to perform the Tagging interaction. Arguably, the fact that the Facebook user has the final say in confirming that an automatically suggested Tag is in fact correct adds to how powerful such 'programs of actions'¹²¹ are as the room for error is further minimised due to human review. A series of routine choices made by various *actants* such as Facebook's Engineering Team, Facebook users and Friends have far reaching consequences as Facebook users become inalienably linked to their biometric data and databases of Facebook users' face images become immutably linked to identities.

Conclusion

In this chapter, I have analysed the complex power effects emanating from various 'capillaries' Facebook's data network. I have argued three key points. Firstly, I have argued that complex, multiple, and contingent power effects such as 'governmentalised' disciplines, and 'algorithmic' surveillance, are generated from the local, contingent, and precarious connections between heterogeneous humans and non-humans in Facebook's data network. Here I have analysed how specific local connections can give rise to more than one power effect. I have also analysed how

¹¹⁹ n 115.

¹²⁰ David Wood and Stephen Graham, 'Permeable Boundaries in the Software-sorted Society: Surveillance and the Differentiation of Mobility: Alternative Mobility Futures,' in Mimi Scheller and John Urry (eds) *Mobile Technologies of the City* (London Routledge 2006) 177.

¹²¹ Bruno Latour, 'Where are the Missing Masses? – The Sociology of a Few Mundane Artifacts' in W E Bijker and John Law (eds) *Shaping Technology / Building Society* (Cambridge MIT Press 1992) 205.

certain power effects sharing similar traits such as governmentality are generated by the local connections between distinct heterogeneous *actants*. I have also analysed how power effects can be contested by analysing disruptive forces such as resistance by Facebook users. Secondly, I have highlighted the importance of durable and mobile heterogeneous connections in maintaining the power effects of multiple 'orderings' such as those generated through the Governing Contracts and Facebook audits. Thirdly, I how power is intertwined with 'spatialities' and how 'spatialities' are imbued with power when analysing the power effects generated by the local, contingent, and precarious connections forming and performing specific aspects of the Facebook's data network such as Privacy Settings and Tagging. Leaving aside the tales of power in Facebook, what can we learn from my YouTube and Facebook case studies about the power effects generated in Online Social Networking Sites, when a legal value is protected and/or violated? I consider this question in the next chapter.

Chapter Eight

Online Social Networking Sites as Socio-Legal-Technological ‘Actor-Networks’: Of Legal Values and Power

Abstract

In this chapter, by extrapolating from the findings of my YouTube and Facebook case studies in Chapters Four to Seven, I argue three key points. Firstly, I argue that we can extrapolate from my findings to build a small-scale theory about how online social networking sites are locally constructed as heterogeneous, contingent, and precarious ‘actor-networks’ when a legal value is protected and/or violated. Secondly, I argue that we can build on this relational understanding of OSNS as an ‘actor-network’, to build a small-scale theory about the potentially complex, multiple, and contingent power effects generated from specific local connections. Although such power effects vary from empirical setting to empirical setting and from locality to locality, I argue that in general my ANT-Foucauldian Power Lens can shed an innovative light on how complex, multiple, and contingent power effects are generated in online social networking sites when a legal value is protected and/or violated. Thirdly, I consider the implications of my research findings for various fields such as socio-legal studies, internet regulation and actor-network theory.

*'By "modernity" I mean the ephemeral, the fugitive, the contingent...This transitory, fugitive element, whose metamorphoses are so rapid, must on no account be despised or dispensed with. By neglecting it, you cannot fail to tumble into the abyss of an abstract and indeterminate beauty, like that of the first woman before the fall of man.'*¹

Introduction

This thesis has been mainly concerned about orderings² (i.e. how *actants* are 'fitted together') and their power effects³ in Online Social Networking Sites ('OSNS') such as YouTube and Facebook when legal values such as copyright and personal data are protected and/or violated. More specifically, it is a thesis about how heterogeneous human and non-human actors are locally, contingently, and precariously 'fitted together' in YouTube ('YouTube's Copyright Network') and Facebook ('Facebook's Data Network') when copyright and personal data are protected and/or violated, and the complex, multiple and at times contingent power effects generated by such local connections. In other words, it is a thesis about 'relational materiality.'

As Baudelaire has astutely noted modernity is 'ephemeral', 'fugitive' and 'contingent.' His concern with modernity, as being 'transitory' and subject to 'rapid' 'metamorphoses' echoes ANT's and Foucault's concerns with critiquing modernity

¹ Charles Baudelaire, *The Painter of Modern Life and Other Essays* in Jonathan Mayne (ed and trans) (Phaidon Press 1995) 13.

² Note Law's argument that the word 'ordering' may be more appropriate than 'order' to describe that there is not only one specific regime of order and to highlight the precarity and incompleteness of regimes of order. John Law, *Organising Modernity* (Oxford Blackwell 1994) 1ff.

³ I adopt John Law's distinction between power and order. From this perspective, order or 'ordering' effects (n 2) are generated through 'translation.' One of the effects of order is power. John Law, 'Notes on the theory of the actor-network: ordering, strategy, and heterogeneity,' (1992) 5(4) *Systems Practice* 379.

whose basic project can arguably be entitled ‘in search of power.’ Just as modernity, power effects in modernity, are also ephemeral’, almost ‘fugitive’ in the sense that they can be ruptured when new or old *actants* join or leave a specific local connective chain. Additionally, such power effects are also ‘contingent.’ By ‘contingent’ I mean that specific power effects, such as surveillance, depend on maintaining durable and often mobile connections between the relevant *actants*. Consequently, in Chapters Four to Seven of this thesis I have shown that power effects in YouTube and Facebook are contingent and subject to change from time to time and locality to locality. How and why such changes occur in YouTube and Facebook are empirical questions which I have answered in Chapters Four to Seven.

In this chapter, I bring together my ANT-Foucauldian Power Lens, developed in Chapter Three, and the findings of my YouTube and Facebook case studies, set out in Chapters Four to Seven, to argue three key points. By ANT-Foucauldian Power Lens, I mean a power lens where Michel Foucault’s ideas about power are used in conjunction with Actor-Network Theory (‘ANT’) ideas about power (‘ANT-Foucauldian Power Lens’). Firstly, I argue that we can extrapolate from the findings of my two case studies to build a small-scale theory about how OSNS are constructed as a socio-legal-technological ‘actor-network’ before tackling the question of power. Such an analysis sheds light on the heterogeneity, locality, contingency and precarity of the actual ‘actor-network’ under scrutiny. Once such connections have been traced, we can then analyse key interconnections between relevant *actants* in more detail to understand how such interconnections generate power effects. Consequently, and secondly, I argue that we can build on this relational understanding of OSNS as an ‘actor-network’, to build a small-scale theory about the power effects generated from specific local connections in OSNS when a legal value is protected and/or violated. Thirdly, leaving aside the tales⁴ of power recounted in this thesis, I consider the implications of my research for diverse fields including socio-legal studies, internet regulation and actor-network theory.

⁴ For avoidance of doubt, by using the term ‘tales’ I am not suggesting moving my thesis away from the idea of social science research. Rather I use the term ‘tales’ in the sense that my analyses set out in Chapters Four to Seven represent one possible narrative for YouTube’s Copyright Network and Facebook’s Data Network.

To assist me in these tasks, in section 8.1, I summarise how I have answered my research questions, which investigates the power effects generated from the local connections between heterogeneous *actants* which form and perform YouTube`s Copyright Network and Facebook`s Data Network, in this thesis. Building on this summary, in sections 8.2 and 8.3, I analyse what the tales of power in YouTube and Facebook can tell me about how power effects are generated in OSNS when a legal value is protected and/or violated. In section 8.4, I leave aside the tales of power in YouTube, Facebook and OSNS and analyse the potential relevance of the methods and ANT-Foucauldian Power Lens I have used in this thesis for future research in the fields of socio-legal studies, actor-network theory and internet regulation.

8.1 In Search of Power in YouTube and Facebook

In this section, I highlight the key findings of my qualitative empirical YouTube and Facebook case studies analysed in Chapters Four to Seven. Whilst summarising the findings of my YouTube and Facebook case studies in the next paragraph, (in line with ANT), I am also wary of over-simplifications. Thus, whilst I remind the reader of the key points of my case studies, I am not suggesting that the empirical tales⁵ leading to these points can and should be shortened.

In Chapters Four and Six, I have explored how YouTube and Facebook are constructed as heterogeneous ‘actor-networks’ when copyright and personal data are protected and/or violated. For avoidance of doubt, I did not assume from the outset that either network was constructed as socio-legal-technological ‘actor-network’. Rather this was an empirical finding. Here, I have argued three key points. Firstly, I have argued that YouTube`s Copyright Network and Facebook`s Data Network are constructed as socio-legal-technological ‘actor-networks’ which are formed and performed when heterogeneous *actants* such as binary codes, legal skills, programming languages and right-holders are locally, contingently, and precariously ‘fitted together’ locally in such networks. By tracing such local connections, I have exposed ‘contingencies.’ By this I mean that I have exposed how certain features of YouTube`s Copyright and Facebook`s Data Networks such as Facebook`s Privacy Settings could have been ‘otherwise.’ I have also analysed how

⁵ n 4.

specific empirical instances of local ‘fitting together’ can be ruptured from time to time by various factors such as resistance. Secondly, I have argued that ‘materialities’ such as web forms and hyperlinks play key roles in network construction by ordering relations between *actants* through time and space. Thirdly, building on my relational understandings of YouTube’s copyright and Facebook’s Data Networks, I have developed micro-sociological insights into specific legal notions such as consent and legality and legal processes such as judicial decision-making, lawsuit, and audits.

I have used these relational understandings of YouTube and Facebook to answer my primary research question of the power effects generated in YouTube’s Copyright Network and Facebook’s Data Network in Chapters Five and Seven. I have argued four key points. Firstly, I have argued that complex, multiple, and contingent power effects are generated when key social, legal, and technological *actants* are locally, contingently, and precariously ‘fitted together’ in YouTube’s Copyright and Facebook’s Data Networks. I have pursued this argument by analysing how specific local connections between heterogeneous *actants* can generate more than one power effect and how power effects sharing similar traits such as governmentality can be generated by distinct connections between distinct heterogeneous *actants*. Secondly, I have argued that mobile and durable ‘materialities’ play key roles in maintaining the power effects generated by specific local connections between heterogeneous *actants*. Aside from the links between power and ‘materialities,’ thirdly, I have examined how power is also intertwined with ‘spatialities’ and how ‘spatialities’ are imbued with power through my analysis of the Privacy Settings and Tagging in Facebook’s Data Networks. Finally, I have used my relational understandings of YouTube’s Copyright Network and Facebook’s Data Network to generate a more comprehensive view of the power effects of specific legal elements. For example, in Chapter Five, I have explored how specific territorial laws gain their authority not by virtue of their links to a physical border but rather by virtue of the durability of their connection with YouTube’s Copyright Network.

A sceptical reader could argue that Latour would suggest that a case study which employs in part an ANT analytical lens cannot ‘...say anything positive about

any state of affairs.’⁶ I would respond by pointing out that Latour himself does generalise from his specific empirical findings⁷ to learn more about various aspects of power. I suggest that, as long as, we do not over-generalise, we can learn important lessons about how OSNS are constructed as socio-legal-technological ‘actor-network’ when a legal value is protected and/or violated. We can also understand more about the power relations generated from such local ‘fitting together.’

