Online Free Speech at a Turning Point:

A New Policy Model Based on Net Architecture

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The candidate confirms that the work submitted is her own and that appropriate credit has been given where reference has been made to the work of others.

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- **A. P. Karanasiou**, 'Debunking the PBS Myth: Media in Crisis?' (2013, Inforrm), <http://inforrm.wordpress.com/2013/07/16/debunking-the-pbs-myth-media-in-crisis-argyro-karanasiou/> accessed 12 December 2013.
- **A. P. Karanasiou**, 'Towards Securing Free Expression Online: A Global Internet Governance Model Keeping The Balance Between State Surveillance And Corporate Dominance' (2013) Policy Brief drafted for ISOC.
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Preface – Acknowledgements

> *"And I thought about books. And for the first time I realized that a man was behind each one of the books. A man had to think them up. A man had to take a long time to put them down on paper. And I'd never even thought that thought before."*
>
> **Ray Bradbury, Fahrenheit 451**

Στην οικογένειά μου

I still remember the day I handed in my resignation and packed my luggage to pursue doctoral studies in the U.K. Until this moment in time, I was divided between two worlds: In the mornings I used to provide legal services at the Technical University of Athens, in the afternoon I would leave my office and visit the library downstairs. Although closed for visitors, it was still accessible through my office and although very limited in contemporary bibliography, it still was a great escape into a world I was very eager to go back to. A few outdated copies of internet law for librarians and a couple of introductory books on computer science were enough an excuse for keeping me to the office until late. It seemed as if I was living in a parallel universe: in my day job I dealt with employment law, administrative law, civil procedures and pretty much anything but internet law; in the library I would read about the internet and how it had challenged conventional legal thinking. However, these two words were not connected; for those practising law, links are still loose and do not run the whole span of law. Academia on the other hand seemed to be doing better in this respect: In 2001 I was fortunate to sit in the classes of Professor Thomas Hoeren in WWU, Germany. This was the first time I was able to identify how copyright and continental civil law would intertwine with new technologies. However, the connection between public law and the internet was still dim. In 2009, when I started drafting my PhD proposal, research was mostly concerned with promoting a global vision for the advancement of the information society. Now drafting the final lines of my thesis in 2013, online surveillance, free speech and internet access are the topics *du jour*. Human rights online is still an evolving research field, way more complicated and contested than others: the link between free speech and the internet seems to be an area far more broad and onerous to be addressed as a standalone topic. I hope that my research has contributed in this respect and will hopefully provide fertile soil for others to build upon.

This has not been an easy ride; research thrives on adequate funding and peace of mind and unfortunately coming from a country on the verge of bankruptcy I lacked in both. This is why I am deeply grateful to a few good people who have helped me pull through. I wish to express my gratitude to my supervisor, Professor Ian Cram for his invaluable support and advice throughout the course of my studies at the University of Leeds. It has been a sheer privilege working together. I would also like to thank Dr Murray Wesson, Dr Lawrence McNamara and Professor Clive Walker for their

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Further to this, I am fortunate to have found tremendous support at CIPPM and Bournemouth University, where I currently work. My gratitude extends especially to Professor Martin Kretschmer and Professor Roger Palmer for granting me a remarkable opportunity to prove myself, Professor Maurizio Borghi for giving me the space to develop new ideas and BU's Head of Law Department, Sally Weston for her active encouragement and enormous support in all my endeavours.

For the generous financial aid bestowed to me for my research I should also thank Google, the Sir Richard Stapley Foundation, and CEU. My thanks go also to PVAC and ESSL for enabling me to organise a conference on IT related research and fulfil a long standing personal ambition.

Parts of this thesis have been heavily influenced by the activities undertaken at research centres and forums visited – ISOC and in particular Niel Harper and Jane Coffin, CEU's Kate Coyer, Susan Abbott and Eva Bognar and HIIG's Board of Directors, have all helped me develop and shape some of the ideas included in here. That said it is not just about the places one visits, but also the people one meets that determines a person as a researcher. I wish to thank Professors Karl-Heinz Ladeur, Andrew Murray, Roger Brownsword, Monroe Price and Viktor Mayer Schönberger for their thoughtful comments and constructive criticism and most of all for the inspiration gained.

Things would probably be different if Professor Kostas Beis had not encouraged me to publish a paper on electronic documents in 2002 while still a law undergrad in Athens; I shall be forever grateful to him for this. And I would probably not have been able to pull through without my friends and family. This thesis is also dedicated to my late grandmother, who sadly passed away before this was finished and wish she was here to see this completed.

Dimitri, words do not seem enough sometimes to express things. You have encouraged me all the way to pursue my dreams and to believe in myself in spite of all odds. You are my fiercest critic and my most avid supporter and I am deeply grateful for everything and more.

Pericles, Anastasia and Alexandra, thank you for your continuous interest and unconditional love. I realise how hard it must have been to provide financial support in times of financial insecurity. Thank you for teaching me not to worry about the destination but to enjoy the ride; I feel blessed for having you in my life.

Ray Bradbury is wrong. There is never just one man behind a book; unless that man is the reader.

Abstract

Free speech seems to be at a turning point in the digital era: online intermediaries acting in a non-transparent and unaccountable manner either as state agents or to their own benefit, have shaken the trust in the public right for free speech. The reiteration of the conventional legal approach is thus imperative in the digital era. The thesis examines the challenges posed for the regulation of free speech online from a public law perspective and ultimately suggests a new policy model following a techno-legal approach, namely taking into account the net architecture.

For this, the thesis is structured in three parts. The first part (Chapters 1 and 2) explores the new ecology for free speech online, the questions posed for its constitutional protection and the responses available in free speech jurisprudence. The thesis critically examines the efficacy of the free speech jurisprudence as to its afforded protection online and it is contended that Baker's theory on liberty seems to be holding some potential.

The second part (Chapters 3 and 4) moves on to identify the common ground between the core net architectural principles and free speech. A descriptive part of the internet's history, design and administration is further analysed on its capacity to promote free speech. At the same time conventional legal approaches fail to embrace the net infrastructure. Thus, free speech jurisprudence needs to be properly contextualised online. In other words, paraphrasing Lessig's famous dictum "law needs to be encoded".

The third part (Chapters 5 and 6) explains how this suggested approach functions: Baker's concept of liberty –as the most fitting of all free speech rationales- is put in an online context. The thesis suggests a new policy model for online speech based on the potential of the net architecture as a perfect substantiation of Baker's theory on liberty: self-realisation is identified as both the value determining the regulatory scope for speech as well as the basic concept characterising the structure of the internet.

Acronyms and Abbreviations

ACLU	American Civil Liberties Union
AP	Access Point
ARPA	Advanced Research Projects Agency
ARPANET	Advanced Research Projects Agency Network
AUP	Acceptable user Policy
AWN	Athens Wireless Network
BILETA	British & Irish Legal Education Technology Association
CALEA	Communications Assistance for Law Enforcement Act
CCIA	Computer and Communications Industry Association
ccTLD	Country Code Top Level Domain
CBN	Community Broadband Network
CDA	Communications Decency Act of 1996 (US)
CEN	European Committee for Standardization
CIRs	Critical Internet Resources
CSS	Content Scrambling System
DDoS	Distributed Denial of Service
DMCA	Digital Millennium Copyright Act
DNS	Domain Name System
DNSSEC	Domain Name System Security Extensions
DOC	Department of Commerce (US)
DPI	Deep Packet Inspection
DRM	Digital Right Management
E2E	End to End
ECPA	Electronic Communications Privacy Act 1986 (US)
EFF	Electronic Frontier Foundation
EULAS	End User License Agreements
FCC	Federal Communications Commission (US)
FIPR	Foundation for Information Policy Research
FTP	File Transfer Protocol
GigaNET	Global Internet Governance Academic Network
GNU	GNU's not Unix
HTML	Hypertext Markup Language
HTTP	Hypertext Transfer Protocol
IAB	Internet Architecture Board
IANA	Internet Assigned Numbers Authority
ICANN	Internet Corporation for Assigned Names and Numbers

ICT	Information and Communications Technology
IESG	Internet Engineering Steering Group
IETF	Internet Engineering Task Force
IFWP	International Forum on the White Paper
IGF	Internet Governance Forum
ILC	International Law Commission
IP	Internet Protocol
ISO	International Organization for Standardization
ISOC	Internet Society
ISPs	Internet Service Providers
ITU	International Telecommunication Union
IXPs	Internet Exchange Points
LICRA	Ligue Internationale Contre Le Racisme & l'Antisémitisme
NSA	National Security Agency (US)
NSFNET	National Science Foundation Network
NSI	National Security Information
NTIA	National Telecommunication and Information Agency (US)
OSI	Open-system Interconnection
OSPs	On-line Service Providers
PICS	Platform for Internet Content Selection
PIPA	Protect Intellectual Property Act
RFC	Request for Comment
RIPA	Regulation of Investigatory Powers Act 2000
RIRs	Regional Internet Registries
SMTP	Single Mail Transfer Protocol
SOCA	Serious Organised Crime Agency (UK)
SOPA	Stop Online Piracy Act
TOR	The Onion Routing (US)
TCP	Transmission Control Protocol
VPN	Virtual Private Network
W3C	World Wide Web Consortium
WGIG	Working Group on Internet Governance
WLANs	Wireless LANs (Local Area Networks)
WSIS	World Summit on the Information Society
WWW	World Wide Web

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Chapter 1: Free Speech ~ A Digital Chimera

"The First Amendment presumes that the government has the motive and the means to suppress speech. That no longer holds true today. We live in an age of the late, great First Amendment."

Alex Kozinski, Chief Judge of the Ninth Circuit Court of Appeals[1]

1. The Late, Great First Amendment

In his 2008 keynote speech to the Pepperdine Law Review Symposium entitled "The Late, Great First Amendment", Ninth Circuit Chief Judge Alex Kozinski discusses the new challenges for free speech in the digital era. Having examined all seminal cases in First Amendment jurisprudence, Kozinski contends that the internet has now rendered all free speech doctrines obsolete:

> "Brandenburg v. Ohio? Dead. Who cares about parades? There once was a time when parades mattered and the government might be predisposed to try to restrict such speech. Not anymore. The days of trying to express ideas through that medium are gone. (…) Cohen v. California? Dead. Who cares about an offensive jacket with the provocative statement "Fuck the Draft"? Everyone can now reach an audience of thousands through anonymous political speech. Even if the government wanted to restrict such speech today, they would be incapable of doing so. Privacy? Dead. Barbra Streisand may attempt to restrict images on the Internet of her home, but her very effort to do so has led to the proliferation of those images, not the suppression of them. Whistle-blower protection laws? Dead. Who cares about Bob Woodward and other such journalists when the next Deep Throat can just share his information anonymously on the Internet? WikiLeaks and a dozen other websites allow anonymous reporting without a journalist as intermediary."[2]

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1 A Kozinski, 'The Late, Great First Amendment' (Pepperdine Law Review Symposium 'Free Speech and Press in the Modern Age', April 2008).

2 For an account of Kozinski's keynote speech, see R Alford, 'Chief Justice Kozinski on the Death of the First Amendment' <http://opiniojuris.org/2008/04/04/chief-judge-kozinski-on-the-death-

According to this view, the challenges posed for the right to free speech in the digital era have a deep impact on its constitutional protection: the government can no longer control speech online; thus the protection offered against state interference or arbitrary restrictions of free speech is now obsolete. In Kozinski's view "The First Amendment was crafted to deal with dangers that, as a practical matter, no longer exist."[3] The moderating effect of free speech jurisprudence, crafted on the assumption that speech can be suppressed by the state, appears to be of little use online: Is our constitutional understanding of a right to free speech flawed online? This question is the departure point for this thesis. In addressing Kozinski's concerns, the following chapters seek to understand the new ecology for free speech in the digital era, identify its constitutional misperceptions and construct a robust policy model for its protection.

This comes in a timely manner. The dystopian picture Kozinski drew in 2008 that the First Amendment is an anachronism in the digital era was soon to be confirmed in the years to come. During the time that research was undertaken for the purposes of this thesis, an avalanche of internet-related cases gained great public exposure and highlighted the vitality of the internet as a tool promoting speech beyond state control. The WikiLeaks online release in 2010 of the Afghan War diary followed by a series of leaked classified diplomatic cables was heralded by many[4] as a manifestation of free speech; beyond the direct control and the censorial powers of the state, whistle-blowers were able to utilise a free platform to disseminate information considered a state secret to a wide audience. For some, the genie was out of the bottle[5]: the US state's decision to block access to any WikiLeaks content

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of-the-first-amendment/> accessed 5 December 2013.

3 S Graham, 'Web Has Made First Amendment an Anachronism, Kozinski Says' <http://legalpad.typepad.com/my_weblog/2011/04/alex-kozinski-came-to-golden-gate-university-school-of-law-on-monday-to-praise-the-first-amendment-and-to-bury-it-appear.html> accessed 5 December 2013.

4 Y Benkler, 'A Free Irresponsible Press: WikiLeaks and the Battle over the Soul of the Networked Fourth Estate' (2011) 46 Harv. CR-CLL Rev. 311; C Shirky, 'The Political Power of Social Media-Technology, the Public Sphere, and Political Change' (2011) 90 Foreign Aff. 28; G. R. Stone, 'WikiLeaks and the First Amendment' (2011) 64 Fed. Comm. LJ 477.

5 A Hintz, 'Dimensions of Modern Freedom of expression: WikiLeaks, Policy Hacking and Digital Freedoms' in B Brevini, A Hintz, P McCurdy (eds), *Beyond WikiLeaks* (Palgrave Macmillan 2013) 146-165.

for US federal employees[6] or for employees using the Air Force network[7] as well as to disable searches for "WikiLeaks" in the public search engine for the US National Archives[8] did not seem to be enough to stop the revelations spreading over the net.

A year later, in 2011, a series of mobilisation protests in many Arabic-speaking countries - widely known as the Arab Spring - led to a series of political and social turbulence. Social media is generally believed to have been instrumental in these protests[9]; Vinton Cerf noted the contribution of social media to the Arab uprising in arguing that engineers have nowadays gained an added obligation to empower users and enable them to exercise their rights[10]. Tahrir square in Cairo, Egypt became the symbol of people demanding change: the overthrow of the Mubarak regime, the end of police brutality, less corruption and more free speech were the main wishes of the protesters. The Egyptian government's decision to shut down online access for the whole country on the grounds of civil unrest did not manage to isolate the protesters: satellite news and hotline numbers for Google's Speak2Tweet system reactivated the

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6 E MacAskill, 'US Blocks Access to WikiLeaks for Federal Workers' (The Guardian, 3 December 2010), <http://www.theguardian.com/world/2010/dec/03/wikileaks-cables-blocks-access-federal>, accessed 5 December 2013.

7 M Ryan, 'US Airforce Blocks NYT, Guardian over WikiLeaks' (www.reuters.com, 14 December 2012) <http://www.reuters.com/article/2010/12/14/us-usa-wikileaks-airforce-idUSTRE6BD6CI20101214> accessed 5 December 2013.

8 K Gosztola, 'US National Archives has Blocked Searches for WikiLeaks' <http://dissenter.firedoglake.com/2012/11/03/us-national-archives-has-blocked-searches-for-wikileaks/> accessed 5 December 2013.

9 See for example Z Tufekci, C Wilson, 'Social Media and the Decision to Participate in Political Protest: Observations from Tahrir Square' (2012) 62(2) Journal of Communication 363; L Anderson, 'Demystifying the Arab Spring: Parsing the Differences between Tunisia, Egypt, and Libya' (2011) 90 Foreign Aff. 2; X Zhuo, B Wellman, J Yu, 'Egypt: The First Internet Revolt?' (2011) Peace Magazine. However, it should be noted that there is also the view that the role of the internet as a facilitator of the Arab uprising has been exaggerated. See M Gladwell, 'Does Egypt Need Twitter' (The New Yorker, 2 February 2011). <http://www.newyorker.com/online/blogs/newsdesk/2011/02/does-egypt-need-twitter.html>, accessed 5 December 2013; L Penny, 'Revolts Don't Have to be Tweeted' (New Statesman, 15/2/2011) <http://www.newstatesman.com/blogs/laurie-penny/2011/02/uprisings-media-internet>, accessed 05/12/2013; D Kravets, 'What's Fuelling Mideast Protests: It's More Than Twitter' (wired.co.uk, 28 January 2011) < http://www.wired.co.uk/news/archive/2011-01/28/middle-east-protests-twitter> accessed 5 December 2013. For a different account on how the Internet can have two faces and can also be used as a propaganda tool by authoritarian regimes, see E Morozov, *The Net Delusion: The Dark Side of Internet Freedom* (Public Affairs 2012).

10 V Cerf, 'Internet Access is Not a Human Right' (NY Times, 1/5/2012) <http://www.kean.edu/~jkeil/Welcome_files/Internet%20Access%20Not%20a%20Human%20Right%20NYT.pdf>, accessed 5 December 2013.

Twitter feedback loop[11] and added to the protesters' determination[12]. Most importantly, it raised public suspicion against the state exerting control over the internet infrastructure on the pretext of national security in times of civil unrest[13]. If the lesson learned from WikiLeaks was that the genie was out of the bottle, the Egyptian kill switch made it clear that the sovereign state was no longer in absolute control: multinational corporations specialising in internet-related products and services were able to exert their powers over their users, which had a deep impact on both their online and offline activities.

This became more evident in the following year: 2012 will always be remembered as the year that "the Internet went on strike"[14] to oppose copyright restrictions on user-generated content. Online websites, including Wikipedia, Twitter and Google, joined in a series of online protests following the physical demonstrations and boycotts of 2011 against the proposed Stop Online Piracy Act (SOPA) and Protect IP Act (PIPA). The protests culminated on 18th January: in a symbolic move the English-language Wikipedia decided to block access to all of its content and redirected its users to a post opposing the bills. The protests managed to attract public attention, mobilise users and ultimately were able to gain reception on a global scale that led to the removal of the bills for further voting. The demand for uninhibited flow of information online was similar to the public claims for online free speech after WikiLeaks and the Egypt kill switch; however things had shifted towards the technology industry. It was no longer just the people asking for their right to free speech to be respected; in the SOPA and PIPA protests, it was

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11 A Dunn, 'How the Internet Kill Switch Didn't Kill Egypt's Protests' (www.metactivism.org, 13 February 2011), <http://www.meta-activism.org/2011/02/how-the-internet-kill-switch-didnt-kill-egypts-protests/> accessed 5 December 2013.

12 TM Chen, 'Governments and the Executive Internet Kill Switch' (2011) 25 IEEE Network 2.

13 Cameron's suggestion to impose online access restrictions over growing public concern during the London riots in July 2011 and the controversial Bill 'Protecting Cyberspace as a National Asset Act of 2010' introduced by Senator J Lieberman are two such examples of controversial proposals for internet kill switches for security reasons. For more see SM Ruggiero, 'Killing the Internet to Keep America Live: The Myths and Realities of the Internet Kill Switch' (2012) 15 SMU Sci. & Tech. L. Rev. 241; A Casili, B Tubaro, 'Social Media Censorship in Times of Political Unrest: A Social Simulation Experiment with the UK Riots' (2012) 115 Bulletin of Sociological Methodology 15.

14 E Kain, 'The Day the Internet Stood Still: Why Wikipedia and Craigslist Went Dark' (Forbes Tech, 18 January 2012), <http://www.forbes.com/sites/erikkain/2012/01/18/why-the-wikipedia-and-craigslist-websites-went-dark/> accessed 12 December 2013.

predominantly the tech giants voicing their concerns over restrictive legislation for online speech and potential harm to the welfare of the internet communities.

Finally in 2013, once again internet-related news monopolised round table discussions and academic conferences: The NSA revelations and online surveillance brought back the question of whether the internet has aided the state in controlling information or whether it ever presented us with a remarkable opportunity to escape the panopticon[15]. At the same time though, it exposed to the public the invisible handshake[16] between the governments and the online active private corporations. Verizon, AT&T and other telecom companies have reportedly handed over all metadata for all calls on a daily basis: this includes routing data, phone and trunk identifiers and all information about the time, date and duration of the monitored calls[17]. Internet companies have been no exception to this: Yahoo!, Microsoft and Google are named in the Special Source Operations briefing on Corporate Partner Access as a few of the NSA's "corporate partners"[18]. In the post-Snowden era, the traditional notion of suspicion over the government, well-reflected in the First Amendment's opening words, has grown to a general feeling of distrust and disbelief encompassing all online intermediaries and internet companies offering services.

In this sense, contrary to Kozinski's views, the digital era seems to have created an oxymoron for free speech: Information can be exchanged rapidly, widely and easily beyond any state-imposed restrictions; at the same time information can be

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15 The use of VPNs and TOR can be one such example of how the internet architecture can be utilised to escape central control points of the user's activity (http://torrentfreak.com/should-authorities-decrypt-vpns-and-tor-or-ban-them-altogether-130817/). On 4 October 2013, Snowden leaked a PowerPoint presentation in the Washington Post explaining how the NSA has compromised the Tor encrypted network, a tool for online anonymisation for circumventing nation state internet policies, available online <http://www.washingtonpost.com/blogs/the-switch/wp/2013/10/04/everything-you-need-to-know-about-the-nsa-and-tor-in-one-faq/> accessed 12 December 2013.

16 Discussed further in section 1.3.

17 G Greenwald, 'NSA Collecting Phone Records of Millions of Verizon Customers Daily', (The Guardian, 6 June 2013), <http://www.theguardian.com/world/2013/jun/06/nsa-phone-records-verizon-court-order> accessed 12 December 2013; Z Whittaker, 'Verizon Records Vacuumed up by NSA Under 'top secret' Patriot Act Order' (www.zdnet.com, 6 June 2013). <http://www.zdnet.com/verizon-records-vacuumed-up-by-nsa-under-top-secret-patriot-act-order-7000016441//> accessed 4 December 2013.

18 For an informative account of the NSA revelations, see <http://www.theguardian.com/world/interactive/2013/nov/01/snowden-nsa-files-surveillance-revelations-decoded#section/1> accessed 12 December 2013.

controlled far more than even before. In this new ecology, is the First Amendment[19] still relevant or it is time to start performing its burial rites?

2. A Time to Perform the Burial Rites for the First Amendment?

At first glance, Kozinski's observation that free speech cannot be easily suppressed online seems accurate. The role of the First Amendment as a moderating force of public discourse has now been taken over by other mediating forces for online communications. Falling outside the remit of sovereignty, the protection of the right to free speech online has grown to become a matter of internet governance, an emerging field of research[20]. According to a taxonomy suggested by DeNardis[21], internet governance includes many areas: "architecture-based intellectual property rights enforcement, the policies enacted by information intermediaries, cyber security governance, governance of routing and interconnection; internet standards governance and control of CIRs[22]"[23]. At the same time, the research field of internet governance is not focused strictly on free speech nor is it infused with its underpinning rationales, unlike public law. As such, internet governance can only offer part of the picture, its policy models put forth not explicitly addressing free

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19 The term "First Amendment" is used throughout this thesis in its socio-political meaning, exceeding its narrow legal scope within the US jurisdiction. Though this thesis has a strong focus on American law (please see sections 1.2. and 6.2. explaining this point in detail), the term "First Amendment" should not be understood in a narrow federal context but instead it is used interchangeably with free speech, unless indicated otherwise. This is not to say that there are no differences between the US and the EU free speech jurisprudence; the thesis simply follows the argument that the First Amendment has had a profound impact in free speech jurisprudence as a whole. See also A Karanasiou, 'On Balancing Free Speech in a Digital Context' (2012) 2 MUJLT.

20 It should be noted that this thesis does not intend to discuss all legal rules and principles forming the emergent field of Internet Governance, nor does it purport to answer the research question set in section 1.1 from an internet governance perspective. The digital ecology for free speech presents us with a dynamic and complex environment consisting of many mediating forces, each worthy of further research. The focus here is on examining the potential for a policy model reflecting free speech values while embracing the net architecture. As such, the thesis discusses various internet governance models only as to their relation to the policy model suggested in Chapter 5.

21 L DeNardis, *The Global War for Governance* (Yale University Press 2014).

22 Critical Internet Resources.

23 L DeNardis, 'Hidden Levels of Internet Control: An Infrastructure Based Theory of Internet Governance' (2012) 15 Information, Communication & Society (Special Issue: A Decade in Internet Time: The Dynamics of the Internet and Society) 3.

speech issues online. Is there still scope for the right's constitutional protection in the digital era? This thesis seeks to identify the scope for applying free speech's underpinning values to online communications. As such, it offers a fresh view on the issue of regulating informational flow online: mostly addressed in the literature as a matter pertaining to internet governance, its link to public law is often overlooked.

The remainder of the thesis seeks to explore how – if at all – the traditional rationales underpinning our public law understanding of the right to free speech are translated online. The benefit of addressing the issue from a vantage point other than internet governance is notable: while the literature addressing internet governance matters discusses free speech *en passant*[24], a public law snapshot of free speech focuses on the right *per se* and is useful as a solid basis on which to build a free speech public policy model.

The new ecology of free speech online poses significant challenges to the conventional public law thinking: The classic approach of the State's regulative monopoly has now given way to online intermediaries acting as new moderating forces for free speech. Lacking in accountability and transparency, their activities have brought about disbelief as to the efficacy of the constitutional mechanism to protect free speech in the digital era.

2.1. Online Intermediaries as the New Moderating Forces

The abovementioned examples of the WikiLeaks cables, the NSA surveillance revelations and the Egyptian kill switch demonstrate clearly the tendency of nation states to directly control the informational flow at its source: the internet infrastructure[25]. Thus, the question of free speech in the digital era seems not to be just about its constitutional protection, but also about its administration. A

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[24] See also Chapter 3 section 4.2.

[25] L DeNardis (n 23).

military/research project at its inception[26], the internet soon grew outside the state's control: its rapid privatisation as a commercial product in the 1990s is now followed by an era of dangerous liaisons between the state and private corporations. Birnhack and Elkin-Koren note how the state has transformed itself from mere actor to regulator of private entities offering internet services, until it found in them an ally for indirect law enforcement; in other words the transition from the invisible hand in the market to the invisible handshake[27] is the driving force online. Note the following passage in Birnhack and Koren:

> "The State never left the scene. The Internet was initiated by the State, and soon after was privatized. The State minimized its direct involvement in the information environment and increasingly abandoned its role in running the Internet. Instead, it focused on its regulatory role of shaping the rules that govern Internet-related activities, and refrained from actually operating the Internet. In the State's absence, the field was left to the invisible hand. Market powers, assisted by the law, facilitated the rise of new players, such as Internet Service Providers (ISPs), search engines, content producers, application designers, and other Online Service Providers (OSPs), who gained power and control in the information environment"[28].

The intermediation[29] of online speech appears to be holding significant ramifications for its legal protection. A chain of interdependent upstream providers includes many points of control that may inhibit the information flow before speech reaches its audience: DNS and hosting providers, Internet Service Providers, Payment Providers, search engines and third party platforms[30] are all intermediaries between the speaker and the listener.

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26 ARPANET/NSFNET entered a phase of privatisation when the NSF permitted its commercial use in 1991. For a detailed account on the history and the architecture of the internet, see Chapter 3.

27 "The entire regulatory regime that governs the Internet, both direct and indirect regulation provides the background for the rise of a third type of State involvement in the digital environment: an alliance between the State's enforcement efforts and the private sector — the Invisible Handshake." M Birnhack, N Elkin-Koren, 'The Invisible Handshake: The Reemergence of the State in the Digital Environment' (2003) 8 Virginia Journal of Law & Technology.

28 M Birnhack, N Elkin-Koren ibid 2.

29 The issue of intermediary liability is discussed here only for the purposes of this chapter, namely to give a short overview of the new ecology and challenges for free speech in the digital era. The thesis focuses on examining the free speech jurisprudential values as applied to online architectures; as such it does not offer an analysis of intermediary liability, a matter so widely discussed in the literature that could easily be the focal point of a doctoral thesis.

30 For more details and examples, see <https://www.eff.org/es/free-speech-weak-link#home> accessed 12 December 2013.

The new mediating forces that have joined in with the ability to control online informational flow[31] are not directly bound to any constitutional obligations to uphold free speech. The Ruggie Principles[32] have created a soft law of international responsibilities for online corporations to uphold human rights online. However, this cannot guarantee full protection for free speech[33]. The First Amendment in the US appears to be drafted on the understanding that the State is the sole source of infringements on the right to speak freely; thus intermediated speech is a challenging concept calling for a wider interpretation. In Europe, on the other hand, although art 10 ECHR and freedom of expression is predominantly understood as a negative right, there seems to be some ground for "implied positive obligations"[34] applicable to private actors[35]. However, with regard to the internet, these obligations refer to access to the information online and do not include a right to impart information, nor

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31 For an accurate account of the current threats and challenges for free speech online, see W Dutton, A Dopatka, M Hills, G Law, V Nash, 'Freedom of Connection – Freedom of Expression: The Changing Legal and Regulatory Ecology Shaping the Internet' Report prepared for UNESCOs Division for Freedom of Expression, Democracy and Peace (UNESCO 2011), < http://ssrn.com/abstract=1654464> accessed 12 December 2013.

32 The UN Guiding Principles on Human Rights and Transnational Corporations and Other Business Enterprises (2011), Report of the Special Representative of the Secretary-General with Guiding Principles in the Annex (UN-Doc. A/HRC/17/31) of 21 March 2011, endorsed by the UN Human Rights Council on 6 July 2011 (UN-Doc. A/HRC/RES/17/4), <http://www.ohchr.org/documents/issues/business/A.HRC.17.31.pdf> accessed 12 December 2013.

33 In the same vein, the Global Network Initiative is an effort seeking to promote Corporate Social Responsibility and create some general guidelines. That being said, this solution is far from guaranteeing full protection for free speech, especially in cases where online companies liaise with oppressive regimes to block access to online content. A fuller protection in this respect could be promised by the Global Online Freedom Act, debated currently in the US Congress. Under this Act, Internet Companies operating in "internet restricting" countries are required to publish details of their policies with regard to human rights. For more, see I Brown, 'The Global Online Freedom Act' (2013) 14 (1) Georgetown Journal of International Affairs.

34 Mostly referred to in the literature as 'Drittwirkung' or 'horizontal effect' of the ECHR. The European legislative framework for human rights is only mentioned briefly here as it falls outside the remit of this thesis. For more see A Clapham, 'The "Drittwirkung" of the Convention' in R St J Macdonald, F Matscher ,H Petzold (eds) *The European System for the Protection of Human Rights* (Nijhoff 1993) 163 ff.

35 Note for example the recent case of *Centro Europa 7 S.r.l. and Di Stefano v. Italy* (application no. 38433/09) ([2012] ECHR 974) where it was held that "in such a sensitive sector as the audio-visual media, in addition to its negative duty of non-interference the State has a positive obligation to put in place an appropriate legislative and administrative framework to guarantee effective pluralism." Similarly, in *Khurshid Mustafa and Tarzibachi v Sweden* (2011) 52 EHHR 24, it was found that Sweden had failed to protect the applicant's right to receive information via satellite broadcast. Other cases of horizontal positive obligations under art 10 ECHR (although not directly referring to the internet or telecommunications) are *Appleby and Others* v United Kingdom (2003) 37 EHRR 783, *Özgür Gündem v Turkey* (2011) 31 EHHR 41; *VgT Verein gegen Tierfabriken v. Switzerland* (2001) 34 EHHR 159; *Feuntes Bobo v Spai*n (2001) 31 EHRR 50. See also A Mowbray, *The Development of Positive Obligations under the European Convention on Human Rights by the European Court of Human Rights* (Hart Publishing 2004).

do they touch on issues of administering the informational flow[36] or the net infrastructure in general.

At the same time, the current intermediary liability rules preclude any direct state action to enforce free speech online; instead, self-regulation of intermediaries is encouraged by the "safe harbour" statutory provisions, which grant them immunity from liability for user-generated unlawful content. The EU's E-Commerce Directive[37], granting immunity to intermediaries acting as mere conduits or offering hosting and caching services online, follows the example set by similar national legislation introduced in Germany[38], France[39] and the UK[40]. Safe harbours are generally considered instrumental in states deputising for private corporations to enforce censorship indirectly[41]. At the same time though, entrusting online intermediaries with the task of protecting free speech while themselves being under no direct constitutional obligation runs the risk of limited "substantive protection for individual rights and due process" for the users[42].

The issue of the unaccountability and lack of due process on behalf of the intermediaries becomes obvious when examining the US safe harbour granted by

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36 "The right to Internet access is considered to be inherent in the right to access information and communication protected by national Constitutions, and encompasses the right for each individual to participate in the information society and the obligation for States to guarantee access to the Internet for their citizens. It can therefore be inferred for all the general guarantees protecting freedom of expression that a right to unhindered internet access should also be recognised." *Yildirim v Turkey*, App. no. 3111/10, para. 31 (ECHR, 18 December 2012).

37 Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (Directive on Electronic Commerce), [2000] OJ L 178/1 (henceforth: E-Commerce Directive).

38 Gesetz zur Regelung der Rahmenbedingungen für Informations- und Kommunikationsdienste (Informations- und Kommunikationsdienste-Gesetz - IuKDG) in der Fassung des Beschlusses des Deutschen Bundestages vom 13. Juni 1997 (BT-Drs. 13/7934 vom 11.06.1997).

39 Loi n° 2000-719 du 1 août 2000 modifiant la loi n° 86-1067 du 30 septembre 1986 relative à la liberté de communication.

40 The 1996 Defamation Act's defence of "innocent dissemination" has often been evoked in cases concerning online distributors of defamatory material. E.g. *Godfrey v Demon Internet* Service [2001] QB 201, *Bunt v Tilley & Ors* [2006] EWHC 407 (QB). However the new defence for website operators introduced in Defamation Act 2013 (c.26) para 5 seems to be overbroad in regarding also moderated content hosted online.

41 A HRC/17/27 (16/05/2011) at paras 38-48, Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression.

42 I Brown, 'Online Freedom of Expression, Assembly, Association and the Media in Europe', Report at the Council of Europe Conference of Ministers responsible for Media and Information Society (2013) 8-9.

section 230 CDA immunity of the intermediary for user-generated unlawful content. The controversial CDA in 1996, originally destined to restrict objectionable online speech, left behind one of the most important laws protecting free speech on the internet: section 230[43] also known as the Good Samaritan provision, which specifies in Section 230 (e) (1)-(4) that intermediaries may be held liable only if the content violates federal criminal law, intellectual property law, or electronic communications privacy law. The importance of section 230 CDA for the internet's sustainability and growth is self-explanatory: without it, the Internet would not have been what it is today. That being said, there seems to be a slippery slope in the section's provisions: immunity from liability covers intermediaries for

> "any action voluntarily taken in good faith to restrict access to or availability of material that the provider or user considers to be obscene, lewd, lascivious, filthy, excessively violent, harassing, or otherwise objectionable, whether or not such material is constitutionally protected."

In other words, this gives leeway for intermediaries to remove material, which may otherwise be constitutionally protected under the First Amendment.

How can constitutional law protect against non-state interferences with free speech without stifling the dynamic of the internet? This delicate balance between state-centrism and corporate online dominance is the main objective for this thesis. It seeks to identify a public law based policy model capable of balancing between the state and the intermediaries; the ultimate goal is to restore trust.

2.2. On Transparency and Accountability: Towards Restoring Online Trust

A recurring theme when discussing online policy making is the issue of regaining trust[44]. The original disbelief of state interference in the early days of the internet

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43 <https://www.eff.org/issues/cda230> accessed 12 December 2013.

44 See for example the recent post "How We Are Boosting Trust in the Cloud Post PRISM" by Neelie Kroes, Vice President of the European Commission leading the Digital Agenda, available online <http://ec.europa.eu/commission_2010-2014/kroes/en/blog/trust-cloud-prism> accessed 12

has now given way to an absolute lack of trust: this becomes especially evident after the Snowden revelations about the NSA surveillance tactics online[45]. However, the lack of trust as to online policy making is not only evident vertically, between the citizen and the state; it stretches to an international level involving state-to-state relations. For some states, Snowden has offered a chance to criticise the US and to some extent European internet policy making: Russia has offered asylum to Snowden, China has expressed fears over cyber-espionage pushing for a UN governance model online while Brazil has accused the US of breaching international law and has expressed an interest in facilitating discussions to strengthen internet governance. Trust has also been identified as a major challenge for online policy making by ICANN, the internet's main governing body responsible for domain names. Pushing for a broader multi-stakeholder governance model, Fadi Chehadé, ICANN's CEO, has observed that "the trust in the global internet has been punctured. Now it's time to restore this trust through leadership and institutions that can make that happen."[46] Moreover, non-state actors are exposed as agents indirectly implementing state control online. In an attempt to restore their damaged profile, the top tech companies Google, Apple, Microsoft, Yahoo!, Facebook and AOL have addressed the Senate Judiciary Committee urging for more transparency and accountability to rebuild trust online in the aftermath of Snowden[47]. The same companies have however been criticised for their non-transparent configuration of

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December 2013. Online trust has also been identified as one of the main priorities of the Obama administration in most of Hillary Clinton's speeches. See for example H Clinton, 'Remarks on Internet Freedom' (www.state.gov 21 January 2010) <http://www.state.gov/secretary/rm/2010/01/135519.htm> accessed 12 December 2013 and H Clinton, 'Internet Rights and Wrongs: Choices and Challenges in a Networked World' (www.state.gov 15 February 2011) <http://www.state.gov/secretary/rm/2011/02/156619.htm> accessed 12 December 2013.

45 One such example of the public reaction against state surveillance online is the campaign hosted by Big Brother Watch, the Open Rights Group and English PEN – together with the German internet activist Constanze Kurz – bringing the case to Strasbourg, claiming breach of the ECHR rights by Britain's spy agencies <http://www.theguardian.com/uk-news/2013/oct/03/gchq-legal-challenge-europe-privacy-surveillance> accessed 12 December 2013.

46 <http://www.theguardian.com/technology/2013/nov/21/icann-internet-governance-solution-us-nsa-brazil-argentina> accessed 12 December 2013.

47 <http://www.scribd.com/doc/180596438/USA-Freedom-Act-Letter-10-31-13-pdf> accessed 12 December 2013.

their privacy settings[48], their all-encompassing proprietary policies[49] and their use of sophisticated algorithms to harness masses of data online[50].

Transparency and accountability seem to be key concepts in enforcing the constitutional protection of human rights; they are also the driving wheels of the internet's growth and sustainability. However, as noted in the previous sections, online intermediaries - acting either as the state's agents enforcing its policies online or out of personal interest to gain revenues - seem to be lacking in both. As a result, the constitutional protection of free speech, limited only against state arbitration, seems to be of little help in addressing the challenges posed for free expression in the digital era.

Returning to Kozinski's reformulation of the First Amendment doctrines online, as noted earlier, it seems that faith in free speech jurisprudence is also weakened. If speech is no longer under the control of the state, the guarantees for its freedom enshrined in the constitution appear to be toothless: online intermediaries suggest a new variable to an already difficult equation. This, however, does not necessarily mean that the current legislative framework is not working on the internet and should be abandoned, as Kozinski concludes. Online speech is not out of control; on the contrary, it seems to be overly controlled by a series of different actors in a non-transparent and often unaccountable manner. To reiterate Kozinski's arguments point by point:

Cohen v. California is not at all dead. The tech industry leaders, Google, Twitter, Facebook, YouTube have now assumed the role of the state in deciding on

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48 L Edwards, 'Privacy, Law, Code and Social Networking Sites' in I Brown (ed) *Research Handbook on Governance of the Internet* (University of Oxford, 2013) <http://ssrn.com/abstract=2200163> accessed 12 December 2013.

49 N Elkin-Koren, E Salzberger, *The Law and Economics of Intellectual Property in the Digital Age: The Limits of* Analysis (Routledge 2013).

50 The rise of algorithms is well described by Mayer-Schönberger and Cukier "We risk falling victim to a dictatorship of data, whereby we fetishize the information, the output of our analyses. And end up misusing it. Handled responsibly, big data is a useful tool of rational decision-making. Wielded unwisely, it can become an instrument of the powerful, who may turn it into a source of repression, either by simply frustrating customers and employees, or worse, by harming citizens." V Mayer - Schönberger, K Cukier, *Big Data: A Revolution That Will Transform How We Live, Work and Think* (Houghton Mifflin Harcourt 2013). See also S Barocas, S Hood, M Ziewitz, 'Governing Algorithms: A Provocation Piece' (2013) Discussion Paper for the Governing Algorithms conference, NYU, May 16-17, 2013 <http://ssrn.com/abstract=2245322> accessed 12 December 2013.

objectionable speech on the internet[51]. Having the technical means to enforce their decisions, the big players of the internet industry are able to establish their own guidelines and community standards as to what types of speech are acceptable.

As to protecting the whistle-blowers, contrary to Kozinski's views, the question is no longer whether the next Deep Throat can spread information reaching a wide audience; it is rather whether the public is enabled at all to access speech. In the wake of WikiLeaks, not only did the public become aware of state secrets; the growing powers of corporatism were also widely exposed. WikiLeaks' domain service provider, EveryDNS, stopped their domain name services, Amazon ceased to host WikiLeaks data and PayPal, Visa, MasterCard and Bank of America withdrew their online payment services. In administering the internet infrastructure, online corporations were able to take entrepreneurial decisions that severely affected the right of the dissenter to reach an audience[52].

Privacy? Not dead. In the aftermath of the global surveillance disclosures, trust is lost forever. Trust in the state is shattered: the reputation once enjoyed by the US as a promoter of human rights is now damaged[53]. Trust in tech companies administering data and enabling online communication has now given way to suspicion over the secret and non-transparent ways in which they operate online.

Free speech jurisprudence has clearly entered a new phase in the digital era: the state is no longer the only controlling force threatening to stifle free expression. Private entities seem to be entrusted with the task of upholding free speech on the internet, while at the same time evading the restrictions set in the law. Is the First Amendment dead in the digital era or can it still provide answers, provided it is given a second reading in the online context? The element of trust has been instrumental in fostering the internet's growth and sustainability. In terms of public law, public trust is the cornerstone of the democratic Rechtsstaat and the rule of law.

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51 J Rosen, 'The Delete Squad' (New Republic 29/4/2013), <www.newrepublic.com/node/113045> accessed 12 December 2013.

52 Y Benkler (n 4).

53 A Neyer, 'After the NSA Revelations Who Will Listen to America on Human Rights?' (The Guardian 11 November 2013) <http://www.theguardian.com/commentisfree/2013/nov/11/nsa-revelations-america-human-rights> accessed 12 December 2013.

What this thesis seeks to explore is whether or not public law can provide a free speech policy able to restore the trust online.

3. Overview

It is often noted that the internet has spawned a new era for the right to free speech. On balance, the overall picture seems to be that this open communicatory platform offers its users around the globe the unique opportunity to interact and engage in an unprecedented way. That being said, the emergence of non-state actors competing with the state to gain control over the information flow online has given rise to concerns over whether we are in fact sleepwalking into a new era of digital censorship[54] – the internet offering just an illusion of free speech. The research undertaken here seeks to answer whether or not the current legislative framework is still relevant and discusses the extent to which it manages to strike a fair deal for the right to free speech online. In doing so, this thesis maintains a techno-legal approach; namely, it takes into account the way speech is shaped by the internet architecture and suggests a policy model that embraces the architectural values added to the existing public law theories.

3.1. Chapter 1: Prolegomena

For this purpose, the current chapter gives some much needed background and pinpoints the research questions explored in the remainder of this thesis: Is the public law still relevant when discussing free speech online? In times when regaining trust is the top priority on the agenda for online policy makers, would a public law based policy model be able to provide adequate free speech protection?

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54 J Heawood, 'As Free as They Decide We Can Be' (Guardian 25 November 2008) <http://www.guardian.co.uk/commentisfree/2008/nov/25/comment> accessed 15 March 2012.

3.2. Chapter 2: Free Speech Architecture (The Law)

The second chapter seeks to identify whether the traditional theoretical framework for free speech is still applicable in the online environment. It revisits the three main theories that underpin the right to free speech and as a result justifies the scope of its protection: Mill's argument for truth[55], Meiklejohn's theory for democracy[56] and the general overview of the argument to autonomy[57]. While all these theoretical frameworks appear to be offering a stepping stone for the conventional protection for the right to free speech, their application in the digital realm seems to be problematic. As a result, it is demonstrated that the protective scope of the right to free speech needs to be reiterated in the digital era. How, though, is the protective scope for the right to free speech to be determined online, if its main theoretical framework is contested online? What seems to be the missing parameter that renders the traditional theoretical underpinnings obsolete?

3.3. Chapter 3: The Net Architecture (The Code)

The third chapter considers the question of whether speech has acquired new values or is simply put in a new context, not different from the offline world, just new. This is not the first time that such a question has been posed. The "Law of the Horse" debate[58] dating back to the nineties asks the same question: is there a need for a new framework when considering the internet? The chapter discusses this question with a narrower focus on free speech: if the current framework is not offering adequate

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55 J S Mill, *On Liberty* (Longman, Roberts & Green 1869; Bartleby.com 1999); J Riley, *Mill on Liberty* (Routledge, London 1998); G Dworkin (ed), *Mill's On Liberty Critical Essays* (Bowman and Littlefield, USA 1997), J Gray, *Mill on Liberty: a Defence* (Routledge 1996); J Skorupski, *Why Read Mill Today?* (Taylor & Francis, 2006); K O'Rourke, *John Stuart Mill and Freedom of Expression: The Genesis of a Theory* (Psychology Press 2001).

56 A Meiklejohn, *Political Freedom: the Constitutional Powers of the People* (Harper 1960); Madison J, 'The Utility of the Union as a Safeguard against Domestic Faction and Insurrection (Continued - Federalist 10)' in D Wootton (ed) *The Essential Federalist and Anti-Federalist Papers* (Hackett Publishing, Indianapolis 2003) 53; A Meiklejohn, 'The First Amendment is an Absolute' (1961) Sup. Ct. Rev. 245.

57 R Dworkin, *Taking Rights Seriously* (Duckworth, London 1977); J Raz, *The Morality of Freedom* (Oxford University Press, USA, 1988); T Scanlon, 'A Theory of Freedom of Expression' (1972) 1 Philosophy & Public Affairs; F Schauer, *Free Speech : a Philosophical Enquiry* (Cambridge University Press, Cambridge [Cambridgeshire]; New York 1982); CE Baker, 'Scope of the First Amendment Freedom of Speech' (1978) 25 UCLA L. Rev. 964.

58 For more, see Chapter 2.

protection online, as shown in the previous chapter, what has brought about this anomaly? For this purpose, the new digital context is evaluated on the grounds of its ability to shape free speech. Whereas the previous chapter provided a snapshot of the values upon which free speech protection is architected, this chapter examines the architectural values running through the Internet: its infrastructure and administration are thus examined. Ultimately, it is contended that the free speech rationales would need to be compliant with the net architecture in order to be applicable online. Architecture is identified as the missing parameter: the chapter discusses the main net principles, which will be used as a basis for the policy model suggested in Chapter 5. The chapter concludes that understanding this new context is essential in reiterating the traditional approaches. It seems, however, that the free speech jurisprudence ignores the net architecture when applying the traditional free speech values online.

3.4. Chapter 4: Code is Law But Also the Law Needs To Be Encoded: Digitisation

The fourth chapter explores how the free speech jurisprudence contextualises the underpinning values when discussing online speech. Whereas context is generally recognised as an important parameter in free speech adjudication, it seems that contemporary regulative frameworks are somewhat distanced from the online context within which they operate; as a result, free speech is not offered adequate protection online. Despite their ostensible differences, the First Amendment and article 10 ECHR seem to use certain contextualising parameters to determine the protective scope for speech. The chapter traces and analyses three of the most frequently evoked balancing parameters: space, property and state coercion. Eventually, it is demonstrated that all three of these parameters are challenged in cyberspace; as a result they seem to be of little help in balancing online speech. Although the free speech rationales explored in Chapter 2 might still be applicable online, their digitisation is the decisive factor unlocking the potential they hold for the digital era. The chapter suggests adopting a new approach; digitising the conventional public law based free speech values. Respect to the net architecture is the missing element in online free speech adjudication; this complete disregard for the digital environment results in inadequate protection of the right under review.

3.5. Chapter 5: Digitisation in Motion: Baker's Theory Digitised

The fifth chapter draws from the findings of its preceding chapters, upon which it builds a net-based policy model based on the need for free speech online. Having discussed the free speech rationales (Chapter 2) and the net architectural principles (Chapter 3) while addressing the issue of them being interdependent (Chapter 4), this thesis manages to digitise Baker's free speech theory. In his work, Baker considers private entities acting as intermediaries and can therefore provide valuable guidance for protecting online speech. Moreover, Baker's concept of liberty seems to share common ground with the basic net principles of modularity and End-to-End, as set out in Chapter 3. Ultimately, it is shown how the net infrastructure can promote autonomy and should thus be preserved, falling as such within the protective scope of the First Amendment.

3.6. Chapter 6: Post Scriptum: Autonomy As a Shared Value

The final chapter revisits the research question posed in the opening chapter of this thesis and purports to put the policy model suggested in Chapter 5 into perspective. It also highlights the importance of respecting the net architecture and shares some reflections for the future. A multi-stakeholder model of governance is arguably the most appropriate mechanism for online policy making. That being said, multi-stakeholder groups can only work on mutual trust and understanding. This thesis has explained in the introductory chapter how a careful balancing between state-centrism and corporate dominance is badly needed in the digital realm. Both state and non-state actors pose significant threats to the information flow on the internet, however a narrow interpretation of the right to free speech would not be able to grant full protection. This should not be taken to imply that the First Amendment is dead in the digital era; contextualised properly it can still offer efficient protection and generally support the online multi-stakeholder governance. The public law based approach suggested in the thesis, based on autonomy and respect for the internet architecture, appears to be able to restore trust and cooperation between old and emerging stakeholders online.

4. Literature and Contribution

4.1. Building Bridges[59]: A Techno-Legal Approach

This chapter has already highlighted that online intermediated speech puts into question the relevance of free speech jurisprudence and makes it clear that its reiteration in the digital era is much needed: This is the main argument running through this thesis. The following chapters critically analyse the ecology shaping free speech online, examine the objectives of all internet stakeholders involved in administering the information flow and discuss its repercussions for the right to free speech. However, the thesis goes beyond this point, touching on undiscovered ground in the literature[60]: it discusses the link between free speech jurisprudence and the internet infrastructure and maintains a techno-legal approach throughout[61].

Internet law as an emergent research field has now gained wider acceptance, however it is still not fully regarded as a standalone substantive legal subject such as entertainment law or media law[62]. The first textbooks dealt with this new technology as interpreted within the traditional legal standards and frameworks[63]. However, it

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59 The title of this section refers to the theme of the Internet Governance Forum 2013 'Building Bridges: Enhancing Multistakeholder Cooperation for Growth and Sustainable Development' held in October 2013 in Denpasar on the island of Bali, Indonesia. In the aftermath of the NSA surveillance revelations, building bridges between the various stakeholders online seems to be a daunting task. For some personal reflections on this, written in my capacity as the Internet Society's IGF Ambassador, see A Karanasiou, 'Noticing Cellophane Rights', <http://www.internetsociety.org/blog/2013/10/noticing-cellophane-rights> accessed 12 December 2013.

60 See section 1.4.

61 See section 6.2.

62 This is noted in Chapter 2 when discussing Frank Easterbrook's powerful metaphor on the 'Law of the Horse'.

63 Indicative of this approach is the frequent use of the term "Computer Law" or "Information Technology Law" in almost all first editions of textbooks published in the early nineties, namely indicating a review of all cases related to computer use and their legal evaluation and definition in terms of the existing framework. For some examples of UK textbooks, see C Reed, *Computer Law* (1st edition, Blackstone Press Ltd 1990), I Lloyd, *Information Technology Law* (1st edition, OUP 1993); D Bainbridge, *Computers and the Law* (1st edition, FT Prentice Hall 1990); C Edwards, N Savage, I Walden, *Information Technology and the Law* (2nd edition, Palgrave McMillan 1990).

soon became obvious that this new technology was unique in the sense that it had the potential of challenging the state's regulatory power. Joel Reidenberg[64] and then Lawrence Lessig noted how the internet's technical infrastructure could form new rules and norms alongside traditional legal concepts and broke new ground: Yochai Benkler, James Boyle, David Post, Julie Cohen, Mark Lemley, Dan Burk, Jonathan Zittrain, Jessica Litman, Daniel Solove, Paul Schwarz and others discussed the viability of putting old wine in new bottles with a particular focus on intellectual property and privacy. In the UK academics have also written extensively on the matter: Andrew Murray, Chris Reed, Chris Marsden, Ian Lloyd, David Bainbridge and Roger Brownsword are a few notable examples. It soon became obvious that the internet was not simply to be interpreted in law; a hybrid form of governance had already been in place on the internet[65]. Scholarship gradually moved from trying to fit the internet into the traditional framework towards an understanding of this new medium achieved through drawing from other disciplines: Social sciences[66], economics[67] and telecommunication studies[68] have been widely referred to in the writings of internet legal scholars. At the same time, internet governance has

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64 J R Reidenberg, 'Lex Informatica: The Formulation of Internet Policy Rules Through Technology' (1997) 76 Texas Law Review 553; J Boyle, 'Foucault in Cyberspace: Surveillance, Sovereignty and Hardwired Censors' (1997) 66 U. Cin. L. Rev. 177; E Katsh, 'Software Worlds and the First Amendment: Virtual Doorkeepers in Cyberspace' (1996) U. Chi. Legal F. 335, 338.