Next, I consider how some of the key findings of my YouTube and Facebook case studies also have analytical purchase for understanding network construction and its power effects in other OSNS when a legal value is protected and/or violated.

8.2 Understanding OSNS When a Legal Value is Protected and/or Violated

In this section, I build on similarities and differences between my YouTube and Facebook case studies, I argue that four key ideas can be used to understand an OSNS when a legal value is protected and/or violated, namely, (1) OSNS as heterogeneous, localised, contingent, and precarious ‘actor-networks,’ (2) ‘materialities’ or the art of durable and/or mobile connections, (3) bringing humans to the forefront of analysis, and (4) law as an ‘actor-network.’

Firstly, I build on the similar findings between my YouTube and Facebook case studies that YouTube’s Copyright and Facebook’s Data Networks are constructed as heterogeneous ‘actor-networks’, to argue that OSNS can be understood as a heterogeneous, local, contingent, and precarious ‘actor-networks’ when a legal value is protected and/or violated. From this view point, *a priori* assumptions, such as assumptions about the importance of macro-actants such as the State or the role of the ubiquitous ‘code’ in protecting legal values in OSNS, are abandoned. There is also no analytic distinction between humans and non-humans. The focus is rather on the various ways in which legal, technological and social actants such as binary code, programming languages and legal skills are locally, contingently, and precariously ‘fitted together’ in OSNS when a legal value is protected and/or violated. Such a perspective sheds lights on the constant

⁶ Bruno Latour, *Reassembling the Social-An Introduction to Actor-Network-Theory* (Oxford University Press 2005) 141.

⁷ E.g. Scallops

movement in the OSNS, as an 'actor-network,' which changes as new or old *actants* join or leave specific empirical local connections. My approach goes beyond accounting for complexity and unpredictability in OSNS by focussing only on the interactions between human actors (whether institutional or individual) - a key emerging trend analysed in Chapter Two. Rather, my approach accounts for complexity, unpredictability as well as locality, and contingency by focussing on the interactions between humans and non-humans and the power effects generated from such interactions in OSNS.

Additionally, my YouTube and Facebook case studies have shown that the local, contingent and precarious connections which form and perform YouTube's Copyright and Facebook's Data Networks operate differently in differently 'capillaries' of these networks. For instance, different legal, social and technological elements are 'fitted together' to construct the Terms of Use⁸ and Governing Contracts⁹ as 'obligatory points of passage' in YouTube and Facebook. Thus, heterogeneous *actants* such as the 'tick box',¹⁰ hyperlink, US Copyright Laws,¹¹ and legal skills such as drafting skills are fitted together to form and perform the Terms of Use in YouTube. Conversely, other heterogeneous elements such as the Sign Up

⁸ The 'Terms of Use' refer to various contracts which exist between YouTube and YouTube users and right-holders such as the Terms of Service <<http://www.youtube.com/t/terms>> accessed 5 May 2010.

⁹ The Governing Contracts refer to the series of legally binding contracts entered by Facebook and other contracting parties such as Facebook user, third-party advertisers and third-party developers such as Statement of Rights and Responsibilities –Facebook (<<https://www.facebook.com/legal/terms>>) accessed 8 October 2013.

¹⁰ The tick-box refers to the box which YouTube users have to tick when signing up to YouTube to evidence their acceptance of the Terms of Use.

¹¹ US Copyright Laws refer to US copyright legislation and case law ('US Copyright Laws') such as the Copyright Act 1976 and *Viacom Int'l v. YouTube*, No. 07-CV-02103 (S.D.N.Y. Mar. 13, 2007).

button,¹² EU Data Protection Laws,¹³ Facebook`s content management servers and legal skills such as legal interpretation are locally ‘fitted together’ to form and perform the Governing Contracts in Facebook.

Furthermore, my YouTube and Facebook case studies have shown that specific local connections can be ruptured by specific empirical instances of resistance. Such instances of resistance are formed and performed through distinct local connections which vary from setting to setting and from locality to locality. For example, as analysed in Chapter Four, YouTube users resist YouTube by using the ‘fair use’ defence in a counter-notification¹⁴ to defend a legitimate takedown notice.¹⁵ Here, the resistance practice is generated when different legal (e.g. fair use defence), social (practice of giving advice to other YouTube users via a video) and technological elements (clicking on the ‘Submit’ button to file a counter-notification) are locally ‘fitted together.’ However, as analysed in Chapter Six, Facebook users employ other techniques of resistance in Facebook such as using Adblocker to block Facebook advertisements. Here the resistance practice is generated when other heterogeneous elements such as social (e.g. advice from one Facebook user to another on how to block advertisements), and technological (e.g. installing AdBlocker) elements are ‘fitted together.’ Moreover, an analysis of resistance in my two case studies shows that there can be more empirical evidence of practices of

¹² The ‘Sign-Up’ button is the button which the User has to click when signing up to Facebook for the first time.

¹³ EU Data Protection Laws refer to the binding sources of data protection laws from the European Union such as directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data (‘EU Data Protection Laws’).

¹⁴ The counter-notification refers to the notice filed by a YouTube user who wishes to dispute a takedown notice in specific cases such as when his/her use of the content in question amounts to ‘fair use’.

¹⁵ The takedown notice refers to the notice which a right-holder can file to request YouTube to takedown a Video which allegedly contains copyright content which belongs to the right-holder in question.

resistance and / or more *actants* resisting joining specific connections in one OSNS rather than another. For example, there is more evidence of resistance practices and more *actants* who resist other *actants* in my YouTube case study than in my Facebook case study.¹⁶

Secondly, when tracing which local connections and/disconnections form and perform an OSNS as an 'actor-network' when a legal value is protected and/or violated, we also need to account for the roles of 'materialities,' such as text and staples, in lending obduracy and mobility to heterogeneous connections. Some 'materialities' are more durable than others and maintain relational patterns for longer. Accounting for 'orderings' over time (durable) and space (mobile) in OSNS are empirical investigations into what relations are embodied in which type of materials. Interesting effects of order such as how 'the tyranny of distance' is overcome in the OSNS, when a legal value is protected and/or violated, become questions about how specific relations are embodied in mobile 'materialities' so that the 'orderings' embodied in such materially heterogeneous relations can be exercised in disparate 'capillaries' of the OSNS under scrutiny. However, the effects of such materialities change if such 'materialities' are used to connect other *actants*. It is in this sense that the OSNS under scrutiny is a contingent 'actor-world'. Additionally, when tracing the roles of materialities in ordering relations between *actants* over time and space in the OSNS in question, we should not ignore sources of resistance in the OSNS which may from time to time disrupt specific 'orderings'. In other words, the precarity of the connections between relevant heterogeneous *actants* should be empirically accounted for as much as possible.

Thirdly, whilst understanding empirically the roles of humans and non-humans in forming and performing the OSNS, as an 'actor-network' when a legal

¹⁶ E.g. Analysis of over one hundred Facebook user comments on 'Adblock for Chrome and Safari' (Facebook Page) < <https://www.facebook.com/heres.adblock> > accessed February 2012 where Facebook users state they use such technologies to block Advertisements; analysis of over eighty Facebook user comments on 'Adblock Plus,' (Facebook Page) < <https://www.facebook.com/adblockplus> > accessed February 2012 compared to analysis of data collected in week 4 of the virtual ethnography such as mglittlerobin, 'How to Dispute YouTube Content ID over Wrongful WMG Claim to your Video, (17 February 2009) < <http://www.youtube.com/watch?v=PXGaWPFGZpE&feature=related> >; < [http://www.youtube.com/results?search_query=audacity+copyright\]&aq=f](http://www.youtube.com/results?search_query=audacity+copyright]&aq=f) >.

value is protected and/violated, I suggest that we should ensure that we do not relocate the roles of humans in network construction to the background of analysis. In order to understand how connections are made or unmade in the OSNS, it is crucial to understand how humans contribute to the formation and maintenance of such connections through heterogeneous practices. For example, we could investigate the psychological element which drives certain human practices such as the practice of the users of blogging platforms to comply with or violate the private rules of such platforms.¹⁷ Additionally, we could explore how OSNS users exercise their ethical conducts, or attitudes towards specific rules, in specific OSNS through certain behaviours. This is an empirical matter which varies from empirical setting to empirical setting. For instance, in YouTube, users exercise their ethics by using third-party technologies such as Audacity to alter the digital fingerprint of an audio-visual content so that it cannot be detected by Content ID as containing copyrighted content. In Facebook, users exercise their ethics through other behaviours. For example, many Facebook users resist advertisements by using tools such as Audacity to block advertisements. From this perspective, humans are definitely not conceptualised as Lessig's 'pathetic dots'. They are rather conceptualised as a complex assemblage of social (e.g. how does the user respond to a specific aspect of the OSNS), legal (e.g. specific copyright laws) and technological (e.g. third-party technologies) elements in the OSNS in question.

Fourthly, my YouTube and Facebook case studies have shed light on how law can be conceptualised as an 'actor-network' in OSNS when a legal value is protected and/violated. As explored in Chapter Two, key scholars in internet regulation adopt a narrow conception of law either as 'commands backed by sanction'¹⁸ or as referring only to legislation, judge-made laws and common law. Such views of law can still be detected in more recent writings from scholars in

¹⁷ E.g. The death threats received by Kathy Sierra on her blog entitled 'Creating Passionate Users' from other bloggers. Such death threats were in contravention with the private agreement existing between Typepad (which hosts her blog) and the individuals using Typepad. See 'Blog death threats spark debate' (BBC News 27 March 2007) <<http://news.bbc.co.uk/1/hi/6499095.stm>> accessed 8 August 2013.

¹⁸ Chapter Two.

internet regulation who view law as a ‘socially mediated modality’¹⁹ where a ‘networked community (or matrix) of dots’, representing humans with ‘...share[d] ideas, beliefs, ideals and opinions’ interact with law and other regulatory modalities.²⁰ As analysed in Chapter Two, such views of law are narrow as law is understood solely in terms of legislation, judge-made laws and common laws. Additionally, such views of law do not account for how individual ‘dots’ come together to form a ‘networked community...of dots’. In other words how do communities of multiple regulatees (conceived as the ‘dot’) emerge?

My YouTube and Facebook case studies have provided an alternative way to conceptualise law as an ‘actor-network’ composed of heterogeneous human and non-human actors which associate with one another to form and perform the network in question when a legal value is protected and/violated.²¹ From this perspective, law is viewed in broader terms than merely legislation or judge-made law. Rather it is a local, heterogeneous, contingent and, at times, precarious ‘actor-network’ which is formed and performed when heterogeneous *actants* such as staples, court rooms, OSNS user, legal skills, judicial skills, and legislation are ‘fitted together’ when a legal value is protected and/violated. Here, I am arguing that the *actants* which are fitted together to form and perform a specific network of law when a legal value is protected and/violated in an OSNS are not permanently fixed in a specific empirical connection.

My YouTube and Facebook case studies have shown that my conceptualisation of law sheds further light on legal notions such as legality and

¹⁹ Andrew Murray, *The Regulation of Cyberspace: Control in an Online Environment*, (Routledge-Cavendish 2006) 233.

²⁰ Andrew D Murray, ‘Nodes and Gravity in Virtual Space,’ (2011) 5(2) *Legisprudence* 5 195.

²¹ Certain authors such as Valverde (2005), Lange (2006), Cloatre (2008) and Scheffer (2004) have recently started to explore the analytic overtures offered by ANT to the study of law. See M Valverde, ‘*Authorizing the Production of Urban Moral Order: Appellate Courts and Their Knowledge Games*,’ (2005) 39(2) *Law & Society Review*, 419 for the use of an ANT perspective to shed light on the dynamics of knowledge processes in appellate courts. See T Scheffer, ‘*Materialities of Legal Proceedings*,’ (2004) 17(4) *International Journal for the Semiotics of Law*, 356 on the materialities of legal proceedings. See B Lange, ‘*Social Dynamics of Regulatory Interactions: An Exploration of Three Sociological Perspectives*,’ in M. Freedman (ed.), *Law and Sociology* (Oxford University Press, 2006) 141. Also see E Cloatre, ‘*Trips and Pharmaceutical Patents in Djibouti: an ANT Analysis of Socio-Legal Objects*,’ (2008) 17 (2) *Social Legal Studies* 263.

consent and legal processes such as judicial decision-making, lawsuit, and audits. For example, certain similarities between my two case studies relating to the construction of legality support the view that legality is not static or ascribed in OSNS when a legal value is protected and/violated. As I analysed in Chapter Six, in Facebook the legality of the processing of the Facebook user's personal data by third-party applications depends on obtaining informed and specific Facebook user's consent. This, in turn, relies on maintaining durable connections between *actants* such as data use policy, Facebook user, third-party application, and drop-down box. If an obstacle, such as the granularity between the tools which can be used to tailor a Facebook user's Privacy Settings for third-party applications, disconnects this specific connective chain, then in this context, it would be illegal for the third-party application to process the personal data of the Facebook user as the latter would not have consented to such processing. This is an important idea which furthers the social-legal²² argument that an imagery of legality in terms of a state of compliance with reasoned, principled (i.e. embodying consistent values), and systematic doctrine is inadequate and misleading. Such an imagery of legality ignores²³ the extent to which legality is contingent, localised²⁴ and is enacted (as well as enacts) relational patterns. Contrasting the findings of my YouTube case study with those of my Facebook case study on legality, we can see that different empirical instances of 'fitting together' of heterogeneous elements generate an effect of legality. Thus in YouTube, from time to time, the legality of specific YouTube users' actions, such as uploading a video containing the audio-visual content of a right-holder, depends on the durable connection of various *actants* such as commercial licence terms governing the relationship between YouTube and commercial right-holders, YouTube users, right-holder's legal teams and YouTube's legal team. As analysed in Chapter Four, when Warner Music Group and YouTube failed to successfully negotiate the terms of a commercial licence, the specific associative chain described

²² Roger Cotterrell, *Law's Community: Legal Theory in Sociological Perspective*, (Oxford Socio-Legal Studies Clarendon Press, 1997) 277ff.

²³ By this token, I am not underestimating the value of theoretical inquiries about law which have portrayed law as being rational, principled and systematic. E.g. John Austin, *The Province of Jurisprudence Determined* (Isaiah Berlin et al eds 1954).

²⁴ n 16, 414.

before was ruptured. Consequently, Warner Music Group issued takedown notices for all videos containing its content irrespective of whether the video was uploaded when the original licence was effective.²⁵ This example shows that what is 'legal' (in the sense of an action being in conformity with formal law) is very much transient and changes when relationships between the *actants* involved in the local connective chain change. By this I mean that what is legal is changing in itself not in the sense of the norm but in the sense of an action being in conformity with the law.

What can such relational understandings of specific OSNS tell us about power relations generated in OSNS when heterogeneous *actants* are fitted together when a legal value is protected and/violated? I consider this question next.

8.3 Understanding Power in OSNS

The findings of my YouTube and Facebook case studies have raised many questions, such as about the myriad 'modes of action upon action' generated in OSNS when a legal value is protected and/or violated. How much of my findings are specific to the particular empirical contexts I have investigated? In this section, I argue that we can extrapolate from my empirical findings to build a small-scale theory about the power effects generates in OSNS when legal values are protected and or violated. I build this argument through two key points.

Firstly, building on the similarities between my Facebook and YouTube case studies about the multiplicity, complexity, and contingency of power relations, the answer to the question of power in OSNS when a legal value is protected and/violated is an empirical question which varies (1) from locality to locality and (2) from empirical setting to empirical setting. The answer, more often than not, does not lie with a single element such as the well-known 'code'²⁶ but rather lies in the local, contingent, and precarious ways in which specific legal, social, technological *actants* are 'fitted together' and the power effects of such specific connections. Specific local

²⁵ 'Music Publisher Silences Scores of Videos in Spat with YouTube,' (*Electronic Frontier Foundation*) <<http://www.eff.org/takedowns/music-publisher-silences-scores-videos-spat-youtub>>. It also did not consider whether the content fell within the ambit of the fair use exception.

²⁶ Lawrence Lessig, *Code Version 2.0* (Basic Books 2006)

connections between heterogeneous *actants* in OSNS can often generate more than one power effect. Additionally, power effects sharing similar traits such as the effect of surveillance of Tagging²⁷ and the effect of surveillance of Advertisements²⁸ in Facebook often be generated by distinct specific local connections. It is in this sense that the ‘what’ and ‘how’ of such power effects varies from locality to locality. For example, in Facebook distinct local connections generate the power effect of surveillance of Tagging and Advertisements. Additionally, Tagging’s and the Advertisements’ power effect of surveillance operate differently. Thus, Tagging’s power effect of surveillance operates through identifying and matching facial characteristics as well as calculating unique identifiers. The Advertisements’ power of surveillance operates through other means such as identifying and storing other aspects of the Facebook user’s personal data such as Likes,²⁹ Comments,³⁰ and interests.

Not only do power effects vary from locality to locality, the ‘what’ and ‘how’ of specific power effects also vary from empirical setting to empirical setting. Consequently, although similar effects of power, such as ‘governmentalised discipline’, can be found in two different OSNS such effects of power are generated and operate in distinct ways depending on the OSNS under scrutiny. For example, in YouTube, the effect of ‘governmentalised discipline’ of Content ID³¹ is generated by the local ‘fitting together’ of specific *actants* such as binary codes, user interfaces,

²⁷ Tagging refers to the ‘Tag Suggest’ feature and its underlying facial recognition software (‘Tagging’). The ‘Tag Suggest’ feature refers to a feature which enables Facebook users to tag other Facebook users in any photo uploaded to Facebook.

²⁸ Advertisements refer to third-party advertisements on Facebook.

²⁹ Facebook users can interact with their Friends in many ways including clicking the ‘Like’ button to ‘give positive feedback and connect with things [the Facebook user]...cares about’ (‘Like’). <<https://www.facebook.com/help/?page=252088531486652>> (Facebook Glossary) accessed 26 September 2012. Friend refers to other Facebook users with whom a specific Facebook user has connected.

³⁰ Facebook users can comment on the Wall post of a Friend (‘Comment’). The Wall refers to the Facebook user’s profile where his/her Friends can post and share information (‘Wall’).

³¹ Content ID is a filtering technology used by commercial right holders to manage their content (‘Content ID’). For more, see <<http://www.youtube.com/t/contentid>> accessed May 2011

YouTube user, infringing video and Content ID's library of copyright audio-visual content. Conversely, the effect of 'governmentalised discipline' of the Report Button³² in Facebook is generated by the 'fitting together' of other *actants* such as Facebook user, binary codes constructing technologies such as the Report Button, and impostor Facebook account. Moreover, there are some common themes emerging about the power effect of 'governmentalised discipline' of Content ID and the Report Button such as their insidious, invisible and semi-automatic operations. However such common themes come about in different ways in YouTube and Facebook. For example, the Report Button in Facebook operates quite distinctly by automatically compiling a report of an infringing act, automatically transmitting the report to the relevant Facebook team and manually or automatically applying the relevant sanction to the Facebook account. Content ID operates in a different manner as it automatically filters infringing videos, automatically matches infringing videos to its library of content, and automatically or manually apply the appropriate sanction to the YouTube account of the infringing user.

It is interesting to note that despite such differences, both Content ID and the Report Button are not always enough to produce YouTube and Facebook users as rational users who do not infringe copyright or personal data. In both empirical settings, the threat of coercion (e.g. blocking the account of the offending user) is important to some extent to deter YouTube and Facebook users from such actions. Whether coercion in itself is enough to compel OSNS users to protect a specific legal value, is a local and complex matter. For instance, in the context of Content ID, YouTube users have displayed a wide range of behaviours in relation to uploading, viewing infringing videos on YouTube. Some YouTube users do not upload infringing content or report other YouTube users who upload infringing content because they equate copyright infringement with theft. Other YouTube users do not upload infringing content because they want to avoid a lengthy and costly copyright lawsuit or avoid an account suspension or strike. Other YouTube users upload infringing

³² The Report Button is a hyperlink which the Facebook user can click to report identity theft ('Report Button').. See 'How do I report a Fake Account?' (Help Centre, Facebook) < <https://www.facebook.com/help/167722253287296?q=fake%20profile&sid=0FYJ3uLmltX8lOky>> accessed 8 June 2013

content as they do not care whether their YouTube accounts are suspended since they can open a new account under a different name.

Secondly, questions about power in OSNS when a legal value is protected and/violated are invariably also questions about laws and their power effects.³³ My YouTube and Facebook case studies have shown that the utility of law, understood as an 'actor-network', in protecting a legal value in OSNS cannot be reduced to simple statements such as those stating that law plays a 'marginal role' in protecting legal values in OSNS.³⁴ Rather the role of law in protecting a legal value in an OSNS is an empirical question which varies from locality to locality and from empirical setting to empirical setting. Thus, in YouTube, only one source of law, namely, US Copyright Laws,³⁵ impact on network construction. However, in other OSNS such as Facebook, various sources of law such as EU Data Protection Laws,³⁶ Canadian data protection laws³⁷ impact on network construction at different points in the network. Consequently, conclusions such as the existence of jurisdictional heterogeneity or homogeneity cannot be assumed in the OSNS in question. Rather this is an empirical finding which may change from empirical setting to empirical setting and locality to locality.

Additionally, certain legal elements such as US copyright laws, can be used in different ways by specific *actants* in an OSNS when a legal value is protected and/violated. Thus, as analysed in Chapter Four, in YouTube, certain legal elements such as the 'fair use'³⁸ provision can be used either to protect or violate copyright.

³³ Alan Hunt and Gary Wickham, *Foucault and law: Towards a sociology of law as governance* (Pluto Press 1994).

³⁴ n 20.

³⁵ US Copyright Laws refer to US copyright legislation and case law ('US Copyright Laws') such as the Copyright Act 1976; the Digital Millennium Copyright Act 1998; *Int'l v. YouTube*, No. 07-CV-02103 (S.D.N.Y. Mar. 13, 2007); and *Lenz v. Universal Music Corp.*, Case No. 5:07-cv-03783-JF (N.D. Cal., Feb. 25, 2010).