65 A Murray, *Information Technology Law: The Law and Society* (OUP 2013); A Lee Bygrave, J Bing (eds.), *Internet Governance: Infrastructure and Institutions* (OUP 2009); R Deibert, J Palfrey, R Rohozinski, and J Zittrain (eds.), *Access Controlled: The Shaping of Power, Rights, and Rule in Cyberspace* (MIT Press 2010); W Drake E Wilson III, *Governing Global Electronic Networks: International Perspectives on Policy and Power* (MIT Press 2008); L Lessig, *Code: Version 2.0*. (Basic Books 2006); R Mansell, M Raboy (eds.), *The Handbook of Global Media and Communication Policy* (Wiley-Blackwell 2011); C T Marsden, Internet *Co-Regulation* (Cambridge University Press 2011); J Palfrey, U Gasser, *Interop: The Promise and Perils of Highly Interconnected Systems* (Basic Books 2012). See also section 4.2. in Chapter 3.

66 Some notable examples in this respect are: G Teubner, 'Societal Constitutionalism: Alternatives to State-centred Constitutional Theory' (2004) 3 Transnational Governance and Constitutionalism 13; V Karavas, 'The Force of Code: Law's Transformation under Information-Technological Conditions' (2009) 10 German L J 463; P Leith, 'The Socio-legal Context of Privacy' (2006) 2 International Journal of Law in Context 105; P Casanovas, N Casellas, J Vallbé, *Empirically Grounded Developments of Legal Ontologies: A Socio-Legal Perspective (Approaches to Legal Ontologies)* (Springer Netherlands 2011) 49-67.

67 For example, see N Elkin-Koren, E M Salzberger, 'Law and Economics in Cyberspace' (1999) 19(4) International Review of Law and Economics 553-581; P Samuelson, S Scotchmer, 'The Law and Economics of Reverse Engineering' (2002) 111 (7) The Yale Law Journal 1575-1663.

68 Tim Wu, Susan Crawford, Christopher Yoo, Chris Marsden, Mark Lemley and B Frischmann are some of the scholars adopting such an approach, especially when addressing network neutrality issues.

become an overbroad field, including various legal branches and topics ranging from competition and intellectual property to privacy, free speech and standard setting.

In his keynote speech to the 28th annual BILETA, Andrew Murray noted how this runs the risk of IT-related legal research relying mostly on other sciences (sociology, communication studies, political science) while distancing itself from its legal origins. As a result, "cyberlegal" research can easily be replaced with similar fields integrated in the traditional social sciences. The time has come, Murray observes, to return back to the roots: "many of the markers for the future of cyberlaw are already in place: we just need the confidence to follow them. They key is to re-engage with traditional jurisprudential models and thus to make ourselves relevant to lawmakers and lawyers in the way media lawyers have done"[69].

This thesis is structured along these lines and offers a critical study of internet-related legislation with a clear focus on free speech. As such, it is not intended to discuss in depth any matters of internet governance. The latter, referring to online policy making, is an all-encompassing field pertaining to many distinctive branches in law, including free speech. In this respect, internet governance is only mentioned to the extent that is relevant to online free speech regulation. In other words, the thesis does not examine the question of whether the internet is able to be regulated but goes into analysing a substantive area of law, already regulated in public law: free speech. In this vein, the thesis revisits the traditional jurisprudential models: Dworkin, Raz, Mill, Baker, Meiklejohn, Berlin, Emerson, Scanlon, Schauer and other free speech theorists are discussed with respect to the potential their theories have to regulate online speech effectively.

Taking a closer look at the traditional theories can be helpful in terms of providing argumentative credibility and rigour to the free speech policy model suggested in the thesis. However, this by itself is not enough. Premised on a techno-legal understanding that the internet infrastructure has added new values and norms to those underpinning traditional jurisprudence, this thesis explores how the net architecture and its principles are compatible to the underpinning rationales for the

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69 A Murray, 'Looking Back at the Law of the Horse: Why Cyberlaw and the Rule of Law are Important' (2013) 10(3) *SCRIPTed* 310, <http://script-ed.org/?p=1157> accessed 12 December 2013.

right to free speech. It could be argued that methodologically, this thesis maintains a techno-legal approach: a comparison between the free speech architecture, as reflected in public law theories[70], and the internet architecture, as explained in computer studies[71]. For this purpose, the thesis draws from other disciplines, but only in order to properly contextualise the traditional free speech jurisprudence online. This is not the first time that a techno-legal methodology has been employed in IT-related research: Barbara van Schewick[72] has discussed the connection between the net architecture and the economic system, Laura DeNardis[73] explores the significance the net infrastructure holds for online governance, Solum and Chung[74] suggest an online governance model based on the layered structure of the internet, Francesca Musiani[75] has used the End-to-End principle to suggest a new online governance model, Melanie Dulong de Rosnay[76] has identified common ground between the net architecture and intellectual property and Jim Chen[77] has highlighted the conduit-based regulation of speech online as contrasted to the content-based regulation. However, the link between free speech jurisprudence and the online architecture[78] remains a scarcely explored area in the literature. Although this connection has been drawn *en passant* on several occasions, for example when discussing network neutrality, the importance of treating free speech jurisprudence and the net infrastructure as interdependent research fields has not been adequately

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70 Chapter 2.

71 Chapter 3.

72 B van Schewick, *Internet Architecture and Innovation* (The MIT Press 2010).

73 L DeNardis, 'The Turn to Infrastructure for Internet Governance' (2012) Concurring Opinions <http://www.concurringopinions.com/archives/2012/04/the-turn-to-infrastructure-for-internet-governance.html> accessed 12 December 2013.

74 L Solum, M Chung, 'The Layers Principle: Internet Architecture and the Law' (2003) Public Law and Legal Theory, Research Paper 55.

75 F Musiani, *Nains Sans Géants: Architecture Décentralisée et Services Internet* (Paris, Presses des Mine, 2013); F Musiani, 'A Decentralized Domain Name System? User-Controlled Infrastructure as Alternative Internet Governance' (2013) Presented at the 8th Media In Transition (MiT8) conference, May 3-5, 2013, Massachusetts Institute of Technology, Cambridge, MA. Available as draft online <http://web.mit.edu/comm-forum/mit8/papers/Musiani_DecentralizedDNS_MiT8Paper.pdf> accessed 10 October 2013.

76 M Dulong de Rosnay, 'Peer-production Online Communities Infrastructures' (2013) Proceedings of the First Conference on Internet Science.

77 J Chen, 'Conduit-Based Regulation of Speech' (2005) Duke Law Journal 1359

78 Angela Daly in 'The Internet and Rationales for Free Expression' has examined free speech rationales in a digital context, yet these are not further associated with the net architecture. A Daly 'The Internet and Rationales for Free Expression' (2010), <http://ssrn.com/abstract=1600242> accessed 10 October 2013.

addressed[79]. The thesis maintains a techno-legal approach with a clear focus on free speech jurisprudence; arguments from other research fields are drawn upon to further highlight this link: online competition and telecommunication studies, public law theories, IT legal studies and online governance scholars inform the thesis and reinforce its arguments. That being said, the thesis is not a study in any of these areas; it manages to identify their free speech parameters and put them into perspective. With a clear focus on free speech, it manages to put together all the free speech pieces found in different areas and construct a policy model based on the respect of law for the net architecture justified on grounds of autonomy, a shared concept in both systems.

4.2. A Question of Value? Objectives and Limitations

So far, this chapter has served as an introduction for the thesis: the main research questions and background have been set out, its methodology and place in literature has been discussed and the originality of its arguments has been highlighted in this respect. However, before discussing the matter in depth, a short outline of its aims and possible limitations is necessary. The thesis is premised on the hypothesis that free speech on the internet requires a reformulation of the current public law jurisprudence. This however should not be taken to suggest that public law values and doctrines are not relevant online, neither is the answer to be found in a new bill of rights for the online world; on the contrary, the thesis contends in Chapter 5 that a public law policy model could afford adequate protection. A few points follow on possible criticisms to this stance; it is important that the research hypothesis adopted for this thesis is asserted early on: this will further highlight the value of the research undertaken here.

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[79] See also section 6.1. explaining how this maps on to previous theories on the coexistence of law and the code.

4.2.1. Internet speech is not worthy of free speech protection

It can be argued that whenever a new technology supporting communications is introduced, two of the first questions to be posed in law are whether this merits free speech protection and where does the line need to be drawn: print media generally enjoy broad free speech freedoms[80] while the broadcasting media are in principle regulated in a more stringent manner[81]. In the same vein, when the internet emerged as a new communications technology, the question for public lawyers was never whether it could be regulated, but the extent to which it qualified for full or limited free speech protection. This has not been an easy question; the internet had blurred the three known legal domains[82] (print media, common carrier and broadcasting) and had introduced a "trifurcated communication system"[83], which could not easily fit into any regulatory boxes. It has been contended that the internet should perhaps fall outside the remit of the First Amendment's protective scope, as a communicatory platform of a lesser constitutional value[84]. This argument would suffice to challenge the hard core of this thesis; luckily, it does not seem to be of particular rigour. Martin Redish has addressed such points: drawing a rigid line between the print and the electronic media on the grounds that the latter facilitating mass culture would not be a rational proposition. It would run the risk of offering free speech "protection on the basis of wholly subjective judgements concerning intellectual quality"[85]; an argument directly opposing the essence of the right itself. The medium cannot debase the value of speech: for instance, political speech is

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80 *New York Times v Sullivan*, 376 U.S. 254 (1964); *Tornillo v Miami Herald*, 418 U.S. 214 (1973)

81 *Red Lion Broadcasting Co. v. FCC*, 395 U.S. 367 (1969); *FCC v Pacifica Foundation*, 483 U.S. 726 (1978); *Sable Communications v FCC*, 492 U.S. 115 (1989).

82 J Harris Lipschultz, *Free Expression in the Age of the Internet* (Westnew Press 2000) 10.

83 I de Sola Pool, *Technologies of Freedom* (Cambridge Mass; Harvard University Press; Belknap Press 1983) 2.

84 Note, for example, Ronald Collins and David Skover arguing that "[t]he eighteenth-century first amendment, with its emphasis on serious public discourse and its adherence to an anticensorial maxim, can no longer coexist with the self-indulgent bent of a mass entertainment culture. (…) [T]he electronic first amendment debases the values of meaningful public discourse, effective dissent, and collective decision making, all in the service of a new mass culture. First-amendment liberty collapses into first-amendment triviality." R Collins, D Skover, 'The First Amendment in the Age of Paratroopers' (1990) 68 Texas L Rev 1087, 1116.

85 M Redish, 'Killing the First Amendment with Kindness: A Troubled Reaction to Collins and Skover' (1990) 68 Texas L Rev 1147.

protected speech whether it is included in a manifesto, written on a wall or posted online as a blog entry; it can however offer a different reading on the underpinning rationales of the right's protection. This shall hopefully become clearer as the thesis progresses.

4.2.2. The First Amendment is indeed dead online

On a relevant note, it can be argued that constitutional protection addresses interferences by the state, and as such, speech on the Internet cannot be fully protected on constitutional grounds. This view, however, sees only one part of the picture; it describes a negative aspect of the right to free speech inasmuch as it protects expression from state mandated restrictions. It has been observed that content blocking and filtering can serve many purposes, ranging from national security to online safety and social or moral reasoning. In most cases, the right to free speech is restricted when it is found to be clashing with other rights; most notable examples online include privacy and intellectual property. However, there seems to be a growing demand for a positive right to online free speech, which does not oppose but complements online privacy and intellectual property. This is reflected in the latest reports by *Frank La Rue*, the United Nations Special Rapporteur on Freedom of Expression and Opinion: In his landmark report on technologies of surveillance[86], Frank La Rue refers to privacy and free speech online as being interlinked and explicitly mentions the state's obligation to promote these rights and to hold the private sector accountable for any infringements:

> "76. States' human rights obligations require that they not only respect and promote the rights to freedom of expression and privacy, but protect individuals from violations of human rights perpetrated by corporate actors. In addition, States should exercise adequate oversight in order to meet their international human rights obligations when they contract with, or legislate for, corporate actors where there may be an impact upon the enjoyment of human rights. Human rights obligations in this regard apply when corporate actors are operating abroad.

86 A/HRC/23/40 (17 April 2013).

> 77. States must ensure that the private sector is able to carry out its functions independently in a manner that promotes individuals' human rights. At the same time, corporate actors cannot be allowed to participate in activities that infringe upon human rights, and States have a responsibility to hold companies accountable in this regard."

This echoes Frank La Rue's 2011 report[87], where he expresses the same view:

> "45. While States are the duty-bearers for human rights, private actors and business enterprises also have a responsibility to respect human rights. In this regard, the Special Rapporteur highlights the framework of "Protect, Respect and Remedy" which has been developed by the Special Representative of the Secretary-General on the issue of human rights and transnational corporations and other business enterprises. The framework rests on three pillars: (a) the duty of the State to protect against human rights abuses by third parties, including business enterprises, through appropriate policies, regulation and adjudication; (b) the corporate responsibility to respect human rights, which means that business enterprises should act with due diligence to avoid infringing the rights of others and to address adverse impacts with which they are involved; and (c) the need for greater access by victims to effective remedy, both judicial and non-judicial."

The need for a positive right to free speech online is also well illustrated in all the above mentioned cases that have been of major public concern and have mobilised civil society on a global scale: the WikiLeaks revelations, the NSA/PRISM spying scandal and the mass protests against SOPA and PIPA, although seemingly regarding rights other than free speech, such as privacy and intellectual property, all highlight the need for a positive right of free speech online. This explains why the answer is to be sought in free speech jurisprudence and adjudication, predominantly the First Amendment. In this sense, this thesis explores whether there is any ground for securing free speech while balancing between state-centrism and corporate dominance in the digital realm. As noted in the introductory chapter, the law needs to regain the user's trust. Therefore a policy model for free speech would need to ensure transparency and legitimacy while making provisions against infringements from non-state entities.

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87 A/HRC/17/27 (n 41).

4.2.3. Reviewing online free speech on First Amendment grounds is US-centric

Having already discussed the relevance of public law and most specifically the First Amendment in reviewing a positive right for online free speech, this brings up one of the main limitations in this thesis: A strong focus on the First Amendment suggests a US-centric approach. However, to a certain extent, this limitation is justified on many accounts. First, the First Amendment is argued to be offering a cosmopolitan free speech mechanism: an exceptional constitutional provision with a trans-border dimension that operates on a global scale[88] disseminating its doctrines and principles to a variety of international fora. In the digital era, the First Amendment's cosmopolitanism is augmented. This strong link between the First Amendment and the Internet has rarely been examined from both sides in the literature: that is to say, while it is generally accepted that the Internet has shaped free speech jurisprudence, the influence of the First Amendment in configuring the law of cyberspace has not been adequately discussed[89]. This thesis recognises this "duplex nature of the relationship between cyberspace and speech, where each constitutes the other"[90] and explains their common point of reference. Furthermore, the First Amendment scholars and jurisprudence have addressed internet-related issues more frequently, which is easily explained by the fact that the Internet has been predominantly a US project funded by the American government and run by the Ministry of Defence and NTIA, Ministry of Commerce until it was handed over to ICANN in 1998. Although today, internet governance has shifted towards adopting a multi-stakeholder model[91] and it cannot be argued that it is US-dominated, the internet has been heavily influenced by the US's general policies and laws from its inception until now. Most importantly though, all major online corporations are US-based; this does not only mean that as a rule of thumb they base

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88 T Zick, *The Cosmopolitan First Amendment: Protecting Transborder Expressive and Religious Liberties* (Cambridge University Press 2013).

89 Chander and Lê in their paper 'The Free Speech Foundations of Cyberlaw' discuss how the First Amendment has shaped internet-related policies: CDA and DMCA, for example, have been instrumental in liberating online intermediaries from liability for objectionable content generated by their users. A Chander, U Lê, 'The Free Speech Foundations of Cyberlaw' (2013) 351 US Davis Legal Studies Paper Series

90 A Chander, U Lê ibid 39.

91 See also Chapter 3 section 4.2.

their entrepreneurial activities on US law, but also that their actions reflect back on US policy and international responsibilities. Take for example the numerous instances of data gathering, storing and transmitting online by Google and Microsoft; such action in breach of Art. 17 CCPR has been taken "under the direction and control" of the United States and is attributable to the United States according to Art. 8 ILC on State Responsibility. This thesis critically analyses the internet architecture and the values underpinning a right for free speech protection: the wealth and legacy of First Amendment scholars, combined with the fact that US legislation has been very influential and has left its imprint from the Internet's early days until now, explain why a US-oriented approach is adopted here.

4.2.4. Free speech at a turning point: Why is there a need for reinforcing constitutional values online?

One final preliminary note is in order. Free speech seems to be at a turning point online; its regulation and protection is a claim stated very frequently online by a varied and multifaceted pool of actors. The liberal values of the First Amendment have been instrumental in the development of the internet as we know it today; this fact makes free speech a very attractive argument that can be put to many uses. As will be shown in Chapter 5, it is not only the users that ask for full protection of their right to speak freely online. In 2010, the Supreme Court in *Citizens United v Federal Commission* extended First Amendment rights to corporations and unions[92]; two years later, in 2012, Eugene Volokh, in a white paper commissioned by Google[93], suggests that Google, Bing and Yahoo! search engines are within the protective scope of the First Amendment.

The new complex ecology of free speech online is regarded by many as a remarkable opportunity to use the First Amendment as a vehicle to keep the State

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92 <http://www.indexoncensorship.org/2013/08/united-states-free-expression-constrained-by-cultural-and-political-factors/> accessed 12 December 2013.

93 E Volokh, 'First Amendment Protection for Search Engine Search Results' (2012) White Paper Commissioned by Google <http://www.volokh.com/wp-content/uploads/2012/05/SearchEngineFirstAmendment.pdf> accessed 12 December 2013.

away from their online activities, which are often, ironically, stifling free speech *per se*. This is an alarming development for the right's constitutional protection; not only does it have the capacity to devaluate the First Amendment[94] as a defence, but it also distances it from its underpinning values, making it as frail as ever.

The thesis notes this need to redraft the constitutional values of free speech in the digital era and "encode" them online, namely to examine how these can be promoted through the internet infrastructure. Online free speech protection, as will hopefully be shown in the remainder of this thesis, is not a challenge exclusively for the lawmaker or exclusively intended as a task delegated to intermediaries; it is simply a matter of a joint effort to preserve the elements in the net architecture that promotes the underpinning values of free speech.

5. In Search of Chimeras

The title of this chapter describing free speech online as a "digital chimera" is indicative of the confusion the new medium has brought to free speech jurisprudence: is this a new regulatory ground, a legal fallacy or merely a matter of interpretation? In Greek mythology, a Chimera was a fire-breathing monstrous creature, which when sighted was an omen of natural disasters; nowadays one use of the word is to describe a delusion, an impossibility that exists only in the fantasy world. In this sense, Judge Kozinski seems to be convinced of the First Amendment being a contemporary Chimera in the digital age.

This chapter has sought to explain the main research question explored in the remainder of the thesis. Judge Kozinski's concern over the First Amendment's redundancy in the digital era has been used here as a first point of reference: intermediation and control over the flow of information online highlight the need for a reiteration of its archetype and doctrinal values. In the following chapters, the

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94 N van der Meulen, L van der Holst, 'Freedom of Speech as a Legal Defence on the Internet: The Devaluation of a Fundamental Right?' (28th annual BILETA Conference 2013) available online at <http://www.liv.ac.uk/media/livacuk/law/DRAFT, BILETA, PAPERS (rev), (2).pdf> accessed 12 December 2013.

thesis will examine the free speech rationales while placing them in the online context. Free speech in the digital era, mostly addressed in the literature as a matter related to internet governance, has rarely been examined from a substantive public-law based point of view. This thesis critically examines the efficacy of the current free speech jurisprudence with regard to its afforded protection online. It then moves on to identify the common ground between the core architectural principles of the net infrastructure and the main free speech rationales. Finally, the thesis suggests a new policy model for online speech based on the potential that the net architecture holds in terms of promoting autonomy.

In this vein, the thesis contends that free speech is indeed a chimera online, only giving a different reading of this: in science, a chimera is an organism having two or more genetically distinct types of cells due to mutation or grafting. Free speech appears to be a contested concept in the digital era; its underpinning values and doctrines seem to be somewhat misapplied in the online world. The following pages explore the rights rationales and online application. By the end of this thesis it will hopefully be shown not only how the First Amendment and free speech in general is relevant online, but also how it is essential in fostering a sustainable internet.

Chapter 2: Learning from the Law of the Horse ~ Free Speech Rationales Revisited in the Digital Era

> *"Either history is really governed by laws, and in that case a truly human-activity is impossible, except perhaps in a technical sense; or human beings really make their own history, and then the task of theory will not be directed to discovering 'laws', but to the elucidation of the conditions within which human activity unfolds."*
>
> **Cornelius Castoriadis, philosopher[1]**

1. Introduction

In 1996, at a conference on law and cyberspace, Judge Frank Easterbrook[2]stood in front of an audience of Cyberlaw aficionados and provocatively suggested that "Cyberlaw" was to be regarded as real and as significant to legal studies as the "Law of the Horse"[3] would ever be. Easterbrook claimed that introducing Cyberlaw would involve running the risk of "multidisciplinary dilettantism" and added that:

> "…the best way to learn the law applicable to specialized endeavors is to study general rules. Lots of cases deal with sales of horses; others deal with people kicked by horses; still more deal with the licensing and racing of horses, or with the care veterinarians give to horses, or with prizes at horse shows. Any effort to collect these strands into a course on "The Law of the Horse" is doomed to be shallow and to miss unifying principles."

In the years to come, cyberspace evolved rapidly and became an indispensable part of our everyday lives, refuting the Cassandras that doomed its future and its limited

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1 C Castoriadis, 'Marx Today: The Tragicomical Paradox' (1988) 17 Solidarity 7.

2 F Easterbrook, 'Cyberspace and the Law of the Horse' (1996) 207 U Chi. Legal F 208.

3 By "Law of the Horse", he referred to an older argument by Gerhard Casper, Dean of the University of Chicago law school, who glorified the law school for not offering courses such as the "Law of the Horse", namely courses creating hybrid new areas of law instead of attempting to apply the old doctrines of the existing traditional areas of law.

perspective to be regarded as a research area of purely academic interest[4]. Easterbrook's dismissive view of Cyberlaw as a rather futile struggle to provide legal adaptations for a subject of limited sustainability was controversial. It soon became evident that the internet heralded the era of a technological revolution[5], which brought about social changes and confronted legal systems with regulatory challenges unimagined in the pre-internet era.

Was Easterbrook right in not regarding cyberspace as a new field in legal studies, separate from such traditional fields as contracts, torts and human rights?[6]Among the first academics to reply to Easterbrook's claims were the so-called "cyber-exceptionalists"[7], namely theorists who claimed that cyberspace was a completely different space to the offline world with its own jurisdiction and set of rules. As a result, they were directly and unequivocally opposed to sceptics like Easterbrook. Nevertheless, they went further than examining Easterbrook's claims. Not only did they reject Easterbrook's view that Cyberlaw did not meet the necessary preconditions to constitute a separate path of law; they added that cyberspace presented a special space with a different jurisdiction to real space. To accept this view would be nonetheless seriously problematic. For if we were to believe that cyberspace occurred in a legal vacuum introducing us to a virtual world parallel to the real world, we would miss the focal point of the internet's structure; its interoperability with the offline world.

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4 For reasons attributed to raising demand of students and clients, the course of Cyberlaw is now among the courses offered in the curriculum of well-established universities worldwide. D Post, *Cyberspace and the Law of the Electronic Horse or Has Cyberspace Law Come of Age* (The American Lawyer 1998) .

5 Crane Brinton [C Brinton, *The Anatomy of Revolution* (Vintage books, New York 1965)] analysed the anatomy of such revolutions and concluded that they entailed the same pathological stages of a fever: onset of illness, development, convalescence. Regarding law, such a technological revolution would involve the stages of recognition of the problem, uncertainty as to the application of existing legislature to the problem (i.e. evaluation) and finally the return to the equilibrium along with the necessary appropriation.(R Ku, 'The Internet Revolution' (2003) 20 Santa Clara Computer & High Tech. LJ 208).

6 The majority of academic papers examining Easterbrook's view concluded in rejecting it and presented a series of persuasive arguments towards this conclusion. Today, the matter is considered to be resolved.

7 David Post is considered to be one of the predominant figures of cyber-exceptionalism. In his paper "Law and Borders: The Rise of Law in Cyberspace" he dismissed Easterbrook's view and concluded that Cyberspace was to be considered as a separate space with its own legal status and jurisdiction D Post, D Johnson, 'Law and Borders: The Rise of Law in Cyberspace' (1996) 48 Stan. L. Rev.1367.

The World Wide Web is so tightly weaved with our offline reality that it effects and shapes everyday life. It does not qualify for an autonomous space in need of separate legislation, yet it resembles a social lens through which online reality is perceived differently: cyberspace is not a "place" but should rather be seen as a "locus of control"[8] and as such it affects various aspects of our lives, including speech. It provides a new environment that has no precedent, introduces us to new sets of customary cyber-norms[9] and adds a new dimension to how we perceive and regulate speech, both online and offline.

More importantly, it introduces the "code" as a new regulatory modality that is gradually replacing law online. In a response to Easterbrook's allegation entitled "The Law of the Horse: What Cyberlaw Might Teach", Lawrence Lessig thoroughly explains in what ways Cyberspace distorts our legal and social perspectives. He identifies the "code", i.e. the technical infrastructure of cyberspace, as its most salient feature. Lessig further differentiates between the "East Coast Code" (Washington) and the "West Coast Code" (Silicon Valley); the first being the Code drafted by Congress and the second "the code writers 'enact' – the instructions embedded in the software and hardware that make cyberspace work"[10]. This latter form of "code" is nowadays developing gradually into a regulatory modality, a constraining force as influential as law, which operates more pervasively and in less transparent ways than law. Namely, the "code" exercises its control over the user's rights without providing the user with the transparency and accountability possessed by law. As a result, traditional human rights, such as freedom of speech, face different challenges online. For example, because of the technical infrastructure, the identification of the speaker and the audience is harder than in the real world. Lessig illustrates this by giving the example of zoning space in the real world as a means of protection of minors against harmful speech. As he notes, it may be easy to zone real space by granting permission to adult's zones (e.g. casinos, adult film screenings and so on) only on the basis of requesting a personal ID. At the same time though,

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8 A Shapiro, 'The Disappearance of Cyberspace and the Rise of Code' (1998) 703 Seton Hall Const LJ 710.

9 P Polanski, 'Towards a Supranational Internet Law' (2006) 1 Journal of International Commercial Law and Technology 8.

10 L Lessig, *Code and Other Laws of Cyberspace* (Basic books, New York 1999) 53.

online zoning is not a viable solution, as there are no differentiating elements between minor and adult users[11] online.

Therefore, it should be realised that it is not the speech that has changed, but the circumstances. Subsequently, the main question should not be whether free speech online constitutes a special case in need of a new legal mechanism. The question should be what effect this new environment has for a constitutional right, such as free speech. In what ways is this new environment affecting the set of values that lie at the core of the right to free speech? It is accepted that the justificatory theories that underpin the right to free speech, namely its rationales, ascribe a series of values to free speech[12]. These values justify its constitutional protection and serve as a defining limit within which this right ought to be exercised. What is the potential that the constitutional values ascribed to free speech hold in this new environment? Moreover, what are the implications of this change online for the right to free speech when exercised offline? [13]

This chapter examines the traditional rationales for free speech. In doing so, it is attempted to outline the reasons behind the significant constitutional values held by freedom of speech. Moreover, examining the set of values implicated in each rationale will advance our understanding of the circumstances in which freedom of speech is and ought to be constitutionally permitted. The central preoccupation of this chapter is the extent to which traditional rationales for free speech can be applied online.

It should be noted that the academic literature holds extensive accounts and views on the rationales for free speech[14]. The scope of the present chapter is therefore limited to simply providing an overview of the focal points of the predominant free

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11 L Lessig, 'The Law of the Horse: What Cyberlaw Might Teach' (1999) 113 Harv L Rev 501, 503-504.

12 For a systematic account on those justifications and the values they support, see K Greenawalt, 'Free Speech Justifications' (1989) 89 Columbia Law Review 119.

13 "Cyberspace code should concern us not because of what it does to public values "in cyberspace", but because of what is does to public values in our own real spaces", A Shapiro (n 8) 17.

14 For an overview see H Fenwick, H Davis, *Civil Liberties and Human Rights* (Routledge Cavendish, London 2004) 300; E Barendt, *Freedom of Speech* (OUP, Oxford 2005) 1; D Feldman, *Civil Liberties & Human Rights in England and Wales* (OUP, Oxford 2002) 546; J Raz, 'Free Expression and Personal Identification' in W.J.Waluchow (ed) *Free Expression: Essays in Law and Philosophy* (Clarendon Press, Oxford 1994).

speech rationales in legal theory. Establishing their main arguments and criticism will help towards a better understanding of the values ascribed to the right for free speech. Moreover, some useful analogies are drawn as the traditional ideological framework of each of the rationales is associated with the dominant cyber theories. Finally, some initial concluding remarks will be drawn, which will be referred to throughout the remainder of the thesis.

This chapter is intended to provide a reasoned framework that will inform discussion elsewhere in the thesis. By the end of the current chapter I intend to have shown that online speech raises many issues that call for revision of the existing rationales and legislative structures while maintaining the values ascribed to freedom of speech; hence online speech needs a rationale that can easily be associated with the current environment that shapes speech: cyberspace.

2. Free Speech Rationales

2.1. John Stuart Mill and His Argument on Liberty of Thought and Discussion

Often referred to as the "natural"[15] approach, Mill's view on the value of speech, revolves around morality and presupposes a rational autonomous man that is aware of his fallibility and self-determines his destiny. In the second chapter of his famous book "On Liberty", published in 1859, one can find a lucid series of arguments on the significance of liberty of thought. By believing that freedom of expression consequentially supports "the interests of man as a progressive being", he adopted a utilitarian sense of free discourse leading to the discovery of truth "in order that the community they (individuals) address may benefit in the long run"[16].

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15 T Scanlon, 'A Theory of Freedom of Expression' in R.M.Dworkin (ed) *The Philosophy of Law* (Oxford University Press, London 1977) 154-155.

16 R Dworkin, *A Matter of Principle* (Harvard University Press, Cambridge, Mass. 1985) 386.

Mill can be conceived as a strong advocate of liberty of expression in order to advance societal progress towards the truth. That is not to imply that he believes in an absolute state of liberty; yet state coercion should be minimal. Could Mill's theoretical infrastructure be of any use to overcome some of the controversial issues online speech poses? As will become evident below, Mill's thoughts, although written more than two centuries ago, are still relevant today. In times of concern over online state surveillance, digital rights and filtering as a means of online censorship, Mill's argument could be useful as a potential navigator towards a sustainable online speech policy. The following sections shall first briefly explain the main points of Mill's theory on liberty of thought and then evaluate them through the lens of cyberspace.

2.1.1. Main points of Millian theory of free discourse

Rather than emphasising freedom of speech *per se*, Mill's starting point is the instrumental tendency freedom of discourse has to lead people to truth. Given the innate fallibility as an unavoidable trait of their human nature, Mill's rhetoric can be summarised in the following three situations he examines:

a) The opinion silenced may be true

In Mill's own words:

> "First, if any opinion is compelled to silence, that opinion may, for aught we can certainly know, be true[17]. To deny this is to assume our own infallibility".

This Millian perspective on free discourse is based on two axioms: That people are not infallible, yet any sort of fallibility is corrigible through debate, as there is no such thing as a single universally accepted truth[18]. No one can really rely upon his

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17 JS Mill, 'On Liberty ' in J Gray (ed) *On Liberty and Other Essays* (OUP, Oxford 1991), 59.

18 I Berlin, *Four Essays on Liberty* (OUP, Oxford 1969) 188.

experience or information alone, as none of these will rationally assert his belief. Only after permitting his belief to be contested can one really be sure of his truth.

Many have criticised this point as Mill seems to assume that independently of the content of the message conveyed, its likeliness to be true makes it immune to any means of state interference. That assumption would alas lead us to a paradox. Let us consider the example given by Scanlon, i.e. a misanthropic scientist willing to massively broadcast the recipe of homemade nerve gas[19]. Although his message contains a scientifically proven truth, limitation is nevertheless justifiable. Of course Mill himself was rather preoccupied with the importance of a free voiced opinion on social matters, beyond hardly contested factual matters. In this case, the truth or falsity may not be as obvious, as in the example presented by Scanlon, nevertheless an essential improvement to Mill's theory would be to place the speech examined in context.

b) The opinion silenced may be false

Mill refers to this probability as well; for him truth resembles a jigsaw puzzle, where all pieces are needed for the disclosure of the full picture. Even a false opinion may contain a grain of truthfulness; no opinion can be considered useless. As Mill states:

> "Secondly, though the silenced opinion be an error, it may, and very commonly does, contain a portion of truth; and since the general or prevailing opinion on any object is rarely or never the whole truth, it is only by the collision of adverse opinions that the remainder of the truth has any chance of being supplied"[20].

This is not the first time though that such an argument has been put forth. Dialectic's famous scheme of thesis-antithesis-synthesis, as expressed by Plato and conceptualised by Hegel, states just that: truth can only be found after the collision of antithetical opinions[21]. Moreover, by the method of "elenchus[22]", "a form of cross

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19 T Scanlon, 'A Theory of Freedom of Expression' (1972) 1 Philosophy & Public Affairs 211. Another interesting example is that of someone knowing for a fact where to buy drugs and passing on such information to children in A Haworth, *Free Speech* (Routledge, London 1998) 45.

20 JS Mill (n 17) 59.

21 In "Protagoras", we witness a dialogue between Socrates, Protagoras and Thrasymachus, where the former insists the latter speak their opinion freely, as only from the opposition produced by debate

examination that refutes an opponent's thesis by drawing out contradictory or otherwise intolerable consequences from him[23]", all falsity is peeled off, uncovering the bare truth. Remnants of that can be traced today in the cross-examination process, which allows for high levels of scrutiny in the quest of truth[24]. Empirical evidence for this allegation also exists[25].

Mill imposes no quality standards on speakers and is thus committed to accept bizarre, poorly argued and even illogical statements. Such statements, on Mill's account, enjoy the same degree of protection as serious, well-argued contributions to public discourse. This is not to suggest that Mill was a democrat. Although he supported participatory democracy, at the same time he believed that only qualified people should govern[26].

c) Preventing truth from becoming "a dead dogma"

Challenges to obviously true claims are still valuable, according to Mill, because they invigorate truth. Its absence would deem truth to being a bare, stale dictum[27]. Mill holds everything open to debate and disregards the idea of something being evident and thus beyond any further debate. For him, no such thing as the plain

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can real learning occur. For more, see N Denyer (ed), *Protagoras* (Cambridge Greek and Latin Classics, Cambridge University Press, Cambridge 2008).

22 Referring to a series of questions to which the respondent has to respond negatively using his rationality. This deductory method gradually leads the person to the truth via dialogue.

23 A Flew, *A Dictionary of Philosophy* (Pan, London 1979) 103.

24 F Schauer, *Free Speech : A Philosophical Enquiry* (Cambridge University Press, Cambridge [Cambridgeshire]; New York 1982) 16.

25 This is to be found in the "Delphi method", namely a forecasting tool employed in scientific and technological research. This science and technology forecasting method, which has also been widely used for public policy issues and business forecasting, is applied to a panel of experts. First, all reply and reason individually, then the facilitator provides them with a summary of other members responses and reasoning. They are then encouraged to revise and thus through convergence the panel reaches the correct conclusion. The Delphi method suggests that a panel of experts, when systematically structured, can come up with the right answer. For more, G Rowe, G Wright, 'The Delphi Technique as a Forecasting Tool: Issues and Analysis' (1999) 15 International Journal of Forecasting 353.

26 A Arblaster, *The Rise and Decline of Western Liberalism* (Blackwell, Oxford 1984) 280.

27 "[True as the received opinion] may be, if it is not fully, frequently and fearlessly discussed, it will be held as a dead dogma, not a living truth. (…) [Even if] the received opinion [is] true, a conflict with the opposite error is essential to a clear apprehension and deep feeling of its truth", J S Mill (n 17) 41.

obvious exists. Nevertheless, it should be noted that there are levels of infallibility and some opinions, mostly factual, may be indeed indisputably wrong or right[28].

2.1.2. Regulation and the Millian Harm Principle

For Mill, the right to free speech is not a natural claim with innate moral value calling for total abstinence of state interference[29]. He permits state interference with the liberty of thought "to prevent harm to others[30]." According to this "harm principle", state regulation of freedom of speech is legitimate only to the extent that it prevents direct and clear harm to the others[31]. As Mill opposes paternalism[32], the state cannot intervene so as to protect the speaker from harm caused to himself/ herself[33]. Individuals are free to express themselves "at their own risk and peril"[34], assuming responsibility for voicing their opinion[35]. Mill's harm principle refers to direct harm to the other and not harm inflicted on general welfare[36]. It can be identified as the legitimate precondition upon which state coercion is based[37]. More importantly, Millian harm does not consider offence to other people's feelings that may cause moral distress. Harm is not to be considered as a mere offence but as a

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28 E Barendt (n 14) 10.

29 According to Nozick, moral value of rights is a given and therefore as he argues "individuals have rights, and there are things no person or group may do to them", R Nozick, *Anarchy, State and Utopia* (Blackwell, Oxford 1974) ix.

30 JS Mill (n 17) 14.

31 As Dyzenhaus notes, Mill's harm principle is "interest based" D Dyzenhaus, 'Mill and The Harm of Pornography' in G Dworkin (ed), *Mill's On Liberty Critical Essays* (Bowman and Littlefield, Oxford 1997) 42.

32 "His own good, either physical or moral is not sufficient warrant. He cannot be rightfully compelled to do or forbear because it will be better for him to do so, because it will make him happier, because in the opinion of the other, to do so would be wise….These are good reasons for remonstrating with him, or reasoning with him, or persuading him, or entreating him, but not for compelling him or visiting him with any evil in case he does otherwise" (J S Mill (n 17) 14).

33 J McGregor, 'Why John Stuart Mill Would Support Restriction on DTC Marketing of Genetic Tests' (2008) 8 The American Journal of Bioethics 9.

34 JS Mill (n 17) 62.

35 S Fish, *There's No Such Thing as Free Speech and It's a Good Thing, Too* (Oxford University Press, New York; Oxford 1994) 102-119.

36 D Lyons, 'Liberty and Harm to Others' in G Dworkin (ed) *Mill's On Liberty Critical Essays* (Bowman and Littlefield, Oxford 1997) 115.

37 I Cram, 'The Danish Cartoons, Offensive Expression and Democratic Legitimacy' in I Hare, J Weinstein (eds), *Extreme Speech and Democracy* (OUP, Oxford 2009) 323.

"perceptible damage" to the others' interests[38]. The "harm to others" is regarded by Mill as the basis on which legitimate state action can be taken against the individual. For Mill, moral distress is not harm but a positive aspect of a discourse that should be encouraged in a free society for the benefit of societal progress[39]. Furthermore, the harm has to be direct; therefore in cases such as pornography or hate speech, where it is harder to demonstrate a clear causal relationship between speech and harm, restrictions to speech should be limited. Subsequently, as content is a decisive factor on deeming speech harmful, the Millian harm principle sets the grounds for content regulation[40]. Yet, this is a rather obscure notion, dependent on moral standards societies may possess[41].

As a last remark, it can be suggested that the "harm principle" presents us with a paradox. Mill focuses mostly on the case of harm to others, yet he also admits that "even opinions lose their immunity when … (they) constitute…a positive instigation to some mischevious act"[42]. He then uses the example of an opinion that corn dealers are the "starvers of the poor", and concludes that such an opinion can be circulated through the press but "cannot be delivered orally to an excited mob assembled before the house of a corn dealer"[43]. Would this mean that Mill places a higher value on societal peace rather than free discourse? To believe that Mill suggests silencing of speech due to its intense social appeal is perhaps misleading. Mill refers to instigation, and therefore requires a direct causal connection between the opinion and the act. Consequently, immunity over such speech is lost due to the likelihood of imminent harmful consequences. In this case, the "excited mob" is manipulated by appeals to emotion rather than rationality. As the speech is used to instigate a pre-intended mischievous act[44], it is not considered as a part of a truth-seeking discourse deserving of protection.

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38 J Riley, *Mill on Liberty* (Routledge, London 1998) 9.

39 I Cram (n 37) 322-323.

40 J Weckert, 'What Is So Bad About Internet Content Regulation?' (2000) 2 Ethics and Information Technology 105, 107.

41 C Walker, Y Akdeniz, 'The Governance of the Internet in Europe with Special Reference to Illegal and Harmful Content' (1998) Crim L R December Special Edition: Crime, Criminal Justice and the Internet 13.

42 JS Mill (n 17) 62.

43 JS Mill ibid.

44 J Skorupski, *Why Read Mill Today?* (Routledge, Oxon 2006) 59.

2.1.3. The marketplace of ideas and Mill's "tyranny of the majority"

Before attempting to apply Mill's theory online, it is essential that one first follows a short overview of Justice Holmes's doctrine of "marketplace of ideas." The reason for this is threefold: First, Holmes's doctrine is often misrepresented as consistent with Millian principles. Yet, as will become clear shortly, Holmes may have built on Mill's theory, nevertheless he concludes in a rather different way. Secondly, it is essential to clarify Holmes and Mill's differences, as when each of these theories is applied online, they would suggest different approaches and levels of protection for online expression. Thirdly and most importantly, Holmes's doctrine seems to place the right for free speech in the hands of the free market. To what extent the free market online would tend to safeguard free speech is something that will be discussed later.

First, Holmes's doctrine and its main points are examined. In 1919, Justice Holmes - in *Abrams v. United States*[45] - developed Mill's thoughts by holding that acceptance of an open competition of various ideas is the ultimate test for meaningful speech. Holmes gave a dissenting judgment in respect of a political activist prosecuted under the Sedition Act for distributing flyers that included speech critical of the government. Among others, Holmes noted:

> "…the ultimate good desired is better reached by free trade in ideas – that the best test of truth is in the power of the thought to get itself accepted in the competition of the market, and that truth is the only ground upon which their wishes safely can be carried out"[46].

This "experiment"[47], according to Holmes, does not focus on any particular type of speech but applies to all speech, regardless of political, commercial or private content. In a vast intellectual market, competition among ideas determines whether

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[45] *Abrams v United States*, 250 U.S. 616(1919).

[46] *Abrams v United States*, 250 U.S. 616 (1919) at 624, Holmes J dissenting.

[47] As Holmes adds "It is an experiment, as all life is an experiment" (n 45).

they will be consumed or "gather dust on the shelf[48]." Holmes's doctrine, known as the "marketplace of ideas doctrine", had a great impact on American common law and is reflected in many decisions, as will be seen in the next chapters.

Nevertheless, Holmes's doctrine may be distinguished from Mill's in that it equates the value of speech to its popularity within a market while disconnecting its value from its significance in reaching the truth. Putting a market price upon speech, after all, makes speech no longer free but a tradable commodity, its value decided by market mechanisms and proprietary interests[49]. Therefore, truth is not the ultimate goal of a free discourse; the market's main concern is profit and not truth. In this vein, many have expressed their concern as to whether a free market of ideas leads to the truth or shapes a relevant truth[50], tailored to the needs and the likes of the many.

Mill, on the other hand, was a defender of unpopular speech as well; the sort of speech that might not be appealing or acceptable from the broad masses yet should be free as the true expression of dissenters and minorities. Hence, by introducing us to the notion of "consumers" of speech, it is evident that the marketplace model is not preoccupied with the matter of dissenting speech like Mill, but rather with popular speech. Holmes seems to be arguing that the market rather than the State should decide whether or not any idea flourishes and becomes accepted. However, popular appeal is not always an outcome of a rational evaluation of speech[51]. As Baker notices[52], "emotional or "irrational" appeals have great (impact)."

Powerful actors, like media-controlling corporations, are able to exercise their influence on the masses in such a communicatory model. Thus, Sunstein warns that deliberation can easily be disorientated from serving the truth by falling prey to "informational" and social" pressures[53]. In fear of being the sole dissenter against a

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48 R Wolff, *The Poverty of Liberalism* (Beacon Press, Boston 1972) 11.

49 T Campbell, 'Rationales For Freedom of Communication' in T Campbell, W Sadurski (eds), *Freedom Of Communication* (Aldershot, Dartmouth 1994) 24-25.

50 C Sunstein, *Democracy and the Problem of Free Speech* (Free Press, New York 1995) 45.

51 T Campbell (n 49) 25.

52 CE Baker, 'Scope of the First Amendment Freedom of Speech' (1978) 25 UCLA L. Rev. 964, 974-978.

53 C Sunstein, *Infotopia: How Many Minds Produce Knowledge* (OUP, New York 2006) 65-69.

cohesive majority, people tend to withhold information. Minority opinion tends to be disregarded by the masses, as it is not part of what they already recognise as "common knowledge"[54]. As a result, social dynamics impose a self-silencing that eventually strangles diversity and can even result in group polarisation. It is true that Mill somewhat naively takes for granted that all people use their rationality, yet at the same time he shows awareness of the silencing power possessed by the majority. For it is not just state regulation that he considers threatening, but also social suppression, "the tyranny of the many[55]", that could eventually harm liberty of thought. To allow majoritarian social attitude to determine which speech is permitted is to limit arguments from developing to their full potential by stretching to their logical limits. The social suppression of speech is for Mill a sign of an evolving society that is not yet sufficiently mature to be self-governed[56].

For many, Holmes's marketplace of ideas aims to advance the greatest social good, not always arriving at the truth, but sometimes producing whatever can be accepted by many as truth.[57] Holmes and Mill share in common a certain level of distrust for government and reject state interference with free discourse among the individuals. However, their theories have a different central point; for Holmes it is the attainment of a common consensus in an unregulated open market of ideas and for Mill it is the freedom of thought in search of truth in the absence of any sort of restriction to speech, political or social.

Could Holmes's doctrine be successfully applied to online speech? Frank Easterbrook suggested a similar approach in his famous speech at the "Law of Cyberspace" conference. He namely opted for a system of online market self-regulation as the only legal steps he accepted as being necessary to be adopted were

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54 Widely discussed in C Sunstein (n 53) 75-102.

55 Mill argues that "the general tendency of things throughout the world is to render mediocrity the ascendant power among mankind…at present individuals are lost in the crowd…the only power deserving the name is that of the masses…" to conclude that "…the counterpoise and corrective to that tendency would be the more and more pronounced individuality of those who stand on the higher eminences of thought", JS Mill (n 17) 74.

56 K O'Rourke, *John Stuart Mill and Freedom of Expression: The Genesis of a Theory* (Routledge, London 2001) 77.

57 L Stein, *Speech Rights In America* (University of Illinois Press, Urbana and Chicago 2008) 15. Also, S Ingber, 'The Marketplace of Ideas: A Legitimizing Myth' (1984) 1 Duke L J 1-3; R Smolla, *A Free Speech in an Open Society* (Vintage, New York 1993) 7-8. See also *Gitlow v. New York*, 268 U.S. 672 (1925).

those aiming to ensure the Coasian[58] efficiency of the online market[59]. However, to trust private corporations with the role of safeguarding a public constitutional right could be hugely problematic. For public rights are too valuable to be dependent on a potential invisible hand. First, private corporations online would only be interested in protecting profitable speech and not all types of speech. Speech would shift from being valuable to being profitable. Commercial speech would enjoy full protection, whereas dissenters' speech would be silenced online. Secondly, private corporations are accountable primarily to their stakeholders, unlike the State, which in a democracy is accountable to all the citizens. Therefore, they would not be bound to cater for online free speech in their pursuit of business profit. Thirdly, in the virtual platform – unlike Holmes's or Mill's times – the biggest threat to free speech is not posed by the State, but by the "invisible hand" of private corporate interests. This time, it is called 'invisible' because it can substitute for the State in a non-transparent and pervasive way.

2.2. Mill and Cyberspace

2.2.1. Cyberspace offers the potential for the perfect conceptualisation of Millian theory

Having already examined the potential for Holmes's doctrine to be applied online, the same can now be attempted with the Millian rationale for free speech. Of course, Mill himself was not a legal theorist but a philosopher, and his work therefore is not specifically aimed at constructing a legal mechanism of protection for free speech.

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58 Ronald Coase, a predominant figure in the Law and Economics School, suggested in his famous paper "The Problem of Social Cost" that law should aim at regulating in an efficient way such that the same results would be brought about that would occur if the transaction costs were nonexistent. As a result, the government has to bear the burden of proof for positive results when it interferes with the market, based on a cost of action analysis. R Coase, 'The Problem of Social Cost' (1960) 3 Journal of Law and Economics 1, 21-23.

59 According to Easterbrook, making rules clearer so as to promote bargains, creating bargaining institutions and property rights, was all that was necessary to ensure stability in cyberspace (n 2).

However, his arguments might offer some useful insights as to how speech should be treated online.

As has already been demonstrated above, Mill suggests that discourse can potentially lead rational, autonomously thinking people to truth. Truth itself may be an answer to a factual question; thus uncontested and unique. It may equally involve a non-factual answer, highly contested and relative[60]; this truth is to be found within the framework of a discursive exchange of arguments. To achieve this, the diversity of those deliberating should be ensured, as an antidote to innate fallibility in human nature. When one examines the deliberative platform cyberspace offers, it appears to provide a conceptualisation of Mill's position. By connecting people worldwide and by offering them the chance to express themselves at a rather low cost, cyberspace tends to guarantee diversity. A rather tangible example of Mill's theory online is the wide use of Wikis[61]. Running on the Wiki web application, Wikis are collaborative websites, which enable users to edit and co-create collectively. Its most widely known project is Wikipedia, an online encyclopaedia, put together by volunteers globally. Noted for its remarkable ability to adapt to a fast-changing environment, Wikipedia stands out as a remarkable collaborative achievement of the digital masses. It would be no overstatement to say that it successfully conceptualises Mill's theory of liberty, as it derives from the people and discards false information only after having examined its credibility. Most significantly, as an encyclopaedia, it is devoted to the quest of truth and may therefore contain objectionable, offensive, or pornographic material as well[62].

Additionally, examining Mill's concern over the "tyranny of the many", it is true that cyberspace stands better chances to overcome those problems than does conventional society. As it offers anonymity, social pressure is diminished; at the

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60 "The peculiarity of the evidence of mathematical truths is that all the argument is on one side. There are no objections. But on every subject in which difference of opinion is possible, the truth depends on a balance to be struck between two sets of conflicting reasons... and it has to be shown why the other theory cannot be the true one; and until this is shown, and until we know how it is shown, we do not understand the grounds of our opinion." JS Mill, *Utilitarianism, On Liberty and Considerations On Representative Government* (Dent, London 1972) 46.

61 The Wiki software was first created in 1994 by Ward Cunnigham and since then it has become a powerful tool for the aggregation of dispersed information. In fact, a good part of this thesis has been drafted on a wiki set up specifically to meet the supervisory needs for this project.

62 <http://en.wikipedia.org/wiki/Wikipedia> accessed 10 December 2013.

same time it can secure diversity due to the great breadth of information it hosts online.

2.2.2. Cyberspace and the Millian sense of regulation

Nevertheless, as Mill argues, discourse does not inevitably lead to truth, nor is it supposed to be totally excluded from regulation. As was previously noted, Mill reserves a right for the State to interfere in extreme cases of harmful speech. This is also the case for cyberspace, where harmful speech can also be found. It is common knowledge that discourse can also be sinister. Cyberspace is a deliberative platform for multitudes of users who do not always share the same enthusiasm for scientific truth. Bias, prejudice, ignorance, lack of knowledge and in general, ability or inability to contribute to discourse, are factors that diminish the chances of reaching the truth.