³⁶ EU Data Protection Laws refer to the binding sources of data protection laws from the European Union such as directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data ('EU Data Protection Laws').

³⁷ E.g. The Personal Information Protection and Electronic Documents Act S.C. 2000, c. 5.

³⁸ Copyright Act 1976, 17 U.S.C. § 107.

For instance, at times the ‘fair use’ provision has been lawfully used by YouTube users in a counter-notification to protect their legitimate use of copyright content. At other times, YouTube users have used the ‘fair use’ provision, even if the requirements of the provision are not met, to defend a lawful takedown notice via a counter-notification. In either case, the content in question remains automatically available on YouTube until the right-holder responds either by accepting that the use in question is within the ‘fair use’ exception or filing a lawsuit if s/he disagrees that the use in question is within the ‘fair use’ exception. In Facebook, we do not see Facebook users or other *actants* using specific legislative provisions to automatically enable an otherwise illegal action. This contrast can be explained because of the differences in the functionalities and practices of Facebook and YouTube.

Additionally, questions about whether certain requirements imposed by specific legal elements, such as relevant legislation, have been met to protect a specific legal value in ONSN are relational questions. As I have analysed in Chapter Six, in Facebook, ‘valid consent’ – one of the grounds for the lawful processing of a Facebook user’s personal data - is formed and performed by maintaining durable connections between heterogeneous legal, social, and technological elements such as the Sign Up Button, hyperlink, data use policy,³⁹ and relevant EU Data Protection Laws. What constitutes ‘valid consent’ in Facebook may evolve continuously as *new actants* are involved and bring with them their own set of relations. For instance, when the Office of the Privacy Commissioner of Canada got involved in Facebook’s Data Network, it altered specific connections in Facebook’s Data Network by bringing in new *actants* such as a ‘recommendation’ that Facebook provided its users with further explanation as to why specific registration information such as date of birth and email address are required at the time of signing up. The aim of this recommendation was to ensure that Facebook users fully understand the purposes for which such information are collected which is an important component of ‘consent’ in the EU and Canada. For avoidance of doubt, such ‘recommendations’ join specific connections in Facebook’s Data Network through a relational process involving heterogeneous elements such as the Office of Privacy Commissioner of Canada, binary codes, relevant data protection laws, and legal skills.

³⁹ Data Use Policy, <<https://www.facebook.com/about/privacy>> accessed 8 October 2013.

I now leave aside the tales⁴⁰ of power recounted in this thesis and what we can learn from such tales about power effects generated in OSNS when a legal value is protected and/violated. I consider next the wider contributions which my thesis makes to three distinct fields namely, socio-legal research, internet regulation, and actor-network theory.

8.4 Reflecting on ANT and Foucault in Empirical Socio-Legal Research

This research contributes to socio-legal research in three ways.⁴¹ Firstly, in line with emerging trends, it explores the utility of actor-network theory to socio-legal studies.⁴² Building on such works, my research explores how my ANT-Foucauldian Power Lens can shed light on our understanding of law and its power effects. From this perspective, law is conceptualised as an actor-network composed of heterogeneous human and non-human actors which associate with one another to form and perform the network.⁴³ Such a perspective emphasises that the network of law is constructed from the localised assemblage of humans and non-humans such as judges, lawyers, legal skills, judicial skills, legislation, and case law. Secondly, the relations between such humans and non-humans are embodied in material conditions such as legal files and statements of case which enable the 'tyranny of distance to be overcome' by bringing disparate *actants* within the same time-space continuum. As I have explored in my relational analysis of the *Viacom* lawsuit in Chapter Four, the complaint filed by Viacom was an assemblage which brought together the alleged uploading of more than one hundred and fifty thousand Viacom content⁴⁴ by YouTube users in various jurisdictions within one space-continuum and the spaces it traverses such as the court room, and the lawyers' office. Finally, my ANT-Foucauldian Power Lens enables us to understand legal concepts such as

⁴⁰ n 4.

⁴¹ For more on socio-legal research, see n 15, 46.

⁴² E.g. Emilie Cloatre, 'Trips and Pharmaceutical Patents in Djibouti: An ANT Analysis of Socio-Legal Objects' (2008) 17 *Social & Legal Studies* 263; Bettina Lange, 'Social Dynamics of Regulatory Interactions: An Exploration of Three Sociological Perspectives,' in M. Freedman (ed.), *Law and Sociology* (Oxford University Press, 2006) 141.

⁴³ n15.

⁴⁴ E.g. 'Sponge Bob Square Pants.'

legality and consent and legal processes such as judicial decision-making, a lawsuit, and audit in different ways. From the vantage point of my ANT-Foucauldian Power Lens, such legality and 'consent' are local, contingent, and precarious 'achievements' formed and performed through heterogeneous connections between humans and non-humans which are embodied in diverse materialities.

Moreover, this research contributes to actor-network theory in two main ways. Firstly, it explores how actor-network theory ideas about power can be used in conjunction with Foucauldian ideas about power to shed light on how humans and non-humans come together in a specific empirical context and the power effects of such relations. Using Foucault in conjunction with actor-network theory enables us to understand how humans and non-humans interconnect with one another and the power effects of such connections. Questions such as the strategies through which humans form and perform the empirical settings can be answered more comprehensively by using Foucault who sheds light on '...how humans [in particular] are made subjects.' Secondly, in line with emerging writings,⁴⁵ my research illustrates how actor-network theory concepts can be used to investigate the links between law, society and technology. As explored in Chapter Three, various strategies can be used to assist such empirical research such as 'truncating the network' in question to enable us to analyse in detail particular relevant connections and treating actants which do not directly impact on the research project as 'black-boxes.'

Finally, my research contributes to internet regulation literature in three main ways. Firstly, it provides an alternative way of conceptualising cyberspace as socio-legal-technological heterogeneous 'actor-networks' which are formed and performed locally by diverse *actants*. This perspective emphasises that no single macro or micro sociological 'actant' has a privileged role in network construction and highlights that the process of network construction is a constant process of persuasion, yielding, and funnelling of interests. Secondly, it provides a different way to capture in detail the connections between legal, social and technological elements in cyberspace and the power effects of such relationships. Specifically, as analysed in Chapter Two, it provides a way to conceptualise law in different terms than the

⁴⁵ n 15.

dominant cyber-regulatory Austinian⁴⁶ view of law as ‘commands’ backed by sanctions issued by a sovereign and directed to a population delineated by jurisdictional boundaries.⁴⁷ Additionally, it also enables me to conceptualise technology in different terms than the dominant cyber-regulatory theory’s socially deterministic view of the relationship between the market, technology and society by arguing code’ is socially shaped (e.g. by the market) since it represents software developers’ values.⁴⁸ Thirdly, it enables us to analyse complexity, and dynamism in cyberspace by not only focussing on the interactions between humans (e.g. institutional and individual) but also focussing on the interactions between humans and non-humans. By not assuming what we are trying to explain, such as cyberspace’s alleged malleability or plasticity, we can follow all key interactions which generate specific forms of complexities, dynamisms and contingencies.

Conclusion

In this chapter I have argued three key points. Firstly, I have suggested that we can extrapolate from my YouTube and Facebook case studies to build a small-scale theory about how OSNS are constructed as socio-legal-technological ‘actor-networks’ when a legal value is protected and/violated. Secondly, I have argued that we can use these relational understandings of OSNS to build a small-scale theory about the potentially complex, multiple and contingent power effects generated from specific local connections. Baudelaire’s ideas about modernity emerged in the context of the rise of modern art in France. However such ideas can also be applied to understand the power effects generated in OSNS when a legal value is protected and/violated. Indeed my approach sheds light on how local empirical connections generate power effects which differ in terms of its constitution, operations, and techniques. Furthermore, such power effects can be ‘ephemeral’ or ‘fugitive’ when specific local connections, which generate such power effects, are ruptured. I have compared and contrasted the findings of my YouTube and Facebook case studies to

⁴⁶ John Austin, *The Province of Jurisprudence Determined* (Isaiah Berlin et al eds 1954).

⁴⁷ The Austinian view of law has attracted a lot of well-known criticisms in the socio-legal field. E.g. Denis Galligan, *Law in Modern Society* (Oxford University Press, 2007) 141ff.

⁴⁸ n 20.

support the argument that understandings of power in OSNS when a legal value is protected and/violated are localised empirical findings about how power relations are organised, maintained and exercised in the relevant OSNS. Consequently, general statements such as the cyber-regulatory mantra that 'code is law' in cyberspace do not explain the 'how' and 'why' of power in a specific empirical context. In other words, it is possible that in a specific empirical context, 'code is law'. However this conclusion is subject to the empirical findings in the specific 'capillary' of the OSNS rather than an assumed generalised conclusion which applies to any OSNS. Thirdly, I have considered the implications of my research for diverse fields including socio-legal studies, internet regulation and actor-network theory.

(96, 000 words)

Appendix One

Further Particulars of my YouTube and Facebook Virtual Ethnography

I. Virtual Ethnography of YouTube

I conducted the virtual ethnography of YouTube daily over a period of two months commencing 1st May 2010 and ending 30th June 2010. The study population consisted of relevant publicly available videos uploaded, shared, viewed and commented by YouTube users as well as the YouTube user comments to such videos. The unit of analysis was YouTube's copyright network. The study population was generated through searching, till saturation point, for videos/comments through carefully selected search terms, such as 'copyright infringement' generated from documentary analysis and virtual ethnography. Data from one hundred videos and over eighty-six thousand comments was collected and analysed to understand how key elements of YouTube's copyright network, such as YouTube's copyright dispute resolution mechanism, were constructed and the power effects generated from such elements. I systematically recorded my data collection procedures (e.g. search terms) as well as produced weekly case study reports.

II. Virtual Ethnography of Facebook

I conducted the virtual ethnography of Facebook daily over a period of three months commencing 1st January 2012 and ending 31st March 2012. The study population consisted of relevant publicly available comments posted by Facebook users, relevant and publicly available posts on Facebook. The unit of analysis was Facebook's data network. The study population was generated through searching, till saturation point, for posts and/or comments through carefully selected search terms, such as 'Privacy' generated from documentary analysis and virtual ethnography. Data from one sixteen thousand comments was collected and analysed to understand how key elements of Facebook's data network, such as Tagging, were constructed and the power effects generated from such elements. I systematically recorded my data collection procedures (e.g. search terms) as well as produced weekly case study reports.

Bibliography

Aas, K F, Gundhus H, and Mork HL, 'Introduction', in Aas, K F, Gundhus H, and Mork HL (eds) *Technologies of (in)Security: The Surveillance of Everyday Life* (Oxon Routledge-Cavendish 2009)

Ackroyd C, Margolis K, Rosenhead J, Shallice T, *The Technology of Political Control* (Penguin Books New York 1977)

Acquisti A and Gross R, 'Imagined Communities: Awareness, Information Sharing and Privacy on The Facebook,' (Proceedings of the 6th Workshop on Privacy Enhancing Technologies Cambridge UK, 2006)

Adam A, 'Delegating and Distributing Morality: Can We Inscribe Privacy Protection in a Machine?' (2005) 7 *Ethics and Information Technology* 233.

Akrich M, 'The De-Description of Technical Objects' in W E Bijker and J Law (eds), *Shaping Technology, Building Society: Studies in Sociotechnical Change* (MIT Press Cambridge Mass 1992) 205.

Allan R, 'Facebook and the Irish Data Protection Commission,' (Facebook, 21 December 2011) <<https://www.facebook.com/notes/facebook-public-policy-europe/facebook-and-the-irish-data-protection-commission/288934714486394>> accessed 20 January 2012

Amsterdamska O, 'Surely, You Must be Joking, Monsieur Latour!' (1990) 15 *Science, Technology and Human Values* 495

Anderson M and Warner V, *Drafting and Negotiating Commercial Contracts* (A&C Black, 2012).

Aoki K, 'Considering Multiple and Overlapping Sovereignties: Liberalism, Libertarianism, National Sovereignty, "Global" Intellectual Property, and the Internet,' (1998) 5 *Indiana Journal of Global Legal Studies* 443

Arendt H, *The Human Condition* (University of Chicago Press 1958)

Assey JM Jr and Eleftheriou D A, 'The EU-US privacy safe harbour: smooth sailing or troubled waters?' (2001) 9 Comm Law Conspectus 145

Atiyah P S, *Law & Modern Society* (Opus 1995)

Austin J, *The Province of Jurisprudence Determined* (Isaiah Berlin et al eds 1954)

Baker MJ and Cunningham BM, 'Court Decisions and Equity Markets: Estimating the Value of Copyright Protection,' (2006) 49 (2) Journal of Law and Economics 567.

Baldwin R and Cave M, *Understanding Regulation* (Oxford University Press 1999)

Barlow JP, 'A declaration of the independence of cyberspace,' (1996) <<https://projects.eff.org/~barlow/Declaration-Final.html>> accessed 8 October 2010

Barnes B, 'On the "Hows" and "Whys" of Cultural Change (Response to Woolgar),' (1981) 11 *Social Studies of Science*, 481

Barnes B, *The nature of power* (Cambridge Polity Press 1988)

Bennett CJ, *Regulating privacy: data protection and public policy in Europe and the United States* (Cornell University Press 1992)

Bennett O, 'Surveillance State UK: Watchdog's warning over police use of Facebook,' (Express 27 August 2013) <<http://www.express.co.uk/news/uk/425010/Surveillance-State-UK-Watchdog-s-warning-over-police-use-of-Facebook>> accessed 27 August 2013

Bijker W E, Hughes T P, and Pinch T J (eds), *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology* (MIT Press Cambridge Mass 1987)

Bijker W E and Law J (eds), *Shaping Technology, Building Society: Studies in Sociotechnical Change* (MIT Press Cambridge Mass 1992)

Black J, 'Constitutionalising Self-Regulation,' (1996) 59 *The Modern Law Review* 24

Black J, 'Decentering Regulation: Understanding the Role of Regulation and Self-Regulation in the Post-Regulatory World,' (2001) 54(1) *Current Legal Problems* 103

Bourdieu P and Wacquant L *Reponses* (Paris Seuil 1992)

Boyd D, 'Facebook's Privacy Trainwreck,'(2004) 14(1) *Convergence: The International Journal of Research into New Media Technologies* 13

Brownsword R and Yeung K, 'Regulating Technologies: Tools, Targets and Thematics' in Brownsword R and Yeung K, (eds) *Regulating technologies: legal futures, regulatory frames and technological fixes* (Hart 2008)

Burchell G, Gordon C and Miller P, *The Foucault effect: Studies in governmentality* (Chicago University of Chicago Press, 1991) 1

Burnham D, *The Rise of the Computer State* (Random House/Weidenfeld and Nicolson 1983)

Burris S, Drahos P, and Shearing C, 'Nodal Governance,' (2005) 30 *Australian Journal of Legal Philosophy*, 11

Butler E, McCann E and Thomas J, 'Privacy setting awareness on Facebook and its effect on user-posted content,' (2011) 14(1) *Human Communication* 39

Button G and Sharrock W, 'The organizational accountability of technological work', (1998) 28(1) *Social Studies of Science* 73

Callon M, 'Some elements of a sociology of translation: domestication of the scallop and the fishermen of St Brieuc Bay' in Law J (ed), *Power, Action and Belief; A new Sociology of Knowledge?* (Routledge & Kegan Paul Plc London 1986)

___ ___ 'The Sociology of an Actor-Network: The Case of the Electric Vehicle,' in Callon M, Law J and Rip A Rip (eds), *Mapping the Dynamics of Science and Technology* (London Macmillan 1986a) 22

___ ___ 'Society in the Making: the Study of Technology as a Tool for Sociological Analysis' in Bijker W E and others (eds) *The Social Construction of Technical Systems: New Directions in the Sociology and History of Technology* (Cambridge Mass. and London, MIT Press 1987) 83

___ ___ 'Social ordering,' (Lecture at the University of Illinois Urbana-Champaign IL 7th May 1993)

___ ___ and Latour B, 'Unscrewing the big Leviathan: how do actors macrostructure reality,' in Knorr KD and Cicourel A (eds) In *Advances in Social Theory and*

Methodology: Toward an Integration of Micro and Macro Sociologies (London Routledge 1980)

___ ___ and John Law, 'On interests and Their Transformations: Enrolment and Counter-Enrolment,' (1982) 12(4) *Social Studies of Science*, 615.

___ ___ and Law J, 'Agency and the Hybrid "Collectif"' (1995) 94(2) *The South Atlantic Quarterly* 481

___ ___ and Law J, 'L'irruption des non-humains dans les sciences humaines: quelques leçons tirées de la sociologie des sciences et des techniques' in Dupuy JP and Livet P (eds) *Les Limites de la Rationalité, Tome : Rationalité, éthique et cognition* (Colloque de Cerisy 1997)

___ ___ and Law J, 'After the Individual in Society: Lessons on Collectivity from Science, Technology and Society' (1997a) 22(2) *Canadian Journal of Sociology* 17

___ ___ and Law J, 'After the Individual in Society: Lessons on Collectivity from Science, Technology and Society' (1997b) 22(2) *Canadian Journal of Sociology* 171

Campbell J E & Carlson M, 'Panopticon.com: Online Surveillance and the Commodification of Privacy,' (2002) 46 (2) *Journal of Broadcasting & Electronic Media* 586

Cannatacia J A and Bonnicib P M, 'The UK 2007–2008 data protection fiasco: Moving on from bad policy and bad law?,' (2009) 23(1) *International Review of Law, Computers and Technology* 47

Carey P, *Data Protection: A Practical Guide to UK and EU Law* (Oxford University Press 2009)

Carson N, 'Facebook Rolls Out New Privacy Options' (Business Insider 26 May 2010) < <http://www.businessinsider.com/live-facebook-rolls-out-new-privacy-options-2010-5#ixzz1U9UVIf01>> accessed 20 June 2012.

Charles A, 'Facebook told to stop indefinitely holding Facebook users' advertising data,' (The Guardian, 21 December 2011) <<http://www.guardian.co.uk/technology/2011/dec/21/facebook-advertising-data>> accessed 8 June 2012

- Chitty J, *Chitty on Contracts*, Vol. 1. (Sweet & Maxwell, 2012)
- Clarke RA, 'Information Technology and Dataveillance,' (1998) 31(5) *Communications of the ACM* 498 for a rational expose on 'dataveillance.'
- Clarke RA, 'While you were sleeping...Surveillance Technologies Arrived' (2001) 73(1) *Aq-East Melbourne* 10.
- Clegg S, *Frameworks of power* (Sage 1989).
- Cloatre E, 'Trips and Pharamaceutical Patents in Djibouti: An ANT Analysis of Socio-Legal Objects,' (2008) 17 *Social and Legal Studies* 263
- Cotterrell R, *Law's Community: Legal Theory in Sociological Perspective*, (Oxford Socio-Legal Studies Clarendon Press 1997)
- Crawford HT, 'An interview with Bruno Latour,' (1993) 1(2) *Configurations* 247
- Cross S, 'Open Graph - 7: Tagging Friends and Places, adding user Messages,' (Facebook Developers, 4 July 2012) <<https://www.facebook.com/photo.php?v=10151877867880582&set=vb.19292868552&type=3&theater>> accessed 6 July 2012.
- Daintith J and Wright E, *A Dictionary of Computing*, (6th edn, OUP 2008)
- Darwell B, 'Facebook ends Reach Generator program in favor of Promoted Posts product' (Inside Facebook 13 September 2012) <<http://www.insidefacebook.com/2012/09/13/facebook-ends-reach-generator-program-in-favor-of-promoted-posts-product/>> accessed 13 September 2012.
- Davies S, 'Re-engineering the right to privacy,' in Agre P & Rotenberg M (eds) *Technology and privacy: The new landscape* (Cambridge MA MIT Press 1997) 143
- Dean M, 'Governing the unemployed self in an active society,' (1995) 24(4) *Economy and Society* 559
- Dean M, 'Putting the technological into government,' (1996) 9(3) *History of Human Science* 47
- Derrida J, 'Force of law: 'the mystical foundations of authority,' in Drucillae C et al (eds) *Deconstruction and the Possibility of Justice* (New York Routledge 1992)

- Dworkin R, *Law's Empire*, (Cambridge Mass Harvard University Press, 1986)
- Dwyer C, Starr R Hiltz, Passerini K, 'Trust and privacy concern within social networking sites: A comparison of Facebook and MySpace,' (Proceedings of the Thirteenth Americas Conference on Information Systems, Keystone, Colorado, 09-12 August 2007)
- Edwards L, 'E-Valuating Privacy: Law, Privacy, Code And Values' (2006) 18 Florida Journal of International Law
- Edwards L and Brown I, 'Data Control and Social Networking: Irreconcilable Ideas?' in Matwyshyn A (ed) *Harboring Data: Information Security, Law and the Corporation* (Stanford University Press 2009)
- Elden S and Crampton JW, 'Introduction, space knowledge and power,' in Crampton JW et al (eds) *Space, knowledge and power: Foucault and geography* (Ashgate 2007) 7
- Elkin-Koren N, 'Copyrights in Cyberspace-Rights Without Laws,' (1997) *Chi.-Kent L. Rev.* 73 1155, 1161
- Ewald E F, 'Norms, Discipline, and the Law' (1990) 30 *Representations*, Special Issue: Law and the Order of Culture 138
- Faulkner A, Lange B, and Lawless C, 'Introduction: Material Worlds: Intersections of Law, Science, Technology, and Society,' 2012' 39 (1) *Journal of law and society* 1
- Flaherty D H, 'The emergence of surveillance societies in the western world: Toward the year 2000, (1988) 5(4) *Government Information Quarterly*, 377
- Flyvbjerg B, 'Five misunderstandings about case-study research,' (2006) 12(2) *Qualitative inquiry* 219
- Foucault M, *The Archaeology of Knowledge* in Smith AMS (trans) (New York Pantheon Books 1972)
- ___ ___ *Discipline and punish: the birth of the prison (1st American edn Pantheon Books, New York 1977)*
- ___ ___ *The History of Sexuality. Vol. I: An Introduction* (London Allen Lane/ Penguin 1978)