According to a Millian perspective, in such extreme cases, state interference could be accepted in terms of speech regulation. Yet to what extent should the state interfere with the expressive freedom of the internet user? Mill would only accept a regulative framework to prevent discourse that would be harmful to others or that would instigate mischief. It would be easy to assume that he would be opposed to any use of paternalistic measures, such as filters and similar precautionary measures. At the same time, users in the privacy of their homes and behind their screens are a world away from the example of an angry assembled mob. Therefore, Mill would probably argue for a free expression of ideas online, no matter how immoral, shocking or provoking they might be. Mill's approach has been greatly influential upon US case law, as we shall see in the next chapters. Consider, for example, Justice Brandeis and his "counter speech" doctrine[63] or the "averting one's eyes"

63 "If there be time to expose through discussion the falsehoods and fallacies, to avert the evil by the processes of education the remedy to be applied is more speech, not enforced silence." *Whitney v. California*, 274 US 357 (1927).

suggestion of Justice John Marshall Harlan[64]. Applying Millian theory to the online sphere, one would easily discover the connection of his theories to the early days of Usenet; cyberspace used primarily by technophiles and academics for non-commercial purposes, who all despised control and regulation and whose response to "flame" was "flame back"[65].

One of the most recent cases that adopt a Millian perspective online is that of Rodriguez v. Maricopa County Community College District[66]. Mr Kehowski, a mathematics professor at Glendale Community College in Arizona, sent his colleagues some emails that included racial comments. A group of Hispanic employees sued the administration for creating a hostile working environment. Chief Judge Alex Kozinski, writing for the panel, granted the defendants qualified immunity and concluded:

> "Those offended by Kehowski's ideas should engage him in debate or hit the 'delete' button when they receive his emails. They may not invoke the power of the government to shut him up."

Consider the striking similarity that this attitude bears to the following passage by Mill:

> "We have a right…to act upon our unfavorable opinion of any one, not to the oppression of his individuality but in the exercise of ours. We are not bound for example to seek his society; we have a right to avoid it…" [67]

Unfortunately though, state restrictive regulation is only one of the dangers that speech faces online. Mill, in his time, was rather preoccupied with state interference. What he could not foresee was that when speech and discourse depend on a medium, then the structure of the medium itself can sometimes be threatening to

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64 "Those in the Los Angeles courthouse could effectively avoid further bombardment of their sensibilities simply by averting their eyes." *Cohen v. California*, 403 U.S. 15 (1971).

65 L Edwards, 'Defamation and the Internet: Name Calling in Cyberspace' in L Edwards and C Waelde (eds), *Law and the Internet-Regulating Cyberspace* (Hard Publishing, Oxford 1997) IV.

66 Rodriguez v. Maricopa Comm. Coll. Dist., 605 F.3d 703 (9th Cir. 2010).

67 JS Mill, 'On Liberty, On the Limits of the Authority of Society Over the Individual' in J Gray, G Smith (eds), *On Liberty in Focus* (Routledge, London 1991) 92.

unfettered speech. Even though cyberspace is a non-market[68], it is in a way inherently equipped by its digital "architecture"[69] to be under control. Freedom of thought can be severely inhibited either internally or externally, within the scope of cyberspace and beyond state interference. Internal inhibition, in other words, means that users have all the tools that enable them to build for themselves online echo chambers. The term "online echo chamber"[70] refers to all these cases of people that select the views communicated to them on the basis of their appeal to their beliefs. As people tend to be hostile to views they dislike, it is more convenient to simply ignore the existence of opposing views and focus on the views they embrace. Filters in search engines, opportunities to customise information received, recommendations using cookies and the appeal of strong online groups of interests can indeed lead users to such echo chambers and group polarisation. Thus, the absence of diversity and creative discourse online could result to an online cacophony, providing fertile soil for the emergence of problematic speech-related expressions such as obscenity, defamation and hate speech. Nevertheless, as Mill would probably argue, as long as these actions are self-driven, the State should not paternalistically interfere to correct the "communicative market failures"[71] that cyberspace might exhibit.

The real question, however, arises from the existence of external inhibition of speech, outside state regulation. Google, Yahoo! and Microsoft are such examples. Their concern for profit differentiates them from state regulation. Their primary goal is to promote, reproduce and protect speech that is the most popular and likely to be accepted by a wider audience and to boost their advertising revenues. In the field of cyberspace, such non-state actors have obtained significant power over the medium, which is an important feature of online speech regulation. The user himself, from a self-autonomous rational member of the e-community, has gradually become the

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68 In the absence of a proprietary framework of exchanged information as Yochai Benkler notes. Y Benkler, *The Wealth of Networks: How Social Production Transforms Markets and Freedom* (Yale Univ Pr, New Haven; London 2006).

69 The term used in L Lessig's *Code and Other Laws of Cyberspace* (n 10) to describe the digital framework of cyberspace as a network of networks, built on an internal hierarchy.

70 Sunstein has coined this term and has presented a relevant analysis on this in his book "Republic.com" [C Sunstein, *Republic. com* (Princeton University Press, Oxford 2002)] and the follow-up essay "Echo Chambers" [C Sunstein, *Echo Chambers: Bush v. Gore, Impeachment, and Beyond* (Princeton University Press, Oxford 2001)].

71 S Ingber, 'The Marketplace of Ideas: A Legitimizing Myth' (n 57) 4-5.

consumer of an online market[72]. Could this then be a new era of a cyber-marketplace of ideas? From the early 1990s it was argued that "in a very real sense Usenet is a marketplace of ideas"[73]. Cyberspace then resembled more an academic group seminar[74] that valued freedom of discourse and was equally devoted to the Millian quest for truth. Nowadays, its rapid commercialisation and its high profitability have transformed it into a tool for profit for private companies. The traditional equation of the individual against the state has gained more variants, such as the multi stakeholders and companies as well as the state regulation. How could freedom of speech be secured in this case? Mill does not provide us with a direct answer to this question. He considers, indeed, the probability of non-authoritative intervention:

> "when a government, instead of issuing a command and enforcing it by penalties…leaving individuals free to use their own means of pursuing any object of general interest, the government, not meddling with them, but not trusting the object solely to their care, establishes, side by side with their arrangements, an agency for its own for a like purpose[75]."

Nevertheless, as he continues, "there might be a national bank…, without any monopoly against private banks…" and concludes in favour of open competition as "wherever competition is not, monopoly is; and that monopoly, in all its forms, is the taxation of the industrious for the support of indolence, if not of plunder."[76] Despite the fact that Mill in his theory concentrates purely on examining state coercion without any provision for private interference, the rationale he offers for free speech seems to hold some potential when applied to the online world.

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72 As a consequence of this, online information obeys the predominant "consumer sovereignty", as Cass Sunstein has eloquently put it in *Democracy and The Problem of Free Speech (*n 50) 87, 265-269.

73 B Anderson, B Costales and H Henderson, *Waite Group's UNIX Communications* (Longman Higher Education, Harlow 1987).

74 Alan Haworth claims that Mill's argument could best develop in an environment where all its members are equally devoted to the discovery of truth, like a scientific community built on an "extended elite seminar group model" (n 19) 28, 31.

75 J Mill, 'The Principles of Political Economy' in V Bladen and J Robson (eds), *Collected Works of John Stuart Mill - Principles of Political Economy With Some of Their Applications to Social Philosophy* (Univ of Toronto Press, Toronto 1965) 938.

76 J Mill (n 70) Book 4, Chapter 6.

2.3. The Argument from Democracy

2.3.1. Basic argumentative framework

Based on a less abstract substratum[77], the democracy rationale of free speech offers an attractive justification for the constitutional protection of free discourse. Contrary to Mill, who was not explicitly concerned with the benefits discourse could offer to the community as a whole, this rationale examines the significance discourse has for "collective self-determination"[78]. According to this theory, free speech is highly valued as an essential part of self-governance, within the premises of a democracy. James Madison, one of the main framers of the American Constitution, was one of the first theorists to praise free deliberation as the cornerstone to contemporary democracy. It should be noted that Madison differentiated democracy from republic; the latter being the most preferable governance model, according to him. Whereas a democracy follows directly the law of the mobs, a republic involves a representative indirect governance model, subject to the rule of law in the form of a Constitution[79]. In such a Madisonian democracy, speech has a decisive part as it empowers broad participation of the populace in the political arena.

Underlining the Madisonian conception of popular sovereignty[80], Alexander Meiklejohn suggested that free speech secures a democratic self-governance in the way a town meeting would act: as "public issues shall be decided by universal suffrage"[81], it is only through free discourse that voters are sufficiently informed and

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77 E Barendt (n 14)18.

78 O Fiss, *The Irony of Free Speech* (Harvard University Press, Cambridge 1996) 41.

79 J Madison, 'The Utility of the Union as a Safeguard against Domestic Faction and Insurrection (Continued - Federalist 10)' in D Wootton (ed) *The Essential Federalist and Anti-Federalist Papers* (Hackett Publishing, Indianapolis 2003) 167.

80 In the words of James Madison, "[t]he people, not the government possess the absolute sovereignty" (J Madison, 'Virginia Resolutions' in J Elliot (ed.), *Debated in the Several State Conventions on the Adoption of the Federal Constitution*, (J.B. Lippincott, Philadelphia 1891) 569-570. Of course it should be mentioned that Madison did not believe in universal adult suffrage but on property qualifications on the right to vote.

81 A Meiklejohn, *Political Freedom: The Constitutional Powers of the People* (Harper, New York 1960) 27.

can subsequently participate effectively in decision-making by communicating their wishes to their elected representatives. It has to be noted that this rationale is different to the truth rationale, as it takes into account both the speaker's and the listener's demands for free speech[82]. Namely, it takes into account the speaker's interest in participating in decision-making as well as the listener's interest in receiving all relevant speech and information. As a result, free speech entails both the right to free flow of information and the right to an open debate formalised under the scheme of a participatory democracy.

Given that people are sovereign and hold the government to account, the government is considered to be assuming the role of a "public servant[83]" at the disposal of the masses at large; as a result not only is criticising public officials freely permitted, but also censorship cannot be imposed by the State, as self-governance enables people to judge and decide for themselves[84]. Moreover, the deliberative democracy that the Madisonian First Amendment describes suggests a political scheme that combines accountability of the state to the people as well as provision for a high level of diversity in public decision-making[85]. Meiklejohn focuses his theory on the model of participatory democracy that rests upon communication to an informed and enlightened citizenry that participates actively in a town hall meeting scheme. Hence, the focus is moved to a social right to access information and broad, diverse participation.

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82 F Schauer (n 24) 42.

83 F Schauer ibid 38.

84 As Schauer suggests, this is a common point in both Mill and Meiklejohn, as they both reject the idea of a state that censors speech for the sake of its citizens. F Schauer (n 24) 39.

85 C Sunstein, (n 53) 49-50.

2.3.2. Criticisms to the argument from democracy and Sunstein's New Deal for speech

Meiklejohn's rationale is considered the cornerstone of the First Amendment and has over time been broadly adopted in various ECtHR cases[86]. Nonetheless, it has been criticised with regard to the narrowness of speech types protected under this rationale[87]. Whereas it reserves special protection for speech that is political, it has no provision for certain types of non-political speech such as art or literature, as they have little significance to self-government[88]. Baker[89] also offers an argument by contrast, that conduct such as a bribe or political assassination might well be characterised as political for the message it conveys. Nevertheless, this kind of speech is beyond the protective scope of the First Amendment, as it constitutes a criminal offence.

As a response, Meiklejohn himself presented an extended version of his theory, where he suggested that non-political speech deserves absolute free speech protection as well, insofar as it educates, enlightens and enhances the voter's capacity to make a sound judgment. Subsequently, he included literature, science, art, philosophy and education among the non-political types of speech that deserve absolute protection[90].

On the contrary, others who espoused Meiklejohn's initial argument on absolute protection of strictly political speech, such as Bork, disagreed with the extension of such protection to non-explicitly political speech, suggesting that freedom of non-

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86 For example, in *Handyside v United Kingdom*, the court ruled that "freedom of expression constitutes one of the essential foundations of [a democracy]" (5493/72(1976) ECHR 5. In the same vein, cases that have mentioned the vitality of free speech for democracy are inter alia: *The Observer and The Guardian v United Kingdom* (1991) 14 EHRR 153, *Steel and Morris v. United Kingdom* 68416/01, (2005) 41 EHRR 22, *Lingens v Austria* (1986) 8 EHRR 407,etc.

87 For a good account of the flaws of Post's and Meiklejohn's democracy-based theories see M Redish, AM Mollen, 'Understanding Posts and Meiklejohn's Mistakes: The Central Roles of Adversary Democracy in the Theory of free Expression'(2009) 103 (3) NW U L Rev 103(3) 1303.

88 Z Chaffee, 'Free Speech And Its Relation to Self Government' (1949) 62 Harv L Rev 891, 899-900 ; S Shiffrin, *The First Amendment, Democracy and Romance* (Harvard Univ Pr, Cambridge 1990) 48 ; R Moon, *The Constitutional Protection of Freedom of Expression* (Univ of Toronto Pr, Toronto 2000) 15.

89 CE Baker, *Human Liberty and Freedom of Speech* (OUP, Oxford 1989) 7-8.

90 A Meiklejohn, 'The First Amendment Is an Absolute' (1961) 145 Sup Ct. Rev 255-257.

political speech should rest "upon the enlightenment of society and its elected representatives"[91]. According to Bork, "constitutional protection should be accorded only to speech that is explicitly political"[92]. This opinion though, fails to acknowledge non-verbal acts that may also convey messages which contribute to political life. In other words, Bork confines speech protection to a rather narrow area, as it is possible that non-communicative acts might also help the individual to acquiesce political truth and thus no value can be solemnly promoted via speech alone[93].

Moreover, a political message may well be conveyed by non-verbal acts and not explicitly by speech. For example, Bork went as far as to suggest that speech that ultimately does not promote democracy and seeks its overthrow should be banned[94]. However, that would mean that speech would be severely scrutinised when exercised against public officials, echoing outdated practices such as the Sedition Act of 1798[95]. In the same vein, types of speech that could be threatening to national security or fundamental democratic values and public welfare are considered to be at odds with democracy itself. Therefore, according to this limited view Bork holds, such types of speech should be restricted. For instance, pornography[96] and hate speech could be regulated, as they undermine democratic values like equality, by suggesting an inferior[97] treatment towards a group of citizens, even though no actual harm takes place. Yet, adopting such a narrow view would not only exclude from free speech protection several types of non-political speech, but political speech would also be affected, for there may be cases of anti-democratic speech that may nonetheless be considered as political speech. Moreover, removing protection from speech on the grounds that it undermines public welfare or peace in general, has

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91 R Bork, 'Neutral Principles and Some First Amendment Problems' (1971) 47 Ind.L.J. 26-28.

92 R Bork ibid 20.

93 Redish mentions some examples, like for instance someone simply working as a farmer is in a position to understand better than others the implications a farm pricing policy would have. M Redish, 'The Value of Free Speech' (1982) U.Pa.L.Rev. 591, 597-601.

94 R Bork (n 89).

95 Under Sedition Act of 1978 it was a crime to publish any "false, scandalous and malicious writing" intending to "defame" the government or to bring it "into contempt or disrepute" or to incite "the hatred of the good people of the United States", Act of 14 July 1978, 1 Stat.596.

96 R Langton, 'Whose Right? Ronald Dworkin, Women and Pornographers' (1990) 19 Philosophy & Public Affairs 313.

97 C McKinnon, *Feminism Unmodified* (Harvard Univ Pr, Cambridge 1987) 176.

been broadly used as a pretext by autocracies to silence the opposition and dissent speech[98]. Therefore, such a limited scope could be problematic for democracy itself, as it might also stifle cases of political speech, besides speech of a non-political nature.

At the same time, according to Schauer, the "narrowness of argument from democracy is also its greatest strength"[99]. Having political speech as its focal point, it offers a fair foundation on the importance of free political speech for democracy. By offering protection of the ability to criticise the officials, this rationale grants political speech immunity to possible governmental restrictions and this secures the backbone of democracy; a governmental system based upon approval of the sovereign populace.

Nevertheless, the rationale offers no protection to non-political forms of speech, such as artistic or commercial speech. Sunstein's version of Meiklejohn's argument can prove rather useful to this end. Sunstein puts political speech[100] at the heart of the First Amendment. Such speech needs maximum protection against state regulation that impairs all "channels for political (change)"[101]. Contrary to speech absolutists, however, Sunstein presents the Madisonian First Amendment free speech framework as a two-tier system that confers supreme constitutional value on political speech. Regulation of political speech can only be justified when there is a compelling countervailing interest in restricting speech. In the periphery lies non-political speech, whose regulation is permissible upon demonstrating the promotion of a legitimate governmental interest.

The necessity of a two-tier constitutional system is well explained when Sunstein examines the viability of a hypothetical application of the same value to all

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98 Consider, for example, the provisions for free speech in Thailand. Striking is the case of L Kornsilpa, who in July 2010 filed a lèse-majesté complaint against the Foreign Correspondents' Club of Thailand entire board of 13 members accusing them of an anti-monarchy campaign. Available online <http://www.asiasentinel.com/index.php?option=com_content&task=view&id=2601&Itemid=164>, accessed 10 October 2010.

99 F Schauer (n 24) 44.

100 Namely speech that is intended and received as a contribution to public deliberation.

101 C Sunstein, 'Free Speech Now' (1992) 59 U Chi L Rev 255, 301, 304-306.

speech[102]. This scenario would have two possible outcomes: the standards for demonstrating harm as required to justify the state regulation would either be too high or too low as a whole. Subsequently, overly lenient standards would threaten the democratic process, whereas those that are overly stringent would limit State initiative and would lead to perfect speech absolutism at the expense of other constitutionally guaranteed rights. For instance, private libel would be on the same foot as public critique; an incident highly problematic for a democracy as it would signal the end of much criticism and scrutiny towards officials.

In a way, Sunstein praises the higher value of political speech while he endorses Justice Brandeis's republican account of free speech[103] as both a means to democracy and an end to self-realisation and civic virtue. Sunstein further and more controversially argues for a New Deal free speech principle, which calls for redistribution of resources via legal controls within the market so that the Madisonian goal[104] of deliberative autonomy can be better promoted. In his own words "[I]ntervention", he argues, "should not always be seen as an impermissible 'abridgement' of the free speech right"[105] but as a constitutionally guaranteed protection of self-governance against governmental as well as private interests[106]. Contrary to Mill's perception, this approach permits legislation adequate to correct the communicative flaws in cyberspace that are attributable to unequal resources.

A different variation of the democracy-based theory is the participatory democracy theories of Post[107] and Weinstein[108]. In their work, Post and Weinstein argue that the

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102 Speech absolutists, like Larry Alexander, suggest treating all speech equally "as an undifferentiated whole", L Alexander, 'Low Value Speech' (1988) 83 Nw. U.L. Rev. 547-554.

103 In *Whitney v. California*, Justice Brandeis concurred that "Those who won our independence believed that the final end of the state was to make men free to develop their faculties; and that in its government the deliberative forces should prevail over the arbitrary. They valued liberty both as an end and as a means." *Whitney v. California,* 274 US, 357, 372 (1927) Brandeis J. concurring.

104 In other words, Sunstein suggests that state regulation of speech should have its constitutionality assessed insofar as it promotes the Madisonian goals reflected in the First Amendment, i.e. debate on issues of public interest and diversity of opinions voiced. C Sunstein (n 50) 34-38.

105 C Sunstein (n 50) 251.

106 C Sunstein (n 50) 285. In the same vein, Habermas places his ideal public sphere beyond the control of both economic interests and public administration. (J Habermas, *Between Facts and Norms: Contributions to a Discourse Theory of Law and Democracy* (MIT Press, Boston 1998) 299). That way, both Habermas and Sunstein adopt the liberal democratic approach, as they acknowledge the legislative power of the State to safeguard a right to free speech.

107 R Post, 'The Constitutional Concept of Public Discourse Outrageous Opinion, Democratic Deliberation, and Hustler Magazine v. Falwell' (1990) 103 Harv. L. Rev. 603.

free speech rationales from democracy offered by Sunstein[109], Fiss[110] and Meiklejohn[111] maintain a narrow focus on the positive obligations on the state to facilitate collective decision-making, overlooking at the same time the negative aspect of the right to free speech for no state interferences with one's autonomy. Autonomy in Post's theory is a presumption of citizenship, holding the potential to secure "an unconstrained and robust public sphere"[112] based on self-governance rather than collective governance[113]. Similarly, Weinstein's observation that public discourse primarily supports one's self-governance[114], seems to treat participation as the cornerstone of democracy. This however does not seem a convincing proposition, having received strong critiques, mostly from autonomy-based free speech theorists such as Scanlon and Baker.

Contrary to Meiklejohn's instrumental concept of free speech valued through its contribution to democracy, Weinstein's and Post's prioritisation of democratic participation, seems to be lacking a proper justificatory basis[115]. For Baker, Post and Weinstein "are in effect autonomy based theorists of democratic speech –the individual's right to participate in public discourse is constitutive of democratic self-government"[116]. Moreover, limiting free speech protection to politics sees only half the picture: reserving constitutional protection for speech that supports the majoritarian political process would result in the paradox of allowing "forms of censorship that deprive persons of the liberties essential to the moral self-government of free people"[117].

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108 J Weinstein, 'Participatory Democracy as the Central Value of American Free Speech Doctrine' (2011) 97 (3) *Va. L. Rev.* 491.

109 C Sunstein (n101)

110 O Fiss, 'Free Speech and Social Structure' (1985) 71 Iowa L. Rev. 1405.

111 A Meiklejohn, *Free Speech and its Relation to Self-government* (The Lawbook Exchange, Ltd., 1948).

112 T Jarymowicz, 'Robert Post's Theory of Freedom of Speech: A Critique of the Reductive Conception of Political Liberty' (2014) 40(1) Philosophy & Social Criticism 107, 115.

113 R Post, 'Participatory Democracy and Free Speech' (2011) 97 Va L Rev 477, 482

114 J Weinstein (n 108)

115 V Blasi, 'Democratic Participation and the Freedom of Speech: a Response to Post and Weinstein' (2011) 97 (3) Virginia Law Rev 531

116 CE Baker, 'Is Democracy a Sound Basis for a Free Speech Principle?' (2011) 97 Va. L. Rev.515

117 D Richards, 'A New Paradigm for Free Speech Scholarship' (1990) University of Pennsylvania Law Review 271, 275. See also K Greenawalt, *Speech, Crime and the Uses of Language* (OUP 1989) 177-179; CE Baker (n 89) 31.

Last, the difficulty in defining "public discourse" noted by Eugene Volokh[118] seems to be extremely helpful in attempting to apply this theory online, where the limits between private and public spheres are not easily discernible. Volokh discusses the case of copyright-infringing speech, quoting Weinstein who uses this as an example of unprotected speech due to its low value for public discourse. There are however instances of copyright-infringing speech that discusses at the same time matter of public interest: a good example in this respect, Volokh argues, is Harper & Row[119], involving the publication of President Ford's memoirs. Clearly a matter of public interest (discussing politics), such speech would nonetheless escape constitutional protection exposing a major flaw in the public discourse theory of democracy. Volokh considers further cases challenging the public discourse theory: teacher-student speech, speech among friends and speech in managerial domains. Such types of speech would fail to qualify for protection as Post's narrow interpretation of the First Amendment's protection is reserved only for speech on matters of public interest. Considering this approach in the digital era, would probably lead to inadequate protection for online speech due to its limited understanding of the internet as a public-private forum[120]. The following section discusses in more detail the application of the rationale from democracy on the internet.

2.4. The Argument from Democracy Applied Online

Prior to the digital era, many would have agreed with A.J. Liebling that "freedom of the press belongs to those who own one"[121]. Today, the internet provides the individual user with an inexpensive, open platform for free expression. With a single mouse click, the user is transformed from a passive viewer of broadcasting to an

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118 E Volokh, 'The Trouble with "Public Discourse" as a Limitation of Free Speech Rights' (2011) 97 Va. L. Rev. 567

119 *Harper & Row Publishers v Nation Enterprises* 471 U.S. 539 (1985)

120 Chapter 4 discusses the public/private dichotomy online as an unhelpful criterion for free speech adjudication.

121 M Godwin, *Cyber Rights: Defending Free Speech in the Digital Age* (The MIT Press, Cambridge 2003) 10.

active participant in the public sphere. The transition from the "hub and spoke"[122] structure of traditional media to the peer-to-peer network infrastructure has indeed altered the sense of public sphere and participation. As the US Supreme Court in *Reno v ACLU* notes:

> "The Web is … comparable … to both a vast library including millions of readily available and indexed publications and a sprawling mall offering goods and services.(…)[A]ny person with a phone line can become a town crier with a voice that resonates farther than it could from any soapbox. Through the use of Web pages, mail exploders, and newsgroups the same individual can become a pamphleteer"[123].

The internet has clearly contributed in a significant way to a new sense of participation in political and other fora, since it has enabled direct civic engagement with the public sphere. In this sense, the participatory democracy that Meiklejohn's argument presupposes is reflected in the interlinked structure of the internet. Sunstein acknowledges that "indeed, the blogosphere might be seen as a gigantic town meeting or series of such meetings"[124]. Users substitute the static mass media culture with an interactive "see for yourself culture"[125]. Access to information and discussion over issues of public interest have taken on a new meaning as the individual can reach all unfiltered information and decide for himself where to focus. Moreover, users can circumvent obstacles that media concentration of power would pose to the unfettered flow of information, as they can publish without being accountable to an editor. Consequently, civic mobilisation and direct involvement in the public sphere deliberation are frequent phenomena.

By means of the internet, groups of users can share their opinions and build strong coalitions. As a result, individuals can now effectively set the political agenda for public officials. The same people that were passive listeners and viewers in pre-digital times may now be interactive participants in the public sphere[126]. Consider, for instance, internet activism against authoritarian regimes. The examples are

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122 The term is widely used by Benkler in his book "The Wealth of the Networks" (n 67) to refer to the design of the network that consists of many spokes connected to a central hub which resembles the arrangement of a chariot wheel.

123 *Reno v. ACLU*, 521 U.S. 844, 852–853 and 896–897 (1997).

124 C Sunstein (n 53)185.

125 Y Benkler (n 67) 239.

126 Y Benkler ibid 272.

numerous: In Kenya, blogs with embedded user tools and Google maps contributed to a revolutionary online human rights campaign, where users reported riots during the 2007-2008 post-election crisis, raising public awareness[127]. Ukraine's orange revolution[128] and Burma's saffron revolution[129] were both made possible due to the wide use of internet and SMS technology. By virtue of technology, people who may never have even met in person, form "smart mobs", to quote a term by Howard Rheinhold[130], deliberate in virtual public spheres on public matters and collectively participate in the political scene. In authoritarian regimes, the internet is used by the masses to campaign for democracy. In liberal regimes, the internet's impact is smartly incorporated by politicians themselves into the democratic process. Had it not been for the new technological social revolution, the Estrada regime would not have been overthrown in the Philippines[131], and neither would the 2008 Obama electoral campaign have been as successful in galvanising Democrat voters and becoming a model for online politics itself[132].

The democratising effect of the internet is also reflected on its wide use as a platform for online deliberation. Technology can play an important role and provide a useful tool for creating an informed and active citizenry, contributing thereby towards a bottom up democracy[133]. The latter, namely the shift from e-governance to e-democracy has been a notable example of the capacity technology has to influence public law as a whole[134]. In this vein, technology can support three levels of participation: e-enabling (format that enables access and perception of laws), e-

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127 J Goldstein and J Rotich, *Digitally Networked Technology in Keyna's 2007-2008 Post-Election Crisis* (The Berkman Center for Internet and Society, Harvard University, 2008).

128 For more, see: J Goldstein, *The Role of Digital Networked Technologies in the Ukrainian Orange Revolution* (The Berkman Center for Internet and Society, Harvard University, 2007).

129 For more, see: M Chowdry, *The Role of the Internet in Burma's Saffron Revolution* (The Berkman Center for Internet and Society, Harvard University, 2008).

130 H Rheingold, *Smart Mobs: The Next Social Revolution: Transforming Cultures and Communities in the Age of Instant Access* (Perseus Book Group, Cambridge 2002).

131 H Rheingold, 'From the Screen to the Streets' in JL Mitch Ratcliffe (ed) *Extreme Democracy* (lulu. com 2005) 87-89.

132 For more, see K Kaye*, Campaign '08: A Turning Point for Digital Media* (CreateSpace, Washington 2009).

133 For a detailed account see A Karanasiou, Response to the open call for evidence on "Making Laws in a Digital Age" - Speaker's Commission on Digital Democracy (UK Parliament), available online < http://www.parliament.uk/documents/speaker/digital-democracy/Digi019_Argyro_Karanasiou_Bournemouth_Uni.pdf > accessed 12/7/2014.

134 C G Riley, *The Changing Role of the Citizen in the E-Governance & E-Democracy Equation* (London: Commonwealth Centre for e-Governance 2003).

engaging (supporting deliberation on policy issues) and e-empowering (law-making as an open ended procedure)[135].

The benefits of crowdsourcing[136], namely the solicited advice/data offered by online communities are another aspect of the potential the internet holds for democratic procedures. The recent cases of the Icelandic Constitution and Marco Civil in Brazil illustrate well that involving the citizens in the legislative process not only makes its outcome more accessible to the general public but it further serves as the perfect substantiation of a bottom up democracy. The Finnish Constitution has provisions for citizen initiatives since March 2012: when an initiative receives more than 50.000 signatures, the Parliament is required to discuss and vote on the matter[137]. In the US TechCrunch's new project, CrunchGov, is an online platform seeking to analyse technology related policy on a daily basis. This includes a political leader board that grades politicians based on how they vote on tech issues, a light legislative database of technology policy, and a public mark-up utility for crowdsourcing the best ideas on pending legislation[138]. Open knowledge and open data based on active citizen participation can thus affect law-making in an unprecedented manner in the digital era.

Further to this, harnessing the power of big data can aid participatory democracy. The rise of computational legal studies and the use of algorithms to enhance overall understanding of vast amounts of aggregated data is beyond doubt a highly useful tool in the digital era. As such, harnessing big data for making the legislative procedure clear, foreseeable and accessible could be one of the main challenges of the legislature in the digital era. In this respect, the Legis project (2009)[139] is a notable initiative by the Dutch government aiming to redesign the legislative process

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135 A Macintosh, 'Characterising E-Participation in Policy-Making', (2004) Proceedings of the 37th Hawaii International Conference on System Sciences, IEEE.

136 D C Brabham, 'Crowdsourcing as a Model for Problem Solving: an Introduction and Cases' (2008) 14(1) Convergence: the International Journal of Research into New Media Technologies 75-90.

137 <http://cochette.xrce.xerox.com/comtech13/papers/paper1_aitamurto_landemore.pdf> accessed 31/3/2014. The Italian Constitution (1947) has a similar provision in art.7 (I wish to thank Maurizio Borghi for bringing this to my attention).

138 <http://techcrunch.com/2012/10/26/crunchgov-techcrunch-policy-platform/> accessed 31/3/2014

139 Kamerstukken II 2009/10, 31731, nr. 6. (Dutch Parliamentary Papers of the House of Representatives of the Netherlands)

by using IT services. After an initial analysis of the legislative process from a procedural point of view, all gathered data (e.g. legislative actors, activities performed and function of an Act) are used to model the legislative cycle using the Business Process Modelling Notation (BPMN). Ultimately, the legislative procedure is monitored at a normative level; further improvements are introduced through an integrated system for storing, tracking and publishing legislation enabling standardisation and knowledge sharing between involved legislative actors. Moreover, the internet serves well as a state watchdog, as whistle-blowers via online initiatives such as WikiLeaks, have exposed a range of "misconducts" such as corruption in Kenya, financial mishandling in Iceland and questionable procedures in Guantanamo Bay[140].

The World Wide Web provides a multitude of networking interlinked users with an open platform for deliberation. Exclusions due to age, sex or race are diminished significantly, as all users get the chance to stand on equal digital grounds for deliberation. At the same time, even less affluent, deprived or non-technically proficient people can obtain access online through public libraries and participate online with the help of educational programmes. This is not mentioned so as to underestimate the problematic phenomenon of "digital gap[141]", mostly seen in developing countries. What is suggested here, though, is that never before has humanity had such a powerful and promising tool enabling massive participation in "public matters." Cyberspace appears to have indeed created a virtual networked space the way Habermas envisaged; open equally to all and – unlike the traditional media – relatively free from direct state and market control[142], at least in principle.

Such remarks however see only half of the picture: Internet is simply a communicatory platform and as such, it can be used as means of democracy as well as a means of suppression, censorship and surveillance. The high penetration rate of internet companies in the Chinese market has not resulted in democratising the

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140 'WikiLeaks: No Technology Can Protect Whistleblowers But Themselves', (The Economist, June 10 2010), <www.economist.com/node/16335810/print>, accessed 10 October 2010.

141 The term "digital gap" (or "digital divide") refers to the gap between people who are able to use the internet and those who lack online access.

142 Benkler suggests comparing cyberspace's democratising effect to traditional media and not to a utopian notion of direct democracy. Y Benkler (n 67) 237.

regime; the internet has been seen as a new surveillance technology with tremendous controlling potential over the users[143]. Active governmental blocking of pages that deliver a "request denied" page goes hand-in-hand with other repressive tactics like draconian laws[144], access to a limited package of approved websites or extremely expensive prices for private connection[145]. In such cases, users by themselves cannot always exercise their right to free speech online.

Could a democracy-based theory for free speech fix the broken promises of "the networked public sphere (providing) an effective non market alternative … outside the market-based media"[146]? The main obstacle in applying the rationale from democracy online would be the fact that there is little provision on external influences by intermediary corporations and market control[147]. Beyond doubt, the decentralised structure of the internet has helped users to overcome filtering and surveillance, posed either by governments or corporations. The use of peer-to-peer file-sharing systems[148] or encrypted submissions of data transmitted through dispersed routers[149] promote unfettered deliberation online. This however by itself is not enough, nor can it substitute constitutional protection for free speech.

In this respect, the narrow focus that democracy-based theories maintain over state restrictions on speech, would not be helpful. The internet, although not completely outside the purview of governmental regulation, is a communicatory platform, primarily driven by online corporations. Although not always easy to distinguish

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143 China's Internet: A Giant Cage, (The Economist, April 6 2013), <http://www.economist.com/news/special-report/21574628-internet-was-expected-help-democratise-china-instead-it-has-enabled>, accessed 10 July 2014

144 Such laws may vary from harsh detailed conditions for users to navigate online (like for example, the Belarusian decree requiring registration from 1st July 2010 of all websites irrespective of their commercial or non-commercial purposes) to vague laws calling for state action online (like for instance Syria and the relevant obscure legislation concerning the internet). For more, see the list published on 12-3-2010 by RSF entitled 'The Enemies of the Internet', available online: <http://en.rsf.org/web-2-0-versus-control-2-0-18-03-2010,36697> accessed 10 October 2010.

145 According to a 2004 report, the initial activation in Burma costs 260 dollars with a monthly fee of 35 dollars for 20 hours of use (J Gomez, 'Dumping Down Democracy: Trends in Internet Regulation, Surveillance and Control in Asia' (2004) Asia Rights 1).

146 Y Benkler (n 67) 260.

147 K M. Sullivan, 'First Amendment Intermediaries in the Age of Cyberspace' (1998) 45 UCLA L. REV. 1653, 1669.

148 The method used in the "electronic civil disobedience" campaign in 2003, described in detail in Y Benkler (n 67) 230.

149 The preferred method of users in WikiLeaks, through which they ensure the free exchange of their data, making it impossible for a government or a corporation to remove or filter it.

between private and public spheres in the digital era, it can be argued that the traditional concept of the public forum does not apply online[150]. The mass of information available online is unprecedented; at the same time though, the speaker does not always have the ability to reach his audience: online ranking by search engines, targeted ads and autocomplete functions, access-tiering or removal from the search engine index[151] are a few instances on online intermediaries treating content differently, regardless of its democratising effects. Thus, applying a free speech theory mostly concentrating on state mandated restrictions on free speech, would not be fitting to a communicatory platform, mostly dominated by private entities.

The added parameter of big data, Internet of Things (IoT) and smart technologies, contest the online application of the democracy rationale even more. Complex algorithmic functions gain daily ground in substituting state functions of implementation and governance: "Whether the next Occupy Wall Street would be able to occupy anything in a truly smart city remains to be seen: most likely, they would be out-censored and out-droned" [152] argues Evgeny Morozov The concept of politics and publics seems to be gaining new meaning in a rapidly "ambient assisted" living reality. In such a context, building a policy model on democracy as a justificatory basis would be an inappropriate and non-fully functional choice.

Moreover, the internet being a "digital panopticon"[153] that nurtures cyber surveillance not only threatens ones right to privacy but may well affect free speech, as it can discourage not only participation to online fora but self-expression in general. Applying the democracy theory online would only reserve protection for the types of speech addressing a specific audience. This, however, would leave outside the protective scope of the First Amendment many instances of speech that do not

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150 D Nunziato, 'The Death of the Public Forum in Cyberspace' (2005) 20 Berkeley Tech. L.J. 1115, 1124

151 J Chandler, 'A Right to Reach an Audience: An approach to Intermediary Bias on the Internet' (2005) 35 Hofstra L. Rev. 1095.

152 E Morozov, The Rise of Data and the Death of Politics, The Observer (20 July 2014), < http://www.theguardian.com/technology/2014/jul/20/rise-of-data-death-of-politics-evgeny-morozov-algorithmic-regulation> accessed 28/7/2014

153 The term used by Rheingold in his book entitled *The Virtual Community* [H Rheingold, *The Virtual Community* (Secker & Warburg, London 1994)]. Rheingold's description of the internet as dystopic is built on the comparison Foucault made between modern society and Bentham's "panopticon" design for prisons. For more on this, see M Foucault, *Discipline and Punish: The Birth of Prison* (Pantheon Books, New York 1977).

target a specific audience: a blog post without comments, an update to a status with no online views, private emails or online documents shared between limited users.

That is to say that free speech is not strictly a common wish exercised in public, but may also be considered as a right of the individual exercised privately. The free speech rationale discussed next, takes into account this missed parameter of the need for self-expression through speech.

2.5. The Autonomy Rationale

2.5.1. Shades of autonomy and variants of rationale

Rejecting the consequentialism of both aforementioned rationales, some proponents of free speech have created a rationale that values free speech as an end as well as a means[154]. It could well be argued that individual autonomy qualifies as the ultimate baseline of both rationales; free discourse aiming either at discovery of truth or at a healthy democracy has its foundation on the ideal of autonomy in both cases[155]. Mill maintained a notion of "negative liberty"[156], where liberty grants individuals the right to absolute autonomy, unrestrained from state coercion. On the other hand, Madison and Meiklejohn drew a different picture of autonomy in their theories, focusing on the self-government aspect. Unlike the arguments of truth and democracy, however, speech is no longer considered as a means towards societal progress and collective well-being; it is regarded as an intrinsic value indispensable to the individual alone[157]. In embracing the Aristotelian perception of happiness,

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154 F Schauer (n 24) 47.

155 R Post, 'Managing Deliberation: The Quandary of Democratic Dialogue' (1993) 103 Ethics 666.

156 Term by Isaiah Berlin in *Four Essays On Liberty* (n 18).

157 M Rosenfeld, 'Hate Speech in Constitutional Jurisprudence: A Comparative Analysis' (2002) 24 Cardozo L.Rev. 1535.

free speech is considered an integral part of self-fulfilment and self-realisation of the individual's free potential[158].

Consider Scanlon's work, which is premised on the Kantian principle of self-determination and the Millian rejection of state paternalism. To Scanlon, the individual is to be treated as an autonomous moral being, capable of balancing the harms and benefits of his actions. The State has no authority to intervene in cases of harmful speech that could result in formation of false beliefs or subsequent harmful acts[159].

In a later paper, Scanlon himself revises his theory by perceiving autonomy as "an actual ability to exercise rational judgment"[160], which has to be promoted. At the same time, he does not preclude state restrictions of speech, aiming at protecting rational judgment of the audience. This revised account that Scanlon describes - of autonomy as the ability to self-judge - is adopted by other theorists as well. For instance, Richards considers individuals as able to self-reflect on their desires and free to act on their choices[161]. By tracing autonomy to the human ability for introspection and self-determination, he relates autonomy to self-respect[162]. In the same vein, Strauss notes the value of free speech in its capacity to persuade[163]. State coercion on free speech would equal denial of the listener's autonomy and would result in "mental slavery"[164]. Therefore, the State is not entitled to restrict speech on the basis that it might persuade the audience. Accepting that false and deceitful information undermine autonomy, Strauss permits state coercion on speech only in the case of false statements and speech precipitating ill-considered action.

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158 F Schauer (n 24) 49.

159 Scanlon quoted this as the "Millian Principle" in his paper 'A Theory of Freedom of Expression' (n 19) 204-226.

160 T Scanlon Jr, 'Freedom of Expression and Categories of Expression' (1979) 40 Pitt. L. Rev 533.

161 D Richards, 'Right and Autonomy' in J Christman (ed) *The Inner Citadel: Essays on Individual Autonomy* (OUP, New York 1989) 205.

162 As Richards notes: "[People] are not to be constrained to communicate or not to communicate, to believe or not to believe, to associate or not to associate. The value placed on this cluster of ideas derives from the notion of self-respect that comes from a mature persons full and untrammeled exercise of capacities central to human rationality." D Richards, 'Free Speech and Obscenity Law: Toward a Moral Theory of the First Amendment' (1973) 123 U.Pa.L.Rev. 45, 62.

163 D Strauss, 'Persuasion, Autonomy, and Freedom of Expression' (1991) 91 Colum.L.Rev. 337.

164 D Strauss ibid 354.

Although each of these theories gives a fair account of autonomy as a framework for free speech, they have all received severe criticism for focusing solely on the listener's interests. The speaker can still maintain his autonomy in this sense, as no restriction can ever diminish his ability to self-reflect and endorse his desires[165]. At the same time though, as Dworkin[166] argues, protection of unpopular speech or speech that contributes little for its listeners to reflect upon, is hardly justifiable under this perspective of autonomy. Moreover, there seems to be no reason given as to why speech is given special status amid other autonomy-based concerns.

Dworkin himself appealed to the right of autonomy as a foundation for free speech, capturing it as a "right to moral independence"[167]. In Dworkin's understanding of autonomy, the State should respect individual choices and not discriminate against persons for their lifestyle choices. In this vein, protection of free speech is justified within the scope of fundamental rights of human dignity and respect for equality[168]. Nevertheless, Dworkin does not seem to take into account harmful speech, for instance hate speech that could result in inequality among citizens[169]. He fails to consider the case where liberty of one's speech as an essential part of his dignity clashes with another individual's right based on the same background of dignity and equality[170]. Moreover, Dworkin's argument of moral autonomy is a rather weak one, as the only harm of speech he acknowledges is the moral pain it causes to those who disapprove of it.

At the same time though, Dworkin's view of equality in the distribution of opportunities and permitted liberties[171] proves to be fertile soil for a rather attractive free speech argument; individual autonomy seen as something shaped from all the conditions that form one's preferences. According to this point of view, our

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165 S Brison, 'The Autonomy Defense of Free Speech' (1998) 108 Ethics 329, 332.

166 R Dworkin, *The Philosophy of Law* (OUP, Oxford 1977) 14-16.

167 R Dworkin (n 16) 353. Also in his paper 'Is There a Right to Pornography?' Dworkin based a right to pornography on moral autonomy. R Dworkin, 'Is There a Right to Pornography?' (1981) 177 OJLS.

168 R Dworkin, *Taking Rights Seriously* (Duckworth, London 1977) 267-278.

169 Mainly an argument adopted by the so-called proponents of feminism, such as McKinnon and R. Langton.

170 E Barendt (n 14) 14-15.

171 "People have the right not to suffer disadvantage in the distribution of social goods and opportunities, including disadvantages in the liberties permitted to them by the criminal law…" R Dworkin (n 16) 353.

morality[172], namely our preferences and options to consider and act upon, are all shaped through conditions, which either enhance or undermine autonomy. In Sunstein's words, "The notion of autonomy should refer…. to decisions reached with a full and vivid awareness of available opportunities"; thus we are as free as speech is permitted to be. Although this shade of autonomy is an arguably convincing justification for free speech[173], it still does not escape the criticism common to all autonomy theories, i.e. why freedom of speech is of higher value, separate to the overall value of liberty[174].

A more complete account of autonomy is given by Baker and subsequently Redish[175], as they both accurately explain autonomy and speech worthy of protection within the scope of liberty. Baker bases his theory on the fact that liberty of self-expression and free choice are aspects of autonomy that the State should respect in order to gain legitimacy. Speech, as a "manifestation of individual freedom and choice"[176], defines and develops an individual's capacities. Any type of speech that does not correspond to the speaker's values is beyond the scope of constitutional protection. He further differentiates between "formal" and "substantive" autonomy[177]. The former refers to the choice of autonomy, which the state respects by granting the individual expressive rights. "Substantive autonomy" relates to the actual capacity to lead "the best self-directed life possible"[178]. This might require the state to pursue certain policy goals. Therefore, respect for formal autonomy acts as a constraint on the State to pursue its legitimate goals for the collective. After all, it is the respect for the individual that justifies the State's expectations for his commitment to the rules[179].

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172 J Raz, *The Morality of Freedom* (Clarendon Press, Oxford 1986).

173 S Brison (n 165) 338.

174 The present argument, posed by Schauer, will be examined more thoroughly below.

175 It should be noted that Redish and Baker are mentioned together only because they both agree on autonomy/self-realisation being the focal point of a rationale for free speech. Besides that, their theories have many differences and should not be considered as forming a consistent theory when taken together.

176 CE Baker, 'Commercial Speech: A Problem in the Theory of Freedom' (1976) 62 Iowa L.Rev. , 1-3.

177 CE Baker, 'Autonomy and Hate Speech' in I Hare, J Weinstein (eds), *Extreme Speech and Democracy* (n 37) 139-157.

178 CE Baker ibid 142-143.

179 CE Baker (n 52) 991.

In cases of harmful speech, regardless of the harm caused, formal autonomy of the victim remains intact, even though injuries in his substantive autonomy may be likely. Nevertheless, the state bases its legitimacy in respect of formal autonomy and therefore is not supposed to suppress such speech, as that would limit the speaker's formal autonomy. In this sense, without being an absolutist, Baker includes in the scope of constitutional protection of speech cases such as hate speech, pornography, literature and art. Baker's most interesting point is that he considers the case of speech that may convey a speaker's values, but whose content is nevertheless shaped by the market structure in such a way that it becomes a carefully manufactured product. As it is no longer a genuine outcome of the speaker's intention and does not convey his primary values, Baker excludes such speech from constitutional protection. As a result, contrary to all abovementioned accounts on autonomy, his theory accounts for a number of cases where speech is threatened by external private agents and not exclusively by the State.

As Baker's argument was considered too narrow due to its predilection only for the speaker's view, Redish[180] presented a relevant theory taking into account the listener's reception of speech as well. For him, speech serves one value, "self-realisation", which in turn may include a set of sub-values, such as political process. Democracy is therefore a means to achieving self-realisation and not the value itself, as Meiklejohn suggested. In the core of self- realisation lie two notions: self-government and development of one's faculties[181]. Although it may not always be clear whether certain kinds of speech do promote self-realisation, the decision and judgment as to how valuable each type of expression is lies strictly with the individual and is beyond the State's regulation. At the same time though, Redish does acknowledge that the free speech principle should give way in the case of a clash with a competing and compelling public interest[182].

This perception of autonomy, as is captured by Baker and Redish, is rather appealing, as it covers under its protective wings many types of potentially harmful speech. For example, contrary to the argument from democracy, the present

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180 M Redish (n 91) 591-645.
181 M Redish ibid 627.
182 M Redish (n 91) 624.

rationale grants constitutional protection to hate speech and sexually explicit speech as well as artistic speech, since they can all in their way contribute to self-fulfilment[183]. By offering a combination of multiple views of autonomy[184], and at the same time defining democracy as a contextual frame, it manages to balance State and individual interests, while simultaneously referring to dangers posed to free speech from private interests.

2.5.2. General criticism of the autonomy rationale for free speech

Although the autonomy rationale for free speech provides in general a fair justification for liberty of expression, it has not escaped criticism entirely. One of the main arguments of its critics is that it fails to explain why speech in itself needs special constitutional protection. As Bork notes, an individual may derive self-fulfilment from other activities besides speech[185]. A multitude of values besides free speech can be of significance to self-fulfilment[186], yet there is no explanation as to why speech is to be treated under a "more lenient system of legal control"[187]. Moreover, the current rationale does not distinguish self-fulfilment from other fundamental needs and desires. Therefore, in the same vein, the State should be promoting other essential human needs, acknowledging a right to eat or sleep[188]. In a broader sense, the theory of autonomy presents speech as a component part of liberty[189] and as a result the rationale fails by not providing reasons for treating speech differently.

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183 I Cram, *Contested Words: Legal Restrictions on Freedom of Speech in Liberal Democracies* (Ashgate Pub Co, Aldershot 2006) 112, 139.

184 Some writers in the field argue that concepts of autonomy and self-fulfillment should be kept separate and distinct. For a detailed view see, H Fenwick, G Phillipson, *Media Freedom Under the Human Rights Act* (OUP, Oxford 2006).

185 R Bork (n 89) 25.

186 Thomas Emerson, for instance, suggests other values than speech, such as equality and justice, that could be promoted by the society reaching self-autonomy (T Emerson, 'Toward a General Theory of the First Amendment' (1963) 72 Yale L J 880).

187 W Sadurski, *Freedom of Speech and Its Limits* (Kluwer pub, London 1999) 18.

188 F Schauer (n 24) 56.

189 F Schauer ibid 58.

Whereas this is true for most of the accounts of autonomy described earlier, the argument set forth by Baker does not examine autonomy as a whole, but distinguishes between volition and action, freedom of choice and capacity of its actualisation and accordingly differentiates the State's role towards promoting free speech[190]. Baker's account of autonomy takes into consideration the fact that autonomy is primarily a right in a negative sense, beyond state interference. At the same time though, he acknowledges the fact that it has a positive aspect as well, as the State is encouraged to promote autonomy. The only limitation to that is that the State is free to act this way as long as it does not infringe on the hard core of autonomy. Therefore, state interventionism (for instance speech restrictions) is not allowed under this theory -even when such restrictions aim to enhance the chances for autonomy to be realised - as it primarily undermines the central core of autonomy.

Further to this, Baker and Redish both refer to the conceptualisation of self-realisation through communication with the others, which in a way differentiates speech from other human needs. They are indeed basing their theories on the broader sense of liberty, but at the same time they stress that formal autonomy is the legitimising ground upon which state power stands and from which it is nurtured.

This point however has not gone without criticism. Sustein notes a problematic aspect of governmental action based on autonomy: Discussing free markets and social markets, Sunstein notes how individual consumption choices may be different to collective considered judgements leaving the legislator with the open dilemma of choosing between public welfare and individual autonomy. Reaching decisions regardless of the prevalent social norms, peer pressure and even public welfare is not unusual: take for example, one's choice not to wear a helmet or not to employ black people, contrary to the social pressures imposed by his peers. As Sunstein observes, these are cases that do not call for governmental inaction for ensuring autonomy.

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190 Note Baker's reply to Bork's criticisms: "The fact that meaningful opportunities to lead a self-authored life (i.e., substantive autonomy) requires various material conditions –beginning with sustenance and shelter and maybe education and medical care- does not create implications for the required respect for (formal) autonomy but rather is either part of the domain of basic (i.e., constitutional) equality or a matter of democracy, with its general authority over distributive (or redistributive) matters." CE Baker, 'Autonomy and Free Speech' (2010) 27 Const. Comment. 251, 255

The narrow scope of autonomy-based theories is further contrasted to the all-encompassing democratic model, which is not limited to ensuring autonomy "merely in the satisfaction of preferences, but also, and most fundamentally, in the processes of preference formation"[191].

Schauer calls this "the sociology of the marketplace"[192], a term describing an array of different forces that determine the popularity of speech and behaviour at a given society. This of course carries the danger of government overregulating communication, which according to Schauer explains the focus of a free speech policy on democracy and not on autonomy[193]. Moreover, Schauer dismisses the autonomy-based theories as being consequentialist in treating speech as an end, without taking into account that autonomy can be promoted through other non-communicative activities[194]. This view, echoes Bork's view in his article 'Neutral Principles and Some First Amendment Problems', described by Schauer as the "locus classicus of objections to self-development theories"[195]:

> [T]he important point is that these benefits do not distinguish speech from any other human activity. An individual may develop his faculties or derive pleasure from trading on the stock market, following his profession as a river port pilot, working as a barmaid, engaging in sexual activity, playing tennis, rigging prices or in any of thousands of other endeavors. Speech with only the first two benefits can be preferred to other activities only by ranking forms of personal gratification. These functions or benefits of speech are therefore, to the principled judge, indistinguishable from the functions or benefits of all other human activities. He cannot, on neutral grounds, choose to protect speech that has only these functions more than he protects any other claimed freedom"[196].