— — ‘The Confession of the Flesh,’ in Colin Gordon (ed), *Power/Knowledge* (New York Pantheon 1980) 194

— — ‘What is Enlightenment?’ in Paul Rabinow (ed) *The Foucault Reader* (New York Pantheon 1984)

— — *The Care of the Self* (New York Vintage 1986)

— — ‘Technologies of the Self,’ in L H Martin, H Gutman & P Hutton (eds), *Technologies of the Self. A Seminar with Michael Foucault* (Amherst The University of Massachusetts Press 1988) 19

— — ‘The Ethic of the Care for the Self as a Practice of Freedom,’ in J Bernauer and D Rasmussen, (eds) *The Final Foucault* (Cambridge Mass.: Massachusetts Institute of Technology Press, 1988a)

— — ‘Le jeu de Michel Foucault,’ in *Dits et Ecrits*, Vol. iii (1994)

— — *The History of Sexuality. The Use of Pleasure* (Vol. 2) (Penguin Books Limited, 1992)

— — ‘On the Government of the Living,’ in Michel Foucault, *Ethics: Subjectivity and Truth. Essential Works of Michel Foucault, 1954 – 1984, Vol. 1* (New York Press, 1997) 82

— — ‘Security, Territory, Population,’ in M Foucault, *Ethics: Subjectivity and Truth. Essential Works of Michel Foucault, 1954 – 1984, Vol. 1* (New York Press, 1997a) 68

— — ‘The meshes of power,’ in in Crampton JW et al (eds) E Knowlton Jr, William J King, and Stuart Elden (trans) *Space, knowledge and power: Foucault and geography* (Ashgate 2007) 153

— — *The History of Sexuality. The Care of the Self* (Vol. 3) (Random House Digital Inc 2012)

— — and Gordon C, *Power/knowledge: Selected Interviews and Other Writings, 1972-1977* (Pantheon Books 1980)

___ __ King WJ, and Elden S, 'The incorporation of the hospital into modern technology,' in Jeremy W Crampton et al (eds) *Space, knowledge and power: Foucault and geography* (Ashgate 2007) 141

___ __ and others, *Beyond Structuralism and Hermeneutics, with an Afterword by Michel Foucault*, (Brighton Harvester 1982).

Fraser N, 'Foucault on Modern Power' in *Unruly Practices: Power, Discourse and Gender in Contemporary Social Theory* (Minneapolis University of Minneapolis Press 1989)

Gad C and Lauritsen P, 'Situated Surveillance: an ethnographic study of fisheries inspection in Denmark,' (2009) 7(1) *Surveillance & Society* 49

Galligan D, *Law in Modern Society* (Oxford University Press 2007)

Gandy, O *The Panoptic Sort: A Political Economy of Personal Information* (Westview Colorado 1993)

Gandy O, 'Coming to terms with the panoptic sort,' (1996) *Computers, Surveillance, and Privacy* 132

Garland D, 'Governmentality and the problem of crime: Foucault, criminology and sociology,' (1997) 1(2) *Theoretical Criminology* 173

Geertz C, 'Thick Description: Towards an Interpretive Theory of Culture,' in *The interpretation of cultures: Selected essays* (Vol. 5019) (Basic books 1973).

Given L M, 'Case Study' in *The SAGE Encyclopedia of Qualitative Research Methods* (Sage 2008) 69

Goldsmith J, 'Regulation of the Internet: Three Persistent Fallacies,' (1997) 73 *Chi.-Kent L. Rev.* 73 1119

Goldsmith J, 'Against Cyber-Anarchy,' (1998) 65 *University of Chicago Law Review* 1221

Gordon ML and McKenzie DJP, 'A lawyers roadmap of the information superhighway' (1995) 12 *J. Marshall J.Computer & Info.L.* 177

Greenhalgh T and Stones R, 'Theorising big IT programmes in healthcare: strong structuration theory meets actor-network theory,' (2010) 70(9) *Social Science & Medicine* 1285

Grint K and Woolgar S, *The machine at work: technology, work, and organization* (Cambridge Mass Polity Press 1997)

Guadamuz A, '*Technological Determinism in Code*,' (Lefis workshop Belfast 2004).

Guba G E, and Lincoln Yvonna S, 'Competing paradigms in qualitative research,' (1994) 2 *Handbook of qualitative research* 163.

Haggerty K, 'Tear down the walls: on demolishing the panopticon,' in David Lyon (ed) *Theorizing Surveillance. The panopticon and beyond*, (Portland Willan Publishing 2006)

Hall S, 'Foucault: Power, Knowledge, and Discourse,' in Wetherell M, Taylor S, and Yates SJ (eds) *Discourse Theory and Practice: A Reader* (Sage 2001)

Hamel J and others, *Case Study Methods* (Sage 1993)

Hanseth O, Aanestad M, and Berg M, 'Guest editors' introduction: Actor-network theory and information systems. What's so special?' (2004) 17(2) *Information Technology & People* 116

Haraway D, 'Situated Knowledges: The Science Question in Feminism and the Privilege of the Partial Perspective,' (1988) 14(3) *Feminist Studies* 575

Harris JW, '*The Concept of Sovereign Will*,' (1977) *Acta Juridica* 1

Hart HLA, 'Introduction to John Austin,' in Hart HLA (ed), *The Province of Jurisprudence Determined*, (London Weidenfeld & Nicolson, 1954)

Haugaard Mark, 'Power, ideology and legitimacy,' in Henry Goverde and others (ed) *Power in Contemporary Politics: Theories, Practices, Globalisations* (London Sage 2000) 59.

Hine C, *Virtual Ethnography* (Sage 2000)

Horak M, 'Answering Recent Questions on Privacy Controls,' (Facebook, 18 June 2010) < <https://www.facebook.com/notes/facebook/answering-recent-questions-on-privacy-controls/399994657130>> accessed 18 June 2011

Hosein I, 'A research note on capturing technology: toward moments of interest,' in Whitley EA and others (eds), *Global and organizational discourse about information technology*, International Federation for Information Processing, Vol. 238 (110) (Kluwer Academic Publishers, London, 2003)

Hosein I, Tsiavos P & Whitley E, 'Regulating Architecture and Architectures of Regulation: Contributions from Information Systems' (2003) 17(1) Int'l Rev.L.Computers & Tech 85

Hughes TP, 'The evolution of large technological systems,' in Bijker WE et al *The social construction of technological systems: New directions in the sociology and history of technology* (MIT Press 1987) 51

Hunt K, 'Copyright and YouTube: Pirate's Playground or Fair Use Forum,' (2007) 14 Mich. Telecomm. & Tech. L. Rev. 197

Ince D, *A Dictionary of the Internet* (OUP 2009)

Introna L, 'Oppression, Resistance and Information Technology: Some Thoughts on Design and Values,' (Design for Values: Ethical, Social and Political Dimensions of Information Technology workshop, Princeton University, USA, 27 February - 1 March, 1998)

Introna L and Wood D, 'Picturing algorithmic surveillance: The politics of facial recognition systems,' (2002) 2(2-3) Surveillance & Society 177

James K, 'Facebook facial recognition raises eyebrows in Germany, EU,' (Deutsche Welle, 9 June 2011) < <http://www.dw.de/dw/article/0,,15144128,00.html>>.

Jeffries P C, 'Respecting Rules about Reviews and Fake Accounts,' (Facebook Developer Blog, 8 April 2008) <<https://developers.facebook.com/blog/post/102/>> accessed 8 July 2013

Jóhannesson GT, 'Tourism translations Actor–Network Theory and tourism research,' (2005) 5(2) *Tourist Studies* 133.

Jones R, 'Entertaining Code: File Sharing, Digital Rights Management Regimes, and Criminological Theories of Compliance,' (2005) 19(3) Int'l Rev.L.Computers & Tech 287

Jones M, 'Link Shim - Protecting the People who Use Facebook from Malicious URLs,' (Facebook Site Integrity, 31 January 2012) <<https://www.facebook.com/notes/facebook-security/link-shim-protecting-the-people-who-use-facebook-from-malicious-urls/10150492832835766>> accessed 31 January 2012

Kallinikos J, 'Reopening the black box of technology artifacts and human agency,' (23rd International Conference on Information Systems 2002)

Katyal S, '*Filtering, Piracy Surveillance and Disobedience*,' (2009) 32 Colum. J.L. & Arts 401

Katyal S, '*Privacy vs. Piracy*,' (2005) 7 Yale J. L. & Tech. 222

Kendall G and Michael M, 'Order and Disorder: Time, Technology and the Self' (2001) Culture Machine <<http://www.culturemachine.net/index.php/cm/article/view/242/223>> accessed 6 August 2013

___ and Wickham G, *Using Foucault's Methods* (1st edn Sage Publications Ltd 1998)

Kim EC, 'YouTube: Testing the safe harbors of digital copyright law,' (2007) 17 S. Cal. Interdisc. LJ 139

Kleinman Z, 'Facebook suspends photo tag tool in Europe,' (BBC News Technology, 21 September 2012) <<http://www.bbc.co.uk/news/technology-19675172>> accessed 17 July 2013

Kohler D, 'This Town Ain't Big Enough for the Both of Us-Or Is It: Reflections on Copyright, the First Amendment and Google's Use of Others' Content,' (2007) Duke L. & Tech. Rev. 1

Kozinets R, 'The field behind the screen: Using netnography for marketing research in online communities,' (2002) 39 (1) Journal of Marketing Research 61

Kozinets RV, *Netnography: Doing ethnographic research online* (Sage Publications 2009)

Lange B, 'Social Dynamics of Regulatory Interactions: An Exploration of Three Sociological Perspectives' in M Freedman (ed), *Law and Sociology* (OUP Oxford 2006) 150

Lash Scott, *The Sociology of Postmodernism* (London Routledge 1990)

Latour B, 'The powers of association' in Law J, (ed), *A new sociology of knowledge? Sociological Review monograph 32*, (Routledge & Kegan Paul London 1986)

___ ___ *Science in Action: How to Follow Scientists and Engineers through Society* (Milton Keynes 1987)

___ ___ *The Pasteurization of France* (Cambridge Mass. Harvard University Press 1988)

___ ___ 'Drawing Things Together' in Lynch M and Woolgar S (eds), *Representations in Scientific Practice*, (MIT Press Cambridge Mass 1990)

___ ___ 'Technology is Society Made More Durable' in J Law (ed), *A Sociology of Monsters: Essays on Power, Technology and Domination*, (Routledge London 1991) 106

___ ___ *Aramis, ou l'Amour des Techniques* (Paris Éditions de la Découverte 1992)

___ ___ 'Where are the Missing Masses? – The Sociology of a Few Mundane Artifacts' in W E Bijker and John Law (eds) *Shaping Technology / Building Society* (Cambridge MIT Press 1992b) 205

___ ___ *We Have Never Been Modern* (Brighton Harvester Wheatsheaf 1993)

___ ___ 'Ethnography of a 'high-tech' case: About Aramis,' in (ed) Lemonnier P *Technological Choices: Transformation in Material Cultures Since the Neolithic* (London Routledge 1993a) 372