This critique is a valid one and it highlights that autonomy-based theories adopt indeed a broader scope, failing to justify constitutional protection for speech and not for other liberty-related activities. The response to this critique has been direct: the distinction between speech and non-communicatory acts promoting liberty, with

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191 C Sunstein, *Free Markets and Social Justice* (Oxford University Press 1999) 19-20

192 F Schauer, 'Who Decides' ,in J Lichtenberg *Democracy and the Mass Media: A Collection of Essays* (Cambridge University Press 1990) 226

193 F Schauer (n 24); F Schauer, 'Slippery Slopes' (1985) 99 Harvard Law Rev. 361; F Schauer, 'Public Law Figures' (1984) 25 William and Mary Law Review 905.

194 F Schauer, 'Must Speech Be Special' (1984) 78 Nw. U. L. Rev. 1291

195 F Schauer, ibid 1292

196 Bork (n 89)

only the former qualifying for constitutional protection, has been drawn by the framers of the constitution, argues Redish[197]. Free speech is protected under the First Amendment, whereas other activities fall within the remit of the Fifth Amendment. Although not completely unfounded, this positivist view of self-realization has been contested by Baker[198], even though both theorists have formulated autonomy-based theories. Baker, who had himself been criticised for maintaining an overbroad scope of autonomy in his theory, notes how constitutional principles do not protect autonomy in general, providing thus ways to "limit the autonomy claim to speech or expression"[199]. Next follows a closer look at Baker's concept of autonomy, its critique and its potential to provide a theoretical framework for building a free speech policy model for the digital era.

2.5.3. A sustained look at the autonomy based theory of free speech: Scrutinising Baker's concept of autonomy.

The autonomy based rationale has been considered by Scanlon[200] to be a superior systemic theory to democracy-based accounts of the right to free speech. As it will be shown in the remainder of the thesis[201], Baker's theory can provide a solid basis for constructing a robust policy model for online free speech. The purpose of this section is to put Baker's theory to the test, namely to fully scrutinise its main points, before we are able to further consider applying this online.

Perhaps one of the most accurate descriptions of Baker's theory comes from Scanlon, who notes the distinction between Baker's substantive autonomy and

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197 M Redish, 'Self-Reallization, Democracy and Freedom of Expression: a Response to Professor Baker' (1982) 130 University of Pennsylvania Law Review 678, 684

198 "[A]lthough there is an explicit constitutional judgment concerning the importance of freedom of speech …(t)he text of the Constitution does not itself show whether the first amendments focus is on the provision of information or on the individuals freedom." CE Baker, Baker, 'Realizing Self-Realization: Corporate Political Expenditures and Redish' s " The Value of Free Speech"' (1982) University of Pennsylvania Law Review 646, 662 (discussed in M Redish, ibid 684)

199 CE Baker (n 190) 256

200 T Scanlon, 'Comment on Baker's Autonomy and Free Speech' (2011) 27 Const. Comment. 319

201 See Chapters 5 and 6

formal autonomy. Whereas substantive autonomy is a major aim of the state[202], its pursuit should be sought with respect to the others formal autonomy, namely the right to make decisions and other self-expressive rights[203]. Although Scanlon agrees with many of Baker's points, having himself authored a similar autonomy based theory[204], he contends that Baker's theory "fails to distinguish between restrictions on political speech, justified by the alleged fact that it would lead citizens to form mistaken views about the wisdom of governmental policies, and restrictions on cigarette advertising, or false and misleading advertising for other products"[205].

Scanlon's concerns on various types of speech aiding an individual's personal judgment are easily addressed when taking into account the types of speech encompassed in Baker's concept of formal autonomy. According to Baker, coercive and manipulative actions are not practises that the society must respect and as such do not qualify for protection. The reason for this is not the actual harm to the others but the mere fact that "these speech practices do not aim to communicate the speaker's own views or values, even in ways that cause harm to others, but rather attempt to undermine the integrity of the other person's decision-making authority"[206]. Based on this criterion, Baker indeed accepts that misleading political speech, namely propaganda, is not protected as free speech, nor is commercial speech.

The low constitutional protection of commercial and corporate produced speech, features in Eugene Volokh's critique of Baker.

Volokh argues that Baker's (and Shiffrin's[207]) assumption that business corporate and commercial speech involves limited autonomy is flawed. To support this point,

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202 CE Baker (n 190) 253-254

203 "Generally respect for autonomy involve respect for a person's choices about herself and, maybe her resources up until her choice involves taking choice away from another about himself of his resources". CE Baker, ibid. 257-258

204 T Scanlon (n 19)

205 T Scanlon (n 200) 322

206 CE Baker (n 190) 256

207 S Shiffrin, 'A Thinker Based Approach to Freedom of Speech' (2010) 27 Const. Comment. 283, 295

Volokh takes the example of the works of dead authors: if speech is protected on the merit of its effects on autonomy, what happens in such cases whereby speech does not aid the mental development of the speaker but of his audience[208]. Further to this, he describes a case, fairly similar to WikiLeaks: a "pure leak republication" scenario, as opposed to a "speaker-supplemented leak republication" scenario. The leaker and all recipients of the leak (e.g. editors, websites) would hardly qualify as a speaker according to Baker's autonomy based theory, Volokh notes. Moreover, the reasons for leaking a document online could be purely for gaining advertising revenue from online traffic[209]. Although Volokh's point on the interests of the listeners is a valid one (especially when it comes to online access), his understanding of Baker's theory is flawed. Baker's concern with corporate speech is primarily with profitmaking corporations, who "do not represent a manifestation of individual freedom or choice"[210]. Thus, a pure leak republication, as was the case with WikiLeaks diplomatic cables, would still be protected speech due to its instrumental value to the audience's autonomy primarily, as well as the whistle-blower's expression at a secondary level. Unlike commercial speech, "the function of free speech principles is to protect the interests of individuals, as potential speakers, audiences and bystanders"[211]. Online speech since the early days of web 1.0 and 2.0 has now entered a phase of full commercialization: data has been fully monetised by the industry on the net. In this respect, Baker's theory could help towards a pluralistic user-centric internet: the distinction between types of speech for purely commercial interests as opposed to speech promoting the user's autonomy is vital in this respect[212].

So far it seems that in spite of its critics, Baker's autonomy based theory of free speech could be a convincing proposition, as it appears to present a coherent rationale. As it will hopefully be shown in the remainder of the thesis, this theory

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208 E Volokh, 'Speech Restrictions that don't Much Affect the Autonomy of the Speakers' (2011) 27 Const. Comment. 247, 351

209 E Volokh, ibid 349-350

210 E C Baker (n 190) 274

211 T Scanlon (n 200) 323

212 It should however be noted that certain types of software could still promote the user's autonomy, and as such should be protected as free speech, although primarily are purely commercial products. That said, one should differentiate between actual speech and communicatory platforms facilitating expression. Chapter 5 discusses this distinction in more detail.

applied online could provide a solid basis for supporting decentralised architectures, thus not only promoting speech but also facilitating a sustainable internet. Yet before such issues are explored in detail, one further objection to Baker's position needs to be considered. As noted earlier, Baker himself criticised the theories of participatory democracy as inadequate to fully promote free speech values. In return, his own theory has been the subject of criticism with regard to his understanding of political legitimacy. James Weinstein suggests that the concept of political legitimacy is in principle closer to participatory democracy rather than Baker's normative understanding. In his critique Weinstein accepts that there is overlapping ground between Baker's autonomy based theory and his and Post's participatory democracy theories, yet finds Baker's definition of political legitimacy and its link to autonomy overbroad. Although all three theories share a common departure point by focusing "on the process necessary to make a particular law or the entire legal system legitimate", Weinstein posits that Baker's theory "also embraces communicative acts that have nothing to do with the process by which laws or social policy are adopted"[213]. This criticism however fails to understand that the connection between legitimacy and autonomy drawn by Baker is not limited to purely public discourse but it also includes discourse in private or semi-private spheres that still presuppose autonomous agents[214]. This, as shown in the following section, is mostly fitting on the internet, where the boundaries between private and public are not always clear. Moreover, Weinstein's critique seems to be suggesting a rather narrow interpretation of democratic self- governance only through democratic political institutions. Yet, as Scanlon[215] and Baker[216] both observe, freedom of expression protection stretches also to the liberty of the individual to informally shape social morals and norms both in her public and private life. This last point becomes especially accurate when examined in the digital world: the next chapter focusing on the internet's history and architecture demonstrates well how the internet communities, away from any formal political institutions managed to form

213 J Weinstein, 'Free Speech and Political Legitimacy: A Response to Ed Baker' (2010) 27 Const. Comment. 361, 366

214 CE Baker (n 190) 267

215 T Scanlon, 'Why Not Base Free Speech on Autonomy or Democracy' (2011) 97 *Va. L. Rev.* 541, 545

216 CE Baker (n 116) 515-517

hybrids of online governance, setting thereby new norms based purely on "rough consensus and running code".

This communicative process of autonomous agents seeking agreement for public or private matters is central in Baker's autonomy theory. In this sense, legitimacy – understood as the "justified use of coercion to enforce the law"[217]- relies on the government respecting autonomy. In one of his last publications before his death in 2009, Baker defended the need for respect for citizen's autonomy as a broader underpinning rationale for free speech contrasting it to democracy's legitimating power seeing "no obvious reason to limit this respect for self-government to collective self-governing –the political sphere- as opposed to self-governing also within private spheres"[218]. Baker rejects the Kantian moral theory of consent as morally problematic, giving too much power to the dissenter[219]. Whilst recognising that the diverse uses of "autonomy" as a term might result to confusion and misperception of his approach, Baker defends his choice of using this term approaching this matter from a purely constitutional (thus non moral) vantage point. "In any event", Baker argues, "some label is needed to describe the principles I wish to defend describing the conception that a state must attribute to its subjects whom it wishes to obligate; given my stipulated usage, autonomy seems to work"[220].

2.6. Applicability of the Autonomy Rationale Online

Arguably autonomy based theories for free speech seem to be a convincing proposition. Baker's theory, closely scrutinized in the preceding section, seems to pass the test. Most importantly, in expressing concern over state but mostly about

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217 CE Baker (n 190) 262. Note also Weistein's reference to Hart's distinction between conditions that "obligate, not merely oblige people". J Weinstein (n 213) 362.

218 E C Baker (n 190) 265-266. For the opposite view see J Weinstein (n 213) 363

219 In Baker's own words "Kantian moral theory might argue that a person should be governed only by laws that she gives-or, with considerable loss of justificatory force, only by law that she should or, maybe could give herself. Inevitably, in any actual legal order some will (certainly might) dissent (…) For this rejection to disable the use of law would effectively give the dissented, gives minorities, power over others, which is morally problematic". CE Baker (n 190) 267

220 CE Baker (n 190) 253 ft 6

non state speech restrictions coming from private actors, appears –unlike all previous rationales- to be taking into account the role of intermediaries and thus could be applicable online.

The variant proposed by Baker appears to be remarkably close to the general infrastructure of cyberspace. That is to say, cyberspace provides the means for the individual to express and participate, as well as to form contemporary culture in a way. This infrastructure is consistent with autonomy, as the individual is free to decide whether to impart or receive even speech of low value. Autonomy can be significantly increased online as the user has fewer material constraints to act upon his will than he would offline[221]. Moreover, the shift from proprietary communicative sources to free access alternatives such as the internet, allows autonomy to flourish beyond state control or private ownership. More importantly, the diversity of information offered online enables the individual to form a rather accurate perception of things. As Benkler puts it:

> "This diversity radically changes the universe of options that individuals can consider as open for them to pursue. It provides them a richer basis to form critical judgments about how they could live their lives, and, though this opportunity for critical reflection, why they could value life they choose"[222].

Autonomy goes beyond being a recognised value to become a lived experience online as the individual realises that he can indeed make things happen[223]. One can go even further and suggest that cyberspace offers the opportunity to the individual to attain self-realisation through experimentation[224] with online speech.

It is true that Baker's rationale considers mostly the speaker's interests, having little regard for the listener's view on free speech[225]. His insistence on focusing on the speaker's intentions fits with the cyberspace framework; an open platform for

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221 "We can live a life more authored by our own will and imagination than by the material and social conditions in which we find ourselves." Y Benkler (n 67) 139.

222 Y Benkler (n 67) 134.

223 Y Benkler (n 67) 137.

224 J Tomain, 'Cyberspace is Outside the Schoolhouse Gate: Offensive Online Student Speech Receives First Amendment Protection' (2010) 59 Drake L Rev 81.

225 M Redish (n 91) 620-621.

expression. Many of the blogs on the public domain go unread[226]; yet individuals continue publishing online blogs, as a means of self-expression. At the same time though, the autonomy rationale is not limited to the speaker's interests but also considers access to information as something inherent to one's autonomy. Considering that users as autonomous moral agents, should be able to decide for themselves, makes it easy to understand pervasive mechanisms of online regulation such as filtering as overly intrusive. In the same manner that Baker suggests that lying as a form of deception constitutes interference with one's self-control[227], it can be further argued that blocking web pages or presenting filtered information to the user impinges upon his autonomy in an impermissible way.

What is perhaps the most applicable part of Baker's account of autonomy in the online world is the fact that he regards the restrictions imposed to autonomy by private interest. It is true that the digital revolution has significantly changed the parameters of free speech. An open platform may be widely offered, yet at the same time, all users are dependent on non-state conduits through which they interact, express and communicate. Therefore, beyond national boundaries, online speech and its protection face the danger of censorship not only from the state but also from the private sector. As was demonstrated above, this rationale balances between democratic participation and self-realisation, while at the same time takes into account that speech can be suppressed by public as well as by private actors.

In *Reno v. ACLU*[228], a landmark case in online freedom of speech, the US Supreme Court noted that online information is as "diverse as human thought." Whether this improves human cognitive capacities is currently under debate[229] between contemporary cyber-theorists. In one view, Nicholas Carr suggests that surfing

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226 This is the conclusion reached by many network topologist theorists, like Barabási's web-mapping project. By tracing the bell curve power law distribution online (i.e. more sites means more distribution among readers), he concluded that abundance of information online results in "complete absence of democracy, fairness and egalitarian values on the Web", A-L Barabási, *Linked. How Everything is Connected to Everything Else and What It Means for Business, Science and Everyday Life* (Plume New York 2003) 56–57. See also: L Adamic et al, 'Power Distribution of the World Wide Web', (2000) 287 Science 2115.

227 D Strauss (n 163) 353.

228 *Reno v. ACLU*, 521 U.S. 844 (1997).

229 For more, see N Carr, *The Shallows: What the Internet is Doing to Our Brains* (WW Norton & Company, New York 2010) and C Shirky, *Cognitive Surplus: Creativity and Generosity in a Connected Age* (Penguin Press, New York 2010).

online involves the sacrifice of that chance to self-reflect, due to cyberspace's "perpetual mental locomotion"[230]. In another view, as Clay Shirky explains, the internet could "fuel the intellectual achievements of the 21st century"[231] provided it is correctly integrated into our society. Yet, this integration process is still in its infancy as we are at present situated in the middle of a significant change. As happened with the printing revolution, society needed two hundred years to tame the medium and improve there through.

Whether the internet boosts human cognitive capacities is for the moment nothing but a question, a definitive answer to which can only be attempted after many years of the internet's presence in our lives. In the meantime, the individual as an autonomous moral agent should be left free to decide for himself.

In this respect Baker's aversion to commercial speech as non-authentic expression purely controlled by economic interests[232], would translate online as the exclusion of any First Amendment protection for intermediaries as editors: consider for example Google's autocomplete function or the targeted ads that appear online based on data mined to predict the user's preferences based on his behavioural patterns. Or consider the ECJ's judgement in Google v Spain[233] to implement a "right to be forgotten" by asking Google not to index certain personal data in their search results. To determine Google's limits (or free speech protection) at most times the question asked is simply whether the company acts as an editor or as a mere conduit[234]. Yet, what should be asked instead –according to Baker's theory, would be whether the user's autonomy is respected by the speech under review.

As noted above, Baker's view that commercial speech does not qualify for free speech protection, has been a point of major critique. David Richards offers an

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230 N Carr, 'Does the Internet Make you Dumber?' (Wall Street J June 2010), <http://online.wsj.com/article/SB10001424052748704025304575284981644790098.html>, accessed 10 October 2010.

231 C Shirky, 'Does the Internet Make you Smarter?' (Wall Street J June 2010), <http://online.wsj.com/article/SB10001424052748704025304575284973472694334.html>, accessed 10 October 2010.

232 For a similar account, see also K Greenawalt (n 117) 321-322

233 *C-131/12 Google Spain* v *AEPD and Mario Costeja Gonzalez* (Judgement of 13/5/2014)

234 Note also a third category referring to search engines as "advisors", suggested by Grimmelmann. J Grimmelmann, 'Speech Engines' (2014) 25 Minnesota Law Review

interesting argument in this respect citing Blackmun J: allowing free speech protection for commercial speech might aid the economic redistributive effects of such types of speech. Namely, advertising could reduce costs for the consumer offering essential information. Although not entirely wrong, it is doubtful whether this view could be supported online: protecting targeted online ads or data mining techniques as speech because of their capacity to inform the user on the best prices would still involve a higher cost to be borne by the user reflecting on his privacy as well as his free speech rights to access information as a listener[235].

In noticing the market failure to promote free speech values and pluralism, Baker contributed a theory that was mostly fitting to oligopolies[236]. It seems that since the early days of its commercialization, the internet appears to be a market with a handful of dominant players in Schumpeterian competition[237]. In times of such informational empires monopolising the net, Baker's structural changes for promoting the free speech value of the user's autonomy seem to provide a solid basis for building a free speech policy for the net.

This last point, arguing for a user-centric internet, seems to be not only supporting an autonomy-based policy model for free speech but for other rights as well, such as privacy. There seems to be a growing tendency to exploit the internet architecture for allowing the user the right to be in sole control of his data shared online, be it speech or personal data. Take for example the concept of privacy by design[238], namely the adoption of privacy enhancing technologies in engineering systems, set out by the Information & Privacy Commissioner of Ontario, Canada, Ann Cavoukian since the early 90s. Or consider the latest MIT media lab's venture: open PDS[239]: a system that stores data

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235 J Barron, 'Access to the Press—A New First Amendment Right' (1967) 80 Harv. L. Rev. 1641; J Chandler (n 151)1095

236 S Shiffrin, 'The First Amendment and Economic Regulation: Away from a General Theory of the First Amendment' (1983) 78 Nw. U. L. Rev. 1212

237 J Haucap, U Heimeshoff, 'Google, Facebook, Amazon, eBay: Is the Internet Driving Competition or Market Monopolization?' (2014) 11 International Economics and Economic Policy 49-61.

238 For Cavoukian's seven foundational principles of the concept of privacy by design see http://www.privacybydesign.ca/content/uploads/2009/08/7foundationalprinciples.pdf. The author is honoured to be one of the Privacy by Design Ambassadors, appointed by the Privacy Commissioner of Ontario, Ann Cavoukian.

239 Short for: Personal Data Store. For more see Y-A de Montjoye, E Shmueli, SS Wang, A Pentland, 'OpenPDS: Protecting the Privacy of Metadata through SafeAnswers' (2014) 9 (7) PLoS ONE

in a repository controlled by the end user, not the application developer or service provider.

These are all instances of technology enabled autonomy for the user pointing towards a user-centric net structure. In the remainder of the thesis, this shall be explored in more detail. For the moment, it seems that autonomy as the underlying principle for free speech protection, would be mostly fitting for the online world. That said, this is not the first time that a theoretical framework is sought for online policy-making, although not explicitly focusing on free speech. The following section seeks to identify the main cyber-regulatory approaches and to further associate them with the free speech rationales presented thus far.

3. Towards Drawing Ideological Analogies

In the previous section, an attempt was made to explain the three main rationales for freedom of speech and examine the potential these hold when applied to the online world. It should be noted though that such an account would be incomplete if it were not to be followed by a brief overview of the reflections of the relevant archetypical ideologies[240] online. It is understood that most of the free speech rationales mentioned above have their roots in traditional political ideologies. The truth and autonomy rationales reflect libertarian outlooks on expression, while the democracy rationale can be noted for reserving some regulatory space for the State. Such political ideologies have also been expressed for cyberspace. The value of the regulatory models suggested by these cyber-theories is immense. Although they do not correspond to specific legal systems, these regulatory models evaluate cyber-reality by reference to philosophical frameworks under their ideological lenses. As

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240 The term is used to describe the various political ideologies that correspond to each of the aforementioned free speech rationales. The section follows the definition of ideology provided by the English philosopher Michael Oakeshott, who defined ideology as "the formalized abridgment of the supposed substratum of the rational truth contained in the tradition." M Oakeshott, *Rationalism in Politics* (Methuen & Co Ltd, London 1962) 4.

such they provide useful means for understanding how individual legal systems draw upon, implicitly or otherwise, deeper level commitments in political theory[241].

Next follows a short introductory presentation of the dominant cyber-theorists and the analogies they bare to the rationales examined. At this stage, my aim is to simply draw analogies to the traditional ideologies and not to provide an extensive analysis of the cyber theories themselves. Drawing analogies may serve as a useful tool while attempting to construct a robust regulatory framework for online speech as the thesis progresses.

3.1. The Cyber-Libertarians

While the internet was still in its infancy, a group of theorists emerged who questioned the grounds of the State's online regulation powers and deemed such attempts at regulation futile. These theorists were labelled as "digerati" or "cyber-libertarians", embracing the immense social impact of the Third Wave[242] of revolution: Cyberspace. Its proponents believed that the digital era would decentralise control and globalise society[243] while at the same time extinguishing all physical barriers posed to the individual's pursuit of self-fulfilment[244]. Publications, such as the "Declaration of the Independence of Cyberspace[245]" as well as the "Magna Carta for the Knowledge Age"[246] challenged the idea of state sovereignty

241 The use of such ideal models is explained in R Keat, J Urry, *Social Theory as Science* (2nd edn Routledge & Kegan Paul, London 1982) 112. For a similar use of such ideal models, see I Cram, *A Virtue Less Cloistered* (Hart Pub, Oxford 2002) 77.

242 Alvin Toffler in his book "The Third Wave" acknowledges three revolutions in human history: Agricultural, industrial and computing revolution, all of which dominated the social platform and brought about significant transformations. A Toffler, *The Third Wave* (Bantam Books, New York 1990).

243 N Negroponte, *Being Digital* (Knopf, New York 1995).

244 A Rand and N Branden, *The Virtue of Selfishness: A New Concept of Egoism* (New American Library, New York 1964) *cf* P Borsook, *Cyberselfish: A Critical Romp Through the Terribly Libertarian Culture of High Tech* (Public Affairs, New York 2000).

245 J Barlow, 'A Declaration of the Independence of Cyberspace' <http://editions-hache.com/essais/pdf/barlow1.pdf> accessed 20th October 2010.

246 E Dyson, 'Cyberspace and the American Dream: A Magna Carta for the Knowledge Age' (1996) 12 The Information Society 295.

online. According to David Post[247], one of the predominant figures of cyber-libertarianism, the State was no longer sovereign online due to significant changes brought about by the cyber-era: the geographical distribution of its users disabling physical borders, the special locus of cyberspace as a distinct place with its own jurisdiction. State power was seen as illegitimate on the basis that net users had not consented to any form of constituted authority as no social contract had been drafted online.

In the absence of any direct physical harm to others online[248], cyber-libertarians share with Mill the distrust towards any sort of state interference. Yet, a portion of these theorists can also be associated with the Holmes doctrine of a marketplace of ideas. Although the majority of cyber-libertarians were mostly concerned with removing themselves from all forms of state power, not all were hostile to the idea of private sources of regulation. As Holmes's marketplace of ideas can find ways of self-amending the market failures, similarly cyberspace was thought to be able to self-treat "code failures"[249], the digital equivalent of market failures, where regulation is deemed necessary. Such cyber-libertarians believed that code failures were "ultimately better addressed by voluntary, spontaneous, bottom-up, marketplace responses than by coerced, top-down, governmental solutions"[250]. By placing trust in the free choice of the public, cyber-libertarians did not fear the regulative potential of the invisible hand online[251]. Like Holmes's doctrine, they too

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247 D Post, 'What Larry Doesn't Get: Code, Law, and Liberty in Cyberspace' (1999) 52 Stan. L. Rev. 1439 ; D Johnson, D Post, *And How Shall The Net Be Governed?: A Meditation On The Relative Virtues of Decentralized, Emergent Law* (MIT Press, Cambridge MA 1997); D Post, 'Anarchy, State, and the Internet: An Essay on Law-Making in Cyberspace (art 3)' (1995) JOL 1.

248 J Boyle, 'Foucault in Cyberspace: Surveillance, Sovereignty, and Hardwired Censors' (1997) 66 U. Cin. L. Rev. 177.

249 The term, coined by Adam Thierer, refers to problematic cases that could come up in the absence of any regulative framework online. A Thierer, 'Our Conflict of Cyber-Visions' Cato Unbound <http://www.cato-unbound.org/2009/05/14/adam-thierer/our-conflict-of-cyber-visions/> accessed 20th October 2010. One example of such "code failures" could be the limited diversity of views caused by the user personalising his webpages so that he receives only the information he chooses. For more details on this, see Negroponte (n 243).

250 A Thierer (n 249).

251 "The invisible hand may have many deficiencies, but the one thing it does best … is to place before members of the public a diverse set of offerings in response to the diverse needs and preferences of the public." D Post, 'What Larry Doesn't Get: Code, Law and Liberty in Cyberspace' (n 247) 20.

have been criticised for tolerating power concentration[252], online homogeneity[253] and non-transparent private control in cyberspace[254].

3.2. The Cyber-Paternalists

As cyberspace entered its broad commercialisation stage, a group of cyber-theorists warned of the dangers posed online by the invisible hand's regulation in the absence of state regulation. Many spoke of the misinterpretation of libertarian values online, as the online activities of corporations were acting beyond any control and therefore the right of the most powerful would become the dominant rule[255]. As a result, a new group of cyber-theorists, known as "cyber- paternalists", emerged. Although their theories present different angles of online regulation, they all agree on permitting selective acts of governmental interference online so as to maintain the values of a liberal democracy in cyberspace[256]. Whereas cyber-libertarians praised the internet's architecture for its inherent freedom, cyber-paternalists tracked down within it an embedded control system. As Lessig noted, cyberspace's structure - its "code" - was the element that constituted an additional form of online regulation. Yet, the traditional governmental power was considered by Lessig to be more preferable than that "code", as the former demonstrated features such as transparency and accountability lacking in the latter. This is not to imply that cyber-paternalists disregard the different architecture of cyberspace. On the contrary they

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252 L Winner, 'Cyberlibertarian Myths and The Prospects For Community' (1997) 27 ACM SIGCAS Computers and Society 16.

253 See C Sunstein (n 50).

254 See L Lessig (n 10).

255 See, M Lemley and D McGowan, 'Legal Implications of Network Economic Effects' (1998) 86 Cal L Rev 483; M Castells, *The Internet Galaxy: Reflections on the Internet, Business, and Society* (OUP, Oxford 2002); M Holderness, 'Who Are the Worlds Information Poor' in BD Loader (ed) *Cyberspace Divide: Equality, Agency and Policy in the Information Society* (Routledge, London 1998) 35-36 and T Haywood, 'Global Networks and the Myth of Equality: Trickle Down or Trickle Away?' in BD Loader (ed) *Cyberspace Divide: Equality, Agency and Policy in the Information Society* (Routledge, London 1998) 19-34.

256 See among others, N Netanel, 'Cyberspace Self-Governance: A Skeptical View from Liberal Democratic Theory' (2000) 88 Calif. L. Rev. 395; A Bomse, 'The Dependence of Cyberspace' (2001) 50 Duke LJ 1717; D Solove and P Schwartz, *Privacy, Information and Technology* (Aspen Law & Business, New York 2008) and J Boyle (n 248).

embrace the power possessed by the "code", yet encourage users to remain vigilant when it comes to essential liberal values being transformed online[257].

Cyber-paternalists resemble liberal theorists as they follow a "soft paternalism", allowing the State to act selectively, without necessarily opting for State coercion. Some of the cyber-paternalists, such as Sunstein and Thaler[258], have formulated a theory of their suggested "libertarian paternalism", where a policy is based on guiding the person to make the best choice according to his own standards. Premised on behavioural economics, Sunstein and Thaler defend libertarian paternalism as the optimum tool to promote welfare.

3.3. The Cyber-Communitarians

The notion of cyber-communitarianism can be detected among the first cyber enthusiasts of the 1990s. Early libertarians who drafted the "Magna Carta for the Knowledge Age" refer to "electronic neighbourhoods bound together not by geography but by special interests" and look forward to decisions of the community based on its online common will. Although such communities of interest were heavily criticised for promoting separatism and were described as "wired exurban enclaves[259]", their ability to directly influence decision making and be self-governed is reminiscent of the ideal of Madisonian democracy. Once commercial corporations realised the potential of the internet for markets, they began to take on an active role towards transforming cyberspace into a heavily commercialised field. In addition, corporative ambitions for increased benefit affected communities of interest. The user was no longer a netizen, but an online consumer. As a result, common will was no longer a product based on deliberation among users participating in the same

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257 In his *Code and Other Laws of Cyberspace*, Lessig seems to be building on Mill's view in acknowledging that state coercion is not the ultimate danger to liberty. Apart from written law, Mill discerned the danger in the majoritarian "tyranny of the many" and the "tyranny of the norms", namely societal customs and traditions. Likewise, Lessig acknowledges four regulative factors in cyberspace; law, market, norms and architecture. See, L Lessig (n 10).

258 R Thaler and C Sunstein, 'Libertarian Paternalism' (2003) 93 American Economic Review 175.

259 L Winner (n 252) 18.

community of interests; users had joined a broader community - the online marketplace.

The communitarian ideology online underwent a similar transformation resulting in the ideology of "Network Communitarianism"[260]. This theory - developed by Andrew Murray - is premised on Niklas Luhmann's theory of autopoietic systems[261] and suggests a control model of "symbiotic regulation[262]" online. Such a model takes into account all online actors and their contribution to the dynamic developing environment of cyberspace. Considering regulation as a polycentric legal system among competing regulators, this theory is based on the communicative power of cyberspace and regards regulation as an ongoing discourse between the individual and the society. This theory rejects the notion that regulation is a state monopoly; nevertheless it is not to be confused with cyber-libertarianism as it does not rely only on self-regulatory mechanisms but focuses on the interconnectivity of the various regulatory modalities and actors online. It could be suggested that it connects to neo-communitarianism ideologies and offers a fresh response to cyber-paternalism.

In this section, an attempt was made to draw some initial analogies between the dominant cyber-theories and the free speech ideologies they might be said to reflect. Taking into account that the rationales for free speech have their roots in the same traditional political ideologies maps a way to associate those rationales to the cyber-theories. It should be noted that the above mentioned cyber-theories offer a general regulatory framework for online governance without making any special provisions for free speech. On the other hand, the rationales for free speech examine the place free speech holds within a regulatory framework. Therefore, the need to associate the two would help towards building a robust regulatory framework for cyberspace while maintaining the values ascribed to free speech. As the thesis progresses, the analogies drawn initially here will demonstrate the complexities of the various

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260 A Murray, *The Regulation of Cyberspace: Control in the Online Environment* (Routledge Cavendish, Oxon 2007) 240.

261 *Autopoiesis (Αυτοποίησις*), consisting of the Greek words "auto" (= self) and "poiesis" (=production), refers to a system that is capable of self-production. Luhmann discarded the existence of any sort of hierarchy and referred to merely existing subsystems strongly interconnected. Social systems are created within these systems based on interaction and self-define and govern themselves through communication. N Luhmann, *Soziale Systeme* (Suhrkamp, Frankfurt 1984).

262 A Murray, 'Symbiotic Regulation' (2008) 26 John Marshall Journal of Computer and Information Law 207.

regulatory models for cyberspace and will be further examined[263]. For now, the aim is simply to draw these analogies and clarify their significance for online speech.

4. Conclusion

In the previous sections, an endeavour was made to give a rough outline of the rationales underpinning the values of the right to free speech and justify its protection. Moreover, some useful analogies to contemporary cyber theories were drawn. It could be argued that all rationales may have some online applicability. The truth rationale, although it depends greatly on human fallibility and rationality, explains some of the benefits of free speech online and justifies its immunity against state interference. At the same time though, it has no provision for private interests that might inhibit speech, nor does it examine speech within a certain context. The democracy rationale, although it has become extremely popular in the last few decades, overlooks some aspects of online speech, most of all the individualism that lies behind each user's speech online, as well as the non-political e-speech. Lastly, the autonomy argument – especially Baker's variant – seems to be closer than the rest to the special traits online speech bears, as it takes into account the private interests that might harm free speech.

Having said that, the autonomy rationale might provide a useful tool towards online regulation and will therefore be re-evaluated as the thesis progresses in light of suggested cyber-regulatory models. Even though it does not specifically provide us with a robust principle for free speech, as something different to the general human liberty and therefore entitled to a special status, it nevertheless builds a bridge between the two other rationales. One does not necessarily have to choose between either truth or democracy, as the autonomy principle treats all these as sub-values under its umbrella. Furthermore, it has provision for matters that the other two rationales failed to consider: unlike the truth rationale, it takes into account threats privately posed against freedom of speech; unlike the democracy rationale it

263 See Chapter 2 (section 5) and Chapter 6 (section 1).

considers within its protective scope non-political types of speech like art, literature or even offensive speech.

However, the real question remains: would such an account of free speech be applicable online? It is true that abstract philosophical principles cannot draw a generic borderline around free speech. Speech is itself a dynamic element, which is confined within a certain environment and is shaped by its underlying values and culture. Therefore, what one needs to examine, so as to construct a principle for free online speech, is first and foremost the cyber-context, within which speech is framed. In other words, as Fish suggests, we should examine "what does it (speech) do, do we want it to be done, and is more to be gained or lost by moving to curtail it?"[264] Subsequently, according to the context, the answer will vary. The argument that historical, political, economic and technological conditions ascribe values and alter the scope of rights is referred to as "dynamic theory of rights" by contemporary theorists such as J. Balkin[265].

In the case of cyberspace, as Balkin argues, not only did it provide a new context for speech, but it changed our perspective of free speech altogether. This is not to imply that online speech is to be dealt with as new and separate from offline speech[266]. On the contrary, cyberspace brought out some traits of speech that were not previously obvious and therefore escaped the attention of the legislators and philosophers. Balkin summarises those features as the following: "interactivity, mass participation, non-exclusive appropriation and creative transformation"[267]. Digital revolution brought about a social revolution as well, as it changed the social parameters and conditions of speech. Free speech was enhanced by low costs in distribution of information, borderless and direct peer-to-peer communication and democratic transmission of data placed in the hands of the masses. Most importantly, it shielded communication with a common technological platform as well as common standards of creating, encoding, sharing and remixing speech. As a result, speech became

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264 S Fish (n 35) 127.

265 J Balkin, 'Digital Speech and Democratic Culture: A Theory of Freedom of Expression for the Information Society' (2004) 79 N.Y.U.L.Rev. 52.

266 In his paper, "Cyberspace and the Law of the Horse", Judge Frank Easterbrook rejects the notion that cyberspace poses new legal questions that cannot be answered with current laws and legal infrastructure (n 2).

267 J Balkin (n 265) 52.

interactive and "appropriative"[268]. The latter refers to the ability users have to make speech their nonexclusive property, while at the same time being given the chance to build thereon.

The internet transformed speech consumers to interactive participants, who could collectively shape common culture and in turn be influenced by it. Consider all those cases mentioned above: Wikipedia, online campaigns, blogs; they all are part of a collective process of culture construction. The architecture of cyberspace itself provides tools such as copy-paste, link or edit, all of which contribute to this new value free speech serves online: "democratic culture"[269]. Such a term entails a broader sense of participation beyond civic governance; popular participation, co-creation and distribution of a common culture, which shapes us and constitutes our individuality[270].

Freedom of speech is as a result an indispensable part of this social participatory popular culture online. Therefore, the internet – as Balkin argues – made more obvious the dual character of free expression: while being a rather individualistic liberty, at the same time it is highly communal in being a tool for constructing culture, which in turn promotes individual self-realisation[271]. This dual function of speech was a point both Baker and Justice Brandeis mentioned. Yet, whereas Baker uses a broad protective scope for free speech, Justice Brandeis reserves this for culturally valuable speech. For instance, gossip, as it "destroys at once robustness of thought and delicacy of feeling[272]", lies beyond the scope of free speech protection. In the case of online speech, however, it was already established that it was a constructive tool of popular culture, not strictly political or necessarily of high value.

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268 J Balkin ibid 10.

269 "A democratic culture is the culture of widespread "rip [ping], mix[ing] and burn[ing], of nonexclusive appropriation, innovation and combination. It is the culture of routing around and glomming on, the culture of annotation, innovation and bricolage. Democratic culture is not the same thing as mass culture. It makes use of the instrumentalities of the mass culture but transforms them, individualizes them and sends what it produces back to the cultural stream." J Balkin (n 265) 43.

270 Balkin refers to the theory of "memetic democracy", which focuses on the idea of popular wide distribution of memes; cultural ideas that constitute our individuality. J Balkin (n 265) 37, 65.

271 J Balkin (n 265) 43-44.

272 S Warren and L Brandeis, 'The Right to Privacy' (1890) Harv L R 193.

Therefore, the autonomy rationale, as it was framed primarily by Baker[273], seems to provide us with a powerful tool for mapping the boundaries of free speech online. The connection it provides between the individual and the society, its tolerance of potentially harmful speech and the notion of the private interests inhibiting free speech, make this rationale a useful tool towards legal evaluation of online free speech.

However, as was mentioned at the beginning of this chapter, a rationale alone holds a purely explanatory and justificatory role. Freedom of speech may be protected constitutionally but it is nevertheless shaped by its sub-context. In cyberspace, as Balkin[274] suggests, the flow of information is not free but operates under a "knowledge and information policy." Speech in cyberspace faces more dangers than the traditional state coercion. It clashes with the financial interests of the corporations and is dependent on the regulation of its conduit, the network[275]. Yet at the same time, cyberspace provides a platform where speech has a potential to be free and should be regarded and promoted as such. Traditional means of protection for free speech such as constitutional protection and judicial review alongside rationales and doctrines may not be sufficient in the digital era to protect speech adequately. Analogies would not suffice as we are experiencing a more complex environment; an equation with multiple unknown variables.

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273 In the same vein, Post has developed a similar theory on "public discourse" being exempt from state regulation as it promotes a shared identity and common will between autonomous individuals. Post notes that public discourse provides the medium through which "individuals choose the forms of their communal life" and which "reconcile[s] …the will of individuals with the general will." For more see R Post, *Conditional Domains: Democracy, Community, Management* (Harvard UP, Cambridge MA 1995) 293-331.

274 J Balkin, 'The Future of Free Expression in a Digital Age' (2008) 36 Pepp. L. Rev. 102.

275 "The digital revolution is a revolution, and like all revolutions, it is a time of confusion, a time of transition, and a time of opportunity for reshaping the structures of the economy and the sources of power. As a time of opportunity it is also a time of opportunism, a period in which the meaning of liberty of expression will be determined for good or for ill, just as the meaning of economic liberty was determined in an earlier age. Make no mistake: The digital age will change the meaning of freedom of expression. The only question is how it will change. If we do not reconsider the basis of liberty in this age, if we do not possess the vigilance of the guide as well as the guard, we shall end up like every person who travels through the wilderness without a compass, or through the forest without the forester. We shall end up lost." J Balkin (n 265) 55.

It is essential to respond to the challenges and adapt to the demands this new era poses for free speech. As has been mentioned previously, the traditional right to free speech is at a turning point, as the cyber-era ascribes new values and constructs a complex environment for it. The new values that the technological revolution creates should be hailed with restrained optimism. New values can be invigorating for the right to free speech as they help towards its adjustment to its new cyber-environment. At the same time, these new values should be welcomed to the extent that they do not clash with the archetypical values ascribed to free speech by the various rationales. To revisit the roots of a right by examining its rationales is essential so as to understand why free speech is protected. However, this by itself is not enough.

In a digital world that is constantly evolving, free speech protection raises a series of complex regulative issues. It is therefore within the scope of the upcoming chapters to touch on those matters and consider viable solutions. Free speech online is not just another case of constitutionally protected speech; it is a tangled thread that needs to be unravelled carefully in the labyrinth of internet regulation.

The following chapter turns to the net architecture for answers. Having already outlined the legal underpinnings of the right to free speech in this chapter, the thesis next moves on to identify the main principles and design choices supporting the net infrastructure. In other words, Lessig's "law" has been examined; it is now time to take a closer look at the "code" always while keeping a clear focus on free speech.

Chapter 3: Of Architecture and Net Principles ~ The Internet's DNA and its Entailments for Speech

"Architecture is the will of an epoch translated into space"

Ludwig Mies van der Rohe, architect[1]

1. Architecture is Politics[2]

In the previous chapter, it was argued that the traditional legal notion of speech is at a turning point online: added to the free speech rationales that determine the right's protective scope, some new values and principles seem to have emerged from the ecology of online speech. The Internet seems to have a deep impact on the way free speech is treated online. Namely, aside from the free speech constitutional values enshrined in law, a complementary factor, the code[3], creates and embeds additional values into speech online. In his famous phrase "Code is Law", Professor Lessig has captured the way that the internet's architecture "pre-structures the form"[4] of regulation online; hence an effective policy online should be narrowly tailored to the net architecture. Previously, the main constitutional doctrines concerning speech

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1 L Mies van der Rohe, *Aphorisms on Architecture and Form* (P Johnson tr. Museum of Modern Art, New York 1947).

2 The phrase is attributed to Mitsch Kapor, EFF and presumably dates back to 1996.

3 Lessig considers the "code" as having the following meaning: "The regulator is what I call "code" – The instructions embedded in the software or the hardware that makes cyberspace what it is. This code is the "built environment" of social life in cyberspace. It is its "architecture." L Lessig, *Code: Version 2.0*. (Basic Books, 2006) 121.

4 C Graber, 'Internet Creativity, Communicative Freedom and a Constitutional Rights Theory Response to 'Code is Law'' in S Pager, A Candeub, *Transnational Culture in the Internet Age* (Edward Elgar 2012) 135, 137 <http://ssrn.com/abstract=1737630> accessed 12 December 2013

were presented with a careful examination of their applicability online. Yet, any policy crafted strictly on these models would not be efficient; one would further need to embrace the internet's design principles and understand their impact on speech before attempting a regulative approach[5]. This chapter focuses on the internet's architecture and identifies its underpinning design principles. It intends to demystify the technical infrastructure for the non 'tech savvy' policy maker that is bestowed with the task of legislating online. In terms of the present research, it enhances the reader's understanding of speech online and provides a solid foundation to build a regulative model of online speech as the thesis progresses.

As such, the thesis become unavoidably technical in this chapter; this is an essential part of the techno-legal approach suggested in the remainder of this thesis. In fact, the limited knowledge of what the internet is and how it operates combined with the sheer absence of a technical background is a problem that is met commonly in policymakers drafting internet-related legislation accounts for many flawed laws[6]. The detailed technical analysis in this chapter wishes to highlight this point: In the following chapters[7], it will be argued that the law should embrace the net architecture instead of ignoring it. Before anything, however, it should understand it.

In many ways, architecture is believed to have the power to instruct human behaviour. This may occur either directly or indirectly. In the case of the direct intervention of architecture in human free will, one can think of the simple example of walking on a bridge as the only way to cross a river. In this example, architecture evidently guides human behaviour and limits free will to the only viable solution; the one provided by architecture. It is accepted though that architecture can also affect human behaviour indirectly through its communicative effects. The design of

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5 "The interplay between the physical and the ethereal [likewise] shapes the constitutional doctrine that facilitates the free flow of ideas." J Chen, 'Conduit-Based Regulation of Speech' (2005) Duke Law Journal 1359, 1362.

6 C Reed, 'How to Make Bad Law: Lessons from Cyberspace' (2010) 73 (6) The Modern Law Review 903-932.

7 Chapter 4 suggests that the law should recognise the internet architecture and operate within this environment. Chapter 5 sets this suggestion in motion and examines free speech theories within the net architecture. Both chapters refer to the technical aspects discussed here in detail; this explains the narrow focus of this chapter in terms of the overall structure of this thesis.

a building can either be symbolic[8] or it can convey general social values[9], ruling behaviour in the same manner law does. For example, Foucault's reading on Bentham's panopticon[10] demonstrates how spatial arrangements can affect human behaviour; architecture can thus be seen as an extra-regulatory force, working alongside law.

In cyberspace, architecture matters and – as will be demonstrated shortly – it has the power to frame online behaviour. Put simply by Mitsch Kapor, "architecture is politics"[11]; a phrase later formalised and subsequently popularised in Lessig's published work. It is true that people tend to forget that the internet is an artefact[12]. One of the accomplishments of the semantic web[13] is the fact that everything appears almost natural online. Yet, everything – at least in principle – is harmoniously orchestrated under the supervision and careful planning of a handful of computer engineers. The following section begins with a short overview of the history of the internet's evolution. The core architecture and underlying design principles are also presented in depth here. As explained, most sections in this chapter are inevitably descriptive and are drafted with a view to offer some background on the technical aspects often overlooked by legal scholars and policy makers. Later parts of this thesis will build upon the net principles discussed here. What is sought here is to identify the link between the net architecture and free speech and to explain how the former has the potential to promote the latter. That being said, the chapter examines the net architecture separately from its

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8 For instance, the architecture of Gothic churches being built tall and narrow symbolises man's attempts to reach God. P Frankl, *Gothic Architecture* (Vol. 19, revised by P Crossley, Yale University Press, 2000).

9 Shah and Kesan, in their paper 'How Architecture Regulates', present an excellent analysis of the regulative effects of architecture. Among the examples they use, they refer to the architecture of American malls, which is intentionally simplistic as it tends to avoid the employment of any specific theme that might involve religion, class or politics. JP Kesan, RC Shah, 'Setting Software Defaults: Perspectives from Law, Computer Science and Behavioral Economics' (2006) Notre Dame L Rev. 7.

10 Foucault M, *Discipline and Punish: The Birth of Prison* (Pantheon Books, New York 1977).

11 L Lessig (n 3) 350 n 22.

12 D Post, *In Search of Jefferson's Moose: Notes on the State of Cyberspace* (Oxford University Press, 2009) 209.

13 The Semantic Web is Tim Berners-Lee's ambitious project that aims at formatting data in such a way that computers can understand semantics, namely human readable data. One of the main objectives is that the user will communicate with the computer, almost forgetting that this is a machine perceiving information as bits and bytes. T Berners-Lee, M Fischetti, T Dertouzos, *Weaving the Web: The Original Design and Ultimate Destiny of the World Wide Web by its Inventor* (Harper Collins Publishers Inc., 1999) 199-211.

administration; in this sense it does take a holistic approach as to what "Code" is and how it might influence behaviour online. Drawing from Lessig's argument that the overall infrastructure of the internet has a special regulative power, this chapter further distinguishes between the implemented technical elements and the archetypical architectural design and focuses on the latter. This distinction, primarily suggested by Barbara van Schewick in her book "Architecture and Innovation", is followed throughout the chapter. According to van Schewick, the architecture describes the basic framework of the internet in a general manner, without focusing on the specific ways its implemented elements interact[14]. Moreover, she describes architecture as a design choice, among many that might fulfil the same task. This design choice involves the endorsement of some qualities at the expense of others. For this purpose, the architecture is based on certain design principles that favour certain qualities and embed them into the system[15].

Adopting van Schewick's remarks, this chapter discusses architecture in the following way: First it explains how the basic architectural design is laid out. It introduces the reader to the TCP/IP, namely the protocol that seems to be responsible for communication online and as such could well be regarded as the internet's foundational stone. Subsequently, it identifies the various design principles that traverse its layered structure and ascribe certain qualities to its mechanism. Once the core principles are presented, the chapter goes on to discuss the administration of the net's architecture, namely the entities that control online content and meet decisions that can affect the internet architecture on a broader level. For the symmetry of this chapter, these entities are mentioned together as administrative parts of the net's architecture and include the control of the DNS and the standardisation processes online[16]. The ruling of the Root, namely the allocation

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14 "The architecture provides an abstract view of a system as a collection of "black boxes", describing how they behave and interact but not how they work. In particular, the architecture ignores questions of implementation such as algorithm design and data presentation." B van Schewick, *Internet Architecture and Innovation* (The MIT Press, 2010) 21.

15 B van Schewick ibid 22, 23.

16 Although software is arguably one of the factors that can influence net architecture (J Grimmelmann, 'Regulation by software' (2005) 114 (7) Yale Law Journal 1719; S Johns, *Interface Culture: How New Technology Transforms the Way We Create and Communicate* (Basic Books, 1997), it is not presented in detail here. The reason for this is that as software mostly lacks transparency, it would be difficult to explain concretely in what ways it could affect the internet's

of IP addresses online, regulates the internet's structure directly; thus its significance for this chapter is self-explanatory. Standards, on the other hand, primarily regulate strictly matters of a technical nature in cyberspace. By framing online behaviour though, they simultaneously embed policy online and acquire a political significance. From a technical point of view, they can be seen as "blueprints that enable technical interoperability among heterogeneous technical products"[17]. Nonetheless, they instruct behaviour online, in the same manner norms define acceptable behaviour offline. Although they cannot alter the basic structural elements, standards are considered to be able to moderate the internet's design. In this sense, if the architecture is law, then also the configuration of its design might be considered equally significant.

The chapter concludes that the net architecture has the potential to promote free speech online. In this sense the "Law" and the "Code" should not be seen as clashing but as complementary modalities. This observation will be examined in detail in the following chapters. Such an in-depth analysis however presupposes a general overview of how the internet came about. The following section explains in brief how the internet arose.

2. Evolution of the Internet's Infrastructure: The Story so Far

The early history[18] of the Internet begins around 1968 when the US Department of Defence funded ARPA[19] agency launched an ambitious networking research project, called ARPANET. Due to the high costs of electronic scientific equipment, ARPA was interested in examining the possibility of creating a network that would enable researchers to share their resources. For this cause, the agency hired J.C.R. Licklider in 1962 as a project director, an MIT associate professor known for his published

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design. Moreover, software is not able to noticeably alter the net architecture only by itself and thus it was not deemed essential to include a section devoted to it in the present chapter.

17 L DeNardis, *Protocol Politics: The Globalization of Internet Governance* (MIT Press 2009) 6

18 For a detailed overview, see B Leiner et al., 'A Brief History of the Internet' (2009) 39 (5) ACM SIGCOMM Computer Communication Review 22.

19 Advanced Research Projects Agency, hereafter ARPA.

papers on interconnected communicatory schemes for computers[20] and on the concept of a "galactic network[21]", namely a global computer network intended initially to follow a time sharing pattern.

Licklider and his research team adopted the concept of an interconnected computer network based on packet switching and rejected the circuit switching mode used in telephony as insufficient for their cause. In this direction, they implemented in their project the findings of a series of 1964 papers by Paul Baran on designs of communications networks able to sustain a nuclear network[22]. Baran had built his suggested model on neuroscientific findings describing the ability of the brain to function properly on the occasion of dead brain cells[23]. He came up with the idea of a "centrifugal" [24] network, i.e. a network relying on abundance while lacking the vulnerability of networks that have a central point of reference. The design described featured a distributed communications network operating on packet switching, namely a network designed to allow communication between its nodes directly without the need for a centralised hub. Information in such networks is simply distributed among many autonomous[25] microprocessors connected to a network and it "bounces around at random"[26] among them as it is received and retransmitted among the connected nodes until it finally reaches its designated

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20 Licklider was probably the first to describe a network similar to the Internet as we know it today. In his 1962 paper 'Man Computer Symbiosis', he notes: "It seems reasonable to envision, for a time 10 or 15 years hence, a 'thinking centre' that will incorporate the functions of present-day libraries together with anticipated advances in information storage and retrieval. The picture readily enlarges itself into a network of such centres, connected to one another by wide-band communication lines and to individual users by leased-wire services. In such a system, the speed of the computers would be balanced, and the cost of the gigantic memories and the sophisticated programs would be divided by the number of users." J C R Licklider, 'Man-Computer Symbiosis' (1960) 1 IRE Transactions on Human Factors in Electronics 4.

21 In his memo to the ARPA research team in April 1963, Licklider addresses his fellow researchers as "Members and Affiliates of the Intergalactic Computer Network." Available online <http://www.kurzweilai.net/memorandum-for-members-and-affiliates-of-the-intergalactic-computer-network> accessed 12 December 2013.