___ ___ Latour Bruno, 'On Actor-Network Theory: A Few Clarifications,' (1996) 47 *Soziale Welt*, 369

___ ___ *Pandora's Hope: Essays on the Reality of Science Studies* (Harvard University Press Cambridge MA 1999)

— — 'When things strike back: A possible contribution of science studies to the social Sciences,' (2000) 51(2) *British Journal of Sociology* 107

— — *Politics of Nature: How to Bring the Sciences into Democracy*, (trans.) C Porter (Cambridge MA Harvard University Press 2004)

— — 'How to talk about the body? The normative dimension of science studies' (2004a) 10(2-3) *Body & society* 205

— — *Reassembling the Social-An Introduction to Actor-Network-Theory* (Oxford University Press 2005)

— — 'Note breve sur l'ecologie du droit saisie comme enonciation' in F Audren and L de Sutter, *Pratiques cosmopolitiques du droit*, (2005a)

— — *The making of law: an ethnography of the Conseil d'État* (Polity 2010)

— — and Hermant E, *Paris Ville Invisible* (La Decouverte Les Empecheurs de Penser en Rond 1998)

— — and Woolgar S, *Laboratory Life: the Social Construction of Scientific Facts* (Beverly Hills and London Sage 1979)

Laurier E, and Philo C, 'X-morphising: a review essay of Bruno Latour's 'Aramis or the love of technology' (1999) A 31(6) *Environment and Planning* 1047

Law J, 'Introduction' in Law J, (ed) *Power, Action and Belief: a new Sociology of Knowledge? Sociological Review Monograph* (London Routledge and Kegan Paul 1986) 12

— — 'On Power and Its Tactics: a View from the Sociology of Science' (1986a) 34 *The Sociological Review* 1

— — 'On the Methods of Long Distance Control: Vessels, Navigation and the Portuguese Route to India,' in John Law (ed) *Power, Action and Belief: a new Sociology of Knowledge? Sociological Review Monograph* (London Routledge and Kegan Paul 1986b) 234

— — ‘The Anatomy of a Socio-Technical Struggle: the Design of the TSR2’ in Elliott B (ed) *Technology and Social Process*, (Edinburgh University Press Edinburgh 1988)

— — ‘Technology and the Case of the Portuguese Expansion,’ in (ed) WE Bijker and others, *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology* (MIT Press 1989) 115

— — ‘Technology and Heterogeneous Engineering: The Case of Portuguese Expansion’ in Bijker W E, Thomas T P and Pinch T J(eds) *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology* (Cambridge MA and London MIT Press 1990)

— — *A sociology of monsters: essays on power, technology and domination* (Routledge 1991)

— — ‘Power, discretion and strategy,’ in Law J, (eds) *A sociology of monsters: Essays on power, technology and domination* (Routledge London 1991a) 165

— — ‘Notes on the theory of the actor-network: ordering, strategy, and heterogeneity,’ (1992) 5(4) *Systems Practice* 379

— — *Organising Modernity* (Oxford Blackwell 1994)

— — ‘Actor Network Theory and Material Semiotics,’ in Turner B S (ed) *The New Blackwell Companion to Social Theory* (Wiley-Blackwell Oxford 2009)

— — and Urry J, ‘Enacting the social,’(2004) 33 (3) *Economy and society* 390

Legg K, ‘Solicitor warns the toothless data protection dog is biting back,’ (Higgs and Sons Solicitor, 15 March 2012) <<http://www.higgsandsons.co.uk/news--events/press-releases/2012/03/15/solicitor-warns-the-toothless-data-protection-dog-is-biting-back.aspx>> accessed 9 July 2013

Lemke T, ‘The birth of bio-politics: Michel Foucault’s lecturer at the College de France on neo-liberal governmentality,’ (2001) 30(2) *Economy and Society* 190

— — ‘Foucault, Governmentality, and Critique’ (2002) 14(3) *Rethinking Marxism* 49

Lessig L, 'The zones of cyberspace' (1996a) 48 Stan.L.Rev. 1403'

___ ___ 'Reading the Constitution in cyberspace' (1996b) 45(3) Emory L.J.1

___ ___ 'Constitution and code' (1997) 27 Cumb.L.Rev. 1

___ ___ 'The New Chicago Law School' (1998) 28(2) JLS 661

___ ___ 'The Laws of Cyberspace,' (Taiwan Net '98 conference Taipei March 1998a)

___ ___ *Code and Other Laws of Cyberspace*, (Basic Books, 1999a)

___ ___ 'The law of the horse: what cyberlaw might teach' (1999) 113 Harv.L.Rev. 501

___ ___ 'Foreword: Symposium Cyberspace and Privacy' (2000) 52 Stan. L.Rev. 987

___ ___ *Code Version 2.0* (Basic Books 2006)

Levi R, 'Book Review: La fabrique du droit: Une ethnographie du Conseil d'Etat' (2005)1 Law, Culture and the Humanities 137

___ ___ and Valverde M, 'Studying law by association: Bruno Latour goes to the Conseil d'Etat,' (2008) 33(3) Law & Social Inquiry 805

Lianos M, 'Dangerization and the End of Deviance in The Institutional Environment,' (2000) 40(2) British Journal of Criminology 261

Lipton J, '*Copyright in the Digital Age: A comparative survey*,' (2001) 27 Rutgers Computer & Technology Law Journal 333

Luhmann N, *Social Systems* (translated by Bednarz J, Jr. with Baecker D) (Stanford University Press 1995)

Luhmann N, 'The unity of the legal system,' in Teubner G (ed), *Autopoietic Law: A New Approach to Law and Society* (New York and Berlin Walter de Gruyter Publishing 1988) 12

Luhmann N, 'System as Difference,' (2006) 13(1) Organization 37

Lyon D, *Surveillance as social sorting: privacy, risk, and digital discrimination* (Routledge London 2003)

MacDonald P, 'Growing Beyond Regional Networks,' (Facebook Blog, 2 June 2009) <<https://blog.facebook.com/blog.php?post=91242982130>> accessed 1 January 2012

McDonald P, 'Facebook: Now Available WorldWide,' (Facebook, 15 December 2011) <<https://blog.facebook.com/blog.php?post=10150408488962131>> accessed 1 January 2012

MacKenzie D, '*Interests, Positivism and History*,' (1981) 11 *Social Studies of Science*, 498

Mayer-Schonberger V, '*Demystifying Lessig*,' (2008) 4 *Wis. L. Rev.* 713

Miller P and Rose N, 'Governing Economic Life,' (1990) 19(1) *Economy and Society* 1

Mitchell B, 'IP Address,' (About.com) <<http://compnetworking.about.com/od/workingwithipaddresses/g/ip-addresses.htm>> accessed 8 July 2013

Mitchell B, 'TCP/IP,' (About.com) <http://compnetworking.about.com/cs/basictcpip/g/bldef_tcpip.htm> accessed 8 July 2013

Mitchell J, 'Making Photo Tagging Easier,' (Facebook Blog, 15 December 2010) <<https://blog.facebook.com/blog.php?post=467145887130>> accessed 19 September 2012

Monteiro E and Hanseth O, 'Social Shaping of Information Infrastructure' in W J Orlikowski, G Walsham, M R Jones and JI DeGross (eds), *Information Technology and Changes in Organisational Work* (Chapman & Hall London 1996) 331

Munro L, 'Non-disciplinary Power and the Network Society,' (2000) 7(4) *Organization* 679

Murdoch J, 'Ecologising sociology: Actor-network theory, co-construction and the problem of human exemptionalism' (2001) 35(1) *Sociology* 111

Murdoch J and Marsden T, 'The spatialization of politics: local and national actor-spaces in environmental conflict,' (1995) *Transactions of the Institute of British Geographers* 368.

Murray AD, *The Regulation of Cyberspace: Control in an Online Environment*, (Routledge-Cavendish 2006)

___ __ 'Conceptualising the Post-Regulatory (Cyber)State' in Karen Yeung and Roger Brownsword (eds) *Regulating technologies: legal futures, regulatory frames and technological fixes* (Hart 2008) 287

___ __ 'Symbiotic Regulation,' (2008a) 26(2) *John Marshall Journal of Computer and Information Law* 207, 209

___ __ 'Internet Regulation,' in (eds) Levi-Faur David *Handbook On The Politics Of Regulation*, The Hebrew University of Jerusalem, Israel and the Free University of Berlin, Germany (Edward Elgar 2011) 267

___ __ 'Nodes and Gravity in Virtual Space,' (2011) 5(2) *Legisprudence* 5.2 (2011a) 195

___ __ and Scott C, 'Controlling the new media: hybrid responses to new forms of power,' (2002) 65 (4) *Modern Law Review*, 491

Murugesan S, '*Understanding Web 2.0*,' *IT Pro* (July-August 2007)

Norris C and Armstrong G, *The Maximum Surveillance Society, The Rise of CCTV* (Oxford Berg 1999)

O'Brien K, 'Germans Reopen Investigation on Facebook Privacy,' (*The New York Times*, 15 August 2012) < http://www.nytimes.com/2012/08/16/technology/germans-reopen-facebook-privacy-inquiry.html?_r=0> accessed 15 August 2012.

O'Reilly T, '*What is Web 2.0? Design Patterns and Business Models for the Next Generation of Software*,' (2005) <<http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html>> accessed 5 May 2009

Occhino T, 'Tag Friends in Your Status and Posts,' (Facebook Blog, 10 September 2009) <<https://blog.facebook.com/blog.php?post=109765592130>> accessed 5 July 2013

Oreskovic A and Prodhan G, 'Facebook gives regulators info on facial recognition,' (Reuters US Edition, 8 June 2011) <<http://www.reuters.com/article/2011/06/08/us-facebook-idUSTRE7570C220110608/>> accessed 8 June 2012

Orlikowski W, 'Using Technology and Constituting Structures: A Practice Lens for Studying Technology in Organizations' (2000) 11(4) *Organization Science* 404.

___ and Iacono C S, 'Research Commentary: Desperately Seeking the "IT" in IT Research – A Call to Theorizing the IT Artifact' (2001) 12(2) *Information Systems Research* 121

Osborne T, 'What is a problem?' (2003) 16 (4) *History of the Human Sciences* 1

Patrikios A, 'Resolution of Cross-Border E-Business Disputes by Arbitration Tribunals on the Basis of Transnational Substantive Rules of Law and E-Business Usages: The Emergence of the Lex Informatica,' (2006) 38 *U. Tol. L. Rev.* 271

Peters Thomas J and Waterman Robert H, *In Search of Excellence: Lessons from American's Best-Run Companies* (New York: Harper & Row 1982).

Perritt HH, 'The Internet as a Threat to Sovereignty? Thoughts on the Internet's Role in Strengthening National and Global Governance,' (1998) 5 *Indiana Journal of Global Legal Studies* 423 (1998)

Posner R A, 'Social norms and the law: an economic approach,' (1997) 87 *Am. Econ. Rev.* 365

Post D 'Governing Cyberspace,' (1996) 43 *Wayne L. Rev.* 155

___ 'Of black holes and decentralized law-making in cyberspace,' (2000) 2 *Vand. J. Ent. L. & Prac.* 70

___ 'What Larry doesn't get: code, law, and liberty in cyberspace,' (2000a) 52 *Stanford Law Review* 1439

___ and Johnson DR, 'Law and Borders--The Rise of Law in Cyberspace,' (1995) 48 *Stan. L. Rev.* 1367

— — and Johnson DR, 'Chaos prevailing on every continent: towards a new theory of decentralised decision-making in complex systems,' (1998) 73 Chi.-Kent. L. Rev. 1055

Pottage A, 'The materiality of what?' (2012) 39 (1) Journal of law and society 167

Pinch TJ and Bijker W E, 'The Social Construction of Facts and Artefacts: or How the Sociology of Science and the Sociology of Technology might Benefit Each Other,' (1984) 14 Social Studies of Science, 388

Pouloudi N and Whitley EA, 'Representing human and non-human stakeholders: Onspeaking with authority,' in Baskerville R, Stage J, and Degross JI (eds) *Organizational and Social Perspectives on Information Technology* (Boston Kluwer Academic Publishers 2002)

Raab C and Hert P, 'The Regulation of Technology: Policy Tools and Policy Actors,' in (ed) Karen Yeung and Roger Brownsword, *Regulating technologies: legal futures, regulatory frames and technological fixes* (Hart 2008).

Rabinow P, *The Foucault Reader* (New York Pantheon Books 1984)

Reed C, *Internet Law: Text and Materials* (2nd edn. Cambridge University Press Cambridge 2004)

Reidenberg JR, 'Lex Informatica: the formulation of information policy rules through technology,' (1998) 76(3) Texas Law Review 553

— — 'Technology and internet jurisdiction,' (2005) 153 University of Pennsylvania Law Review 1951

Riege AM, 'Validity and reliability tests in case study research: a literature review with "hands-on" applications for each research phase,' (2003) 6(2) Qualitative Market Research: An International Journal 75

Robertson A, 'Facebook deletes European facial recognition data, satisfying German privacy agency,' (The Verge, 7 February 2013) <
<http://www.theverge.com/2013/2/7/3964550/facebook-deletes-european-facial-recognition-data>> accessed 8 February 2013

Rogers K, 'Facebook users raise privacy concerns as company tweaks security settings,' The Guardian (London, 15 October 2012) <<http://www.theguardian.com/technology/2012/oct/15/facebook-users-privacy-concerns-security>> accessed 15 October 2012

Rose N, 'Calculable minds and manageable individuals,' (1988) 1 History of the Human Sciences 179

— — 'Government, authority and expertise in advanced liberalism,' (1993) 22(3) *Economy and Society* 283

— — 'Governing "advanced" liberal democracies,' in Barry A et al (eds) *Foucault and Political Reason Liberalism, Neo-Liberalism and Rationalities of Government* (University of Chicago Press Chicago 1996) 37

— — 'The death of the social? Re-figuring the territory of government,' (1996) 25(3) *Economy and Society* 327

— — and Miller P, 'Political Power beyond the State: Problematics of Government,' (1992) 43(2) *The British Journal of Sociology* 173

— — O'Malley P and Valverde M, 'Governmentality,' (2006) 2 *Annu. Rev. Law. Soc. Sci* (2006) 83

Roufar T, 'Discover How Police Are Using Social Media to Solve Crimes and Build Trust,' (About.com) <http://criminologycareers.about.com/od/Career_Trends/a/Social-Networking-And-Law-Enforcement.htm> accessed 8 June 2013

Salus P, *Casting the Net: From Arpanet to Internet and Beyond* (1st edn Addison Wesley 1995)

Scheffer T, 'The Duality of Mobilisation—Following the Rise and Fall of an Alibi-Story on its Way to Court,' (2003) 33(3) *Journal for the Theory of Social Behaviour*, 313

— — 'Materialities of Legal Proceedings,' (2004) 17(4) *International Journal for the Semiotics of Law*, 356

___ ___ 'File work, legal care, and professional habitus—an ethnographic reflection on different styles of advocacy,' (2007a) 14(1) *International Journal of the Legal Profession*, 57

___ ___ 'On procedural discursivation – or how local utterances are turned into binding facts,' (2007b) 27(1) *Language & Communication*, 1

Schwartz P M, 'Beyond Lessig's Code for internet privacy: cyberspace filters, privacy-control and fair information practices,' (2000) *Wisconsin Law Review* 743

Schrage E, 'Results of the Facebook Site Governance Vote' (Facebook 8 June 2012) <<https://www.facebook.com/notes/facebook-site-governance/results-of-the-facebook-site-governance-vote/10151840534290301>> accessed 8 July 2012.

Schrivver R, 'You Cheated, You Lied: The Safe Harbor Agreement and its Enforcement by the Federal Trade Commission,' 70 (2001-2002) *Fordham L. Rev* 2777

Serres M and Latour B, *Conversations on Science, Culture and Time* (Univ. of Michigan Press Ann Arbor, Michigan 1995)

Shearing C and Wood J, 'Nodal governance, democracy, and the new 'denizens'' (2003) 20(3) *Journal of Law and Society* 400

Sheinblatt J S, 'The *WIPO Copyright Treaty*,' (1998) 13 *Berkeley Technology Law Journal* 535

Sjogreen C, 'Introducing New Apps for Timeline,' (Facebook Blog, 19 January 2012) < <https://blog.facebook.com/blog.php?post=10150469721182131>> accessed 5 July 2013

Smith G, *Internet Law and Regulation* (4th edn. Sweet & Maxwell 2007)

Söderqvist T, Mitsch WJ, and Turner RK, 'Valuation of wetlands in a landscape and institutional perspective,' (2000) 35 (1) *Ecological Economics* 1

Solove D J, 'Privacy and power: Computer databases and metaphors of information privacy' (2001) 53(6) *Stanford Law Review* 1393

Solove D J, 'Conceptualizing Privacy' (2002) 90(4) *California Law Review* 1087

Solove DJ, *Understanding Privacy* (Harvard University Press 2008)

Sørensen C, et al, 'Cultivating Recalcitrance in Information Systems Research,' in Russo, B Fitzgerald, and J I DeGross (eds), *Realigning Research and Practice in Information Systems Development: The Social and Organizational Perspective* (Boston Kluwer Academic Publishers 2001) 297

Steel E and Fowler G, 'Facebook in Privacy Breach,' (Wall Street Journal, 17 October 2010) <http://online.wsj.com/article/SB10001424052702304772804575558484075236968.html?mod=WSJ_hpp_LEFTTopStories> accessed 12 November 2010.

Strathern M, 'Cutting the network,' (1996) *Journal of the Royal Anthropological Institute* 517

Tambini D, *Codifying Cyberspace: Communications Self-regulation in the Age of Internet Convergence* (Oxford Routledge 2007)

Tadros V, 'Between governance and discipline: The law and Michel Foucault,' (1998) 18(1) *Oxford Journal of Legal Studies* 75

Thompson A A, *A Big Brother in Britain Today* (Michael Joseph 1970)

Tuitt P, 'Legal Practice and Modes of Dying: Bruno Latour, Technology and the Critical Legal Instance,' (2005) 16(1) *Law and Critique*, 113

Vara S, 'How to Disable & Opt Out of Facebook Photo Tagging' (Brand Marketing Integration 11 April 2011) <<http://kherize5.com/how-to-disable-opt-out-of-facebook-photo-tagging/>> accessed 2 June 2012

Wagner R P, 'On software regulation' (2005) 78 *S.Cal.L.Rev.* 457

Walsham G, 'Actor-network theory and IS research: current status and future prospects' (1997) *Information Systems and Qualitative Research* 466

Walton J, 'Making the Theoretical Case', in Ragin Charles C, and Becker Howard S (eds), *What Is a Case? Exploring the Foundations of Social Inquiry* (Cambridge University Press 1992) 121.

Weber M, (ed.) Roth G and Wittich C, *Economy and Society: An Outline of Interpretive Sociology* (University of California Press 1978)

Weinberg J, 'Hardware-Based ID, Rights Management, and Trusted Systems,' (1999-2000) 52 Stanford Law Review 1251

Weiss M, 'High-Tech NYPD Unit Tracks Criminals Through Facebook and Instagram Photos,' (DNAinfo New York, 25 March 2013) < <http://www.dnainfo.com/new-york/20130325/new-york-city/high-tech-nypd-unit-tracks-criminals-through-facebook-instagram-photos#ixzz2OwnQRgPs>> accessed 8 June 2013

Wellmann B, *Networks in the Global Village: Life in Contemporary Communities* (Oxford Westview Press 1999)

Whitley EA, and Hosein I, 'Doing politics around electronic commerce: Opposing the Regulation of Investigatory Powers Bill,' (Realigning Research and Practice in IS Development: The Social and Organisational Perspective Boise Idaho 2001)

Whittaker Z, 'Facebook Timeline a 'stalker's paradise': Mass exodus on the way?' (ZDNet UK edition, 27 September 2011) < <http://www.zdnet.com/blog/igeneration/facebook-timeline-a-stalkers-paradise-mass-exodus-on-the-way/12931>> accessed 27 September 2011

Wilhem A, 'Facebook Updates Its Policy Documents Regarding How It Uses And Shares Your Data,' (Techcrunch, 29 August 2013) <<http://techcrunch.com/2013/08/29/facebooks-new-rules-change-how-it-treats-your-data-and-who-can-access-it/>> accessed 29 August 2013.

Williams C, 'Facebook battles Germans on privacy,' The Telegraph (London, 1 December 2011) <<http://www.telegraph.co.uk/technology/facebook/8926232/Facebook-battles-Germans-on-privacy.html>> accessed 1 December 2011

Winner L, 'Cyberlibertarian myths and the prospects for community,' (1997) 27(3) ACM SIGCAS Computers and Society 14

Wood D, 'Foucault and Panopticism Revisited,' (2002) 1(3) Surveillance & Society 234

— — ‘Beyond the Panopticon? Foucault and Surveillance Studies,’ in Crampton Jeremy W and Elden (Stuart Eds) *Space, Knowledge and Power –Foucault and Geography* (Ashgate 2007)

— — and Stephen G, ‘Permeable Boundaries in the Software-sorted Society: Surveillance and the Differentiation of Mobility: Alternative Mobility Futures,’ in Scheller M and Urry J (eds) *Mobile Technologies of the City* (London Routledge 2006) 177

Woolgar S, ‘*Interests and Explanation in the Social Study of Science*,’ (1981) 11 *Social Studies of Science*, 365

Yakhlef A, ‘Mapping the consumer-subject in advertising,’ (1999) 3(2) *Consumption, Markets and Culture* 129

Yang W and others, ‘I regretted the minute I pressed share: A qualitative study of regrets on Facebook’ (Proceedings of the Seventh Symposium on Usable Privacy and Security ACM 10 2011)

Yin R, *Case Study Research: Design and Methods* (Applied Social Research Methods) (Sage 2013)

Zakalik J, ‘*Law without borders in cyberspace*’ (1996) 43 *Wayne L.R.* 101

Zuckerberg M, ‘ Making Control Simpler,’ (Facebook Blog, 26 May 2010) <<https://blog.facebook.com/blog.php?post=391922327130>> accessed 8 August 2012.

Zuckerberg M, ‘Our Commitment to the Facebook community,’ (Facebook, 29 November 2011) < <https://blog.facebook.com/blog.php?post=10150378701937131>> accessed 1 December 2011

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