22 P Baran, 'On Distributed Communications Networks' (1964) Communications Systems, IEEE Transactions on 12.1 1.

23 J Ryan, *A History of the Internet and the Digital Future* (Reaktion Books Ltd 2010) 16.

24 J Ryan ibid 14.

25 They are autonomous in the sense that they don't use a common memory but each has its own memory and may run different operating systems at different speeds. For more details, see: A Kshemkalyani, S Mukesh, *Distributed Computing: Principles, Algorithms, and Systems* (Cambridge University Press, 2008) 1-5.

26 D Post (n 12) 74.

recipient. Moreover, information is routed using the method of packet switching[27]; namely it is split into packets that are transmitted individually in a random order and follow different routes to their destination. Then, once all packets are received, they are reassembled so as to form the complete initial message. In this way, even if one node was damaged or disabled, the packet of information would be routed to alternative nodes ensuring its delivery would not be affected.

Baran's design was preferred over a central server design as a distributed routing system would enable the network to sustain the processing workload. The Internet was therefore a network built on a decentralised architectural design without a central server enabling communications between its nodes. Considering the growth of the internet network, which is approximately 100 times its original size and calculating that every operation would take the server at least a billionth of a second, one day's processing could take roughly a million years[28]. In order to overcome such problems, the internet's architecture was based on decentralised nodes cooperating within an open network by routing around packets of information.

Licklider and ARPA's team launched their project network, ARPANET in 1969. This network is today regarded as the internet's architectural prototype: a network based on the principles of openness, interconnection and decentralisation; a network shared between nodes separately connected to other networks through connection points. While initially a closed network[29], demands for its open development resulted in the adoption of a communications standard protocol that would allow the interconnection of different networks; an inter-network of networks. This protocol, called the TCP/IP[30] Protocol, was developed in 1973 by two DARPA-funded engineers, Vinton Cerf and Robert Kahn, and formed the backbone of the modern internet. Every network had its own architecture and rules, thus the only way to create a common communicative platform for all would be to implement a shared

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27 Leonard Kleinrock introduced the packet switching theory for the first time in 1961, which was later adopted by ARPA's Information Processing Techniques Office research team to create the first design for ARPANET. L Kleinrock, 'Information Flow in Large Communication Nets' (1961) 1 RLE Quarterly Progress Report.

28 D Post (n 12) 72.

29 The first network had four internet nodes: UCLA, Santa Barbara University, Stanford University and the University of Utah.

30 Transmission Control Protocol/ Internet Protocol, mentioned herein in its abbreviated form as TCP/IP.

series of communication rules that would eliminate the need for changes to each network's internal design. In the words of his inventor, "by its very design, the [IP] protocol was intended to be ubiquitous and open to all types of applications, carrying all kinds of content, over all forms of transmission technology, by all sorts of service providers"[31]. To overcome the difficulties of connecting networks with different data transmission specifications, Cerf and Kahn developed a protocol that would simply act as a mere conduit; it would only be able to transfer information by routing it to its final destination without being aware of its content. The transmitter and the receiver would be communicating the content of data while the TCP/IP network would only carry data from one end to the other regarding them as a series of bits and bytes[32]. This ubiquity, combined with the internet's decentralised design, revolutionised communications. It created an open communicatory platform which had the unprecedented potential to facilitate the needs of a great number of people regardless of where they were based.

With time, ARPANET evolved to the broader network called NSFNET[33], namely a network used for academic purposes among participating US Colleges and Universities. This resulted in its culture developing mainly through an academic community, using it as a communications tool for exchanging academic views and sharing their research online. Even though the US National Science Foundation initially prohibited the use of NSFNET for "commercial purposes"[34], the exponential growth of its new networks along with the growing costs of managing

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31 Vint Cerf in his letter to the FCC Secretary D. Evans and the FCC Chairman M. Powell on 20-5-2002 in M Cooper, M Lemley, L Lessig, *Open Architecture as Communications Policy: Preserving Internet Freedom in the Broadband Era* (Center for Internet and Society/ Stanford Law School, 2004) 346.

32 Being a dual protocol, TCP/IP functions based on its two components: TCP and IP. TCP is in charge of rearranging data for its transportation in packets: it first cuts data to short fragments called datagrams. Once these have reached their destination, it reassembles all the data packets to restore the initial message. IP on the other hand handles the delivery and addressing of the data packets. By transferring each of them individually through different available network routes, it delivers them to their final destination. In this manner, the architecture of each communicating network is kept intact while only the sender and the receiver know the data content as they are the only ones able to read the transmitted message in its complete form. At the same time, all data is routed through an open layer of communication in packets of fragmented information, each taking different routes and bouncing from one node to the other, until they all reach their final destination.

33 National Science Foundation Network.

34 The Acceptable Use Policy (AUP) of the NSFNET prohibited all uses of the network for commercial purposes.

the Internet's expanding infrastructure led to its initial stage of commercialisation in the early 1990s.

The most significant development in this respect came from the other side of the Atlantic and was of a merely technical nature. In 1991, CERN scientists Tim Berners-Lee and Robert Cailliau launched an application called "The CERN Wide Web", the forerunner of the World Wide Web. Its main component, the HTTP[35] protocol, was a communications standard that introduced hypertext, namely the ability to embed information in text form by linking text with pictures, graphics or other text. More importantly, this software was released as open source, namely leaving its running script open for all users to modify, implement or suggest further amendments to it.[36] According to CERN's official declaration in 1993, the WWW software would be available for every user in the public domain as "CERN's intention is to further compatibility, common practices, and standards in networking and computer supported collaboration"[37]. This new application turned the internet into "the vast cross-referenced collection of multimedia documents"[38] that it is today and marked its transition from a government sponsored academic network to a privately owned commercial network[39]. Until this moment, the internet had been largely an experimental project, namely a closed network built on open standards with the capacity to host communications on a global scale. The WWW unlocked this potential to the maximum.

Further technological amendments to the internet's interface to make it more user-friendly and easier to navigate led to its complete privatisation in 1995, when the NSF was dissolved and transferred its control over the net to four private American corporations: Sprint, MFS, Ameritech and Pacific Bell. Internet was no longer "the

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35 Hypertext Transfer Protocol, hereinafter referred to in its abbreviated form as HTTP.

36 L Lessig, *The Future of Ideas: The Fate of the Commons in a Connected World* (Random House Digital, Inc., 2002).

37 <http://intercom.co.cr/internet/research/1993/0507.htm> accessed 12 December 2013.

38 D Mowery, T Simcoe, 'Is the Internet a US invention?—An Economic and Technological History of Computer Networking' (2002) 31 (8) Research Policy 1369, 1378.

39 For a detailed account on the privatization of the internet see B Frischmann, 'Privatization and Commercialization of the Internet Infrastructure' (2001) 2 Colum. Sci. & Tech. L. Rev. 1; R Shah, J Kesan, 'The Privatization of the Internet's Backbone Network' (2007) 51 (1) Journal of Broadcasting & Electronic Media 93.

private enclave of computer scientists and researchers[40]"; it had evolved into a global informational web of heterogeneous networks communicating with each other. The project that initially sought to share resources online by interconnecting networks had soon grown to be one of the most profitable public investments[41] of all times, the internet. That being said, the net's design and core architectural elements have made the Internet a medium able to host and distribute all sorts of data to its users. Next follows a brief account of the design and values underpinning the net architecture. Understanding how information is treated and handled online is vital for the purposes of this thesis; parts of the principles discussed here will inform the thesis elsewhere.

3. The Architecture

The internet is essentially nothing more than a suggested architecture for communications networks. As its inventors, V Cerf and R Kahn note:

> "In essence, the Internet is architecture, although many people confuse that with its implementation. When the Internet is looked at as architecture, it manifests two different abstractions. One abstraction deals with communications connectivity, packet delivery and a variety of End-to-End communication services. The other abstraction deals with the Internet as an information system, independent of its underlying communications infrastructure, which allows creation, storage and access to a wide range of information resources, including digital objects and related services at various levels of abstraction built on architectural principles and follows a layered design."[42]

It has already been mentioned that the internet works on a packet switching system within a distributed infrastructure. Bits of information, in the form of packed data fragments, are distributed and routed around the network via interconnected nodes until they reach their final destination. This is the first "abstraction" that Cerf and Kahn mention and could be described as the technology supporting the exchange of

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40 V Cerf (n 31) 18.

41 Post estimates that the total public spending on the internet during the project's first twenty years was presumably less than 100 million dollars. D Post (n 12) 58.

42 Cerf (n 31) 19.

data from one connected point to another through various interconnected networks. In addition to this, they refer to a second "abstraction", which deals with the general design that runs through the internet's infrastructure: the layered model. This "layered design" enables the Internet to implement different networks and ultimately to become an informational source for all connected nodes.

The key element in the internet's architecture lies indeed in its layered structure. Namely, the internet architecture is defined by an infrastructure of interconnected independent layers. The official document RSF 1122 issued by IEFT[43] acknowledges four communication protocol layers (application, transport, internet and link), which are built on the "architectural assumptions"[44] of interconnection of networks, the End-to-End principle, multiple separate layers with separate functions and open architecture. Yochai Benkler[45] divides the Internet into the following layers:

(i) The physical layer: The layer that contains all the hardware necessary for the technical infrastructure of the communication, like wires, cables, optical fibres, spectrum.

(ii) The logical layer: This is the most important layer of all as it provides the software for the communication and is responsible for the efficient exchange of information online.

(iii) The content layer: This layer contains the information exchanged. All file names include extensions corresponding to their specific format (.doc, .mp3, .pdf, etc.) and can be processed by certain applications so that they adapt to the standards recognised by humans.

The logical layer itself follows a layered structure and has its own set of rules that enable network communication, known as the TCP/IP protocol[46]. In essence, the functions operating at the TCP/IP level, namely packet switching and routing of fragmented information, advance our understanding of the main engineering principles that run through the internet's design. As was mentioned above, the

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43 Internet Engineering Task Force, hereinafter mentioned as IETF.

44 RSF 1122/ October 1989, 6-7 (R. Braden – editor, IETF) <http://tools.ietf.org/html/rfc1122> accessed 12 December 2013.

45 Y Benkler, 'From Consumers to Users: Shifting the Deeper Structures of Regulation Toward Sustainable Commons and User Access' (2000) 52 Fed. Comm. LJ 561, 562.

46 A Tanenbaum, *Computer Networks* (Prentice-Hall 1989) 17-18.

Internet is an artefact designed on some elementary "architectural assumptions." The most important of these are its layered structure and the structural principle of End-to-End that runs through its infrastructure. Their combination accounts for the internet's unique set-up. In a way they could be regarded as constituting the main core of the internet's architecture; the fundamental principles that aside from holding certain significance for its technical infrastructure, also shape the virtual environment and provide guidelines for online interaction. Furthermore, these architectural principles have shaped a new ecology for free speech online. Most importantly though – as will be argued in the following chapters – these principles seem to be a great point of reference for the lawmaker seeking to regulate free speech online.

3.1. Layered Structure and Modularity

The internet's fundamental mechanism built along the lines of a layered model demystifies and unravels the source of its internal balance: a hierarchy of layers that are interlinked yet separate from one another. This unique architecture is attributed to the design principle of modularity[47]. Stemming from early economic theories on decomposability of complex systems, the principle of modularity entails a system's division to its components, the "modules." Modules are "quasi autonomous subsystems that can be designed separately"[48] while they can still work together[49]. To this cause, the designer distinguishes two types of information, visible and hidden. Namely, some information is visible to all modules in a system and defines the parameters of each module's interaction with the others, while some information remains hidden, i.e. it refers to internal matters of each module and its access is restricted to the module's interface. The visible information constitutes the system's

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47 For a more detailed view on modularity, see C Baldwin, C Kim, *Design Rules: The Power of Modularity* (The MIT Press 2000) 63-92.

48 M Aoki, A Haruhiko, 'Modularity: The Nature of New Industrial Architecture' (2002) 4 RIETI Economic Policy Review 4.

49 Its theoretical framework lies at the combination of "low coupling – high cohesion", meaning that components are interconnected loosely, while their intra-elements are tightly coherent. For a detailed account, see B van Schewick (n 14) 41-44.

design rules and is not allowed to undergo any change. On the contrary, the module designer is free to experiment and apply alterations to the hidden information within each module on the condition that it will abide by the general design rules. This easy implementation of design changes at various points within a complex system grants the system plasticity. This plasticity in turn reduces the system's inflexibility and promotes creativity. Regarding personal computers for instance, peripheral devices connected externally (for example printers) or internally (for example a modem) to a computer, can develop their design independently of the computer's design, as long as they adhere to the general interface standards[50].

Layered architecture consists of modules assigned to a number of layers and creates a vertical hierarchy among them. This means that each layer contains information about its internal rules that is unavailable to other layers. Moreover, each layer can only use the services of lower layers. Therefore, the layered version of modularity that is adopted as an architectural design for TCP/IP creates a vertical hierarchy of progressively elaborated layers of specialised services. As a result, complexity of the system is reduced, as layers operate in abstraction, without having overall knowledge of the way other layers function. Moreover, the possibilities of technical flaws are diminished as the implementation occurs gradually at each level after it has been tested[51].

This vertical communication between autonomous layers owes its existence to a certain software process, encapsulation. Encapsulation is a method that allows information hiding. Therefore it is responsible for minimising the interdependency between layers and allows for changes only to parts of the routed data so that the data can be implemented while keeping its integrity intact[52]. In principle, each packet of data is "encapsulated", meaning that headers corresponding to each layer are attached to it. Upon receiving the data, each layer performs the tasks mentioned in its specific header. Then once the data is ready to be passed on to a higher layer, the layer that has just handled the data erases the header that was intended for it[53]

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50 B van Schewick (n 14) 40.

51 B van Schewick (n 14) 47-48.

52 G Booch, *Object-Oriented Analysis and Design with Applications* (Addison-Wesley 2007) 51-52.

53 L Solum, M Chung, 'The Layers Principle: Internet Architecture and the Law' (2004) 79 Notre Dame L Rev 815, 839.

and hands the data to the next layer. In this way, each layer maintains its autonomy and functions strictly on instructions intended for it specifically, without having overall knowledge of the operations in the other layers or of the content itself.

In can be argued that effectively all layers work by design on a purely operational level; namely they can neither control the flow of information in general nor discriminate the routing of certain types of information. To them, all that matters is to perform the tasks assigned to them and pass on the data to the next level; their actions cannot transcend their layer's boundaries and the raw data included in the encapsulated packets they receive is of no special importance to them.

In the same vein, this pattern of separation can be found even on the same layer and in particular within the same application. Focusing on the content layer, the layer that carries raw data and thus is closer to the user than to the programmer, the separation argument is the dominating design principle, especially in the area of web design. The objective to separate content from its presentational form lies behind most of the software applied to set up a blog or build a website. This engineering principle instructs the developers of a website to separate "semantics from presentational mark-up[54]", namely to store data separately from its formatting elements so as to achieve a "logical, textual separation of visual style from the content."[55] With the broad use of new design tools like CSS[56], developers or even plain writers with little understanding of editing code are now able to easily revise and publish their content online. As a result, not only is it easier to publish information online, but also the message becomes independent from its medium, simultaneously allowing broader accessibility and device independence[57].The principle of separation, even in the form of a web design language, promotes

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54 For a more detailed view on the separation of form from content regarding content management, see: J Hackos, *Content Management for Dynamic Web Delivery* (Wiley 2002).

55 D Clark, 'Content Management and the Separation of Presentation and Content' (2008) 17(1) Technical Communication Quarterly 35, 46.

56 CSS (Cascading Style Sheets) is a mark-up language for writing webpages that is used to style webpages written in HTML. Its main feature is that it separates the HTML content from its particular formatting and its overall visual presentation.
<http://www.w3.org/standards/webdesign/htmlcss#whatcss>, accessed 12 December 2013. For more details on CSS, see H W Lie, B Bos, *Cascading Style Sheets, Designing for the Web* (Addison Wesley 1999) available online <http://www.w3.org/Style/LieBos2e/history/> accessed 12 December 2013.

57 T Berners-Lee, M Fischetti, T Dertouzos (n 13) 181.

interoperability as it renders the message autonomous, regardless of additional technical parameters such as software or hardware platform[58].

Solum and Chung refer to these features as layers' separation and transparency and they regard them as the "implicit design principle inherent to the layers model of the TCP/IP protocol."[59] By separation they mean the integrity each layer holds; by transparency they refer to the inability of the layers to discriminate the routing data based on its content.

3.2. Modularity and the First Amendment

The detailed description above highlights the architectural significance of modularity in terms of ascribing specific values to handling the information flow. In this vein, modularity – although an engineering principle – appears to be offering great protection from censorship. Data online is routed by transparent layers, each responsible for carrying out a procedural task without the ability to discriminate information. Constructed in a layered vertical hierarchy, the internet's infrastructure is marked by the integrity of its layers. Each performs a separate task and does not interfere with other layers. By employing the design of modularity on a layered infrastructure, the Internet becomes a truly neutral decentralised communications platform built on open architectural standards of separate transparent layers that route information regardless of its content.

This feature of modularity seems to reflect the principle of content neutrality in the First Amendment[60]. By applying strict scrutiny on content-based restrictions of speech, the First Amendment has sought to establish that the marketplace of ideas cannot be manipulated to put certain messages across. As the court has noted in

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58 B Bos (W3C), 'Using CSS to Achieve Device Independence' (2002) position paper, available online <http://www.w3.org/2002/02/DIWS/submission/bbos-di-workshop-paper.html> accessed 12 December 2013.

59 L Solum, M Chung (n 53).

60 For a good account on content neutrality, see G Stone, 'Content Regulation and the First Amendment' (1983) 25 WL & Mary L Rev 189, 201-207.

Mosley: "above all else, the First Amendment means that Government has no power to restrict expression because of its message, its ideas, its subject matter, or its content."[61] Modularity seems to have the same effect, at least in principle, which applies to both state and non-state mandated restrictions. Equality of speech regardless of its content, which is at the heart of the First Amendment[62], is now also possible online; the engineering principle of modularity seems to be encoding the legal doctrine of content neutrality online[63].

3.3. The End-to-End Principle

The layered model of TCP/IP Protocol is an architectural design based on normative engineering principles, the most important of which is the "End-to-End" principle[64]. Initially presented as a design principle in the 1981 paper "End-to-End Arguments in System Design"[65] by MIT researchers Saltzer, Reed and Clark, it "may be viewed as part of a set of rational principles for organizing such layered systems"[66]. The End-to-End principle suggests the following basic design: keeping the network simple while placing its intelligence at its ends[67]. Namely, the network should only be endowed the task of efficiently transmitting datagrams; "everything else should be done at the fringes"[68]. In short, the principle can be summarised in the dichotomy

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61 *Police Dp't v Mosley,* 408 US 92, 95 (1972).

62 K Karst, 'Equality as a Central Principle in the First Amendment' (1975) 43 U. Chi. L. Rev. 20.

63 This is not to suggest that all content online cannot be restricted based on its content. Filtering or blocking using specific keywords can still restrict speech based on its content in a subtle indirect manner. This chapter simply highlights the fact that the net architecture by design seems to agree with the First Amendment on many accounts. What matters here is the capacity net architecture has for this, not the many ways in which the net architecture can be used to restrict speech and facilitate different interests.

64 The End-to-End is "a guiding normative principle that clarifies, articulates and illuminates the implicit design principle inherent to layers model of the TCP/IP" L Solum, M Chung (n 53).

65 JD Saltzer, DP Reed, DD Clark, 'End-to-End Arguments in System Design' (1984) 2 ACM Transactions in Computer Systems 277.

66 J Saltzet et al ibid 285.

67 L Lessig, 'The Architecture of Innovation' (2001) 51 Duke LJ 1783, 1789.

68 B Carpenter (ed) 'Network Working Group Request For Comments 1958: Architectural Principles of the Internet' (June 1996), available online <http://tools.ietf.org/html/rfc1958> accessed 12 December 2013.

"stupid networks"[69] and "smart applications"[70]. Initially, the question that was examined in the paper introducing the End-to-End principle was where the application level functions should be built; in the centre of the network (low level implementation) or at its ends, the application level (higher level implementation)? The answer, according to Saltzer, Reed and Clark, was that "the function in question can completely and correctly be implemented only with the knowledge and help of the application standing at the endpoints of the communications system"[71]. One example is the function of the file transfer application that ensures the delivery of uncorrupted data. Although the check for any errors in data delivery could be performed at the lower level of the network communication system, it is better to place this function at the higher level of application as the lower layer may lack all the necessary information to fully perform the required function. On the contrary, the application level has the knowledge and ability to check for corrupted files, just before these reach the user and not while they are still being routed in the network[72]. In this way, the possibility of data being corrupted is minimised and its integrity is guaranteed.

This initial thought quickly evolved into a broad architectural statement about what belongs to the network level (including the network, transport and application levels) and what should be edge-oriented; left completely to the user himself to install, configure, upgrade and maintain[73]. The approach adopted was that applications should follow the End-to-End principle so as to survive partial network failures. By keeping them to the end nodes, applications do not rely on the network's maintenance but would only be inoperable in the event that the end node itself is destroyed. The End-to-End principle itself is designed according to the layers model; it consists of two layers that follow a "vertical hierarchy"[74] - the higher and the lower layer. The former, situated at the communicating ends and thus more specific

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69 The term is coined by David Isenberg in his paper "The Dawn of the Stupid Network" and has been broadly used for the description of the End-to-End principle. D Isenberg, 'The Dawn of the Stupid Network' (1998) 2 (1) Networker 24.

70 D Isenberg ibid.

71 Saltzer et al (n 65) 279.

72 L Solum, M Chung (n 53).

73 M Blumenthal, D Clark, 'Rethinking the Design of the Internet: The End-to-End Arguments vs. The Brave New World' (2001) 1 (1) ACM Transactions on Internet Technology (TOIT) 70, 74.

74 L Solum, M Chung (n 53).

to the application, can "organize lower-level network resources to achieve application-specific design goals efficiently (application autonomy)"[75]. The latter on the other hand "should only provide resources of broad utility across applications, while providing to applications a usable means for effective sharing of resources and resolution of resource conflicts (network transparency)"[76]. This vertical hierarchy within a layered structure, placing the intelligence of the network at its ends, maintains the flexibility and openness of the internet, while at the same time fosters innovation and boosts the network's capacity[77]. David Isenberg explains the engineering virtues of a "stupid network" built on the End-to-End principle and compares it to an "intelligent" network, meaning the standard circuit switched telephone network. The technical advantages of a network operating on End-to-End can be summarised as follows: open abundant infrastructure, internetworking ability and neutrality while handling data.

First, a "stupid" network can expand easily and at no cost. Therefore it faces no scarcity problems as it is built to have an abundant infrastructure by easily implementing the necessary improvements at its ends without further alterations to the whole. The deployment of new applications requires only modifications to the end nodes while the rest of the network remains intact[78]. On the contrary, an "intelligent" network would have to follow an expensive and time-consuming process to arrange for all necessary implementations to boost its capacity.

Secondly, the End-to-End principle enables interoperability between different networks and preserves the main feature of the internet: internetworking. By installing and running the same application at its ends, users of different networks can connect to each other without relying on a centralised control. This combination of a decentralised structure in communicating networks with the empowered users that adjust it to their preferences is the crucial factor that enables interconnection of different networks to a gigantic web: the internet.

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75 D Reed et al., 'Commentaries on Active Networking and End-to-End arguments' (1978) 12 IEEEE Network 66, 70.

76 D Reed et al ibid.

77 M Blumenthal, D Clark (n 73) 93.

78 J Kempf, R Austein, 'The Rise of the Middle and the Future of End-to-End: Reflections on the Evolution of the Internet Architecture' (2004) Internet Engineering Task Force, RFC 3724.

Thirdly, a network built on End-to-End is regarded as "underspecified", as opposed to intelligent networks that are specified for certain types of data such as voice communications. As the network is only responsible for routing the data, all sorts of data are handled neutrally and indiscriminately. In this way, the internet became an integrating network with the ability to implement various applications from online telephony to streaming video and online television. Its architecture developed into a multidimensional amalgam of a variety of applications at its users' disposal.

3.4. The End-to-End and the First Amendment

As a result, End-to-End renders the network flexible and enables it to work with all sorts of data, or as Lessig eloquently puts it, "End-to-End codes a kind of neutrality"[79] to the network. In this way, the internet maintains a flexibility in its design as all users can contribute to its architecture. Platform configuration depends on the user's ability to create and implement additional software; control over its architecture "becomes separable from network ownership", granting end users the "non-discriminatory ability to design the architecture of a communication platform" aside from those who own and control its infrastructure[80]. Consequently, competitiveness is increased, as neutrality towards data nurtures creativity and experimentation.

In the absence of a hierarchical entity that could discriminate against certain types of applications while favouring others, innovators were given the opportunity to directly test the appeal their applications have to users[81]. Moreover, the cost for innovation has dropped significantly as there is no need to configure settings in all layers for its implementation, but simply to invest in the application layer. Innovators can therefore demonstrate their work easily and consumers can try new

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79 L Lessig, 'Symposium: Cyberspace and Privacy: A New Legal Paradigm?' (2000) 52 (5) Stanford L Rev 991.

80 F Bar, C Sandvig, 'Rules from Truth: Post-Convergence Policy for Access' (28th Telecommunications on Communication, Information, and Internet Policy 2000) 22.

81 M Lemley, L Lessig, 'The End of End-to-End: Preserving the Architecture of the Internet in the Broadband Era' (2000) 48 UCLA L. Rev. 925, 931-933.

applications at a marginal cost or for free without depending on their network administrator for permission[82]. According to the MIT research group that formalised the End-to-End principle, it was this specific architectural design that enabled experimentation and led to protocols supporting the WWW or even the flexibility in the wide interconnection of millions of ISPs online[83]. It is because of End-to-End that innovation online became a decentralised commons[84], administered at a low cost by anyone that had an internet connection. This architectural design realises the main ambitions and goals of the researchers that created the internet: the common sharing of resources on an open interlinked platform. Moreover, it shapes online culture as well; a culture of users that freely build, share, transform and develop all sorts of information regardless of its content online.

Above all, the End-to-End principle encodes online one of the main First Amendment concepts: "active listening"[85]. This term, suggested by Grimmelmann, describes the communicative process envisioned in the First Amendment as a bilateral dialogue: the speaker has the autonomy to disseminate information and the listener retains the freedom of avoiding unwanted speech that violates his integrity[86]. Online, the listener is not passive but is actively seeking information with the added ability to filter or block unwanted speech: this is made possible primarily due to the End-to-End principle. Intermediaries can certainly cut in the way of this direct interactive communication online, however by design the internet facilitates this interactive dialogue respecting the choices and autonomy of both sides.

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82 L Solum, M Chung (n 53).

83 D Reed et al (n 75) 70.

84 L Lessig (n 67) 1789-1790.

85 J Grimmelmann, 'Speech Engines' (2014) 94 Minnesota Law Review 25.

86 Note how this reflects Baker's theory on liberty, as discussed in the previous chapter. This point should become clearer and is emphasised in chapter 5. See also H Essunger, 'Stoic Listeners-Speech Harms and the First Amendment' (2002) 6 JL & Soc. Change 55.

4. Architecture Shaping the Online Ecology for Free Speech

4.1. Open Architecture and Decentralised Infrastructure: A Great First Amendment Tool

As noted in the previous sections, the Internet's layered structure, built on the principles of modularity and End-to-End, accounts for its general open design. In the words of Mitch Kapor, co-founder of the Electronic Frontier Foundation: "It is an open network of networks, not a single unitary network, but an ensemble of interconnected systems which operate on the basis of multiple implementations of accepted, non-proprietary protocols, standards and interfaces"[87]. In this respect, the architectural principles running through the Internet's design provide a remarkable mechanism that implements and promotes the free speech values enshrined in the constitution. In this respect, "Code is Law" as Lessig argues, but also "Law is Code" since the net architecture appears to embrace certain First Amendment doctrines.

However, this capacity of the net architecture was not utilised from its early days, as explained in section 2. From the closed network of four connected nodes that it once was, the internet today has evolved into a network that hosts not only computers but other internet enabled appliances as well, such as mobile phones and hand held organisers[88]. Rephrasing McLuhan, "the medium is no longer the message"[89]. On the contrary, the medium is simply a mere data pipe, a carrier for all types of information regardless of their exquisite form[90]. After all, one must not forget that it was initially built to facilitate a network of shared research resources. Coming back to Vint Cerf and Robert Kahn, they attribute their project's rapid evolution to two technologies and a dream; "The technologies were packet switching and computer

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87 M Kapor, 'EFF's Extended Guide to the Internet' (www.eff.org) <https://www.eff.org/Net_culture/Net_info/EFF_Net_Guide/EEGTTI_HTML/eeg_4.html> accessed 12 December 2013.

88 R Kahn, V Cerf, 'What is the Internet (And What Makes It Work)' (1999) 34, available online <http://www.cnri.reston.va.us/what_is_internet.html> accessed 12 December 2013.

89 N Negroponte, *Being Digital* (Knopf, 1995) 61.

90 Although theorists like Alexander claim that the distinction between the medium and the message is "theoretically difficult and practically impossible", the internet is able to converge different media and turn them to neutral common carriers; it could be argued that it has the ability to separate "the facilitative" from the "expressive" (*cf* LA Alexander, 'Trouble on Track Two: Incidental Regulations of Speech and Free Speech Theory' (1993) 44 Hastings L J 928).

technology, which, in turn, drew upon the underlying technologies of digital communications and semiconductors. The research dream was to share information and computational resources"[91].

It is true that the main purpose of TCP/IP has always been to enable the free flow of information though interconnected networks. Being a communications protocol, its creation was initially intended to provide an interface for communication between different parts. For this cause, the TCP/IP Protocol would have to operate in such a way that it would implement open standards of communication. Like a digital chameleon, it would have to be engineered on an architectural "one fits all" design so as to be able to integrate communicative parts of all sorts. Therefore, it is the Internet's ubiquitous architecture that instructs it to operate on open access standards.

Heterogeneity is inevitable[92] in this interlinked layered design; hence it must be embraced. As a result, the internet incorporates various types of hardware, allows for a wide range of application protocols and has the capacity to host an unlimited number of information sources. The online platform is essentially shaped to fuel convergence. At the same time it promotes a high level of diversity that would have been unimaginable in the past. As an open access network, the internet accommodates an abundance of information routed around a virtually unlimited audience of users throughout the world.

These observations explain well how the Internet structure based on autonomous interdependent layers has affected online activity by creating a communicatory platform with a remarkable capacity to facilitate the free flow of information.

Furthermore, in the internet's basic design there is no central authority to allocate scarce spectrum to a limited number of communicational channels as is the case with the broadcasting media; independent informational sources are free to participate in this vast open digital platform. Designed as a distributed communications network model, the internet operates regardless of the existence of

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91 R Kahn, V Cerf (n 88) 20.
92 RFC 1958 (1996) (n 68) 3.

a central hub[93]. Online communication is direct and not dependent on prior approval or license of central network providers. As intelligence and control have moved to its ends, the internet by its architecture eliminates the danger of a potential central switch bottleneck[94], namely a centralised switch of control for all routing data[95]. As there is no central point to control the rest, all potential gatekeepers can be found distributed to the end-points; thus their power is significantly diminished.

On top of internet's distributed communications system, the End-to-End design principle postulates a decentralised infrastructure and guarantees diversity. Although relevant research has shown that a centralised infrastructure would not necessarily impinge on innovation online[96], the internet's decentralised structure provides incentives for independent innovators and subsequently promotes diversity and private initiative online. Contrary to the closed centralised model that is dominant in the architecture of the mass media today[97], the internet's open distributed architecture promotes the free flow of information, empowers the user and constitutes a democratic open interactive platform. In the absence of a "centralised distribution point", independent information sources are given numerous online outlets while the chances of potentially stifling those independent voices are significantly minimised online[98].

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93 Paul Baran's work that provided the basis for the internet's decentralised infrastructure highlighted the asset of a distributed network being able to work even in the absence of a central point. As Paul Baran himself remarks, "It appears that what would today be regarded as an unreliable link can be used in a distributed network almost as effectively as perfectly reliable links." P Baran, 'On Distributed Communications', Memorandum RM-3420-PR (Santa Monica, Rand Corporation 1964) 9.

94 The term "bottleneck" is seen in the context of antitrust law and refers to private actors monopolising the management of certain resources. For an account on bottlenecks in the telecommunications field, see RW Crandall, 'The Remedy for the "Bottleneck Monopoly" in Telecom: Isolate It, Share It, or Ignore It?' (2005) University of Chicago Law Review, Vol. 72.

95 This is not to say that endpoints can potentially become bottlenecks themselves. J Berman, D Weitzner, 'Abundance and User Control: Renewing the Democratic Heart of the First Amendment in the Age of Interactive Media' (1995) 104 Yale L J 1619, 1625 n 15.

96 Barbara van Schewick compares the costs for innovation of decentralised versus core-centred internet architecture. After examining the potential impact each structure has for individual innovators online, she reaches the conclusion that a centred system may diminish incentives for individuals to innovate online yet it also creates more incentives for network providers to innovate instead. As a result, innovation in total is not significantly affected by the internet's centralised architecture; diversity and individual innovation on the other hand depend greatly on the internet's decentralised architecture. B van Schewick (n 14) 296-353.

97 For a comparison of the decentralised open access model of the internet to the closed one-way centralised models of broadcasting/cable systems, see J Berman, D Weitzner (n 95) 1622-1629.

98 J Berman, D Weitzner (n 95) 1624.

In addition to this, there is no need for governmental intervention to ensure diversity, as the scarcity doctrine has no application online. Contrary to the cable operators who enjoy a centralised monopoly and determine their viewer's access to competing channels, the internet has no capacity for such a central gatekeeper[99]. Its decentralized design urges it to operate more like the print media, which "no matter how secure (their) local monopoly, (do) not possess the power to obstruct reader's access to other competing publications"[100]. In this vein, it is because of this decentralised architecture that online users potentially have the freedom to transmit and receive information unrestrained by any controlling deities.

In many respects, this decentralised infrastructure not only constitutes the foundations upon which the internet was constructed; it is also the element that supports the internet's rapid growth and stable development. As Nicola Negroponte remarks, "[a] highly intercommunicating decentralized structure shows far more resilience and likelihood of survival. It is certainly more sustainable and likely to evolve over time"[101]. It is true that from a technical standpoint, had TCP/IP or HTTP/HTML been crafted on a centralised design, the internet's growth would not have been so rapid. Yet, as was realised by its engineering architects, "if the Web was to be a universal resource, it had to grow in an unlimited way" thus "its being 'out of control' was very important"[102].

So far this chapter has examined the core principles supporting the net's architecture and has observed how some simple engineering decisions have actually contributed towards the creation of an open decentralised communicatory platform. This should not be taken to imply that the original design has remained intact: as explained in Chapter 1, information is administered by a number of intermediaries online, who can act as censorship proxies[103] evading the protective scope of the First Amendment. Of course, the net architecture can change or evolve over time. Yet

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99 This does not mean to suggest that there are no gatekeepers online. The current debate on network neutrality, which will be examined shortly, identifies the potential powers online gatekeepers exercise and aims to combat this problem.

100 *Turner Broadcasting Sys. Inc. V. FCC*, 114 S. Ct. 2445 (1999) at 2466. For the parallelism drawn between print media and the internet, see J Berman and D Weitzner (n 95) 1626-1629.

101 N Negroponte (n 89) 158.

102 T Berners-Lee, M Fischetti, T Dertouzos (n 13) 106.

103 S Kreimer, 'Censorship by Proxy: the First Amendment, Internet Intermediaries, and the Problem of the Weakest Link' (2006) University of Pennsylvania Law Review 11

what is of interest here is that the "Code", namely the technical principles supporting the net infrastructure, has given the Internet the capacity to promote free speech and protect the right's values enshrined in law.

4.2. Architecture, Free Speech and Sustainability

On top of maintaining open access architecture within a decentralised network, the internet's evolution was also based on the implementation of non-proprietary standards. In fact, the majority of the internet's fundamental features "have arisen from the explicit eschewing of proprietary standards"[104]. The most commonly used Protocols, such as FTP (enabling File Transfer Protocol), HTTP and SMTP (responsible for exchanging emails), were all released on non-proprietary grounds destined for free use.

One striking example of this kind is Netscape, the dominant web browser of the nineties. Netscape was released by an independent commercial company to be used free of charge in the hope that it would become a popular commoditised application among users and thus be widely used. Investing in the revenues from advertisements, the company decided to proceed to the free release of the browser as it realised that it would be more profitable to be a service company luring customers with their free software[105]. At the same time, the browser's interface was compatible with any operating system, which made it appealing to a wide range of users and thus competitive with the other browsers designed by colossal companies such as Microsoft, which were compatible only with their own operating system, Windows. In 1998, its source code[106] was even released into the public domain by the Mozilla

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104 J Chen (n 5) 1366.

105 T Berners-Lee, M Fischetti, T Dertouzos (n 13) 107.

106 In computer studies, the source code is defined as the computer language in which certain software is written. "'Source code' is taken to mean any fully executable description of a software system. It is therefore so construed as to include machine code, very high level languages and executable graphical representations of systems." M Harman, 'Why Source Code Analysis and Manipulation Will Always be Important' (10th IEEE Working Conference on Source Code Analysis and Manipulation (SCAM) 2010) 7-11.

Organization[107], available to all users for further modification, distribution and peer review.

The example of Netscape illustrates the way the internet's open architecture influenced business models online and adopted an open standards view. It was namely its fundamental design principles that shaped the internet as an open communicational platform operating on commoditised, widely used software. Regarding strictly the applications level, the internet offers a wide variety of applications based on both proprietary and free software, available for each user to choose freely between.

Moreover, users are able to participate in the creation and development of these standards. The interconnected network of centralised software provided to its end nodes, Web 1.0, is now considered as the embryonic version of Web 2.0, the collaborative platform that generates applications and constantly evolves them through their user's interaction online. Software and content are now created and updated by open source appropriation by users. Web 2.0 is in fact an open participatory platform, where tech aficionados collaborate by freely editing, correcting and contributing to the source code available online under non-proprietary licensing schemes[108].

The development of the Linux kernel sets a remarkable example. In 1991, Linus Torvalds, a Finnish computer science graduate student, released onto a net newsgroup a free modifiable source code he was working on. Everyone was permitted to contribute to this project by freely modifying, editing and correcting the open source software code. The result was Linux: a free software operating system, affordable and efficient, which today counts 21 million users and is adopted by many local governments, including the US Department of Defense, the Chinese

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107 For Mozilla.org's role and its purposes regarding Netscape Communicator's source code release, see 'The Mozilla Organization, Our Mission' <http://www.mozilla.org/mission.html> accessed 12 December 2013.

108 Like the GNU licensing scheme created by Richard Stallman, a former MIT programmer, hacker and software activist. This licensing scheme distributes software under "copyleft" public licences that ensure software will continue to be free to copy and will not be used as part of a profitable project. For an overview of the GNU operating system, see <http://www.gnu.org/gnu/gnu-history.html> accessed 12 December 2013.

government and Russia's school computer network[109]. Due to its remarkable system stability, unlimited free support through forums and better virus protection compared to other operating systems, like Windows, it is adopted even by big scientific projects such as CERN or massive entrepreneurs such as IBM and Virgin America. The creation of Linux demonstrates that the internet's architecture is built along the lines of creative collaboration and free exchange of ideas between its end nodes. It is noteworthy that the Linux kernel was developed upon the collaboration of many users while Linus Torvalds himself is believed to have contributed only 2%[110]. Such a collaborative software development model is highly decentralised, yet this does not mean that there is an absence of control and hierarchy. The transparent and highly participatory "bazaar"[111] model adopted by Linux follows a bottom-up design of administration, relying on several layers of peer review[112].

Web 2.0 has indeed enabled reliance on the wisdom of the masses. Aside from the ability of every user to co-design the technical cyber-infrastructure, even fewer skilled users are given the opportunity to contribute to the content published to the public domain. Wikipedia, blogs, social networking and wikis are all such examples. The initial architecture of web 1.0 permitted highly tech-savvy users to become co-designers of its unique architecture; its evolved version (web 2.0) allowed all users to become co-publishers of the information published online. Both of these opportunities are products of the internet's open architecture[113]. Designed almost by default to host online collaboration, the internet is an artefact destined by its architecture to foster participation and open source code.

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109 For more on the broad adoption of Linux, see <http://en.wikipedia.org/wiki/Linux_adoption> accessed 12 December 2013.

110 <http://web.archive.org/web/20080627004317/> and <http://www.bellevuelinux.org/linus.html> accessed 12/1/2013.

111 The term "bazaar model" as opposed to "cathedral model", refers to the Linux open code development and was coined by Eric S. Raymond's "The Cathedral and the Bazaar", a report on his impressions of Linux's development, available online at <http://www.catb.org/~esr/writings/cathedral-bazaar/cathedral-bazaar/> accessed 12 December 2013

112 Contributions are not adopted on their social impact but instead each patch contributed must go through several levels of peer review. Changes can only be authorised by an experts committee, involve a multitude of decisions and follow a pyramidal governance structure. C Sunstein, *Infotopia: How Many Minds Produce Knowledge* (Oxford University Press 2006) 176.

113 C Baldwin, K Clark, 'The Architecture of Participation: Does Code Architecture Mitigate Free Riding in the Open Source Development Model?' (2006) 52 (7) Management Science 1116 - 1127.

To a certain extent, the internet's evolution and rapid growth are also outcomes of this free acquisition and distribution of knowledge. The reason for this exponential geometrical growth at a rate of approximately 80% per year[114] is the global appeal held by these new free applications. As an ever-growing number of users adopted them, they became a common computational language connecting people worldwide. Subsequently one can safely deduct the conclusion that the more users are connected online, the greater the value added to the internet services provided for them[115]. To establish this fact, Post turns to Metcalfe's Law; according to Metcalf, the value of two-way communication networks scales geometrically with the number of participants in the network[116]. It therefore becomes evident that the more users abide to commonly shared non-proprietary software, the more likely it is for the network to evolve on free open source code and become "standardised" ; namely, to be officially accepted as a common standard of online communication.

To put it simply, the internet's architecture presupposes a free, open and uninhibited data flow. The internet feeds on data; its sustainability depends on abundance of information online. The principles of End-to-End, modularity and layered structure discussed here have built an environment that promotes free speech in the best possible way. However the net engineers were hardly concerned with the constitutional protection of free speech *per se*. Yet in building a data-centric medium, they inevitably linked the system's sustainability to its capacity to support and promote the open and free exchange of data.

In the previous chapter, it was contended that the main rationales in free speech jurisprudence seem to find some applicability online; however not all of them address the many ways in which information can be controlled online. This chapter looks at the same issue from a reversed angle: namely, the net architecture – while built neutral, with the potential to promote free speech – is not able to preclude

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114 D Post (n 12) 44.

115 This fact is formalised under the "network effect" principle; namely, as more people connect to a network, extra value is added to the network's services, given that connected users can access a wide range of data through links. See also J Hendler, J Golbeck, 'Metcalfe's Law, Web 2.0, and the Semantic Web' (2008) 6 Journal of Web Semantics 1; C Shapiro, H R Varlan, *Information Rules* (Harvard Business Press 1999) 184-226; M Lemley, D McCowan, 'Legal Implications of Network Economic Effects' (1998) 86 Cal. L. Rev 479.

116 D Post (n 12) 47, 101.

control over the info-flow online. That being said, architecture itself is non-static and can be shaped to facilitate the interests of a number of state and non-state actors that administer the net infrastructure. The following section examines the administration of the "Code" and discusses how purely procedural decisions can indirectly affect speech through adjustments in the architecture.

5. Administration of the Internet's Infrastructure

Beyond doubt, the most typical feature of the internet's architecture is its open decentralised design. Nonetheless, to claim that the internet's decentralised structure equates to the absolute absence of regulative authorities online would be inaccurate. As a matter of fact, there are a number of governing bodies online that are mostly concerned with the technical aspects of digital communication, namely assigning IP addresses, adopting technical standards and coordinating online communication. Many of them are quasi-governmental entities, as they operate on a contractual or quasi-contractual relationship with the US Government. Due to the fact that they lack sovereign power, as they are not officially acknowledged as national or international governing bodies, they could be described as "hybrid law-making authorities online"[117]. Nonetheless, their acceptance within the cyber community is broad and the implementation of their suggested standards efficacious. A great deal of their online acknowledgement is owed to the fact that in their early days they were all associated with individuals, who marked them with their charismatic personalities[118]. Their appeal and personal interference was so great that it has been suggested that the internet governance was initially shaped individually by such "policy entrepreneurs"[119]. Nowadays, it is the transnational governing bodies such as

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117 On a discussion concerning the law-making abilities of such governing bodies and processes such as the Uniform Dispute Resolution Policy (UDRP), see D Post (n 12) 159.

118 For example, Jon Postel was the man behind IANA and ICANN, Vinton Cerf was instrumental to the inception of ICANN and even served as Chairman for both ICANN and IAB while Tim Berners-Lee founded the W3C Consortium.

119 L Bygrave, T Michaelsen, 'Governors of Internet' in L Bygrave, J Bing (eds.), *Internet Governance: Infrastructure and Institutions: Infrastructure and Institutions* (Oxford University Press, 2009) 93.

IETF, ISOC[120], IAB[121], IANA[122], RIRs[123] and ICANN[124] that administer online Critical Internet Resources[125]; namely, unique internet resources that require central coordination[126]. Consisting mostly of internet engineers with a deep knowledge of the internet's architecture, they are mainly concerned with maintaining its technical infrastructure[127]. Their decisions, however, have a broader appeal as they reflect on the internet's architecture and frame activity online.

Their work is mostly of an administrative nature, and as such it regulates behaviour in a different way from the net architecture; they namely complement architecture in terms of online law making. It is suggested that the internet's administration, namely all quasi-governing entities online that administer its technical infrastructure, can only produce coordinating standards, whether or not these are enforceable. This means that the administration cannot regulate in the way the architecture does, yet it still produces guidelines for online behaviour.

To make this distinction clearer, Lessig[128] refers to two sorts of standards: "coordinating" and "regulating." Whereas the former aims to facilitate all factors that make a certain activity possible, the latter restricts aspects of this activity in order to achieve a regulatory end. Lessig further exemplifies his argument by branding as a coordinating standard the convention of driving on the right[129], while speeding would be an example of a regulating standard. Namely, driving on the right makes driving possible, whereas speed control is an imposed limitation on driving towards achieving safety on the road. In the same vein, the internet's administration must be seen in the broad context of producing coordinating standards, whereas the internet's architecture to a certain extent produces regulating

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120 The Internet Society, hereafter referred as ISOC.

121 The Internet Architecture Board, hereafter referred as IAB.

122 The Internet Assigned Numbers Authority, hereafter referred as IANA.

123 The Regional Internet Registries, hereafter referred as RIRs.

124 The Internet Corporation for Assigned Names and Numbers, hereafter referred as ICANN.

125 Most commonly referred to in its abbreviated form as CIRs.

126 L DeNardis, 'The Emerging Field of Internet Governance' (2010) Yale Information Society Project Working Paper Series 1, 3.

127 Solum and Chung define their role as being the guardians of a transparent network (n 53).

128 L Lessig, 'The Limits in Open Code: Regulatory Standards and the Future of the Net' (1999) 14 Berkeley Tech. LJ 759, 760.

129 The example is to be examined outside the context of the approximately 30% of jurisdictions where driving on the left is the norm.

standards online. The distinction between them is vital as it indicates the various levels of rulemaking online and will therefore be an important point of reference for the remainder of the thesis. For the moment, it should be noted that the institutions administering online standards interfere with online behaviour in a less restrictive way than does the internet's architecture.

Towards a better understanding of these online governing bodies, this section examines the two main categories of their hybrid laws based on their enforceability. First, there is an overview of the standard-setting procedures, which in general are regarded as online soft law. Then, follows a description of certain types of technical rule-making concerning the Internet's infrastructure, which have the potential to fully instruct online communications, irrespective of the users' preferences.

5.1. Standards, RFCs and Recommendations

The Internet's ability to connect a series of interdependent networks and facilitate an open communicatory platform for all is mainly attributed to its open architecture. However, this by itself is not enough as it only lays the foundations for online communication. To fully develop and expand, the internet also requires a certain level of interoperability between all connected nodes. To this cause, a provision for communicational guidelines embraced by the majority of users is deemed essential. In other words, the fact that all users would be willing to speak the same language, namely the HTTP/HTML Protocols, would still not sufficiently guarantee successful communication. This communication needs to be framed further with the help of a common set of rules adopted by users; thus a series of standards is adopted by quasi-legal institutions online.

In the broad context of economics, standardisation has always been praised for the positive effects it entails for the markets. The internet, in particular, constitutes a market that bases its value on interoperability and compatibility. As was noted previously, the internet's value and exponential growth depends largely on its capacity to connect compatible nodes and networks into one entity. Hence, the necessity for web standards is easily understood. Web standards resemble an online

"code of conduct", a sort of soft-law applied to coordinate all connected nodes and establish common interaction rules among them.

According to the definition provided in RFC 2026, "an Internet Standard is a specification that is stable and well-understood, is technically competent, has multiple, independent, and interoperable implementations with substantial operational experience, enjoys significant public support, and is recognizably useful in some or all parts of the Internet" [130]. It seems therefore that standards owe their existence to a key element of the net's architecture: modularity. Namely, this is the need to create and preserve interoperability between distinctive end nodes resulting in the implementation of a series of communicational standards online.

Although there is already a multitude of de jure national/ international standard setting bodies[131], online standards are mostly adopted by a self-regulatory process guided by IETF, a transnational nongovernmental engineering board under an open agenda and grassroots participatory regime[132]. IETF should not be perceived as an institutional body that administers internet standards in a top-down manner. It resembles more an unofficial board, mostly consisting of engineers, who decide after argumentative dialogue and upon broad consensus on the standards to be implemented online. Embracing the principles of a "direct, populist democracy"[133] they believe, according to the MIT Professor David Clark, "in rough consensus and running code"[134]. This suggests a discursive abstract procedure of standard-setting[135] that involves extensive evaluation of each standard online and practical

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130 S Bradner, 'The Internet Data Process- Revision 3: RFC 2026', (Harvard University 1996) <http://tools.ietf.org/html/rfc2026> accessed 12 December 2013.

131 Some of these standard-setting bodies include the following organisations: ITU (International Telecommunication Union) and ISO (International Organization for Standardization) at an international level, CEN (European Committee for Standardization) at a European level and many others at a national level. V Mayer- Schönberger, 'The Shape of Governance: Analyzing the World of Internet Regulation' (2003) 43 Virginia Journal of International Law 652-653.

132 M Froomkin, 'The Internet as a Source of Regulatory Arbitrage' (Borders in Cyberspace: Information Policy and the Global Information Infrastructure 1997) 129, 131-132 available online <http://osaka.law.miami.edu/~froomkin/articles/arbitr.htm > accessed 12 December 2013.

133 P Borsook, 'How Anarchy Works' (The Wired, 1995) <http://www.wired.com/wired/archive/3.10/ietf_pr.html> accessed 12 December 2013.

134 D Clark, 'A Cloudy Crystal Ball/Visions of the Future' (1992) Plenary presentation at the 24th annual IETF Conference, Proceedings of the 24th Engineering Task Force 539, available online <http://www.ietf.org/proceedings/prior29/IETF24.pdf> accessed 12 December 2013.

135 According to the RFC 3160 (2001), the method of achieving rough consensus is the "humming" of agreeing members. There is no provision for a certain percentage of unanimity and the system is

testing; from a technical standpoint, its success is manifested by fully working protocols online. Although a detailed view on online standard setting and the IETF in particular is beyond the scope of the current chapter, it is worthwhile noting that it operates within a complex hierarchical framework, which involves other institutions[136] that fund, check or enjoy a veto right for its decisions. The suggested standards are submitted in the form of RFCs[137], namely informal memorandums submitted to the IETF to convey new views, to suggest various standards and to spur discourse and peer review before their implementation[138]. All RFC's and IETF's relevant documentation are available online for anyone interested to read and reproduce freely. Operating on an open documentation and standards policy[139] is after all the major factor that is responsible for IETF's success over official standard-setting bodies such as ISO and ITU.

The IETF operates in unison with another standard-setting body, the W3C[140] Consortium. The Consortium is unincorporated and has mostly organisations as members. According to its official declaration online, W3Cs mission is "to lead the World Wide Web to its full potential by developing protocols and guidelines that ensure the long-term growth of the Web"[141]. To this cause it endorses standards by issuing "recommendations", namely W3C Process Documents that are ratified upon successfully passing through different stages of evaluation[142], including public peer

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not vote-based but resembles a debate where a substantial majority has to be persuaded for a standard to be adopted. D Post (n 12) 135, 136.

136 IETF Board (known as IESG, Internet Engineering Steering Group) consists of a chair and eight area directors and is elected by the Internet Architecture Board (IAB). IAB in turn is elected by ISOC, an international non-profit organisation purporting to "facilitate and support the technical evolution of the Internet as a research and education infrastructure" (www.isoc.org/general/trustees/incorp.shtml) that is also the main sponsor for IETF. For a detailed description, see L Bygrave, T Michaelsen (n 119) 95-102.

137 Request For Comments, herein referred to in its abbreviated form as RFC.

138 For further details, see RFC 2026 (1996) (n 130).

139 According to this open source policy, all documents and mail lists as well as minutes from meetings are at everyone's disposal. Working documents are on free display for anyone that might be interested in commenting or reviewing; completed documents on standards are accessible freely to all so as to promote better understanding and implementation of them. S Bradner, 'The Internet Engineering Task Form' in C DiBona, S Ockman, M Stone (eds), *Voices of the Open Source Revolution* (O Reilly & Associates Pub 1999) 47-53.

140 The World Wide Web Consortium, hereinafter mentioned as W3C.

141 <http://www.w3.org/Consortium/mission.html> accessed 12 December 2013.

142 For more details on these "maturity stages" of W3C Recommendations, see <http://www.w3.org/2005/10/Process-20051014/tr.html#maturity-levels> accessed 12 December 2013.

review, members' consensus and extensive testing on their practical operability. As its founder Tim Berners-Lee explains, the Consortium abstains from controlling online activity and its procedures perform a "balancing act, between taking the time to stay as open as possible and advancing at the speed demanded by the onrush of the technology."[143]

Even though these standard-setting bodies lack the legitimacy of an official authority, their adopted standards are embraced by all stakeholders online, from plain users to private corporations or even governmental sources. The reasons for this depend on different perspectives; for users it is the need to trust a stable standard of wide acceptance online; for private corporations it is the promotion of a strong online market facilitating open competition[144]; for governments it is the opportunity to embed their policies indirectly online through the adoption of such standards. In this vein, standard-setting bodies do not fall within the remit of policy making; they mostly serve as "a tool for implementing governmental policy."[145]

At the same time though, they constitute an internal administrative force from within the internet, and as such understand and respect its architecture. Recognising the significance of modularity online (the separate yet interconnected layers), both the IETF and the W3C adopt standards that foster this principle. Namely, the suggested standards specify some basic assets for protocols and ensure that these will be compatible with yet separate from additional standards implemented by the users at a later stage. By suggesting open non-proprietary minimum standards for protocols, these bodies aim at maintaining a certain level of flexibility for each protocol to be implemented on additional proprietary standards that the user might like[146].

As was mentioned above, all these online institutions do not have the power to substitute law by imposing restrictions of any sort to online behaviour. Nonetheless, all implemented standards have the power to influence the internet's architecture, and as such they are described in this section. Namely, they are mentioned in the

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143 T Berners-Lee, M Fischetti, T Dertouzos (n 13) 105.

144 M Lemley, 'Antitrust and the Internet Standardization Problem' (1996) 28 Connecticut Law Review 1041.

145 P Weiser, 'The Internet, Innovation, and Intellectual Property Policy' (2003) 103 Colum. L. Rev.534, 595.

146 B van Schewick (n 14) 201-202.

overall description of the internet's design to the extent that they affect the internet's structure, although they are not primary structural elements. The importance that the adopted standards hold over the internet's architecture is neatly illustrated in the case of the so-called "Standard wars"[147], namely the debate over the implementation of network protocols, which emit conflicting interests between companies that strive for market dominance[148].

This point is well exemplified in the conflict between the OSI and the TCP/IP standards[149]. As was mentioned above, the internet's architecture derives mainly from the infrastructure of its main protocol, the TCP/IP. Yet, it was not until 1985 that this Protocol received acknowledgement[150] and was preferred over its rival protocol OSI. OSI, a European funded project suggesting a standard protocol under the auspices of ISO and ITU, had long been under research, since 1977. Compared to the TCP/IP that was developed by a handful of researchers through informal meetings, OSI was a colossal research carried out by a generously sponsored group of scientific experts. Moreover, it had the support of international institutions such as the ISO. Although both OSI and the TCP examined the interoperability of networks, it was their different approach to the matter that granted the TCP success over its rival protocol. Namely, whereas the TCP was developed *a posteriori* as a by-product of a system already in use, OSI represented a framework of standards created *ex-ante* to instruct conduct online[151]. Moreover, OSI was less flexible and slower to adapt to the rapid developments underwent by the internet in its first years

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147 For an overall view on standards wars, the strategies employed and the winning tactics, see C Schapiro, H Varlan, 'The Art of Standards Wars' (1999) 41(2) California Management Review 8-32.

148 Consider the following passage: "Efforts to create formal standards bring system builders' private technical decisions into the public realm; in this way, standards battles can bring to light unspoken assumptions and conflicts of interest. The very passion with which stakeholders contest standards decisions should alert us to the deeper meanings beneath the nuts and bolts." J Abbate, *Inventing the Internet* (MIT Press 1999) 179.

149 For a more detailed account explaining the reasons for adopting TCP/IP over OSI, see A Tanenbaum (n 46); W Drake, 'The Internet Religious War' (1993) Telecommunications Policy, 643-649.

150 Namely, in 1985 the NSF required that all Universities in the US connected to the Internet provided access to all qualified users and used the TCP/IP on their networks. D Mowery, T Simcoe (n 38) 1375.

151 I Maathuis, W Smit, 'The Battle Between Standards: TCP/IP vs. OSI Victory Through Path Dependency or by Quality?' (3rd Conference on Standardization and Innovation in Information Technology 2003) 161.

of broad use. As a result, the TCP became more popular and was extensively used among interconnected users.

Even though the TCP was not acknowledged by official standard-setting bodies, its acceptance was granted directly by the online community of users and engineers, as it became standardised from the IETF. Had it not been for the broad acceptance and use of the TCP, it would not have been implemented as a protocol online in the first place. Subsequently, the internet's architecture would have been substantially different from this open-layered network routing packet switching data between its end nodes. More importantly, the decision was taken directly by the users, contrary to the wishes of official international standard-setting bodies. In the words of a computer scientist explaining the TCP's supremacy over OSI, "Standards should be discovered, not decreed"[152]. It would therefore not be a hyperbole to claim that standard-setting procedures online demonstrate that the internet's architecture was based on open direct democratic procedures, while its further development is controlled by informal bodies under the auspices of popular demand. In fact, it is widely known that the IETF adopted all core standards and popular features, such as the WWW and email system that essentially formalised the internet's design as we know it today[153].

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152 K Hafner, M Lyon, *Where Wizards Stay Up Late: The Origins of the Internet* (Simon and Schuster 1996) 254.

153 J Goldsmith, T Wu, *Who Controls the Internet?: Illusions of a Borderless W*orld (Oxford University Press 2006) 25.

5.2. Ruling the Root and Internet Governance

The previous sections have explained how the internet is architected as an open decentralised network, its infrastructure administered on the principle of "rough consensus and running code." However, as explained in the first chapter, this rough consensus is now beginning to fade. The original architectural design of the internet and the decisions met to inform its operation through standard-setting procedures, appear to have been built on a democratic ethos away from any state interference. The same cannot be said for other aspects of internet infrastructure, namely its DNS.

The history of the internet, as set out earlier, has shown that it has been created, developed and curated by an interesting mix of people and entities. The previous section discussed the standard-setting procedures affecting communication between computers and has shown how preserving the core architectural values has always been key to the decisions met. That being said, the heart of the net infrastructure lies at the control of the Domain Name System (DNS)[154]. Described also as the Internet's telephone book, the DNS allows users to use easily memorable identifiers called domain names (e.g. www.google.com) instead of a string of numbers normally contained in an IP address (e.g. 216.239.51.99). All domain names and their corresponding IP addresses are stored in the DNS's root file, a highly authoritative source that all computers accept and follow. In the event that someone wishes to introduce a new root file, they would be running the risk of isolation in a network separate from the internet: a scenario hardly likely to happen[155]. The internet's growth and success as a network of networks is attributed to the support of the networked: connected it stands, divided it collapses; and although the users belong to different jurisdictions, where different laws proscribe, they all follow the

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154 The core components of the net infrastructure consist of the Domain Name System (DNS), the IP addresses and TCP/IP Protocols, the backbone and the local loop. In this chapter the backbone and the local loop are not further examined for two reasons: first – as physical means of transport data, their control is purely a matter of jurisdiction. Second, they do not constitute core architectural elements of the net infrastructure, in the sense that their control cannot have a deep impact on how the internet operates but remains solely a matter of connectivity. Chapter 5 addresses all these aspects in the context of free speech online.

155 See also RFC 2826 'IAB Technical Comment on the Unique DNS Root', available online < http://www.rfc-editor.org/info/rfc2826 > accessed 12 December 2013; A M Froomkin, 'Wrong Turn in Cyberspace' (2000) 50 Duke L J 17, 44.

universal hybrids of law online ascribed in the net architecture. At the same time, it is easily understood that whoever controls the infrastructure can influence matters on a transnational level, applying far more widely and being more effective than any legal mechanism has ever been.

With regard to DNS and the root file, the decisive moment in history was the Reston Meeting in July 1998. Following the release of the White Paper "Management of the Internet Names and Addresses" in June 1998[156], the US Government handed over the power[157] to decide on policies affecting the net infrastructure to ICANN, a non-governmental organisation adopting a multi-stakeholder model of policymaking based on open public participation and private consensus[158]. Initially intended to provide a private entity operating on "input from the broad and growing community of internet users"[159] and limiting governmental participation on the Board of Directors only in a non-voting advisory capacity, ICANN soon fell short of its high expectations[160]. Being "isolated from the real world institutions – governments"[161], it became clear from early on that ICANN's administrative role could only be effective in the form of a public-private partnership. However, the element of governmental interference was never welcome online and has been met with much scepticism. The fact that ICANN manages the DNS on a contract with the US Government, which reserves rights for the US Government for de facto approval of

156 NTIA, 'Management of the Internet Names and Addresses', White Paper, 63Federal Register 31741.

157 Department of Commerce (DOC), 'Memorandum of Understanding Between the US Department of Commerce and the Internet Corporation for Assigned Names and Numbers' (1998), available online at <http://www.ntia.doc.gov/ntiahome/domainname/icann-memorandum.htm> accessed 12 December 2013.

158 M Mueller, *Ruling the Root: Internet Governance and the Taming of Cyberspace* (MIT Press, 2004) 5.

159 Department of Commerce 'Management of Internet Names and Addresses' (White paper 1998), available online <http://www.ntia.doc.gov/ntiahome/domainname/6_5_98dns.htm> accessed 12 December 2013.

160 Indicative of the latter are the following remarks by Ira Magaziner at the first IFWP meeting in July 1998: "We believe that the internet as it develops needs to have a different type of coordination structure than has been typical for international institution in the industrial age. Governmental processes and Intergovernmental processes by definition work too slowly and somewhat too bureaucratically for the pace and flexibility of this new informational age." M Mueller (n 158) 3.

161 S Lynn, 'President's Report: ICANN – The Case for Reform', available online <http://www.icann.org/generall/lynn-reform-proposal-24feb02.htm> accessed 12 December 2013.

ICANN's major decisions[162], has been the object of sharp criticism from other countries[163] seeking to replace ICANN with international organisations, such as the UN's ITU. Such concerns have led to a "political paradigmatic shift"[164] away from the Westphalian model of state sovereignty towards a multi-stakeholder model[165]. The World Summits on the Information Society (WSIS) in Geneva (2003) and Tunis (2005) declared a "common desire and commitment to build a people centred, inclusive and development oriented information society"[166]. This task has been delegated to WGIG, which provided a new definition of Internet Governance[167], suggested the inclusion of a variety of state and non-state actors and formalised multi-stakeholderism with the creation of the Internet Governance Forum under the auspices of the United Nations, namely an annual dialogue space on policy issues. In reality, these multistakeholder meetings serve more as "talk shops" and spaces of deliberation between representatives from civil society, private entities and state representatives and have limited influence over the actual decision-making that shapes the Internet[168].

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162 Contract between ICANN and the United States Government for Performance of the IANA Function provisions 2.1.1.2 and 4.1. (Cooperative Agreement between NSI and the US Government), available at <http://icann.org/general/iana-contract-21mar01.htm> accessed 12 December 2013. See also M Mueller, 'Who Owns the Internet: Ownership as a Legal Basis for American Control of the Internet' (2005) 15 Fordham Intell. Prop Media & Ent. L J. 709.

163 During the WSIS, Chinese representatives of the Ministry of Information Industry observed that "Today's governor is not the ICANN, nor the private sector, not the individual netizens, nor the government of the United States", T Zicai, 'Core Issues for the UN Working Group on Internet Governance' (2004) in J Hoffmann, 'Internet Governance: A Regulative Idea in Flux' in RKJ Bandamutha (Eds), *Internet Governance: An Introduction* (Icfai University Press, 2007) 74-108. Available at SSRN <http://ssrn.com/abstract=2327121> accessed 12 December 2013.

164 B de La Chappelle, 'Multistakeholder Governance: Principles and Challenges of an Innovative Political Paradigm' (2011) Mind (2) Discussion Paper Series, Internet and Gesellschaft Co: Laboratory, < http://en.collaboratory.de/w/MIND_2_-_Internet_Policy_Making > accessed 12 December 2013.

165 For an overview of the multistakeholder processes and mechanisms online see C Marsden, A Powell, E Pavan, M Marzouki, 'D4.1.Outline Overviews of Tasks R4.1 – R.4.4: Regulatory and Governance Methodologies' (2013) Network of Excellence in Internet Science, deliverable from JRA4: Regulation, Governance and Standards. Available online < http://www.internet-science.eu/publication/489 > accessed 12 December 2013.

166 <http://www.itu.int/wsis/docs/geneva/official/dop.html> accessed 12 December 2013.

167 It must be noted that this chapter only intends to formalise the main architectural values embedded in the internet's design and highlight the link between the net architecture and the law. In this vein, matters of internet governance are discussed here only with a view to demonstrate how the synergy between the rule of law and the net architecture can restore the trust of the users to the multi-stakeholder model of governance online. Internet governance is a matter far broader and too complex to be discussed in the limited space this chapter offers.

168 W Drake, 'Multistakeholderism: External Limitations and Internal Limits' (2011) Mind (2) Discussion Paper Series, Internet and Gesellschaft Co: Laboratory, available online

Jeannette Hoffmann identifies three phases of Internet Governance: first the "technical regime" based purely on organisational rules by the technical community on purely technical aspects online, then a phase of "self-governance without direct government interference" with the creation of ICANN and a third phase after the UN World Summit on the Information Society in 2003, embracing a multi-stakeholder model of governance[169]. However, as Hoffmann posits further, "In the collective struggle for suitable forms of coordination, the Internet has become an experimental domain where visions of transnational democracy clash with the rights of sovereignty reflected by the territorially defined nation-state"[170]. This clash is still evident today, despite the democratising flair of multi-stakeholder dialogues. Internet governance, after all, is not a monolithic system. Decisions are not met by panels comprising state and non-state actors. In fact, the users are rarely among the institutional actors partaking in existing internet governance arrangements. As shown in DeNardis and Raymond's disaggregated internet governance taxonomy, private companies play a key role in the way the internet operates as a whole. As DeNardis and Raymond note "this privatization of oversight is a dominant feature of how internet governance has evolved in practise"[171], which raises questions of accountability, transparency and legitimacy. This should not be taken to imply that direct civic engagement should occur at all levels of internet governance. Certain layers operate on contracts undertaken by private actors: for example the physical network infrastructure is normally supported by private entities facilitating the exchange of internet traffic between autonomous systems. In this respect, the direct involvement of additional actors, such as the users or the government, could impair the internet's growth and sustainability[172].

Yet, in the absence of procedural rules, decisions affecting the internet architecture are not likely to be met with broad acceptance within the broad user-community. As

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<http://en.collaboratory.de/w/MIND_2_-_Internet_Policy_Making > accessed 12 December 2013; W Dutton, J Palfrey, M Peltu, 'Deciphering the Codes of Internet Governance: Understanding the Hard Issues at Stake' (2007) Oxford Internet Institute and e-Horizons Institute, Forum Discussion Paper No 8.

169 J Hoffmann (n 163) 76-77.

170 J Hoffmann ibid 100.

171 L DeNardis, M Raymond, 'Thinking Clearly about Multistakeholder Internet Governance' (8th GigaNET Symposium, October 2013), available online <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2354377>, accessed 12 December 2013.

172 L DeNardis, M Raymond ibid 9.

explained earlier, it is the consent of the networked that is the moving wheel behind the internet's success. Regaining the trust of the users cannot be based on vague non-binding principles of their online rights or discussion panels among various stakeholders. The Reston Meeting in 1998 has been hailed as "cyberspace's constitutional moment"[173]. Ironically enough, it signalled an era of online policy making outside the review of the constitution. The creation of ICANN was not met with enthusiasm by Lawrence Lessig, who expressed his concern over an unaccountable organisation substituting the government: "This is bizarre for a democracy (…). Why not just carve up the government into private non-profit organizations and be done with it all? We are creating the most significant jurisdiction since the Louisiana purchase, and we are building it outside the review of the Constitution."[174]

It is hopefully clear by now that the internet has been architected on values that promote free speech and enable the free exchange of information. However, its governance remains largely outside the purview of the First Amendment: although the courts examine substantive issues of the right to free expression, such as online defamation or hate speech, they rarely focus on procedural matters. The remainder of the thesis highlights the need to contextualise the First Amendment in the online context and to stretch its protective scope to include the preservation of the core net architectural values.

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173 D Post, 'The "Unsettled Paradox": The Internet, the State, and the Consent of the Governed' (1998) 5(2) Indiana Journal of Global Legal Studies 521.

174 M Krochmal, 'Magaziner, Lessig Spar Over Domain Name Plan', original link <http://www.techweb.com/wire/story/domnam/TWB19980611S0009>, now available online archived at <http://www.mail-archive.com/list@ifwp.org/msg06381.html>, accessed 12 December 2013. Note also how ICANN's members are not legally qualified, despite being responsible for taking decisions that affect fundamental human rights online, such as free speech and privacy. A Murray, 'Free Expression and Censorship Through Design Protocols: a Misapplication of the ICANN UDRP' (17th BILETA Annual Conference 2002), available online at <http://www.bileta.ac.uk/content/files/conference%20papers/2002/Free%20Expression%20and%20Censorship%20Through%20Design%20Protocols%20-%20A%20Misapplication%20of%20the%20ICANN%20UDRP.pdf> accessed 12 December 2013.

6. Code and Law: Antithesis or Symbiosis?

So far this chapter has highlighted the importance of the net architecture in supporting an open and decentralised platform that promotes communication based on free flow of information. The main features of openness and interoperability have contributed greatly towards its growth and success as a communicatory medium; at the same time though, these features seem also to be the net's backdoor. The internet's open design allows for it to be easily controlled by influencing its infrastructure by technical means[175]. Control through the Code, namely the engineering of the net infrastructure for the purposes of manipulating its technical aspects[176], seems to be a hybrid form of power that is easily enforceable online, unlike law. At the same time, this new form of governance lacks the transparency and legitimacy possessed by the rule of law[177].

That being said, code and law are not necessarily antithetical values; one can reinforce the other. The previous chapter explained the values upon which free speech jurisprudence has been architected; here it was shown that the internet was built with the capacity to fully promote free speech. Of course, the net architects were not at all preoccupied with the First Amendment or the legal underpinnings of free speech and communications. This chapter has explained how historically the engineering aim of the project that created the Internet was concerned with constructing a means of sharing resources through a decentralised interdependent network. Yet, at the same time, this architectural design of an open access decentralised network generating abundance "eliminates one of the key First Amendment diversity difficulties found in mass media"[178]. Government interference

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175 L Lessig (n 3).

176 Jonathan Zittrain refers to the Internet as a "generative technology", namely a technology designed to accept any contribution following certain rules. As such, the internet has the capacity both to control and to be controlled. J Zittrain, *The Future of the Internet and How to Stop It* (Yale Univ Press 2008) 71.

177 Legitimacy and enforceability are identified by Mayer- Schönberger as the "two – at least prima facie- independent values used to measure good governance" on the internet. V Mayer- Schönberger (n 131) 672. See also, R Brownsword, 'The Shaping of our Online Words: Getting the Regulatory Environment Right' (2012) 20(4) International Journal of Law and Information Technology, identifying legitimacy as a key regulatory challenge when dealing with online activities.

178 J Berman, D Weitzner (n 95) 1624.

in allocating resources to ensure fair access and diversity no longer seems necessary online. This, however, does not mean that free speech is guaranteed online and the net architecture is a reliable mechanism that can outpace constitutional protection. Going back to the cyber-theories set out in the previous chapter, the cyber-libertarians appear to have "a utopian vision of autonomy and creativity"[179] in believing that the absence of state interference equals absolute freedom online. However, control can also come from within, from the code itself. This chapter has explained in its first part the main architectural values and has provided a snapshot of the internet's design, which – at first glance – seems to be a great tool for the promotion of free speech. However, as a tool, it only has the potential for this and may not be used for this purpose. Substantive policy issues and global technical standardisation require further action to keep the Internet operational. The second part of the chapter considered how this tool, code, is administered by a number of public, quasi-public and private agents. In this sense, the cyber-paternalist view[180] that the code may be used to exert control over the users seems to hold some truth. Lessig's hybrid regulatory models consisting of a combination of controlling forces seem to be reflected in the multi stakeholder governance model followed nowadays. However, as noted earlier, this model is not without its flaws: the lack of common consensus and the deficit in concrete values underpinning its actions are major weaknesses.

Chapter 1 has already mentioned how in the post-NSA era, trust in the current regulating and governance mechanisms online has been eroded. At the time of writing, we stand at a crossroads: On one hand, there are those administering the code pointing the finger at the state for infringing on the user's rights. On the other hand, ICANN has been criticised for lacking legitimacy in taking important decisions affecting the user's rights. In the meantime, the market and the norms act as equalising forces. In the middle there is the user, Lessig's pathetic dot, who has lost trust in both sides and does not seem to be easily swayed by either of the two; law or the code. Yet, as noted earlier, both law and code are only tools, which if utilised property, can promote free speech in the digital era. Returning back to

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179 J Hoffmann (n 163).

180 Discussed in Chapter 2.

cyber-theories, cyber-communitarians observe how Lessig's pathetic dot is not pathetic at all[181]: In building an open decentralised network, the internet architects have brought communication and the user to the forefront, unlike other media. In return, the networked have given their consent to the main architectural values as they have consented to the rule of law. Online networks can be controlled, however legitimacy is the added parameter that contributes to their effectiveness[182]. In this respect one should consider how the rule of law and the "rule of the code" both exert their power from the user's consent: for Law, this consent is reflected in the Constitution. For Code, consent is nurtured by the architecture. In both cases, consent is implied further by the mere fact of participation and anticipation of the users that the values underpinning both the Law and the Code shall remain intact. On the contrary, when administrative decisions affect these values, consent is withdrawn and trust online is eroded. It is therefore in identifying the common ground in these two modalities (with a focus on substance and not on their administration) that consent can be reaffirmed. The following chapter considers in what ways – if at all – the current free speech adjudication perceives the net architecture and understands its design principles.

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181 A Murray, 'Symbiotic Regulation' (2008) 26 (2) The John Marshall Journal of Computer and Information Law 20; A Murray, *The Regulation of Cyberspace: Control in the Online Environment* (Routledge-Cavendish, 2007).

182 A Murray, '*Nodes and Gravity in Virtual Space'* (2011) 5 (2) Legisprudence 195. Note also Reed's observation that law in cyberspace is based on voluntary obedience and does not operate on the basis of enforcement. C Reed, Making Laws for Cyberspace (Oxford University Press, 2012).

Chapter 4: Respecting Context ~ A New Deal for Free Speech in the Digital Era

Published versions of this chapter:

- A.P Karanasiou, "Respecting Context: A New Deal for Free Speech in the Digital Era" (2012) 3 (3) European Journal of Law and Technology (EJLT)[1]
- A.P. Karanasiou, "On Balancing Free Speech in a Digital Context" (2012) 2 Masaryk University Journal of Law and Technology (MUJLT)[2]

"To exist is to change, to change is to mature, to mature is to go on creating oneself endlessly."

Henri Bergson, philosopher[3]

1. Introduction

So far this thesis has been a study in architecture: Chapter 2 has discussed how free speech jurisprudence has been architected, while Chapter 3 has explained how the Internet has been designed. On one hand, free speech rationales seem to be somewhat applicable online, lacking however the provisions for non-state mandated restrictions. On the other, the net infrastructure appears to be having the potential to promote free speech, its administration lacking in transparency and consensus. How irreconcilable are there two architectures? This chapter explores the relationship between free speech adjudication and net architecture. It shall be argued that the

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[1] © 2012 Argyro P. Karanasiou, available online <http://ejlt.org//article/view/144>, accessed 12 December 2013.
I wish to thank Professors Ian Cram, Karl-Heinz Ladeur and Clive Walker and Dr Subhajit Basu and the anonymous reviewers for their valuable comments and gratefully acknowledge the support from the Sir Richard Stapley Educational Trust.

[2] © 2012 Argyro P. Karanasiou, available online <http:// mujlt.law.muni.cz/>, accessed 12 December 2013.

[3] H Bergson, *Creative Evolution* (A Mitchell trans. Macmillan, London 1911).

current legal approach fails to fully perceive free speech in its online context and understand the design principles supporting the net architecture.

This epigraph by the French philosopher Henri Bergson sets the scene for unravelling the main argument of this chapter: reality is to be conceived as a creative evolution, being in constant motion. In this dynamic environment, it is the law's task to follow closely all changes and to adapt to the new reality created each time. For this purpose, the law needs to be aware of its context and redefine itself accordingly. This chapter discusses the current legal approach with regard to online free speech, assesses its application in the digital era and suggests its adaptation to the right's digital context.

To reach this conclusion, the chapter is structured in two parts: the first part deals with the conventional legal approach regarding free speech, while the second part examines how this approach is challenged in the digital era.

The chapter begins by discussing the importance that the context holds for law in general. For this it relies on some general theoretical views, shared by legal theorists on both sides of the Atlantic. It then goes further and highlights the strong links between context and free speech adjudication. For this, the chapter uses examples from the ECHR and the First Amendment jurisdiction. Despite their noticeable differences, what is of importance here is the common respect for context that both jurisdictions seem to have developed in their free speech jurisprudence. Having established the importance of context for free speech protection, the chapter goes on to discuss some of the most frequently adopted parameters for contextualising free speech: space, property and state coercion monopoly. Although all these three parameters have provided useful guidance for outlining the context, within which the regulative framework for free speech is set, it seems that they are now contested in the digital era. Furthermore, it is illustrated that not only are the factors of space, property and state coercion outdated online, but they are in fact placing free speech in the wrong context. As a result, free speech adjudication relying on such old juridical tools seems to be over-restricting free speech, while it does not necessarily provide adequate protection for other competing rights, such as privacy and intellectual property.

The final section of the chapter suggests an alternative view to our conventional approach in terms of offering adequate protection for free speech online: digitisation. While rebutting the contested conventional legal approach to free speech, its reiteration in the light of the right's digital context appears to be an attractive alternative. Digitisation presupposes a legal approach based on the understanding of the digital context and the embracing of the net architecture. Namely, it is suggested that free speech adjudication should be informed by studying the infrastructure of the internet so as to further respond to this context. In a way it could be argued that digitisation seems to be following Lessig's mantra "Code is Law", while adding a supplementary parameter: that law should adapt to this new online environment by learning from code and becoming digitised so as to eventually determine a fair trade-off for free speech in a digital context.

2. Why Context Matters in Law: Context as a Key Theme in the US and EU Free Speech Jurisprudence

The idea of perceiving law as a dynamic phenomenon within a social context is hardly a new concept; legal scholars from both sides of the Atlantic have addressed this issue frequently in the past[4].

Contextualising law is of course not a mere theoretical product. Take for example the widely embraced legal principles of contractual obligation, fiduciary duty or due

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[4] In the words of Justice Holmes, law 'should correspond with the actual feelings and demands of the community' and is thus a constantly evolving non-static discipline, estranged to the stability that characterizes science (OW Jr Holmes, *The Common Law* (Little, Brown and Co 1881) 41. See also O W Jr Holmes, 'The Path of Law' (1997) 110 (5) Harv L Rev 991. US scholars Roscoe Pound and Karl Llewelyn further highlighted the link between law and society and referred to the perennial need of the former to constantly evolve and adapt to the latter. The British "Law in Context" movement is one of the few notable examples of the European response to the American realism. For more on this see W Twining, *Law in Context: Enlarging a Discipline* (Oxford University Press 1997). Notable in this field are also the works of Gunther Teubner and Karl-Heinz Ladeur, who both discuss the strong connection between law and society offering a variety of neo-evolutionary models. See G Teubner, 'Substantive and Reflexive Elements in Modern Law' (1983) 17 Law and Society Review 239; K-H Ladeur, 'Verrechtlichung der Ökonomie - Ökonomisierung des Rechts' in Volkmar Gessner and Gerd Winter (eds), *Rechtsformen der Verflechtung von Staat und Wirtschaft* (Westdeutscher Verlag 1982).

process[5]. These are all substantiations of approaching law from a non-formalistic vantage point: through its context. Such legal principles rest on the understanding that context generates norms and expectations of certain influence on law[6].

The understanding of law within a certain context seems to be deeply engrained in the free speech jurisprudence on both sides of the Atlantic. ECHR's concept of the margin of appreciation furnishes a very accurate example of the acknowledgement that implementation of law largely depends on its specific context. In the absence of a common denominator, the restriction of the right to free speech is relatively dependent on its social context and thus lies at the discretion of each state alone[7]. Attempting a contextual evaluation of speech is also an indicator that determines the required level of proportionality[8] and subsidiarity[9]. Although a detailed analysis of modern human rights jurisprudence would fall outside the scope and focus of this chapter, it should however be noted that both concepts of proportionality and subsidiarity presuppose understanding and embracing the right's context. In this vein, it could further be argued that contextualising free speech protection helps the ECHR to facilitate the needs and expectations of a multinational democratic society.

In a similar way, the First Amendment appears to be acutely conscious of this interplay between the free speech jurisprudence and its contextual framework. One can extrapolate this from the frequently evoked principles of community standards

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5 P Selznick, 'Law in Context Revisited' (2003) 30 Journal of Law and Society 179.

6 As such, "law in context" may seem to be a broad and vague concept. For the purposes of the present chapter, focus is put mostly on the ability of the context to generate social rules that are to be combined with the current legal rules. Although these new social rules are not studied *per se*, the thesis here seeks to explain the disparity between the new context and the current legislative framework. I am particularly grateful to Professor Karl-Heinz Ladeur for bringing this point to my attention.

7 The court in *Handyside* highlighted the necessity for the states to do their own readings of article 10 ECHR: "[It] is not possible to find in the domestic law of the various Contracting States a uniform European conception of morals. The view taken by their respective laws of the requirements of morals varies from time to time and from place to place, especially in our era which is characterized by a rapid and far-reaching evolution of opinions on the subject." *Handyside v. United Kingdom*, App. No. 5493/72, at paras. 48-49 (Dec. 7, 1976).

8 The European legislation generally acknowledges the importance of the context for free speech derives from the general principle of law responding to a "pressing social need", taking action that is deemed "necessary in a democratic society."

9 Expressed in Article 5 of the Treaty on European Union (TEU). Consolidated Version of the Treaty on European Union [2008] OJ C115/13.

and reasonable expectations[10]. Context has always played a significant role in the First Amendment: its absolute wording is to be perceived as a legacy of the past, entwined with the existing historical context during the First Amendment's inception[11]. In general, the US approach to free speech is to be attributed at large to the prevalent context at the time of its drafting. That said, the main objective of this comparative observation is to stress 'this existence of a clear cross-jurisdictional consensus on the freedom of speech'[12]. The value of transplanting the First Amendment's interpretation of free speech to the European reading of free expression is not addressed further as it falls outside the remit of this chapter[13].

On balance, the overall picture seems to be that the free speech jurisprudence widely acknowledges context. Clearly context is an integral part of the free speech architecture: free speech appears to be a right-meriting constitutional protection on the grounds of its interaction with its environment and upon ad hoc contextual evaluation.

3. A Snapshot of the Free Speech Architecture: The Concept of Trade-Offs as a Manifestation of Contextualisation

Thinking in context appears to be the quintessential factor supporting judicial review in cases of speech clashing with other rights. This contextualisation, embraced by both jurisdictions, finds its ultimate manifestation in the face of a "free speech trade-off" with competing interests. That is to say, the process of deciding on the limits of

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10 In *Miller v California*, the Supreme Court introduced an understanding of obscene speech based on the judgment of "the average person, applying contemporary community standards." *Miller v. California*, 403 US 15 (1973).

11 The First Amendment is generally understood as a response to the repressive legislation imposed on free speech by the English Crown, which despite having ceased to exist before the creation of the First Amendment, had already left its strong imprint on American society; seditious libel, the prior restraints dominating the licensing system or the doctrine of constructive treason offer some good examples of this oppressive regime. For an account on the history of the First Amendment and freedom of speech and press in the US see L Levy, *Emergence of a Free Press* (Oxford University Press 1985).

12 I Cram, *Contested Words: Legal Restrictions on Freedom of Speech in Liberal Democracies* (Ashgate 2006) 16.

13 For a discussion on this, see I Cram ibid 11-15.

constitutional protection for a certain type of speech is based on assessing its social value in relation to the value of its countervailing rights, both seen in a specific context.

The concept of comparing trade-offs is introduced in this section to enhance our understanding on the way balancing[14] works: in the absence of a common metric[15], it involves a contextualisation of conflicting rights as it measures them on the possibility of their realisation in a given context. To assess this possibility in 'a concrete situation[16]', judicial review takes into account various parameters, which serve as yardsticks for each context. In this chapter, three of these parameters will be examined: space, property and state coercion monopoly.

In the remainder of the chapter, it will be shown that the parameters frequently evoked for such a contextualisation have altered their meaning in the digital era; they are thus not helpful in terms of placing free speech in its digital context. Accepting the hypothesis that digital context matters for free speech adjudication, the failure to properly contextualise the free speech will most likely result in inadequate legal protection of the right online. Before discussing this hypothesis, however, it is essential to describe how this contextualisation takes place in the free speech jurisprudence.

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[14] The word *balance* is sometimes interchangeably used to mean either an actual balance – which is mostly the case in the ECHR – or a trade-off in the manner of a prioritisation of values undertaken by the First Amendment Jurisprudence. Despite the fact that the two jurisprudences have distinctive approaches in how they examine such clashes, they both seem to rely on certain parameters for contextualising free speech. It is this point that I want to stress rather than give a general account of their similarities in adjudicating free speech protection.

[15] For an overview on the relevant debate regarding an acceptable common metric, see S Tsakyrakis, 'Proportionality: An Assault on Human Rights?' (2009) 7 International Journal of Constitutional Law 470. Schauer considers this issue of a common measurement value in his paper "Commensurability and its constitutional consequences"; although he does not embrace common metrics based on monetary or commoditory grounds he suggests utility as a common denominator. F Schauer, 'Commensurability and Its Constitutional Consequences' (1994) 45 Hastings Law J 787-789.

[16] Drawing from Alexy's theory of principles, Da Silva further describes this balancing act as a comparison "among concrete alternatives and not among abstract values." He regards this as a comparison between "trade-offs"; namely, the weighing between the realization of competing rights "in a concrete situation." VA Da Silva, 'Comparing the Incommensurable: Constitutional Principles, Balancing and Rational Decision' (2011) 31 Oxford Journal of Legal Studies 13-14.

4. Parameters of Free Speech Contextualisation: Juridical Orthodoxies Challenged on the Digital Frontier

As explained, context helps us to determine potential trade-offs of the right to free speech and competing rights/interests and thus to decide on its scope under certain circumstances. In order to contextualize free speech, judicial review employs a series of parameters, which serve as yardsticks for outlining the context framing speech under review. This chapter will discuss three such parameters, frequently evoked in free speech jurisprudence: space, property and state coercion monopoly[17]. It shall be argued that although this triptych has been widely adopted for deciding trade-offs in clashes between free speech and other rights, such as privacy and intellectual property, it is now challenged online.

4.1. Space

Space has always been considered a significant juridical tool, its legal conceptual roots intertwined with the Westphalian sovereignty[18]. As a result, not only were international law and interstate relations shaped on grounds of spatiality, but also legal doctrines – especially those regarding jurisdiction – became largely dependent on space. Regarding free speech, space is generally considered to be an egregious conceptual element of this right. Serving as an underlying principle for the right to free speech space is described "as a secondary, inert, mostly fungible, and (like other public resources) neutrally distributed backdrop for expression"[19]. Space as a metaphor is also frequently adopted to explain the various aspects of free speech:

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17 Contrary to other parameters, such as the prevailing norms in a given context, this triptych has been commonly accepted across multiple jurisdictions, as all these three notions are eventually indisputable factual elements. Although there are other contextualising parameters, such as time, manner and so on, for the purposes of a coherent analysis this chapter will discuss the three factors of space, property and state coercion and their online applicability.

18 K Raustiala, 'The Geography of Justice' (2004) 73 Fordham L Rev; T Schultz, 'Jurisdiction, Legal Orders and the Private/Public International Law Interface' (2008) 19 EJILT 800-801.

19 T Zick, *Speech Out of Doors: Preserving First Amendments Liberties in Public Spaces* (Cambridge University Press 2009).

judicial review has made numerous references to the essential "breathing space" needed for the right to survive[20]. Even the metaphor of "marketplace of ideas" dominating the First Amendment jurisprudence is indicative of the fact that spatiality is essential for the right to free speech[21].

Globalisation challenged[22] this conventional concept of territoriality in determining jurisdiction outside strict spatial terms[23]. Constitutional protection is nowadays still largely connected to legal spatiality[24]. The digital era has further questioned the concept of spatiality: not only did it disconnect state power from geographical borders making international cooperation essential[25], but it also introduced a trans-jurisdictional communicatory platform generating common law with transnational impact[26].

On the threshold of the digital era, the judiciary was the first to attempt applying the law to these new circumstances. Not having profound knowledge of the internet

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20 Justice Brennan in *New York Times Co v Sullivan*, 376 U.S. 254 (1964) at 271-272. This introduction of the space metaphor in the free speech jurisprudence is mentioned by Timothy Zick in 'Space, Place and Speech: The Expressive Topography' (2006) 74 Geo Wash L Rev 1754

21 This point is mentioned by Zick (n 20) 1754.

22 For an account of the transformation of territoriality in the era of globalisation see A Aleinikoff, *Semblances of Sovereignty: The Constitution, the State, and American Citizenship* (Harvard University Press 2002); M Kahler and B Walter (eds), *Territoriality and Conflict in an Era of Globalization* (Cambridge University Press 2006); Raustiala (n 16). For an alternative view, note K-H Lauder's argument that "[t]he pressure for change under which the political and legal institutions of post-modern societies are emerging is not produced primarily by globalization processes, but is instead connected with the basic transformation of the economy into the 'knowledge society'", K-H Ladeur, 'Globalization and Public Governance: A Contradiction?' in KH Ladeur (ed.), *Public Governance in the Age of Globalization* (Ashgate 2004).

23 In *Reid v Covert*, Justice Black upheld the strict territorial conception of jurisdiction, calling it "a relic from a different era." *Reid v Covert*, 354 U.S. 487 (1956) at 12.

24 The US Courts grant constitutional protection relying on a combination of physical presence in national territory and deep ties with the US state. *Johnson v Eisentrager*, 339 U.S. 763 (1950); *United States v Verdugo-Urquidez*, 494 US 259 (1990). Raustiala refers to the current legal doctrine of legal spatiality as being "both anachronistic and incoherent" (n 17) 2554-2555.

25 Some notable attempts at such international cooperation have taken place in the past, mostly regarding areas where different jurisdictions find common ground, such as child pornography and xenophobia. In this vein, Kleinwächter sees an emergence of an intergovernmental soft law in the form of proposed internet principles. Among the examples he uses to demonstrate this are the 10 strategic principles suggested by President Obama in May 2011 and the seven principles proposed by EU Commissioner Neelie Kroes in her "Internet Compact" in July 2011. W Kleinwächter, 'Internet Principle Hype: How Softlaw is Used to Regulate the Internet' <*http://news.dot-nxt.com/2011/07/27/internet-principle-hype-anon*> accessed 10/11/2011.

26 "The future may also depend on the extent to which the context, approach, institutional structures and common principles will underlie decisions concerning cyberspace and legislation relating to it." F Tamar, 'The Common Law and Cyberspace' (2011) Boston Univ. School of Law Working Paper No. 01-21. Available at SSRN <http://ssrn.com/abstract=292614> accessed 10/3/2012.

infrastructure, judges resorted to the metaphor of cyberspace as a space and property. By adopting the metaphor[27] of space-as-property, the judiciary tried to configure free speech in a field that was as yet unknown to them, and define it with their existing legal tools: space and property. A decade later, it seems that the internet- related jurisprudence still considers matters in terms of spatiality, property and state monopoly of coercion, ignoring the fact that all points of this triptych are challenged online.

The ruling in *LICRA v. Yahoo!*[28], noted the overarching challenge of defining space in terms of jurisdiction. The case, which is considered a landmark for IT case-law, involved the legal action of an anti-Semite French organisation against the auctioning of Nazi memorabilia hosted online on a Yahoo! webpage with global reach. When the US Courts discussed the enforcement of the French-issued injunctions against the US based Yahoo!, they were faced with the question of jurisdiction. The dictum of Justice Fogel that the "Internet in effect allows more than one to speak in more than one place at the same time"[29] equates to an admittance that the legal assumption of space in terms of a geographical connection to a certain legal sphere could no longer hold online.

Almost ten years later, the WikiLeaks case highlighted this change in the concept of spatiality. When the US DNS provider "Every DNS" decided to withdraw its services[30] to WikiLeaks and pulled the plug on its website following political pressure, WikiLeaks managed to sustain their online presence in the following ways:

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27 Metaphors are generally useful as a legal tool in that they support analogy in legal reasoning. In this case however, applying the space-as-property metaphor online has perhaps imposed our previous notions on a field that was operating regardless of both space and property. See also K Olson, 'Cyberspace as Place and the Limits of Metaphor' (2005) 11 Convergence.

28 For a report and a case analysis, see Y Akdeniz, 'Case Analysis Against League Against Racism and Anti-Semitism (LICRA), French Union of Jewish Students v Yahoo! Inc USA, Yahoo! France, Tribunal de Grande Instance De Paris (The County Court of Paris), Interim Court Order, 20 November 2000' (2001) 1 Electronic Business Law Reports. See also J Reidenberg, 'The Yahoo Case and the International Democratization of the Internet' (2001) Fordham Law & Economics.

29 *Yahoo! Inc v La Ligue Contre le Racisme et L'Antisémitisme*, 169 F Supp, 2d 1181, 1192 (C.N.D. Cal. 2001).

30 The services a DNS provider offers are a valid IP address associated with a specific domain name. In the case of Wikileaks for example, their DNS provider would be responsible for supplying the user with the hexadecimal IP number 88.80.13.160 to each query for http://www.wikileaks.org. Eventually the DNS provider deciphers the long IP numbers to easily remembered web addresses. In the absence of such services, the users can still access the requested page but by typing in the full IP address themselves instead of the more memorable websites address.

Initially WikiLeaks transferred to a Swiss ccTLD[31], which directed users to a Swedish IP while having their content hosted by a French server[32]. Eventually, they enforced their Swiss domain name with DNS diversification. Namely, they set up 14 authoritative name servers[33] in eight different countries pointing to three diversely routed ISPs in Sweden, France and the Netherlands[34]. To this one could also add over 1,000 additional mirror sites[35], which voluntarily displayed WikiLeaks content on their websites. Space as we once knew it seemed to be lost forever online.

Such cases clearly illustrate the fact that the internet has introduced a multidimensional aspect of spatiality, which is utterly new and almost estranged to the concept of space used in the analogue world; or, as Mark Graham has put it,

> "The Internet is characterised by complex spatialities [sic] which are challenging to understand and study, but that doesn't give us an excuse to fall back on unhelpful metaphors[36] which ignore the Internet's very real, very material, and very grounded geographies"[37].

That said, a note of caution to the reader: This is not to imply that cyberspace constitutes a separate jurisdiction being an altogether different autonomous place[38];

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31 ccTLD is the acronym for country code top level domain and it is the final part of a web address corresponding to a specific state. WikiLeaks used the Swiss ccTLD."ch".

32 J Wakefield, 'WikiLeaks Struggle to Stay Online' <http://www.bbc.co.uk/news/technology-11928899> accessed 10/03/2012.

33 Name servers (or Domain Name Servers) are servers that help the user reach a requested website. Their task is to match the user's query to a specific IP; essentially name servers associate all IP addresses to user-friendly addresses so that the users will not have to remember the exact IP number of the website they want to reach each time. For more technical details on how DNS works, see J Saltzer and M Frans Kaashoek, *Principles of Computer System Design* (Morgan Kaufmann 2009) 175-184.

34 J Cowie, 'WikiLeaks: Moving Target' <*http://www.renesys.com/blog/2010/12/wikileaks-moving-target.shtml*> accessed 10/12/2011.

35 J Cowie (n 34).

36 On metaphors as a bad idea for cyberspace, see D Hunter, 'Cyberspace as Place, and the Tragedy of the Digital Anticommons' (2003) 91 Cal L Rev 439; D Burk, 'The Trouble with Tresspass' (2000) 4 J Small & Emerging Bus L 27; J Koppell, 'No 'There' There: Why Cyberspace Isn't a Place' <*http://www.theatlantic.com/past/docs/issues/2000/08/koppell.htm*, August 2000> accessed 10/3/2012. For the opposite view, see D McGowan, 'The Trespass Trouble and the Metaphor Muddle' (2005) 1 JL ECON & POL'Y 109; A Epstein, 'Intel v. Hamidi: The Role of Self Help in Cyberspace?' (2005) 1 JL ECON & POL'Y 147.

37 <http://www.zerogeography.net/2011/11/cyberspace.html> accessed 10 March 2012.

38 Although the internet is not considered a separate jurisdiction, its idiosyncratic spatiality has been noted by many legal scholars. Its 'borderless' nature has sparked further debate; some argue that current laws are inapplicable online (D Post, D Johnson, 'Law and Borders: The Rise of Law in Cyberspace' (1996) 48 Stan L Rev 1367) while others dismiss online anarchy yet still acknowledge the problematic implications cyberspace has in terms of jurisdiction (M Geist, 'Is There a There

the latter argument, although attractive in the past to those favourably disposed to the idea of cyber-exceptionalism[39], has today been almost abandoned[40].

4.2. Property

Space as a contextualising parameter for free speech is not by itself enough to outline its context and delineate the right's protective scope. In this task, judicial review seems to be following a public/private dichotomy. Namely, activity is divided into multiple private and public spheres, which at times may overlap. In order to determine the speeches' proscribed limits, judicial review takes into account this distinction of space, following the private/public dichotomy. This dichotomy is in fact the manifestation of property; ownership of a certain space determines action within this sphere, described as private or public.

This contextualisation upon property is well reflected on the "public forum"[41] doctrine; free speech jurisprudence generally acknowledges a positive guarantee for

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There? Towards Greater Certainty for Internet Jurisdiction' (2001) 16 Berkeley Tech L J; J Reidenberg, 'Technology and Internet Jurisdiction' (2005) 153 U Pa L Rev). For an accurate account on this debate, see A Murray, 'Use and Abuses of Cyberspace: Coming to Grips with the Present Dangers' in A Cassese (ed) *Towards a Realistic Utopia* (Oxford University Press 2012).

39 Mostly to be found in the writings of scholars such as D Johnson and D Post and the manifestos of early cyber-enthusiasts, such as that of Mitch Kapor and J P Barlow. See for example, M Kapor, J P Barlow, 'Accross the Electronic Frontier' <https://w2.eff.org/Misc/Publications/John_Perry_Barlow/HTML/eff.html> accessed 10/3/2012; D Post, 'Anarchy, State, and the Internet: An Essay on Law-Making in Cyberspace' (1995) JOL 1; D Post, D Johnson, 'Law in the Virtual World (The Great Debate)' (2006) 11 First Monday; D Post, 'Against 'Against Cyberanarchy'' (2002) 17 Berkeley Technology Law Journal 1365. For a general discussion on cyber-exceptionalism see T Wu, 'Is Internet Exceptionalism Dead? ' in B Szoka and A Marcus (eds), *The Next Digital Decade - Essays on the future of the Internet* (TechFreedom 2010) 163-236.

40 Recent Court rulings show times of increasing disenchantment with the spatial metaphor online. In the Irish case of *EMI Records & Others v Eircom Ltd*, Mr Justice Charleton described the internet as a mere communicatory means and not "an amorphous extra-terrestrial body", distancing his ruling from adopting any spatial metaphors. (*EMI Records & Others v Eircom Ltd* [2010] IEHC 108 at para.9). Similarly, on the other side of the Atlantic, the Supreme Court in California held that the use of Intel's server by a former employee to send emails to his colleagues criticising the company was not punishable for the tort of trespass. See *Intel Corp. v. Hamidi*, 30 Cal. 4th 1342 (2003). Accepting the claim for trespass would mean embodying the spatial metaphor to the juridical approach of the internet.

communicative rights in the face of public forum[42]. Namely, the state is expected to ensure[43] that there are some essential open public spaces reserved for exercising free speech. In addition to all quintessential public forums such as parks and streets that have traditionally hosted public discourse[44], the state can also decide to make a non-public space available as an expressive platform[45]. This ability of the state to map free speech by determining certain public and non-public forums derives at large from the state's ownership status of spaces[46].

Property has also been seriously contested online as the internet seems to be based on its rival concept: sharing. Net architecture is mainly built on non-proprietary grounds; its basic structural features of the internet, "interactivity, mass participation, non-exclusive appropriation and creative transformation"[47] are directly opposed to any proprietary regulating regime. The internet is fuelled by this shared information running through its networks and being exchanged within its connected nodes[48]. Some of the most innovative and successful projects online owe their creation and development to the participation and collaboration of many users together. Wikipedia, Linux or even the very recent Icelandic Constitution: these are

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41 This argument is raised by Zick, who sees public form as an indication of the interrelation between space and property in the First Amendment.T Zick (n 19) 1713. Zick further notes that the First Amendment jurisprudence is built on the conception of place-as-property. T Zick (n 19) 1723.

42 See also J Habermas, *Between Facts and Norms: Contributions to a Discourse Theory of Law and Democracy* (MIT Press 1998); J Habermas, *The Structural Transformation of the Public Sphere: Into a Category of Bourgeois Society* (MIT Press 1991).

43 In *Appleby*, the Court admitted that the state has a positive obligation under art 10 to make available public land to nurture freedom of expression. According to the court "[g]enuine, effective exercise of this freedom does not depend merely on the State's duty not to interfere, but may require positive measures of protection, even in the sphere of relations between individuals." However, it did not consider such a state obligation in the case of privately owned land. *Case of Appleby and Others v. The United Kingdom* (Application no. 44306/98 [2003]).

44 *Ark. Educ. Television Comm' n v. Forbes*, 523 US 666, 677 (1998) at 678. See also *Hague v. CIO,* 307 U.S. 496, 515, 59 S.Ct. 954, 963, 83 L.Ed. 1423 (1939).

45 *Flint v. Dennison***,** 488 F.3d 816, 830 (9th Cir. 2007).

46 T Zick (n 18) 1713. See also an excellent analysis of the interplay between private property and public speech in M Ammori, 'Private Property and Public Speech' <http://www.concurringopinions.com/archives/2012/02/private-property-and-public-speech.html, 2012> accessed 10/032012.

47 J Balkin, 'Digital Speech and Democratic Culture: A Theory of Freedom of Expression for the Information Society' (2004) 52 NY UL Rev 1-55.

48 A recent study by the New York Times Consumer Insight Group has shown that people have the need to share content online for a number of reasons, predominantly so as to foster creative deliberation and enhance their understanding of ideas shared. 'The Psychology of Sharing', Study conducted by the New York Times Consumer Insight Group in association with Latitude Research, available online <http://nytmarketing.whsites.net/mediakit/pos/> accessed 10 March 2012.

all projects drafted online based upon contribution, open source, modification and peer review.

Of course, information has become a tradable commodity in the digital era, so in this sense it is not totally detached from property. Nonetheless, the traditional concept of property seems to be contested, as the public/private dichotomy is now blurred in the digital era. Information is of course no longer simply a tool to build an academic open communicatory platform, as it was in the internet's early days[49].

The monetisation of information is a fact online; however its proprietorship is constantly evolving and has departed from the classic concept of property. It is precisely this flexibility in the concept of property that is a major driving power behind the Internet's astonishing growth. James Grimmelmann[50] attributes the Internet's success to its ability to alter the property boundaries in introducing a semi-commons communicatory platform.

> Property appears to have altered its meaning online. The net infrastructure involves a system that by and large relies on the undeterred exchange of information; for this system to be sustainable, property should be given the necessary flexibility[51]. As a result, the conventional concept of property can no longer hold in the digital context and thus is no longer useful as a legal tool for free online speech adjudication.

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49 This shift becomes rather noticeable once we compare the following Presidential remarks: In July 1997, President Clinton had declared the internet a "free trade zone" in an attempt to boost e-commerce. See <http://clinton4.nara.gov/WH/New/Commerce/remarks.html> accessed 10 March 2012. This February, fourteen years after Clinton's proposition, President Obama unveiled plans for a "privacy bill of rights" to protect consumers online. See <http://www.whitehouse.gov/the-press-office/2012/02/23/we-can-t-wait-obama-administration-unveils-blueprint-privacy-bill-rights> accessed 10 March 2012.

50 J Grimmelmann, 'The Internet is a Semi-Commons' (2010) 78 Fordham L Rev 2799-2800

51 "The focus of the policy concerns that have traditionally justified structural media regulation should, at this time, be focused on assuring that the digitally networked environment evolves into a stable system for peer users, rather than towards a system in which commercial producers and passive consumers are the primary players." Y Benkler, 'From Consumers to Users: Shifting the Deeper Structures of Regulation Towards Sustainable Commons and User Access' (2000) 52 Fed Comm LJ 561, 579.

4.3. State Coercion Monopoly

The legal assumptions of space and property described above serve as the main coordinates that frame free speech and determine its trade-offs with other rights. One could further note a third legal assumption that contributes towards placing rights in the proper context while balancing them. That is the concept of the state coercion monopoly[52]. In other words, this third legal assumption acts as an acknowledgement of the state's sole power to enforce its free speech restrictions in the name of protecting a countervailing interest[53]. The trade-off that free speech adjudication entails is guided from this concept as well. Besides using space and property as juridical tools to outline the permissible limits to free speech, the relevant jurisprudence relies heavily on the understanding that the state is able to do so as it seems to be the sole source of coercion.

The legal assumption of state as the sole ruling deity is also disputable online. As early as 1996, John Perry Barlow's "Declaration of Independence in Cyberspace", a libertarian manifesto suggesting a hands-off the net approach[54], denied altogether 'the governments of the industrial world" and declared void their "moral right to rule" and to enforce their rules. This argument – although regarded today as a utopia of the early days of internet – has nonetheless survived in Lessig's famous quote "Code is Law"[55], which identifies another ruling deity online besides the state: the code[56]. Lessig's argument – that eventually the software will be capable of embedding and implementing further regulatory actions online – has proven to be

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52 Max Weber considers this monopoly of the state to use legitimate violence as a necessary precondition for statehood. M Weber, *The Theory of Social and Economic Organization* (Free Press 1964) 154. The state coercion monopoly is addressed here in a broader sense, following Hayek's viewpoint of accepting that violence is only a form of coercion, the latter consisting of non-violent actions as well (F Hayek, *The Constitution of Liberty* (Univ of Chicago Press 1960) 135.

53 The power of the state to implement its decisions to restrict one right for the sake of protecting another is noted in Hayek's definition of 'coercion': "Coercion occurs when one man's actions are made to serve another man's will, not for his own but for the other's purpose." F Hayek (n 51) 20-21

54 J Barlow, 'A Declaration of the Independence of Cyberspace' <http://editions-hache.com/essais/pdf/barlow1.pdf> accessed 12 December 2011.

55 L Lessig, *Code and Other Laws of Cyberspace: Version 2.0* (Basic Books 2006).

56 "The regulator is what I call the 'code' – The instructions embedded in the software or the hardware that makes cyberspace what it is." L Lessig (n 54) 121.

accurate many times in the internet's short history[57]. However, the code alone did not displace the state as the sole governing deity online. Private corporations were also soon among the stakeholders, deliberating for their own share of control online. It became obvious from early on that in the digital era, invisible forces[58] would play their own role alongside the state in online governance[59]. By 2005, a trans-national multi-stakeholder online governance model was widely adopted[60], moving away from any sense of state centrism. In the following years, many online governing bodies were suggested: ICANN, UN and ITU[61] to name but a few. All such developments highlight the displacement of the classic state-centric model by a multi-stakeholder online governance model[62].

In this section, it has been claimed that the ontologies of space, property and state coercion monopoly have dominated the free speech trade-offs with competing

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57 The most striking example for this was in January 1998, when Jon Postel, IANA's Director, redirected more than half of the name servers to another root zone server. Leaving the technical details aside, what should be noted here is that his action resulted in taking power away from the US government and transferring it to IANA, which at the time was operating in the Information Sciences Institute at the University of Southern California in Los Angeles. See also M Mueller, *Ruling the Root: Internet Governance and the Taming of Cyberspace* (MIT Press 2004) 94-95, 142; D Post, *In Search of Jefferson's Moose : Notes on the State of Cyberspace.* (Oxford University Press 2009) 154-155; J Goldsmith, T Wu, *Who Controls the Internet? : Illusions of a Borderless World* (Oxford University Press 2006) 29.

58 This "invisible handshake" between the state and gatekeepers seems to be involved "in the information environment" in a way which appears to be "different in various aspects from ownership or regulation previously undertaken by the State" based on national security grounds. M Birnhack, N Elkin-Koren, 'The Invisible Handshake: The Reemergence of the State in the Digital Environment' (2003) 8 Va JL & Tech.

59 Note the following words by Theodore Roosevelt that although written many years before the Internet, they are very accurate in noting that "behind the ostensible governments sits enthroned an invisible government owning no allegiance and acknowledging no responsibility to the people."

60 International cooperation was the WSIS 2005's main conclusion, which further facilitated discussions over an online governance model away from the state-centric model.

61 This governance model, which is described by Milton Mueller as "stewardship", is currently under discussion. Following the recent denial from the National Telecommunications and Information Administration (NTIA) for ICANN to renew its contract to manage the root zone file, political pressure is exercised to establish an intergovernmental online governance model by handing control over the root to the UN's ITU. See M Mueller, 'Stewardship and the Management of Internet Protocol Addresses' <http://www.cyberdialogue.citizenlab.org/wp-content/uploads/2012/2012papers/CyberDialogue2012_Mueller.pdf> accessed 15/3/2012; M Mueller, 'Our Vaunted Multistakeholder Institutions Spring Into Action' <http://blog.internetgovernance.org/blog/_archives/2012/3/1/5008119.html> accessed 13/3/2012; R McDowell, 'The U.N. Threat to Internet Freedom' <http://online.wsj.com/article/SB10001424052970204792404577229074023195322.html?mod=WSJ_article_comments#articleTabs%3Darticle> accessed 15/3/2012.

62 Although it is outside the remit of this chapter to evaluate the effectiveness and impact of all the models suggested, these developments are mentioned in the context that the state has admittedly lost its monopoly of exercising power online.

rights. By acting as descriptive parameters for the context, within which free speech and other rights occur and collide, these legal assumptions help us contextualise speech properly and weigh it against other rights at stake. Nonetheless, this triptych does not seem to hold online. As was shown, all three of these legal assumptions have become irrelevant in cyberspace.

It would not be a hyperbole to say that the three axiomatic parameters of space, property and state coercion monopoly are shaken to the ground in the internet age. However it should be made clear from the start that it is not suggested that these parameters have altogether ceased to exist online; they have only become inapplicable as such. To avoid any further misperceptions, what is argued here is not that there is absolutely no notion of space, property and state coercion online. Nor is it suggested that – for example – online users interact in an a-spatial continuum[63]. The main argument put forth is rather that all these concepts have been challenged online and thus could only be useful as legal tools when reconfigured within the digital context. In other words, although they were traditionally considered as unchangeable legal axioms that could outline the given context in which judicial review was to assess free speech, they now appear almost mutated online; as such they seem to be of little help for contextualising free speech online.

5. Contextualising in the Digital Era: In Search of a New Deal for Free Speech

The main purpose of this chapter has been to highlight that maintaining our old legal views seems to have problematic implications for free speech online. Its basic argument revolves around the fact that the idiosyncrasy of the internet has challenged some of the most frequently evoked parameters in contextualising speech

63 This should not be perceived as generating the much discussed debate of whether or not the online users physically occupy a space. Although the relevant discussion is interesting, it takes the focus off the main argument of the chapter, which is not about the disparities between physical and digital space (if there are any at all) but deals mostly with the fact that frequently evoked notions of space, property and state power should be seen through the digital lens when dealing with free speech online.

and deciding on its tradeoffs to other competing rights. As was explained in the first part of this chapter, acknowledging the context is a crucial factor in properly protecting free speech. Next, the contextualising parameters of space, property and state coercion have been examined online. The findings illustrated that these three juridical tools have been contested in the digital era and no longer seem to hold online as they are not coherent with the digital context.

Yet, if this is indeed the case and our current legal approaches can no longer contribute towards offering adequate protection for free speech online, are there any suggested alternatives? Does this also imply the necessity to make new rights to offer sufficient constitutional protection to our fundamental rights such as free speech in the digital era[64]? Before resorting to drafting new rules for existing rights, it would be wiser to explore the option of whether the existing human rights protective framework could still efficiently shield free speech online. As the problem seems to be the disregard of the digital context, then the answer could perhaps be sought in understanding and embracing this new digital context for speech. In other words, the conventional legal approach to free speech should be digitised: our present views need to be reinforced in the light of its digital context.

5.1. Digitisation as Respect Towards the Context: A Theoretical Enquiry

As was noted in the first part of this chapter, placing the law in context is not a new idea. However, it has already been shown that internet-related policies seem to be ignoring the online context for free speech, the infrastructure within which they are trying to regulate. As a result, free speech receives inadequate protection online. A suggested remedy for properly protecting free speech online could perhaps lie in the digitisation of the free speech legislative framework online.

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64 For such an approach suggesting the creation of a Bill of Rights for Cyberspace, see F Musiani, 'The Internet Bill of Rights: A Way to Reconcile Natural Freedoms and Regulatory Needs?' (2009) 6 SCRIPTed: A Journal of Law, Technology and Society; D Casacuberta, M Senges, 'Do We Need New Rights in Cyberspace? Discussing The Case of How to Define On-Line Privacy in an Internet Bill of Rights' (2008) 4 Enrahonar 99.

Taking a closer look at digitising our present legal approach, one can easily see that this involves understanding the context and embracing its dominant features. Namely, this process of digitisation takes us a step further from acknowledging the context to actually showing respect for the context, predominantly for its architecture. Palfrey and Zittrain have recently suggested a similar idea to digitisation. In their paper published in Science, they observe that:

> "the best approach is neither to make ill-informed decisions based on too little data not to avoid state regulation simply because of the absence of recent data. Instead, we should begin a concerted push for highly reliable and publicly available forms of measurement of the Internet and the Web … including the flow of information we generate and consume."

To do so, they add, "we need to know more about the architecture of the network and how it is changing."[65]

However, why is it important to respect context and embrace the internet's architecture? As was noted earlier, ignoring the architecture can lead to paradoxes, since law is placed in a wrong context. Moreover, as Nissenbaum notes, digital context is dominated by certain informational norms, which in turn raise certain expectations[66] as to the regulation of the informational flow online. According to her, respecting these "context-relative informational norms" offers useful guidance as to deciding the right's trade-offs. For this purpose, she introduces the concept of "contextual integrity"[67]: a prescriptive model based on the importance of context for regulating the informational flow online[68]. Even though Nissenbaum is primarily

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65 J Palfrey, J Zittrain, 'Better Data for a Better Internet' (2011) 334 (2) Science 1210-1211.

66 "Context relative informational norms function descriptively when they express entrenched expectations governing the flows of personal information, but they are also a key vehicle for elaborating the prescriptive (or normative) component of the framework of contextual integrity." H Nissenbaum, *Privacy in Context: Technology, Policy and the Integrity of Social Life* (Stanford University Press 2009) 129.

67 "contextual integrity is defined in terms of informational norms; it is preserved when informational norms are respected and violated when informational norms are breached." H Nissenbaum (n 65) 140.

68 Similar views have also been expressed in KH Ladeur, 'Toward a Network Oriented Law of the Internet! The Necessity to Find a New Balance between Risk and Opportunity in Network Communication' (2009) 10 German Law Journal 1201.In the same vein, Vaios Karavas introduces the concept of digital integrity: he refers to "technodigital normativity", namely a mixture of digital expectations and norms, which needs to be protected by constitutional rights online. See V Karavas, 'The Force of Code: Law's Transformation Under Information Technological Conditions' (2009) 10 German Law Journal 463-481. See also C Graber, 'Internet Creativity, Communicative Freedom and a Constitutional Rights Theory Response to 'Code is Law'' (2010) 3 i-call Working Paper.

concerned with privacy and discusses context from a different point of view to free speech, her general views as to determining a right's trade-offs "in the light of contextual ends and purposes"[69] agree with the concept of digitisation as a whole.

At this point, it should be noted that neither the idea of law reviewed in context nor that of law embracing its context are new: The concept of law being informed by its environment and subsequently responding to the stimuli generated in a certain context draws from the relevant theory of Philip Selznick on responsive law. Selznick uses the principle of "fidelity to context"[70] as a stepping stone for this theory. It is the context that will eventually determine the acceptable limits of law and "the tradeoffs that must be negotiated"[71]. Even though some rights such as free speech and property have gained a certain level of absolutism that would not easily allow for this flexible contextualisation, Selznick suggests their contextual approach in realising their underlying principles in the context given[72]. This is the logic behind Selznick's "responsive law"[73], a law that seeks to "vindicate legal ideals while taking account of opportunities and accepting restraints"[74]. This realisation of values underpinning a certain right within a specific context seems to be the decisive parameter for implementing efficient laws[75]. The idea of law responding to its context in order to realise its values could work well with the idea of digitisation, namely law responding to its context in terms of architecture. Taking into account the specific architectural traits of its digital context, the legislative framework for protecting free speech could become more successful in achieving the right's values online.

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69 Nissenbaum bases her concept of "contextual integrity" on Walzer's pluralist theory of justice, namely that societies consists of numerous social spheres each pursuing a different social end. Nissenbaum (n 66) 190.

70 Selznick (n 5)181.

71 Selznick (n 5)181.

72 Selznick (n 5) 184.

73 For a more detailed account on responsive law, see P Nonet and P Selznick, *Law and Society in Transition: Toward Responsive Law* (Octagon Books 1978).

74 Selznick (n 5)186 at n 4.

75 As Robert Eli Rosen notes, "For Selznick, what tests actions is the realization of values, not legitimacy." RE Rosen, 'Endogeneity and Its Discontents: Teubner and Selznick on Legal Pluralism' (2008) 9 Theoretical Inquiries in Law Forum 54.

5.2. The Importance of Net Architecture and the Need for Digitisation: How Lack of Respect for Online Architecture Can Lead to Paradoxes

Understanding context as a new tool for online free speech adjudication could help significantly where the conventional legal approaches seem to fail. Digitisation of the current legal approach to free speech is thus suggested as an effective online alternative to the current outdated practices. The point of departure for this is to gain a clear perception of the net architecture: it is this respect towards the net architecture that lies at the heart of digitisation. Ignoring this aspect, as will be illustrated soon, could lead to paradoxes and would thus doom relevant internet related legislations to failure. Moreover, it is precisely because of the net's unique architecture that all the above mentioned parameters are challenged online. Taking a closer look at its architectural elements explains to a certain extent why frequently evoked juridical tools such as space and property are not applicable to legal reasoning with regard to online speech.

The internet itself is essentially nothing but a suggested architecture for communications networks. As its inventors, V Cerf and R Kahn note:

> "in essence, the Internet is architecture, although many people confuse that with its implementation. When the Internet is looked at as architecture, it manifests two different abstractions. One abstraction deals with communications connectivity, packet delivery and a variety of End-to-End communication services. The other abstraction deals with the Internet as an information system, independent of its underlying communications infrastructure, which allows creation, storage and access to a wide range of information resources, including digital objects and related services at various levels of abstraction built on architectural principles and follows a layered design."[76]

Lacking adequate space in this chapter for a detailed technical overview of net architecture, I will restrict myself to simply highlighting its two main traits; this will enable further explanation of why our conventional legal approach seems outdated online. Indeed the internet infrastructure has been built on two basic architectural

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[76] V Cerf, R Kahn, 'What Is the Internet (And What Makes It Work)' in M Cooper (ed), *Open Architecture as Communications Policy: Preserving Internet Freedom in the Broadband Era* (Center for Internet and Society, Stanford Law School 2004).

assumptions: the interconnected nodes on an End-to-End basis and the layered design operating on the principle of modularity, as described in detail in Chapter 3.

Protecting free speech in the digital era would therefore entail showing respect towards its architecture when resolving issues of free speech online. The respect to online architecture is also a point that has been discussed before[77], mainly referring to the internet's key architectural features, the End-to-End principle and layered structure. Regarding the latter, it has been argued that internet-related policies violating the net's layered structure ultimately damage transparency and innovation[78].

As to the End-to-End principle, Lessig and Lemley argue that this architectural trait has enabled innovative competition online, and as such should be protected by internet-related policies[79]. In a similar vein, "the End-to-End concept animating the versatile and volatile Internet should inform First Amendment doctrine"[80]. This chapter takes on a similar yet slightly different approach; it regards digitisation as a way to strike up a new deal for free speech online. Adequate protection for online speech seems to rely on informing the existing constitutional framework for free speech and its tradeoffs by studying the net's unique architecture.

In addition, the user is granted a more active role in determining his spatial limitations. Although it is hard to limit the information within the genuine intentions of its initial two communicative parts, both the speaker and the listener can self-outline their communicative spheres beyond the sense of a given jurisdiction. As a listener, the end node can choose to self-filter the information coming from certain

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77 For an account of papers touching on the general link between free speech and the internet architecture, see R Ku, 'Open Internet Access and Freedom of Speech: A First Amendment Catch-22' (2000) 75 Tul L Rev 87; L Lessig, 'What Things Regulate Speech: CDA 2.0 vs. Filtering' (1998) 38 Jurimetrics J 629.

78 "The fact that layer violating regulations damage transparency combined with the fact that Internet transparency lowers the cost of innovation provides compelling support for the principle of layer separation: public Internet regulators should not violate or compromise the separation between layers designed into the basic architecture of the Internet." L Solum, M Chung, 'The Layers Principle: Internet Architecture and the Law' (2003) Public Law Research Paper No. 55 U San Diego 52.

79 "This principle of the initial internet should guide the government in evaluating changes to the internet's architecture, or acquisitions that threaten to change this effective architecture." M Lemley, L Lessig, 'The End of End-to-End: Preserving the Architecture of the Internet in the Broadband Era' (2000) 48 UCLA L Rev 925, 971.

80 J Chen, 'Conduit Based Regulation of Speech' (2005) 54 Duke L J 1454.

speakers. As a speaker, one can choose to join her preferable communicatory channel for imparting information online without having to follow a certain predetermined jurisdiction[81]. It therefore becomes clear that space and property as legal tools for determining certain tradeoffs for speech are no longer helpful.

Furthermore, the internet's layered structure explains the difficulty the state faces in centrally controlling and enforcing its laws. The state coercion monopoly is contestable in this decentralised architectural design comprised of several autonomous layers that interact with each other vertically. Each layer maintains its autonomy and functions strictly on instructions intended for that layer specifically, without having overall knowledge of the operations in the other layers or of the content itself. As a result, information is routed around freely beyond any limitations of a spatial, proprietary or controlling nature. Contrary to the closed centralised model that is dominant in the architecture of the mass media today[82], the internet's open distributed architecture promotes free flow of information, empowers the user and constitutes a democratic open interactive platform. In the absence of a "centralized distribution point", independent information sources are given numerous online outlets while the chances of potentially stifling those independent voices are significantly minimised online[83].

Free flow of information seems to be the main fuel on which the internet runs. As a result, the net architecture is inherently inimical to any sense of spatiality, property or central state control. This observation however, should not be misinterpreted as advocating a hands-off approach; it rather serves the purpose of stressing that maintaining juridical tools, which have little to do with the net architecture, could actually lead to imbalances with significant implications for online free speech. This failure to embrace the net architecture would lead to major problems in free speech

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81 Yet, as Tim Wu notes, this freedom of choice can be seemingly wide as corporations nowadays act as informational monopolies, dominating the markets online. For more see T Wu, *The Master Switch: The Rise and Fall of Information Empires* (Random House Digital Inc. 2011).

82 For a comparison of the decentralised open access model of the internet to the closed one-way centralised models of broadcasting/cable systems, see J Berman, D Weitzner, 'The Democratic Heart of the First Amendment In the Age of The Interactive Media' (1995) 104 The Yale Law Journal 1622-1629.

83 J Berman, D Weitzner, 'Abundance and User Control: Renewing the Democratic Heart of the First Amendment in the Age of Interactive Media' (1995) 104 Yale LJ 1619, 1624.

protection: contextualising as a process for determining the right's trade-offs would be flawed should the online context be fully ignored.

If indeed the hypothesis that disrespect for the net architecture places rights in the wrong context, then using the old parameters will lead to a faulty contextualisation of free speech which in turn will result in a false trade-off, detrimental to the right to free speech. To illustrate this point, two sets of rights frequently clashing with the right to free speech online will be examined: privacy and intellectual property. As will be shown next, insisting on ignoring the internet as a special context for free speech ultimately results in an over-restriction of free speech online without necessarily offering sufficient protection to its competing right.

5.2.1. The Net architecture and the clash between free speech and privacy

Examining the controversy between the right to free speech and privacy online, it is generally observed that the balance struck promotes the latter, almost at the expense of free speech. While maintaining a proprietary view of the right to control one's private data and ultimately to "be left alone"[84], the right to privacy online seems to be gaining ground against free speech. This tendency is reflected rather clearly in the latest legislative initiatives regarding online privacy. The current EU proposal to introduce a "right to be forgotten"[85] into an EU General Data Protection Regulation provides us with a very good example. Even though it would be admittedly unfeasible to implement such a regulation online, speech seems to be overly restrained. Again, the Commission considers matters in terms of the outdated parameters described above; in specifying that this right cannot be claimed against "pure hosting services" with "no ownership and no responsibility" for content posted

84 S Warren, L Brandeis, 'The Right to Privacy' (1890) Harv L R 193-220.

85 For an overview and supportive argumentation for acknowledging such a right, see V Mayer-Schönberger, *Delete: The Virtue of Forgetting in The Digital Age* (Princeton University Press 2009). For an alternative view regarding this right as a substantial element to a broader right to online identity, see P Bernal, 'A Right to Delete?' (2011) 2 EJLT.

online[86], it relies on the notion of 'property' online. Yet, in the era of cloud computing, it will be extremely difficult to claim and maintain ownership of data, let alone stop its dissemination[87]. After all, this is a constitutionally guaranteed right, being outside the remit and goals of private corporations. In the same vein as the EU's proposal for the right to be forgotten, the Obama administration announced in February 2012 its plans for a "Consumer Privacy Bill of Rights, which will introduce a "Do Not Track" button to all browsers. Although it would be interesting to see how corporations whose revenue comes from personalising ads tailored to their users' online habits[88] would respond to this, such legislations seem to be missing the point: a consumer is not concerned about his freedom of speech; a citizen on the other hand is guaranteed this right.

Thus, by failing to properly contextualise the rights at hand, such legislative initiatives appear to carry new threats for free speech and question its protection online. Let us not forget that it was Yahoo! that passed to the Chinese government the email addresses of dissidents criticising them, it was Vodafone that cut their services in Egypt on the orders of Mubarak during the uprising and it was the US Blue Coat Systems that aided the Burmese junta with its censoring and monitoring infrastructure[89]. Honest intentions are not enough to erode such a sinful past; entrusting ICTs with managing data-flow in terms of proprietorship seems to be a questionable policy with regard to online free speech. Especially in terms of the freedom of the press to inform the public and archive its material for future use, the restrictions of proposed legislations like the "right to be forgotten" are particularly problematic. Consider for instance the Trafigura case, where the Guardian and the

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86 <http://www.zdnet.co.uk/news/security/2012/02/22/eu-puts-google-straight-on-right-to-be-forgotten-40095097/?s_cid=938> accessed 10 March 2012.

87 Ed Vaizey mentions the example of EU data stored in cloud computing and wonders how this could play out with the "right to be forgotten." <http://www.theregister.co.uk/2011/11/15/right_to_be_forgotten_might_not_be_enforcable/> accessed 12 December 2012. In any case, one thing is certain: implementing such a right would entail a significant cost for corporations, while the perspective of vesting in them powers to "exercise control ... acting as data controllers", as the Commission suggests.

88 Charles Arthur, in the Guardian, reports that "97% of Google's revenue comes from serving ads" , C Arthur, 'The End of Online Privacy' <http://www.guardian.co.uk/technology/2012/feb/28/the-end-of-online-privacy> accessed 10/3/2012.

89 For more examples and an accurate account of ICTs cooperating with repressive regimes, see T Halvorssen, 'Tyrants and Technology: How Western Mercantilism Leads to Censorship and Disappearances ' <http://www.forbes.com/sites/thorhalvorssen/2011/12/29/tyrants-and-technology/> accessed 10/3/2013.

BBC reported in May 2009 that the oil trading company Trafigura had released toxic oil in the Ivory Coast. In the end, Trafigura was convicted and fined for illegally exporting toxic waste to Africa. The details of this story can be found archived online[90], even though it is quite certain that Trafigura would be very eager to "be forgotten." It therefore becomes evident that the balance drawn here is rather unfavourable to free speech[91]. By ignoring the fact that the public and private dichotomy is no longer so easy to discern online, the law appears to be stubbornly insisting on applying disputable concepts online such as spatiality and property. As a result, the relevant balancing act has troubling implications for the right to free speech online.

5.2.2. The Net architecture and the clash between free speech and intellectual property

Unfortunately, the same is to be noted for another online competing right to free speech: intellectual property. Most of the latest legislative initiatives in this field have been criticised severely for imposing tremendous restrictions on free speech in order to protect copyright infringement online. Take for example the controversial "gradual response" regulative model that is adopted in a series of legislative texts implemented worldwide[92]. Only this June, Frank La Rue, the UN's Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression, noted his concerns regarding such legislations implemented in France

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90 WikiLeaks, 'Toxic Shame: Thousands injured in African City' (The Independent 7 September 2009), <http://wikileaks.org/wiki/The_Independent:_Toxic_Shame:_Thousands_injured_in_African_city,_17_Sep_2009> accessed 10/3/2012.

91 People involved in the industry appear to have a better understanding of these issues. See, for example, Google's privacy counsel's account on how 'a right to be forgotten' could potentially amount to online censorship, available online <http://peterfleischer.blogspot.com/2011/03/foggy-thinking-about-right-to-oblivion.html> accessed 10 December 2011.

92 The intellectual property legislative model that relies on the ability to block access online to any user who is repeatedly found to be exchanging copyright-infringing material online, has now been incorporated into a series of internet related Acts, such as the Digital Economy Act (2010) in the UK, the HADOPI Law in France (French National Assembly and Senate, LOI n° 2009-669 du 12 juin 2009 favorisant la diffusion et la protection de la création sur internet; French National Assembly and Senate, Loi n° 2009-1311 du 28 octobre 2009 relative à la protection pénale de la propriété littéraire et artistique sur internet) and the Anti-Counterfeiting Trade Agreement (ACTA) to name but a few.

and the UK. In his report to the Human Rights Council, he considered the French "Three-strikes-Act" and the UK Digital Economy Act as legislations that have alarming implications for intermediaries' liability and the freedom of speech in general. He noted further that this kind of arbitrary blocking of content to protect intellectual property online eventually "leads to self-protective and over-broad private censorship, often without transparency and the due process of the law."[93] Equally problematic and obscure are also other similar measures taken to protect intellectual property online. Take for example the DMCA Notice and Takedown regime, namely the removal of illegal content directly from the ISPs hosting it upon notification from users. To highlight the dangers that such regimes pose for free speech, the 2004 study by Christian Ahlert, Chris Marsden and Chester Yung[94] ran the following experiment: after having uploaded in a US and a UK ISP hosted website the second Chapter from Stuart Mill's "on Liberty", which symbolically referred to censorship, they then complained to the hosting ISPs about copyright breach; even though the works of Mill were published in 1869 and are now in the public domain, the UK ISP immediately complied with the takedown request and removed the content[95]. Despite such alarming findings, internet related legislation continues to maintain its parochial views on property and spatiality. The latest example comes from the US: In 2011 the Stop Online Piracy Act (SOPA) was introduced in the US Senate. Under this Act, it was made possible to obtain a court order for US ISPs to deny access for all their subscribers to absolutely any national or foreign website that was found to harbour copyrighted material. Although PIPA and SOPA were not enacted due to intense lobbying, the implications for freedom of speech had these Acts become law would have been tremendous.

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93 <www2.ohchr.org/english/bodies/hrcouncil/docs/17session/A.HRC.17.27_en.pdf> accessed 10 December 2012.

94 C Ahlert, C Marsden , C Yung, 'How 'Liberty' Disappeared from Cyberspace:The Mystery Shopper Tests Internet Content Self-Regulation' <http://pcmlp.socleg.ox.ac.uk/sites/pcmlp.socleg.ox.ac.uk/files/liberty.pdf> accessed 12/12/2012 .

95 See also the suggested amendment to the Digital Millennium Copyright Act by Public Knowledge penalising for bogus takedowns, i.e. requests where online content is knowingly or recklessly misrepresented as copyright-infringing material. The suggested draft entitled "A Bill to Modernize and Enhance Intellectual Property Laws, and for Other Purposes" calls on the Government to "modernize and enhance intellectual property laws", which appears to be complementing ideally the digitisation of our conventional approach suggested in this chapter. See <http://internetblueprint.org/sites/default/files/Strengthening%20and%20Improving%20DMCA%20Safe%20Harbors%20Act.pdf) accessed 10 March 2012> accessed 12 December 2012

The examples noted above are indicative of the fact that relying on the traditional legal parameters when balancing online speech leads eventually to over-restriction of this right. At the same time, this does not also mean that in doing so the lawmaker secures a certain level of protection for its countervailing rights. On the contrary, persisting with balancing rights online using outdated parameters could also lead to the paradox of the under-protection of the competing right at stake while over-restricting free speech.

Returning back to restricting free speech online for the sake of privacy, it seems that it can at times have the opposite result. What is described here is most commonly referred to as the "Streisand Effect"[96]. Named after the famous American entertainer, it refers to situations where protecting privacy over free speech can lead to augmentation of the public's interest in divulging such information online. In this particular case[97], the attempt by Barbra Streisand to take down photos of her residence from a website in 2003 inadvertently gave rise to public knowledge of these photos; this was translated into more than 420,000 users visiting this website in one month. Thus, in trying to restrict speech online while ignoring its digital context, not only do we over-restrict speech but we are also faced with the paradox of the under-protection of the other right at stake; in this case privacy.

This paradox of under-protection combined with over-restriction of speech can also be traced in the other set of competing interests examined above: free speech and intellectual property online. In this case, the under-protection lies in the fact that over-restricting speech has a deep impact on the underlying value protected by intellectual property: innovation. It has been argued time and again[98] that in

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96 Term coined by Mike Masnick in his article in Techdirt entitled 'Since When Is It Illegal to Just Mention a Trademark Online?' <http://www.techdirt.com/articles/20050105/0132239.shtml> accessed 10 November 2012.

97 One could further draw some similarities with the British "super-injunction" case of 2011. This injunction was obtained by a famous British footballer, and stated that the media should not disclose his name on their reporting his involvement in an extramarital affair. However it led to the opposite result; his name was leaked on Twitter and online visits to this platform reached a record number. For a relevant graph, see Dan Sabbagh's article 'Twitter and the Mystery Footballer' in Guardian, available online <http://www.guardian.co.uk/technology/organgrinder/2011/may/20-teitter-superinjunctions> accessed 11 December 2012.

98 See L Lessig, *The Future of Ideas : The Fate of the Commons in a Connected World* (Random House 2002) ; Y Benkler, *The Wealth of Networks: How Social Production Transforms Markets and Freedom* (Yale Univ Pr 2006).

protecting "the presence of strong exclusive rights in information and culture"[99] the law does not nurture innovation. Moreover, the employment of technological means to enforce intellectual property, such as the DRM[100], eventually leads to monopolies in online publishing[101], which in turn stifles innovation and creativity. Draconian intellectual property legislation seems to be promoting an unfair trade-off for free speech with undesirable consequences. Namely, in over-restricting free speech for the sake of maintaining old views, it is shown once again that we are in fact led to the paradox of offering insufficient protection to its competing right, intellectual property this time.

Understanding the architecture means realising the change and the reason our conventional approach is no longer valid. Digitisation, the process of embracing the architecture and incorporating this into internet-related legislation, could be proven to be an effective attitude towards protecting free speech online. The remainder of this chapter will explore the potential for digitisation, whether this could actually work in practice and to what extent that could promote free speech online.

6. Digitisation in Action: Towards a New Deal for Free Speech

Digitising our current views is a task that presupposes understanding of the main infrastructure of the internet. Of course, it is not easy to escape metaphors and change the conventional legal approaches when dealing with free speech online. The wide use of words such as "cyberspace" or "website" with obvious references to spatiality tended indeed to be rather misleading in our first legal encounters with this new technology. The prefix *cyber-*, coming from the Greek word '*κυβερνώ'*

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99 Y Benkler (n 102) 57.

100 Digital Rights Management.

101 See for example the FIPR's Consultation Response on DRM, which mentions Hal Varian's concerns that a strong DRM system can lead to monopolies in the platform industry and be more beneficial for the online corporations building platforms to access content, rather than the publishing industry selling it. See <http://www.fipr.org/APIG_DRM_submission.pdf> accessed 11-12-11. In the same vein, Weiser suggests an intellectual property model which ranges between commons and proprietary policies, depending on the levels of concentration of power in the informational industry. P Weiser, 'The Internet, Innovation and Intellectual Property Policy' (2003) 103 Colum L Rev 534-613.

meaning “to rule”, implied a spatial-centric system, where space and property could be its main components. However, in spite of the attractive metaphors, the internet has never really been a separate jurisdiction, a distinct public sphere or even a technology premised on spatial and proprietary grounds; it has always been a network of inter-connected machines exchanging bits and bytes.

Nowadays, the Internet’s initial networking architecture is gradually embracing a designing principle of an info-centric system[102], its priorities being to increase trust and accountability online[103]. This info-centrism lies at the heart of the net architecture. The limited scope of this chapter would not allow for a more detailed technical analysis of how the internet is structured. However the point of departure in terms of digitising the current legal approach as to online free speech should be the following: The first step towards understanding the net architecture is to realise that it feeds on abundant information being routed around its nodes. Through this lens, the task to perform trade-offs between free speech and competing rights, such as intellectual property and privacy, seems somewhat easier. Supposing that the abundance of information in an open-ended interconnected system is the main mechanism supporting the internet, it could be argued that privacy and free speech are actually complementing and not competing rights. If the main priority is the abundance of information, then this could be achieved by securing privacy and free speech. Keeping all data private by encryption methods would also mean eliminating chilling free speech cases in fear of identifying the speaker. This service has already been put in place by the Tor project: an open network protecting online free speech by bouncing online communications around a distributed network of relays run by volunteers all around the world[104]. This way data can then be routed around freely so that its message is widely disseminated[105]. Should our current legal approaches become digitised, it then becomes easier to decide on a trade-off, as

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102 D Trossen, M Särelä, K Sollins, ‘Arguments for an Information-Centric Internetworking Architecture’ (2010) 40 ACM SIGCOMM Computer Communication Review .

103 D Trossen et al ibid 28.

104 See <www.torproject.org> accessed 12 December 2012.

105 The concern expressed by some that this could be potentially problematic to privacy in terms of unauthorised dissemination of confidential information can also be addressed by resorting to digitisation of the current legal approach. In this vein, architecture informing relevant legislation actually resolves the issue and helps with balancing without the need to promote one right over the other. Namely, encryption can promote free speech against the chilling effects of surveillance and at the same time it can ensure a certain level of privacy for the user and their data online.

under this view, free speech gains additional importance as a structural element of the net architecture. Therefore, a threat to the architecture would also mean that both free speech and privacy would be threatened.

Examining the other set of competing rights through the lens of digitisation, i.e. free speech and intellectual property, again negotiating a fair trade off seems to be gaining more chances of success. Supposing that the net architecture is premised on the economics of abundance whereas intellectual property relies on the economics of scarcity, protecting free speech over intellectual property online seems to gain added attention due to its importance for the digital infrastructure[106].

To bring this chapter to a close, it is suggested that a better understanding of this new environment - in which human rights function, clash and interplay - can contribute towards striking a new deal for free speech online. This involves trading our old legal approaches for new ones; spatiality for multidimensional reality, property for quasi-commons and state coercion monopoly for multi-stakeholder division of powers. Although we could still utilise the existing free speech protective framework, we need to learn from the net's structure. Understanding thereof will help us contextualise online speech properly and eventually come up with a new deal for the right's protection in the digital era.

In the words of Professor Joel Reidenberg, regulative problems in cyberspace – like those described earlier – "will absolutely continue to come up, until one of two things happens: Either the technology companies begin to build architectures that enable compliance with existing law, or the law begins to change"[107].

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106 Neil Weinstock Netanel offers a relatively similar approach to the one suggested in this chapter. In applying online Jerome Barron's contextual approach of the First Amendment, Netanel discusses the clash between free speech and intellectual property online and concludes in harnessing copyright law to further First Amendment values online. N Weinstock Netanel, 'New Media in Old Bottles? Barron's Contextual First Amendment and Copyrights in the Digital Age' (2008) 76 The George Washington Law Rev 952-985.

107 Professor Joel Reidenberg in the Voice of America on 1-2-2011, <http://www.vianews.com/english/news/In-Madrid-Court-Google-Challenges-Europes-Privacy-Laws-110512364.html> accessed 11 December 2012.

7. Concluding Remarks: Is There Light at the End of the Tunnel?

Recent policies adopted by ICTs and legislations proposed at both national and international levels appear to be distanced from the online context within which they operate; it seems that we are still miles away from the idea of digitising our current approaches. Unfortunately, the current legislative attempts and policies appear to be deconstructing the structural elements[108] of the internet instead of trying to preserve them and regulate along these lines. In other words, the recent internet-related policies not only ignore the internet infrastructure within which they are regulating, but they also threaten its very architecture; As a result, the dangers posed for free speech are multiplied. Take for example the legislative framework introduced by the much-opposed SOPA bill, which has also been accused of affecting the net architecture by causing harm to the DNSSEC deployment tools[109]. At the SOPA hearing for the House Judiciary Committee, CCIA Chairman Ed Black noted that the bill "will fail to actually stop trafficking to infringing sites and will Balkanize internet traffic, sending the real pirates to foreign DNS servers that can't easily be monitored"[110]. In a similar manner, the ICTs integrating policies in a quest to gain control over the informational flow are seeking to change the internet's current ecosystem. A notable example of this kind is the Kindle Fire, Amazon's latest venture. Amazon has total control over its hardware, operating system and the user's

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108 It is important to note that the concept of digitisation introduced in this chapter highlights the need to respect and embrace the main structural elements of the net architecture. It is thus suggested that the core architectural principles, upon which the internet is designed, should inform the reading of internet-related legislation. That said, the potential to embed certain values in this architecture by means of altering some of its features is a different matter altogether, which however is not further addressed here. For more on this, see G Stone, 'Privacy, the First Amendment, and the Internet " in M Nussbaum and S Levmore (eds), *The Offensive Internet: Speech, Privacy and Reputation* (Harvard University Press 2011) 177-194.

109 The Domain Name System Security Extension (DNSSEC) is designed to protect the user from DNS attacks. By adding data integrity protection and data origin authentication, it helps the user trace DNS attacks. For more information and technical details on DNSSEC, see RFC 2535 (1999) and M Gieben, 'DNSSEC: The Protocol, Deployment and a Bit of Development' (2004) 7 The Internet Protocol Journal , available online <http://www.cisco.com/web/about/ac123/ac147/archived_issues/ipj_7-2/dnssec.html> accessed 10 February 2012.

110 N Anderson, 'At Web Censorship Hearing, Congress Guns for Pro Pirate Google' <http://arstechnica.com/tech-policy/news/2011/11/at-web-censorship-hearing-congress-guns-for-pro-pirate-google.ars> accessed 10 March 2012.

internet connection; the transformation from the fragmented structure of the internet with control at the fringes into a "feudal"[111] system of centralised control at the centre is undeniable. Subsequently, informational flow can be adjusted to the preferences of the corporation controlling the platform[112].

Although the most recent legislative attempts regarding online privacy and intellectual property seem to continue disregarding the internet's ubiquitous and collaborative nature[113], there are also notable exceptions. The very recent ECJ ruling in *Scarlet v SABAM* is an encouraging development in the attempt to strike a new deal for online free speech. In this case, the ECJ ruled that a court order to a Belgian ISP to monitor all electronic customers to prevent illegal file-sharing had gone overboard and impeded – among others –their right to freedom of expression. Noting that this could potentially result in over-blocking and lead to an unfair balance, the ECJ made an interesting remark on the transnational implications of enforcing this court order: "It is not contested that the reply to the question whether a transmission is lawful also depends on the application of statutory exceptions to the copyright which vary from one member state to another. Moreover, in some member states certain works fall within the public domain or can be posted online free of charge by the authors concerned"[114]. The ability to digitise the concepts of spatiality, proprietary status and state power by realising the structure of the digital environment is apparent in this ruling. Hopefully, it will provide the basis for more similar rulings to come in the future.

Digitising the present legal approaches to free speech on the internet, namely showing awareness and respect for the digital context of free speech, seems to be

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111 S Baker, 'Will Jeff Bezos Bring Feudal Security to the Net?' <http://volokh.com/2011/10/01/will-jeff-bezos-bring-feudal-security-to-the-net/> accessed 10 March 2012.

112 This shift in the architecture from end-to-end communication to a central platform controlled by gatekeepers is also evident in other cases, termed as "the algorithmic gatekeeping." For an overview, see M Ingram, 'The Rise of the New information Gatekeepers' <http://gigaom.com/201111/12/01/the-rise-of-the-new-information-gatekeepers/> accessed 10/3/2012.

113 Another recent example is the rather unfortunate case of the UK taking down a music blog with an American domain name (rnbxclusive.com) via SOCA, the Serious Organized Crime Agency for copyright infringement. <http://www.techdirt.com/articles/20120214/11083717758/uk-now-seizing-american-websites-over-copyright-claims.shtml> accessed 14 March 2012.

114 *Scarlet Extended SA v. SABAM* [2011] EUECJ C-70/10 at 52.

offering a fair trade-off for the right under review. Even though the current internet-related legislative framework appears to be ignoring the crucial parameter of context and net architecture, many technologists are trying to fix this negligence by offering technical methods to restore respect to the architecture. Take for example the Freedom Box, a community project led by the Columbia Law Professor Eben Moglen. Freedom Box seeks to create "a personal server running a free software operating system, with free applications designed to create and preserve personal privacy"[115]. In other words, this is a system designed beyond the parameters of property, space and central control. As Moglen notes, this project will make "freedom of thought and information a permanent, ineradicable feature of the net that holds our souls."[116] In response to Moglen's call for a decentralised open operating system[117], a group of NYU students launched an alternative social network called Diaspora*. Their vision according to their blog is to build "A new social web model where users are not the product, but willful participants who are creating new modes of communication"[118]. Another such example is Retroshape, a decentralised encrypted network that allows for anonymous, private file sharing among its users[119]. The list of such initiatives undertaken by technologists is endless[120]. It is true that technical means can be employed to maintain the archetype of the structure upon which the internet was born and flourished: a fragmented, multi-layered and interconnected network beyond the notions of property, control and space. However, this by itself is not enough. As this chapter argues, legislation should follow the same path and protect free speech online, acknowledging the importance and idiosyncrasies of its digital context.

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115 <http://p2pfoundation.net/Freedom_Box> accessed 10 March 2012.

116 <http://www.freedomboxfoundation.org/> accessed 10 March 2012.

117 According to their first online post in their Kickstarter campaign in 2010 explaining what their project Diaspora* is about, the founders of this project admit having been influenced by Eben Moglen's speech "Freedom in the Cloud" on May 2010 in an ISOC-NY event. M Salzberg et al, 'Decentralize the Web with Diaspora — Kickstarter' <Kickstarter, http://www.kickstarter.com/projects/196017994/diaspora-the-personally-controlled-do-it-all-distr> accessed 1/1/2012.

118 <http://blog.diasporafoundation.org/2011/12/07/diaspora-is-back-in-action.html> accessed 10 March 2012.

119 <http://it.slashdot.org/story/12/03/04/0510229/> accessed 10 March 2012.

120 For a brief informative account of such initiatives, see N Pinto, 'Rise of the Facebook-Killers ' <http://www.villagevoice.com/2012-02-15/news/the-facebook-killers/> accessed 12/3/2012.

On February 29th 2012, an international panel consisting of international human rights officials and other stakeholders held a meeting at the United Nations headquarters in Geneva. This was the outcome of the UN Human Rights Council's Decision 18/27, adopted in September 2011, a decision seeking "to convene, within existing resources, at its nineteenth session, a panel discussion on the promotion and protection of freedom of expression on the Internet, with a particular focus on the ways and means to improve its protection in accordance with international human rights law."[121] In this meeting, discussions were facilitated regarding the need to provide sufficient protection for free speech online and ideas were sought on how to achieve this goal. Markus Kummer, ISOC Vice-President for Public Policy, pointed to the direction of digitisation and highlighted this vital link between the internet's infrastructure and free speech in noting:

> "The core values of the internet pioneers are deeply rooted in the belief that the human condition can be enhanced through the reduction of communication and information barriers (…) These unique enabling qualities of the internet should be preserved."[122]

In other words, a modernised approach of free speech along with maintaining the unique net architecture seems to be the optimal solution for safeguarding the right to free speech online. The digital era calls for adaptation of our old views resulting in the reiteration of the legal equilibrium regarding free speech; the failure to understand and respect the online context for free speech makes this equilibrium seem as fragile as ever.

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[121] 19th Session of the Human Rights Council, Panel Discussion on the Right to Freedom of Expression on the Internet, <www.ohchr.org/Documents/HRBodies/HRCouncil/RegularSession/Session19/FOEAndInternetHRCConceptNote.doc> accessed 10 March 2012.

[122] W New, 'UN Human Rights Council Rallies on Right to Internet Freedom of Expression', <http://www.ip-watch.org/2012/02/29/un-human-rights-council-rallies-on-right-to-internet-freedom-of-expression/> accessed 10 March 2012.

Chapter 5: Towards Redrafting a New Deal for Free Speech Online ~ A Digitised Policy Model Based on Baker's Theory on Liberty

Part of this chapter feature on the following published paper:

- A. P. Karanasiou, 'The Changing Face of Protests in the Digital Age: On Occupying Cyberspace and Distributed-Denial-of-Services(DDoS) Attacks' (2014) International Review of Law, Computers & Technology (IRLCT)

"We can only see a short distance ahead, but we can see plenty there that needs to be done."

A. M. Turing, mathematician/ computer scientist[1]

1. Introduction: Redrafting a new deal for free speech online

Chief Judge Kozinski's early proclamation of the First Amendment's death in the digital era has been the departure point for this thesis. In contesting the online application of some of the most seminal cases in the First Amendment jurisprudence[2], he expressed his concern over the fact that free speech could not be adequately restricted nor protected online: the moderating effect of the First Amendment now seems to be obsolete in the online terrain as is also the presumption that the state is the sole authority able to supress speech. A wide range of various private entities acting as intermediaries have now replaced the state's monopoly in enforcing its policies and upholding the right to free speech online. At the same time, the traditional protective framework offered for the right to free speech has always been narrowly focused on the state's controlling powers. Could it

1 A Turing, 'Computing Machinery and Intelligence' (1950) 49 Mind 433.

2 See Chapter 1, section 1.

be that the internet has signalled the inadequacy of the First Amendment to afford free speech protection online? How could it be ensured that all values behind the right to speak freely survive in the digital era?

The right to free speech is clearly at a turning point online, its regulation and protection in need of a robust regulative framework. This observation has been the cornerstone of this thesis, which strives to propose a new policy model pertaining to online free speech. In doing so, a legal analysis followed by a technical description has led us to the concept of digitisation, which is further explained in this chapter. The structure followed so far highlights the techno-legal approach suggested in the thesis: First, a legal evaluation of the dominant free speech rationales as they translate in cyberspace has sought to explain the new parameters of the right to free expression in the online world. The Millian theory of free discourse seemed to be somewhat compatible with the internet's ubiquity, albeit not able to provide free speech protection against non-private actors. The argument from democracy on the other hand, although recognising the democratising effect of the internet, fails to realise the need of the individual to express oneself not only publicly but also in private. Lastly, the autonomy rationale, and especially Baker's account, seems to be more fitting for the open platform of expression offered in cyberspace. Although there have been some clear analogies between the free speech rationales and the regulatory models put forth in terms of internet governance, it still remained to be seen what would be the most effective policy to protect freedom of speech online. On one hand, the free speech rationales did not seem to be fully applicable online, whereas on the other hand the internet governance models were not concerned with free speech values *per se*. This begs the question further to Justice Kozinski's concerns: if these are indeed the times of the late First Amendment online, how could one make sure that free speech and its underpinning values as a human right would also be respected online?

Having considered what the values justifying free speech protection are in general, this thesis then turned to the internet architecture looking for answers. How has the architecture influenced the right to speak freely online? Most importantly, what are the values embedded in the net architecture and how do they relate to our public law values in protecting the human right to free speech? In this vein, Chapter 2 has discussed the net infrastructure and has provided a snapshot of the predominant

architectural principles supporting the internet. As it stands, the architectural principles and standard-setting procedures online seem to be forming a soft law, regulating the informational flow alongside free speech jurisprudence. The net architecture, famously referred to as "Code" by Lawrence Lessig, has however not only influenced the ways in which one expresses oneself online; it has also contested our current legislative approaches reflected in the free speech jurisprudence.

In this respect, the fourth chapter highlights how the net architecture, the "Code" can inform our current legal approaches with regard to protecting free speech in the digital era. The need to reiterate the conventional legal approach has been identified as early as the second chapter. Although the rationale for autonomy seems to be fitting for regulating speech online, at the same time its application online is not fully reflected in free speech adjudication. After spending some time to describe the architectural principles of the internet in Chapter 3, it is now time to indicate how the two – the law and the 'code' – can be combined. Exploring this possibility, Chapter 4 introduces us to the concept of digitisation. Namely, it is suggested that free speech adjudication should take into account the specific architectural traits of the internet, which are dominant in the digital context. This will enable a better understanding of free speech in the digital era and will provide proper guidance for deciding the right's trade-offs with competing rights online. To reach this conclusion, the chapter has delved into free speech adjudication in an attempt to highlight the strong link between context and free speech protection. At the same time, it contends that the frequently evoked parameters of space, property and state coercion monopoly – although useful juridical tools in the past – prove to be of little help in the digital era. There is therefore a need to inform our current approach and embrace the architectural values found in the online environment.

The following chapter presents us with a close up on how digitisation could guide free speech jurisprudence and promote the right's underpinning values online. It provides us with an answer as to the main research question for this thesis: how to preserve the First Amendment ordinances alive in the digital era. To do so, the chapter draws its arguments from all preceding chapters and fully unfolds the main argument that runs throughout the thesis: how architecture can uphold free speech online. First, it reviews alternative policy models, which have been suggested in the past as methods of implementing free speech values online. Although these models

all raise interesting points, they do not seem to be fully equipped to address all the policy-related challenges posed by digital free speech; as a result they fail to secure the consent of the networked. The chapter then moves on to address explicitly the free speech theory suggested by Baker in an attempt to explain how this fits into the wider group of legal approaches in the literature. Baker's work is discussed in more detail with a clear focus on how it balances between state-centrism and corporate dominance. This helps the reader understand how the policy model suggested by Baker, if contextualised properly online, could support free speech and uphold its underpinning values in the digital era. For this, Baker's theory on liberty is scrutinised with respect to the values it might share with the net architecture. In other words, it is digitised, namely examined as to its potential for respecting the core architectural values, as set out in Chapter 3. The third section of this chapter sets the concept of digitisation in motion, fully unravelling the main argument of the thesis: Baker's free speech value of self-realisation can be achieved through affirmative steps to preserve the net architecture; structural interferences to keep the internet's core design principles will ultimately contribute towards self-realisation through online communication. In this way, all previous chapters are connected and form the thesis' main argument: a new policy model designed explicitly to promote the underpinning values of free speech on the internet.

2. Lessons Learnt from the Law of the Horse and the Constitutional Challenges of the Digital Era

2.1. Questioning the Legitimacy of Public Law

From the days of Easterbrook's infamous argument about the "Law of the Horse"[3] and the firm belief that the traditional body of law is perfectly capable of the regulatory challenges in the digital era, we have now reached a reversed proposition: are we in need of a new set of rights online or simply a different policy model? If the

[3] See also Chapter 2, section 1.

current free speech regulative framework is indeed ineffective online, as outlined in the previous chapter, then what should be an alternative remedy? It is generally accepted that in regulating free speech online we are not faced with a legal vacuum, however legal scholars seem somewhat divided as to the approach that needs to be followed; some suggest a new set of online human rights[4], while others insist on utilising the current legislative mechanism, albeit adopting a different approach. On one hand, the argument for coming up with a new bill of internet rights seems to be gaining momentum: Marco Civil da Internet[5], a draft bill for online civil rights for users in Brazil, known also as the Constitution of the Internet , is the latest example. Although such initiatives for a new Charter of civil rights online make some valuable arguments, they suggest that there is a need to formalise and draft from scratch a new range of human rights. This, however, suggests a different approach to that explored in the remainder of the thesis: recasting an already existing regulative framework framed in the context of net architecture. As such, this argument falls outside of the remit for this chapter and shall not be discussed further. What is argued here is that if we have learned anything from Easterbrook and Lessig's debate about the "Law of the Horse", it is that the truth is neither here nor there: the challenge is to embed the existing public values online, not to build a new Constitution for the Internet.

On the other hand, there has always been much debate as to alternative governance models targeted at implementing offline laws into the online world in general. The previous chapter has briefly discussed the concept of digitisation and identified it as falling within the second category, suggesting an alternative approach based on utilising the existing legislative framework. However, before digitisation is described further here as an approach contributing towards a free speech policy model, it is important to understand the challenges posed online to constructing a free speech policy model.

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4 See for example the Charter of Human Rights and Principles for the Internet drafted by the Internet Rights and Principles Dynamic Coalition, "an open network of individuals and organisations committed to making the Internet work for human rights", available online <http://internetrightsandprinciples.org/site/charter/> accessed 12 December 2013. See also J Kulesza, 'Freedom of Information in the Global Information Society: The Question of the Internet Bill of Rights' (2008) 1 University of Warmia and Mazury in Olsztyn Law Review 81, 88.

5 For an English version of the legislative text, see <http://www.a2kbrasil.org.br/wordpress/wp-content/uploads/2011/09/Marco-Civil-Ingle%CC%82s-pm.pdf> accessed 12 December 2013.

As mentioned in Chapter 2, although there is a plethora of internet governance models in general, little has been said with respect to a prospective policy model tailored to promote the public values ascribed to the right to free speech online. The challenges to build such a model are more than meets the eye. The legal mechanism of free speech as a constitutional right is now also evoked by online corporations to pursue economic activity and to evade state regulation online[6].

At the same time, governance by law altogether seems to be challenged online to a point of de-legitimisation[7]: In times of globalisation, the internet has proven to be a field dominated not only by competitive jurisdictions but also dispersed among various legal systems: As there is no "Law of the Horse" as such, online activity is regulated in a manner similar to offline activity, falling into the scope of various – often overlapping – branches of law. A comment submitted on a social platform, for example, is not only subject to constitutional rules; the ISPs further scrutinise data for which they bear intermediary liability (mostly through IP-related legislation), while the content providers consult their contractual obligations through privately drafted contracts with their online customers. For the constitutional right to free speech, this translates into a permutation of its public law nature, changing its protection to a private law approach: whereas the First Amendment has made little provisions for free speech infringements by non-state actors, approaching the same matter from a private legal angle, provisions in the law of contracts or competition law have offered some much needed protection online.

Take for example the EULAs: the end-user license agreements serving as a means of contract for online content of any type establishing the user's rights and delineating its permissible uses. Although such agreements affect the users in terms of limiting their protection from consumer[8] or copyright legislation[9], little has been said as to how they result in the stripping of constitutional values from the right to free

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6 See section 5.5.3.

7 C Engel, 'The Role of Law in the Governance of the Internet' (2006) 20 (1) International Review of Law Computers & Technology 201, 204.

8 <https://www.eff.org/wp/dangerous-terms-users-guide-eulas> accessed 12 December 2013

9 K Barker, 'MMORPGing - The Legalities of Game Play' (2012) 3(1) European Journal of Law and Technology. See also E Armijo, 'Kill Switches, Forum Doctrine, and the First Amendment's Digital Future' (2013) 8 Elon University Law Legal Studies Research Paper, available online at SSRN <http://ssrn.com/abstract=2293039>, accessed 12 December 2013; A Garfield, 'Promises of Silence: Contract Law and Freedom of Speech' (1998) 83 Cornell L Rev. 261, 264-265.

speech[10]. Another such example is community standards, namely the rules imposed by the web hosts as to permissible online content. According to Facebook,

> "[t]o balance the needs and interests of a global population, Facebook protects expression that meets the community standards outlined on this page. (…) They will help you understand what type of expression is acceptable, and what type of content may be reported and removed"[11].

Could this be a free speech policy model offering protection where the First Amendment has failed to do so? In the absence of a "Law of the Horse" are we dealing here with a case of an unwritten constitution online based on principles gathered from privately agreed and drafted terms of use?

The challenges that a free speech policy model would face in the digital realm would not allow such an approach to prosper. If transparency and accountability has been an issue of major concern with respect to implementing a soft law policy model for free speech, as explained above, a private law model for free speech would also be lacking another public law virtue: legitimacy. It can be argued that the lack of the necessary legitimacy of a constitutional rule makes such contractual regulations an unattractive alternative. Consider for example the recent *amicus curiae* filed by Facebook in August 2012[12] seeking First Amendment protection for its users clicking the "like" button qualifying as political speech. Citing the cases of *Cohen v California*[13] and *Reno*[14], Facebook, joined by ACLU, asks the Court to accept the overall activity of its users as free speech. At the same time though, not only does Facebook lack the legitimacy, but it is also not directly accountable to uphold and guarantee its users' right to free speech. In other words, consent to its terms of use does not imply a general consensus to entrust online private actors with the public task of free speech protection.

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10 L Pallas, 'Slaying the Leather-winged Demons in the Night: Reforming Copyright Owner Contracting With Clickwrap Misuse' (2004) 30 Ohio Northern University Law Review.

11 <https://www.facebook.com/communitystandards> accessed 12 December 2013

12 <http://www.aclu.org/files/assets/bland_v._roberts_appeal_-__facebook_amicus_brief.pdf> accessed 12 December 2013.

13 *Cohen v. California*, 403 U.S. 15, 18 (1971).

14 *Reno v. American Civil Liberties Union*, 521 U.S. 844 (1997).

That being said, global consensus has always been a thorny issue for implementing the conventional free speech regulative framework[15]; this has now been augmented in the borderless multicultural digital frontier. As has been shown in the fourth chapter, our conventional public law approach – relying largely on concepts that are now disputable online, such as space, property and state coercion monopoly – has been ineffective in affording broad free speech protection online. At the same time, it has been noted that the public element of the human right to free speech cannot easily be replaced by other regulatory models based on soft or private law. Consensus seems to be the key concept for constructing a free speech policy model online: added to the transparency and legitimacy of public policy making, this could help towards promoting the public values of free speech online and bringing back trust[16].

2.2. Transparency, Consensus and the Law of the Horse

So far it has been contended that the public law values underpinning a policy model for free online speech can provide a solid basis for addressing the regulatory challenges in the digital era. However, its implementation largely depends on global consensus: How could a public law policy model for free speech be viable online while also ensuring broad consensus? This question has been posed time and again in the literature[17], with many authors describing international or transnational public

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15 This is very successfully demonstrated in the following sarcastic yet pragmatic account by Heinze on the similar pattern that most hate speech conferences seem to follow: "A few Americans make impassioned speeches about the values of freedom and democracy. The Europeans dutifully listen and applaud. Then come tea and biscuits, where the pros and cons of various positions are exchanged with tepid enthusiasm. All delegates are then thanked for having attended an event that 'will surely provide food for thought'. The Europeans depart with the same views they held when they arrived; and the Americans leave crestfallen from a missionary venture that failed to convert a single soul." E Heinze, 'Wild West Cowboys Versus Cheese-Eating Surrender Monkeys: Some Problems in Comparative Approaches to Hate Speech' in I Hare, J Weinstein (eds.) *Extreme Speech and Democracy* (Oxford University Press, 2010) 182.

16 See also Chapter 1, section 2.2.

17 For an account on the supranational aspect of public law, although not specifically focused on free speech, see C McCrudden, 'A Common Law of Human Rights?: Transnational Judicial Conversations on Constitutional Rights' (2000) 20 (4) Oxford Journal of Legal Studies 499-532 (examining the judicial globalisation of human rights in general); M Tushnet, 'The Inevitable Globalisation of Constitutional Law' (2008) Va. J. Int'l. L 988-995 (discussing globalisation

policy models for digital speech. To avoid the "patchwork of constraints"[18] online, namely all contradictory regulations breeding uncertainty, Mayer-Schönberger and Foster suggest an international regulatory model for free speech supported by the legal instrument of *ius cogens*; a useful tool that embodies "global consensus and positively binds all nations"[19] based on internationally accepted norms[20]. In the same vein, Zick[21] suggests a transnational approach based on the internalisation of norms and a mesh of national and international human rights. Going back to the third chapter, it has been shown how online norms are created following the net architecture; the governance mode of "rough consensus and running code" has been adopted to sustain the openness and interoperability of the network of the networks. However, a formalised version of the online norms, although seemingly more transparent and participatory than traditional legislation, would lack the legitimacy enjoyed by public legislation.

Before we agree with Kozinski and proclaim the death of the First Amendment in the digital era, it is important to understand why the public law values are still needed and how they can be ensured online. If the "Law of the Horse" has taught us something, it is that the answers might be in front of us, but we just need to take a fresh look at them. The following section offers a closer look at how adopting a public law policy model for regulating free speech online can secure global consensus.

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processes) – For general bibliography discussing the migration of constitutional ideas, see I Cram, 'Resort to Foreign Constitutional Norms in Domestic Human Rights Jurisprudence with Reference to Terrorism Cases' (2009) 68 (1) Cambridge Law Journal 113, 118; S Choudhry, *The Migration of Constitutional Ideas* (Cambridge University Press 2006); A Lester, 'The Overseas Trade in the American Bill of Rights' (2000) 20 O.J.L.S. 499.

18 V Mayer-Schönberger, T Foster, 'Free Speech and the Global Information Infrastructure' (1997) 3 Mich Telecomm Tech L Rev 45.

19 V Mayer-Schönberger, T Foster ibid 61. See also art 53 of the Vienna Convention on the Law of Treaties of 1969 for a definition of *ius cogens.*

20 Other similar suggestions include also the following: A White, 'Crossing the Electronic Border: Free Speech Protection for the International Internet' (2009) 58 Depaul Law Rev 491 (suggesting a Global Free Speech Act); P Przemysław Polański, 'Fundamental Rights in Cyberspace and Internet Customary Law' (2008) 2(1) Int J International Property Management 1125 (discussing the possibility of regulating with norms forming a type of internet customary law).

21 T Zick, 'Territoriality and the First Amendment: Free Speech at-and beyond- our Borders' (2010) 85(4) Notre Dame Law Review 1622.

3. Baker Revisited: On Securing the Consent of the Networked

In her book "Consent of the Networked", Rebecca McKinnon describes how the struggle to control the internet and shape online public discourse has led to subtle manipulations either by corporations or by states in an unaccountable and illegitimate manner. McKinnon advocates that

> "in the physical world, mechanisms of democratic politics and constitutional law have worked – not perfectly, but still far better than any alternatives – to protect citizens' rights. But these mechanisms are no longer adequate for people whose physical lives now depend on what they can or cannot do (and what others can do to them) in the new digital spaces where sovereignty and power are ill-defined and highly contested. The reality is that the corporations and governments that build, operate, and govern cyberspace are not being held sufficiently accountable for their exercise of power over the lives and identities of people who use digital networks. They are sovereigns operating without the consent of the networked"[22].

This "consent of the networked", cited by McKinnon, has either been disregarded or taken for granted in online-related legislation: the regulative responses to online content have so far been more concerned with computer misuses targeting the user and less focused on restoring the trust to the content's constitutional protection. In trying to secure a trusted environment for online transactions (maximising also the profit of online corporations), lawmakers have overlooked the fact that the consumer is also a citizen, whose human rights are guaranteed protection. The public response to a number of failing[23] draconian laws, such as the CDA[24] or the more recent SOPA and PIPA bills targeting objectionable online content, demonstrates well that

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[22] R McKinnon, *Consent Of The Networked: The Worldwide Struggle For Internet Freedom* (Basic Books 2012) xxi.

[23] Such laws have failed in two aspects: first they have been struck down as unconstitutional following judicial review. Second, even when they pass judicial scrutiny, their chances of implementation are rather slim. An example of the latter is the Digital Economy Act, which –at the time of the writing- has still not been fully implemented although it was enacted in 2010.

[24] Although some of its provisions left an indelible imprint on intern-related legislation, such as section 230 CDA addressing intermediary liability, the CDA generated a plethora of criticisms in the literature. See B Bilastad, 'Obscenity and Indecency in the Digital Age: The Legal and Political Implications of Cybersmut, Virtual Pornography, and the Communications Decency Act of 1996' (1997) 13 Santa Clara Computer & High Tech. L. J. 321; B Sanford, M Lorenger, 'Teaching an Old Dog New Tricks: The First Amendment in an Online World' (1996) 28 Conn. L. Rev. 1137; E Volokh, 'Freedom of Speech in Cyberspace from the Listener's Perspective Private Speech, Restrictions, State Action, Harassment, and Sex' (1996) U. Chi. Legal F. 377.

the onus has now shifted from restrictive regulations to a need for upholding the right to free speech, ensuring the open and uninhibited flow of information.

As noted in the introduction of this thesis, the issue of eroded trust online seems to be the main challenge for constructing an online policy model. Kozinski's observations in Chapter 1 reflect well the general scepticism about the efficacy of the legal mechanism protecting free speech when applied online. On the other hand, the user equally distrusts private actors acting as online intermediaries due to their unaccountability. The rule of law seems to be in a non-dialectic relationship with the rules of the market. Could a public law based policy model for free speech reconcile these two fields? In what follows, it is shown that free speech underpinning values can still be applicable in the heavily commercialised online environment.

Having examined the online applicability of the underpinning rationales for protecting free speech in previous chapters of this thesis, it has been noted that Baker's theory could be of use due to its provision for positive protection against non-state actors' infringements. At the same time it could perhaps serve as a free speech policy model keeping the right balance between other countervailing rights, such as privacy and intellectual property. More importantly though, it could restore credibility to constitutional adjudication in the digital realm. In addition to this, Chapter 3 has further shown how both Baker's theory and the principles of End-to-End and modularity embedded in the net architecture seem to rely on the user's autonomy. It is now time to take a closer look at Baker's work and examine whether it could be utilised to secure promotion of public free speech values online and to ultimately secure the consent of the networked.

3.1. The Classic Marketplace Model and Online Corporatism

Baker distinguishes between three models of free speech policy: the classic marketplace of ideas theory, the market failure model and the liberty theory[25]. The

[25] CE Baker, 'Scope of the First Amendment Freedom of Speech' (1978) 25 UCLA L Rev 964.

classic marketplace of ideas model, as described in more detail in Chapter 2[26], seems to be adopting an economic approach, treating ideas as consumed goods that gain value according to their popularity in the market[27]. This model seems to promote dominant elites and restrict opportunities for other groups to voice their opinions[28] and as such should be rejected. In our modern society, where information is being rapidly monetised, the general call for setting moral limits to the market[29] highlights the fact that the invisible hand is unable to secure a right to free speech equally for all.

This becomes obvious in the digital realm: In January 2013, the FTC's investigation into Google's conduct of changing its algorithm to favour its own vertical results found no antitrust violations[30]. At the same time, the EU's investigation into Google's practices abusing their monopoly position in the market is still ongoing. Google holding 90% of shares in the EU search market[31] does not seem to be affected by the invisible hand, and although dominance is not illegal, *per se*, in terms of EU competition law[32] or US antitrust law[33], online corporate dominance can be a significant threat to pluralism and the free flow of information. This concern is well illustrated in the irate response towards Amazon's decision to remotely erase all digital copies of George Orwell's book "1984" from the Kindle

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26 See Chapter 2, section 2.1.1.

27 D Bush, 'The Marketplace of Ideas: Is Judge Posner Chasing Don Quixote's Windmills?' (2000) 32 Ariz St L J 1107 *cf* V Blasi, 'The Checking Value in First Amendment Theory' (1977) 2 (3) Law & Social Inquiry 521, 551.

28 Baker (n 25) 978.

29 See also Michael Sandel arguing that our politics - "mostly vacant, empty of moral and spiritual content" and failing to "engage with big questions that people care about" - should rethink the role and reach of markets. M Sandel, *What Money Can't Buy: The Moral Limits of Markets* (Macmillan 2012) 13-15.

30 E Wyatt, 'A Victory for Google as F.T.C. Takes No Formal Steps' (2013), available online <http://www.nytimes.com/2013/01/04/technology/google-agrees-to-changes-in-search-ending-us-antitrust-inquiry.html?_r=0>, accessed 12 December 2013.

31 <http://www.thestockmarketwatch.co/eu-requires-google-antitrust-investigation-in-the-search-concessions.html>, accessed 12 December 2013.

32 Consolidated Version of the Treaty on the Functioning of the European Union [2008] OJ C 115/47 art 102(TFEU). See also EC Tenth Report on Competition Policy 1980 (Annexed to the Fourteenth General Report on the Activities of the European Communities) 103 para150, available online < http://ec.europa.eu/competition/publications/annual_report/ar_1980_en.pdf >, accessed 12 December 2013.

33 Art 2 of the Sherman Anti-Trust Act (1890). See also *US v Microsoft Corp*. 253 F.3d 34 (2001).

libraries of its consumers due to claims of unauthorised use[34]. In Orwell's book, it is governmental censors that erase data which could be embarrassing for Big Brother; in the digital era it seems that private censors are the informational gatekeepers controlling speech, able to stifle expression, sometimes doing so as a means of conforming to legislation promoting countervailing rights. A great example of how the latter can provide a gagging mechanism is the recent story of a San Francisco television news station that issued a series of DMCA take down notices to YouTube so as to remove from the net embarrassing footage of its anchors[35].

Entrusting these gatekeepers with the task of regulating the informational flow online can therefore be a risky choice; the sheer absence of accountability of private actors and legitimacy of their actions would make this a policy model unable to secure consensus and bring back trust to the constitutional protection of free speech.

3.2. The Market Failure Model and Online State-Centrism

This leads us to the second free speech model explored by Baker, the market failure model. It is generally accepted that the marketplace of ideas is not free from imperfections[36]. In this sense, state intervention is necessary to correct these failures and act as a market equaliser. However, as Baker notes, this policy model is also not appropriate as a doctrine for justifying liberty. Based on the assumption that state intervention is necessary to create adequate access for all in the marketplace of ideas, it further fails to provide concrete criteria for better understanding "adequacy"[37] . Thus, in the absence of a coherent definition of the equality standards

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34 B Stone, 'Amazon Erases Orwell Books from Kindle', available online <http://www.nytimes.com/2009/07/18/technology/companies/18amazon.html?_r=0&adxnnl=1&adxnnlx=1375373346-D0Zs27dmcGNpnFbm6vumdQ>, accessed 12 December 2013.

35 D Kravets, 'Local Newscast Uses DMCA To Erase Air Crash Reporting Blunder', available online <http://www.wired.com/threatlevel/2013/07/youtube-newscast-asiana>, accessed 12 December 2013.

36 See *Central Hudson Gas and Elex.v. Public Sers. Comm'n*, 447 U.S. 557, 592 (1980) Rehnquist J dissenting citing Adam Smith's Wealth of Nations. See also S Ingber, 'The Marketplace of Ideas: A Legitimizing Myth' (1984) Duke JL 1, 5.

37 CE Baker (n 25) 986.

enforced onto the market by state intervention, such a policy model would not be able to offer robust free speech protection[38].

The traditional Coasian role accorded to the law for correcting the market failures in general is also not viable online. As Elkin-Koren and Salzberger observe, the shortcoming of such an approach is that it overlooks the "correlation and reciprocity between technological developments and legal rules", assuming that technology is static[39]. Having already discussed in the previous chapter how conventional legal approaches fail due to their reliance on classic juridical tools while ignoring the net architecture, this is not a striking conclusion. Such an approach carries further the risk that in cyberspace, the target of such a policy model becomes the technology that affects users rather than the behaviours themselves[40]. A perfect illustration of the latter is the recent announcement of the British Prime Minister's plan to prevent the "corroding influence" of pornography online by installing automatically switched on porn filters on every browser[41]. While this decision has been met with great scepticism[42], it acts in a "nanny-state" fashion, unable to distinguish the behaviour from the medium and unable to understand further that such a policy model cannot be implemented online[43]. Whereas the decentralised and global nature of cyberspace has been heralded as a promising platform for free speech, state interventionism to correct this new marketplace of ideas has resulted in its

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38 "If a purpose of the first amendment is to protect unpopular ideas that may eventually triumph over the majority's established dogma, then allowing the government to determine adequacy of access stands the first amendment on its head". CE Baker (n 25) 987.

39 N Elkin-Koren, E Salzberger, *Law, Economics and Cyberspace: The Effects of Cyberspace on the Economic Analysis of Law* (Edward Elgar Publishing 2004) 106.

40 N Elkin-Koren, E Saltzberger ibid 129.

41 K Collins, 'Cameron Bids to Protect Children with Automatic Porn Filters', <http://www.wired.co.uk/news/archive/2013-07/22/government-porn-filters> accessed 12 December 2013.

42 Note for example the reaction by the Wikipedia founder and free speech activist Jim Wales, who sees this as another way of controlling private data online by monitoring personal preferences of opting in and out of pornographic material. J Svetlik, 'Wikipedia Founder: PM's Porn Plan Is "Absolutely Ridiculous"', <http://crave.cnet.co.uk/software/wikipedia-founder-pms-porn-plan-is-absolutely-ridiculous-50011887/> accessed 12 December 2013.

43 This echoes previous similar legislative IP-related legislative attempts, such as the Digital Economy Act (2010), demonising peer-to-peer networks for their capacity to host copyright infringing material. For more, see D Mendis, 'Digital Economy Act 2010: Fighting a Losing Battle? Why the `Three Strikes' Law Is Not The Answer to Copyright Law's Latest Challenge' (2013) 27 International Review of Law, Computers and Technology 60.

"Balkanisation", its division into separate legal spheres and subnets of control[44]. Unfortunately, this has largely been the policy model used to regulate the flow of information online.

As a result, free speech protection in the digital era has been mainly a question of "who controls the master switch"[45]. "The Master Switch" is also the title of Tim Wu's book in which he describes the quest for control of the informational monopolies online, namely the established industry leaders such as Google, Facebook and Apple. According to him, "it is the industrial structure that determined the limits of free speech"[46], at least in the United States. In the digital era, this quest for dominance, existing in the guise of supporting innovation, is translated further into a conflict over internet operations and structures[47]. The role of the First Amendment as a market equaliser has not been successful in affording free speech protection to the user; information empires monopolise the market and shape future policies. Having rejected this as a failed model, Baker suggests the liberty model: a regulative framework with a strong focus on the nature of the speaker's acts, instead of the content that has been the main concern of the two models previously discussed. Next, it is explained how this could provide a mechanism of securing consent and bringing back trust. This will lead the discussion further to explore the potential value such a policy model would hold for digitisation, namely the respect towards the net architecture[48].

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44 J Naughton, 'Edward Snowden Is Not the Story: The Fate of the Internet Is', <http://www.theguardian.com/technology/2013/jul/28/edward-snowden-death-of-internet> accessed 12 December 2013.

45 T Wu, *The Master Switch: The Rise and Fall of Information Empires* (Random House Digital, Inc., 2011) 13.

46 T Wu ibid 121.

47 Wu notes the example of Apple and Google fighting concepts of closed and open structures. T Wu (n 45) 273-289.

48 See Chapter 4, section 5.

3.3. The Liberty Model as a Mechanism of Securing the Consent of the Networked

So far, we have discussed two free speech policy models, both of which bear certain similarities with the free speech rationales and online regulatory models introduced in Chapter 2. Baker rejects both the market and the market failure model; a careful evaluation of his arguments online reveal that such an approach would undermine the First Amendment values in the digital realm. Entrusting the invisible hand with the protection of free speech carries the risk of online corporate dominance; on the other hand, the solution of state interventionism to correct this market failure does not seem appealing, nor does it secure the consent of the networked. The much needed consent of the networked is not secured, as none of the discussed models succeeds in demonstrating transparency and restoring trust. Yet, before we are to agree with Chief Justice Kozinski and his ominous predictions on the First Amendment's failure to address the public law challenges in the digital realm, let us examine Baker's liberty model.

According to Baker, although free speech rights have been symbolically associated with setting constitutional limits to state arbitration and governmental censorship, it is actually the failure of free markets that poses the most serious threat to free speech[49]. Trusting that the market will be able to provide "what the audience wants" can be a risky presupposition: Evading externalities and the flawed underlined assumptions of the public preferences undermine the success of a deregulatory policy model[50]. Julie Cohen explains how this neo-classical market-based model fails to take into account many matters that are non-monetisable[51]. Instead, she contends that "the public process of law making, which neoclassical economists view as interference with market-based expression and satisfaction of preferences, in

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49 CE Baker, *Advertising and a Democratic Press* (Princeton, NJ, Princeton University Press 1995).

50 CE Baker, 'Giving the Audience What it Wants' (1997) 58(3) Ohio State University Law Journal 11.

51 "Moreover, consumers qua citizens may recognize hierarchies or preferences that the law should privilege or burden, even though (or because) they would not act on these preferences as consumers." J Cohen, 'Lochner in Cyberspace: The New Economic Orthodoxy of Rights Management' (1998) 97(2) Mich L Rev 545.

fact accords citizens the opportunity to express and satisfy preferences that the market ignores, undervalues or disserves"[52].

In this vein, Baker suggests the liberty policy model: an approach with a clear focus on enabling the citizen to express herself and voicing her preferences instead of letting the market or the state decide for her. For this, Baker does not preclude some state structural interventions[53] to level the field and enable the individual to access the communicatory platforms. The First Amendment is thus interpreted affirmatively "to require behaviour by the government rather than merely negatively to limit it"[54] in Baker's policy model. However, this does not imply a paternalistic approach. On the contrary, he advocates that paternalism is to be found not in the state interference but in its limitation as a means of refuting the people's "capacity for democratic decision-making to make their media more to their liking and more conducive to their aspirations"[55].

At the heart of this policy model lies the concept of self-realisation[56]; the respect towards the people's choice to define and develop themselves delineates the scope to free speech protection according to Baker. In this sense, constitutional protection is afforded to speech serving this value in a nonviolent and non-coercive manner[57], respecting in this way both the speaker's and the listener's shared need for self-realisation. Baker maintains that "as long as speech represents the freely-chosen expression of the speaker while depending for its power on the free acceptance of the listener, freedom of speech represents a charter of liberty for non-coercive action"[58].

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52 J Cohen ibid 545-546.

53 CE Baker (n 50) 314. See also CE Baker, 'Private Power, the Press, and the Constitution' (1993) 10 Const Commentary 412; CE Baker, 'Turner Broadcasting: Content Regulation of Persons and Presses' (1994) Sup Ct Rev 57.

54 CE Baker, 'First Amendment Limits on Copyright' (2002) 55 Van L Rev 899. Baker explains the affirmative First Amendment as an affirmative legislative pursuit of the general values embodied in free speech clauses, such as the Speech of the Press Clause, in addition to existing legal constraints on the Government.

55 CE Baker (n 50) 417. See also C Sunstein, 'Legal Interference with Private Preferences' (1986) 53 U Chi L Rev 1129, 1140-1145.

56 Baker chooses the value of self-realisation after a careful examination of the four values put forth by T Emerson in *The System of Freedom of Expression* (Random House, 1971) 6-7.

57 CE Baker (n 25) 990-1009.

58 CE Baker, 'Commercial Speech: A Problem in the Theory of Freedom' (1976) 62 Iowa L Rev 7.

Although Baker's theory of liberty has not gone without criticism[59] and is certainly not without its flaws[60], in placing the individual at the centre of attention it seems to be offering more guarantees than all other approaches discussed in gaining the consent of the networked. At the same time, it seems to be providing many answers as to the main challenges met online, discussed in the previous sections of this chapter.

First it addresses the issue of speech as being not of a merely communicative nature, but also of utmost expressive and creative importance for the individual[61]. On the internet, indicative of the latter is the creative interactions of its users creating pastiche work or video parodies; a driving force of the digital economy, as noted also in both the Gowers and the Hargreaves Reviews[62]. As to speech as an outlet of expressivity for the individual online, the often anonymous and non-addressed manner in which users share their thoughts on various social media platforms demonstrates that Baker's argument is a valid one when examined on the internet[63].

In this policy model, the scope of protection is identified by the level of coercion found in the speech under review. The doctrinal justification for protecting speech according to its value for self-realisation is the respect for autonomy *per se*: speech is protected to the point that it does not interfere with the listener's autonomy to

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59 Baker's theory has been criticised for overstretching the First Amendment's protective scope to include all forms of non-coercive, nonviolent activities, without further differentiating between them (D Farber, P Frickey, 'Practical Reason and the First Amendment' (1986) 34 UCLA L. Rev. 1615, 1620-1621). Redish, although primarily agreeing with Baker's foundational views, has rejected Baker's theory for failing to see democracy and self-realisation as concepts not always necessarily linked together (M Redish, 'Self Realization, Democracy, and Freedom of Expression: A Reply to Professor Baker' (1982) 130 (3) University of Pennsylvania Law Review 678. Shiffrin has also criticised Baker's theory describing it as "an eclectic perception of the social complexities", which ultimately runs the risk of "detachment from social reality." S Shiffrin, *The First Amendment, Democracy and Romance* (Harvard University Press, 1990) 3.

60 See also Chapter 2, section 2.5.

61 CE Baker (n 25) 993.

62 For a discussion on the criteria employed in various jurisdictions to evaluate parody on the grounds of its material infringing copyright, see D Mendis, M Kretschmer, 'The Treatment of Parodies under Copyright law in Seven Jurisdictions: A Comparative Review of the Underlying Principles' (2013) Intellectual Property Office, Newport. Available online <http://www.ipo.gov.uk/pro-ipresearch.htm>, accessed 12 December 2013.

63 Daniel Farber has addressed further the issue of expressive commodities, namely transactions of valuable information that in the digital economy can maintain two conflicting roles: an expressive and a commoditory, blurring the legal boundaries between free speech protection and copyright infringement. D Farber, 'Expressive Commerce in Cyberspace: Public Goods, Network Effects and Free Speech' (2000) 16 Ga. St. U. L. Rev. 789.

reach individual decisions[64]. With this observation, Baker seems to be providing us with some much needed answers as to the scope for protecting speech online. Take for example the recent petition[65] to the White House to acknowledge free speech status for the Distributed-Denial-of-Services-Attacks, or DDoS as they are most commonly known. These attacks – largely associated with online hacking collectives such as the Anonymous group – put their message across by targeting specific websites making them inaccessible for a short period. Perhaps one of the most well-known cases of DDoS attacks is the so-called "Operation Payback", launched in December 2010 by Anonymous against the websites of banks who had withdrawn their online banking facilities from WikiLeaks. Often described in the literature as online acts of civil disobedience, DDoS's obstructive nature and coercive manner precludes any grounds for granting them free speech protection[66]. The lack of respect towards the listener's autonomy as reflected in their coerciveness seems to be a perfect example of Baker's outlined protective scope for free speech. A similar case to this, also falling outside the protected free speech remit online, is trolling - a growing internet subculture with a particular disdain towards the value of discourse, exhibiting online behaviours ranging from plain disruption of online communication to cyber bullying[67]. As Baker notes, the suggested policy model does not have the purpose of guaranteeing adequate information; online phenomena such as DDoS and trolling do not qualify for protection due to the obstructive methods they both use.

In keeping a close focus on the individual, Baker's theory maintains that types of speech pertaining to self-realisation are protected against the state arbitration. However, this by itself addresses only partly the concerns about online censorship; what is of importance here is that Baker also acknowledges a positive obligation for the state to uphold the right to free speech. Namely, this model envisions the state's active interference for structural improvements; in this sense, the model also

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64 CE Baker (n 25) 998.

65 <https://petitions.whitehouse.gov/petition/make-distributed-denial-service-ddos-legal-form-protesting/X3drjwZY> accessed 12 December 2013.

66 A Karanasiou, 'The Changing Face of Protests in the Digital Age: On Occupying Cyberspace and Distributed Denial of Services (DDoS) Attacks' (2014) International Review of Law Computers and Technology.

67 P Shachaf, N Hara, 'Beyond Vandalism: Wikipedia Trolls' (2010) 36 (3) Journal of Information Science 357-370.

addresses the issue of corporate dominance online, often overlooked in state-actioned constitutional interpretations of the free speech jurisprudence. Taking this model a step further, the following section attempts to place Baker's theory in the digital context.

Digitisation, namely the respect for the net architecture, has been suggested in Chapter 4 as an alternative to the dated juridical tools frequently evoked in free speech adjudication. In acknowledging the importance of the core values supporting the net infrastructure, it was shown that a fair trade-off for speech can be achieved online. In this chapter, we have revisited all free speech rationales and evaluated them as to the potential they hold to answer to all the challenges the digital realm holds for free expression. It is now time to examine the link between the two, Baker's theory on liberty and digitisation as a method of its implementation: the following section will try to identify this linkage and see how digitisation could be the perfect substantiation of Baker's theory online.

4. The Liberty Model and the Revival of Public Values Online: Digitisation as the Perfect Substantiation of Baker's Free Speech Theory

4.1. Digitising Baker: A Techno-Legal Approach

Digitisation, namely the method of informing our current legal approach by respecting the net architecture, has been identified in Chapter 4 as a necessity for online free speech adjudication. This is now further associated with Baker's liberty model; a policy model that seems to be addressing most of the free speech concerns in the digital era. What is examined here is how digitising Baker's policy model could afford free speech significant protection by instilling core constitutional values online and restoring the public trust. Embracing technology is understood as the perfect implementation of the First Amendment values online. This also includes further pursuit of structural interventions – as suggested by Baker – when the core architectural values are not respected.

The remainder of this chapter explains this point, thoroughly drawing from the conclusions reached in all previous chapters. Baker's theory on liberty is based on the promotion of self-realisation as a justificatory basis for free speech protection; it has been explained in Chapter 2 how this could provide solid arguments for constructing a free speech policy model online. This chapter has further expanded on Baker's work, highlighting how it could also reply to the troubling issues of online corporate dominance and state-centrism. Although an interesting theoretical enquiry, its practical application remains to be demonstrated. How could Baker's policy model be put into motion online? Along the lines of law respecting the net infrastructure, as described in Chapter 4, Baker's self-realisation is now examined in a digital context leading to an interesting observation: the net architecture values, as outlined in Chapter 3, focus in a similar way on the user, following a decentralised distributed structure. Preserving these principles could thus be a crucial part of a liberty policy model for free speech online.

To make this point clearer and to examine how this works, this section addresses each internet layer separately; the physical, logical and content layer are examined as structural fields able to promote free speech, assessed on their value for self-realisation, following the same structure adopted in Chapter 3[68]. This does not only serve the purpose of structural consistency throughout the thesis; it also maps on Solum and Chung's previous work on the integrity of the layers[69], where it is argued that the law in general should treat each internet layer separately.

By the end of this analysis it will hopefully be understood how respect to the architectural principles focused on the individual echoes Baker's call for the state's active interference in structural improvement for free speech protection.

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[68] See also Y Benkler, 'From Consumers to Users: Shifting the Deepest Structures of Regulation Toward Sustainable Commons and User Access' (2000) 52 Fed Comm L J, 561, 562-63 and J Chen, 'Conduit Based Regulation' (2005) 54 Duke Law J 1359 following a similar structure.

[69] L Solum, M Chung, 'The Layers Principle: Internet Architecture and the Law' (2004) 79 Notre Dame L Rev 815. For similar approaches, see also P Weiser, 'Regulatory Challenges and Models of Regulation' (2003) 2 J on Telecomm & High Tech L 1; K Werbach, 'A Layered Model for Internet Policy' (2002) 1 (37) J. of Telecomm & High Tech L; R Whitt, 'A Horizontal Leap Forward: Formulating A New Public Policy Framework Based on the Network Layers Model' (2004) 56 Fed. Comm. L. J. 587.

4.2. The Physical Layer, Conduit Neutrality and Self-Realisation

Proprietary control over physical infrastructure has always been of major concern for free speech adjudication, long before the internet, mostly expressed in respect of broadcasting media. Non content based governmental regulations, strictly focusing on the manner in which speech is expressed have survived judicial review in many cases[70]; understood as allocation of resources serving a substantial governmental interest, such interventions have been accepted as constitutional as long as they do not unreasonably limit alternative channels of communication[71].

That all seemed to be changing in the digital era: the various means of providing internet services through cable lines, telephone lines or wireless systems seemed to be a sufficient guarantee against monopolies or oligopolies of accessing the net[72]. In *Reno v ACLU*, one of the first Supreme Court cases explicitly discussing free speech on the internet, Justice Stevens noted that the internet could not follow the precedent set by cases such as *Denver* and *Turner*. The Internet was considered a different medium to broadcasting: it was hard to justify governmental allocation of resources due to its nature as a medium less invasive than the broadcasting media, not directly under state control and also hardly qualifying as a scarce expressive commodity, unlike the broadcasting spectrum[73]. In the years to come, internet access was heavily commercialised, thereby gaining artificial scarcity[74], dependent largely on the decisions of the companies operating broadband services, be it cable operators, telephone companies or wireless systems.

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70 Known also as time, place, manner regulations. See *Turner Broad Sys Inc. v FCC*, 512 U.S. 622, 656 (1994).

71 City of *Renton v Playtime Theaters, Inc*., 475 U.S., 41, 47 (1986); *Ward v Rock against Racism*, 491 U.S., 781, 791 (1989); *City Council v Taxpayers for Vincent*, 466 U.S. 789, 808 (1984).

72 In the U.S., the FCC was further entrusted with the duty of monitoring broadband internet access. See 47 USC para 157 (1994) "The Commission shall determine whether any new technology or service proposed … is in the public interest."

73 *ACLU v Reno*, 521 U.S. 844 (1997) at 869-870.

74 As Chen rightly notes, spectrum does not depend strictly on available resources, e.g. a limited number of frequencies. "It gains legal life once the FCC determines the quantity and frequencies of services to allocate." J Chen (n 68) 1374. As such, spectrum scarcity is to be understood as a legal convention; in the digital realm, although seemingly resources are not scarce, corporations acting as bottlenecks deciding how they operate their services can result in the creation of online scarcity.

Consider for example the case of *Comcast Cablevision*[75], where the court considered a county ordinance requiring non-discriminatory access for all ISPs to a cable operator's Broadband Internet Access Transport Services. On one hand, as shown in *Turner*[76], cable systems – as physical infrastructure using public resources – operate under local governmental authorisation. On the other hand, the editorial discretion that cable systems have over the services they provide, assimilating to the press free speech rights[77], highlighted the risk of censorship[78] in state mandates for forced access. The question to be answered in this case was whether the government could "regulate a technology of expression without also changing its meaning"[79]. The court, while it recognised that cable systems, unlike newspapers, could prevent their subscribers' access and establish a monopoly, decided that forced access invaded the cable operator's free speech rights, "thereby curtailing the flow of information to the public"[80] by favouring speakers[81].

A series of similar cases reviewing FCC's mandates over online carriers' "editorial decisions" have led the general debate over net neutrality. This however will be addressed in detail in the following section[82], as it is a matter falling mostly within the logical layer. With regard to the physical layer examined here, a digitised version of Baker's model could perhaps produce some initial observations. In his paper "Turner Broadcasting: Content-Based Regulation of Persons and Presses"[83], Baker explains why this confusion has come about. The leading cases of *Turner* and *Tornillo* have set a free speech precedent based on incorrect assumptions; this precedent -applied online regardless of the internet dynamics - fails to address the

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75 *Comcast Cablevision, Inc v. Broward County*, Florida 124 F Supp. 2d 685 (SD Fla. 2000).

76 *Turner Broad Sys, Inc v FCC*, 512 U.S. 622, 628 (1994).

77 *Los Angeles v Preferred Communications, Inc.*, 476 US 488, 494 (1985) *cf Red Lion Broadcasting Co. v. FCC*, 395 U.S. 367 (1969).

78 *Miami Herald Publishing Co. v. Tornillo*, 418 U.S. 241 (1974).

79 *Comcast Cablevision, Inc. v Brownward County*, Florida 124 F. Supp. 2d 685 (SD Fla. 2000) at 692 per J Middlebrook.

80 ibid at 693.

81 For a detailed analysis, see also D Williams, W Fisher, 'The Role of Freedom of Speech in the "Open Access" Debate' (2001) 28 N Ky L Rev 796.

82 It should be noted that network neutrality addresses access in general, which means that the two sections here discussing the physical and the logical layer will unavoidably overlap. With this in mind, some initial observations are drawn here, which will later be expanded upon as the chapter progresses.

83 CE Baker, 'Turner Broadcasting: Content-Based Regulation of Persons and Presses' (n 53).

issue of free flow of information. According to Baker, the Court in *Turner* failed to understand the value basis of the First Amendment, thereby treating media differently to individual speakers. In basing its decision on the public forum doctrine[84], the court's attention in diverted from the real question to be answered: Whether the restriction is required for the government to achieve its purposes in the use of the property under review[85]. State mandated limitation of the freedom of speech of operators to prevent bottlenecks without overly restricting their activity is therefore a constitutional practice in line with the affirmative First Amendment model. Yet, how are we to disregard the precedent set in *Turner* in pursuing an affirmative[86] free speech policy to ensure self-realisation, as suggested by Baker? The answer is perhaps to be found in the architecture of the internet as a centrifugal network[87], based on abundant and dispersed resources.

As noted in detail in Chapter 3, the internet began as a networking research project, allowing researchers to share their resources. This explains why its structure relies on abundance of resources, shared freely within distributed interconnected networks. The principles of abundance and distribution of the net infrastructure guarantee the information is exchanged freely online. The absence of a centralised hub of control avoids the risk of bottlenecks. While online intermediation is unavoidable[88], these design choices demonstrate a full potential to protect free speech from state and corporate controlled hubs online. In other words, the architecture seems to have the same result with the state mandates on must-carry rules discussed here, without

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84 Namely the allocation of public resources, i.e. the spectrum in this case.

85 Baker (n 83) 118.

86 This is not to suggest that affirmative legislative power cannot be abused as well. Baker acknowledges this and suggests a "bad purposes" interpretation of governmental intervention. This reading "treats as unconstitutional governmental purposes to undermine" the medium's capacity to function in pursuit of the rationale for its constitutional protection. In other words, state censorial interferences are not acceptable. However, Baker continues, "other (non-censorial) laws, laws aimed at improving its functioning, are constitutional." In this sense, the affirmative structural interventions suggested here avoid leaving room for criticism over state-centric control over speech or inefficient free speech protection from corporatism. CE Baker, 'Private Power, the Press, and the Constitution' (n 53) 440.

87 See Chapter 3 for a detailed analysis of how this centrifugal network scheme shaped the internet from its early days.

88 C Yoo, 'Free Speech and the Myth of the Internet as an Unintermediated Experience' (2009) 78 Geo. Wash. L. Rev. 697.

having to rely on the public doctrine forum[89] to justify state interventions for open access. As noted earlier, at the heart of Baker's policy model is liberty, not a state mandated correction of the market failures. In this vein, the goal of this policy model can be achieved by preventing the scarcity[90] artificially generated by the activity of the operators at the physical layer (telephone companies, cable operators, wireless systems), which can further alter the internet's architectural centrifugal design.

Antitrust provisions in law can be rather helpful in preventing monopolies of any sort inasmuch as they address economic efficiency concerns. However, this by itself is not enough to guarantee free speech and restore the trust in law online. Focus should also be on ensuring self-realisation online, not just to secure the user's consuming experience. Baker elaborates on this last point in arguing that "antitrust law's focus on consumers is unlikely to embody the democratic concerns with assuring maximum numbers of separate owner participating in the "marketplace of ideas" or with democratic worries about concentrated power to influence public opinion"[91]. At the same time, policy makers and judicial doctrines are focusing more on the market and less on the individual and are in principle reluctant to adopt structural policies for ownership concentration[92].

A structural interference – in the sense of the affirmative First Amendment, as described earlier – focusing on the respect towards the net infrastructure and not directly targeted at correcting the market failures, could perhaps promote the value

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[89] Note also Barendt finding the argument of public forum not sustainable online due to the internet's administration by private ISPs. E Barendt, *Freedom of Speech* (OUP, 2005) 456-457.

[90] But note also Balkin's observation on how the internet's abundance has created a new form of scarcity: the scarcity of audience. In producing a great wealth of information, online media assume that the audience will have the ability to filter unnecessary content. J Balkin, 'Media Filters, the V Chip, and the Foundations of Broadcast Regulation' (1996) 45 Duke L J 1131. Building on this argument, Verluhst notes how overproduction of information online has cause a need for intermediaries able to filter and administer the info flow. S Verluhst, 'About Scarcities and Intermediaries: The Regulatory Paradigm Shift of Digital Content Reviewed' in L Lievrouw, S Livingstone (eds), *Handbook of New Media: Social Shaping and Consequences of ICTs* (Sage 2002).

[91] CE Baker, 'Media Concentration: Giving Up on Democracy' (2002) 54 Fla. L. Rev.54 839, 967.

[92] Note however the disparity between the First Amendment restricting the government's power to promote media concentration and the European national public broadcasting systems already required to provide for diversity by the Constitution. E Barendt, *Broadcasting Law* (Clarendon Press 1993) 56-58. This is however not without exceptions, as the recent shutdown of the public Greek broadcaster for financial reasons has shown. For more, see A Karanasiou, 'Debunking the PBS myth: Media in Crisis?'(2013) Inforrm Blog, available online <http://inforrm.wordpress.com/2013/07/16/debunking-the-pbs-myth-media-in-crisis-argyro-karanasiou/> accessed 12 December 2013.

of self-realisation in the digital platform. In other words, respecting the net infrastructure can ensure access and distribution of information, without running the risks either of bottlenecks or of potential monopolies created by (state-favoured) actors. The focus in this policy model is no longer on the market players, nor is this an issue of regarding them as speakers, editors or mere conduits; it is rather a matter of ensuring a conduit-neutral structure, based on the principles of abundance and distribution and placing the individual at the heart of this platform.

This mechanism has actually worked well, even without the state support suggested here. Take for example the wireless community networks set up in different regions across the globe. These grassroots initiatives to support open wireless networks have had many notable successful projects to list: Freifunk in Germany and Athens Wireless Network (AWN) in Greece are such examples of community-based WLANs that enable digital inclusion by offering broadband services for all[93]. Initially founded as alternative broadband networks to the limited services offered by the municipal wireless networks more than a decade ago, such projects are based on the solidarity of the community members acting as backbone nodes and AP client nodes routing data[94]. While the state has done little to support such initiatives[95], it is not uncommon that private companies support, with their services, communities of individuals sharing access points with each other. FON Wireless Ltd, a UK-registered Spanish company operating a dual access wireless network, shows how community-led initiatives can be incorporated in a commercial business model, while still facilitating an open-access network[96]. In joining FON, consumers are presented with two choices: they can either agree to become a full member and share

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93 G Shaffer, 'Lessons Learned From Grassroots Wireless Networks in Europe' in A Abdelaal (ed), *Social and Economic Effects of Community Wireless Networks and Infrastructures* (IGI Global, 2013) 236-254.

94 For a detailed description of the motives behind such wireless community projects, see M Bina, G Giaglis, 'Unwired Collective Action: Motivations of Wireless Community Participants' (2006) International Conference on Mobile Business (ICMB'06) IEEE 31.

95 One such example is the state launch of CBN (Community Broadband Network), a co-operative that offers support to community-led wireless projects and assists in creating alternative next generation broadband infrastructure, facilitating in this manner the United Kingdom's Digital Agenda. See also Digital Britain Report (2009) Department for Business, Innovation and Skills, available online < http://www.official-documents.gov.uk/document/cm76/7650/7650.pdf> accessed 12 December 2013.

96 For more see G Camponovo, A Picco-Schwendener, 'Motivations of Hybrid Wireless Community Participants: A Qualitative Analysis of Swiss FON Members' (2011) 10th International Conference on Mobile Business (ICMB'11) 253-262.

a part of their bandwidth as a WiFi hotspot so that they can in turn use other members' bandwidth, or they can simply choose to access the internet as paying customers, partly paying revenues to the member whose bandwidth they use[97].

This by itself, however, is not a viable solution. In the absence of state support, such community-led schemes can only go as far as they serve as profitable projects for the private companies deciding to invest in them. In other words, they are unfortunately dependent largely on what the market dictates and not on an overarching legal obligation to promote online free speech by fostering an open-access model[98].

4.3. The Logical Layer, Network Neutrality and Self-Realisation

The logical layer has been identified in Chapter 3 as the most important layer enabling the exchange of information online. It comes therefore as no surprise that the biggest challenge for this layer is internet traffic management. This is hardly a new frontier for network engineering: in January 1983, when the Internet switched over to the Internet Protocol version 4 (IPv4), the desire to manage traffic ensuring smooth transmission of data led engineers to take a series of technical measures[99], most of which were based on the E2E net architecture. Different types of communications required different handling of their data in order to reach their destination. The requirement to prioritise some data packets is an essential element in net engineering: Quality of Service (QoS) relies on a number of mechanisms controlling the available resources and info flow to enable communication in

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97 In 2007, FON together with BT launched in the UK "the world's largest WiFi community" <http://www.btfon.com/images/media/common/btfonLaunch041007.pdf> accessed 12 December 2013.

98 This can be seen in the unfortunate ending of the ambitious start-up project "Buy this Satellite." The idea behind this project was to buy the communications satellite TerreStar-1 from a US bankrupt company and reframe it for unused bandwidth to establish internet access for impoverished communities. After 18 months of lobbying, the crowd-funded project had to be dropped as it failed to raise the necessary funds for purchase of the satellite. Available online <http://www.satellitetoday.com/st/curated/40349.html> accessed 12 December 2013.

99 Most notable examples are frame delay (see RFC 3202) and DiffServ (see RFC 2474).

computing networks[100]. The End-to-End principle, discussed previously here, has been discussed in many recent projects as a mechanism having the potential to secure QoS in allocating resources over heterogeneous autonomous networks[101]. That being said, the decentralised and interconnected network based on the E2E is still in need of a congestion control mechanism. RFC 2914 (2000) notes further:

> "The Internet protocol architecture is based on a connectionless end-to-end packet service using the IP protocol. The advantages of its connectionless design, flexibility and robustness, have been amply demonstrated. However, these advantages are not without cost: careful design is required to provide good service under heavy load." [102]

Yet, while the engineers have been trying to develop new protocols and technical solutions embedded in the net architecture, the ISPs claim that they are the ones bearing the costs for enhancing the network infrastructure to accommodate great amounts of data flow and offer their services at the highest possible quality (QoS) to their customers. Namely, ISPs note that the exponential growth of the Internet generates such high rates of traffic that congestion cannot be handled by the current traffic management techniques; additional investments in the net infrastructure are therefore necessary. However, unlike engineers, ISPs efforts are centred around maximising their revenues. The ISPs' investment in offering better services "is hardly counter balanced by new revenues from the users"[103]. On the contrary, this leads to greater demand for bandwidth and consequently a need for new investments by the ISPs to make the net infrastructure sustainable. According to the ISPs, those profiting directly from this vicious circle are online content providers (OCPs): using the "pipes" built by the ISPs for free, OCPs are able to make profit from an ever-

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100 For more, see Z Wang, *Internet QoS: Architectures and Mechanisms for Quality of Service* (Morgan Kaufmann 2001).

101 L Correia, J Schwarz da Silva, *Architecture and Design for the Future Internet: 4WARD EU Project* (Springer 2011).

102 S Floyd, 'Congestion Control Principles' (RFC 2914 – Sept 2000), available online <http://tools.ietf.org/html/rfc2914> accessed 12 December 2013.

103 J Krämer, L Wiewiorra, C Weinhardt, 'Net Neutrality: A Progress Report' (2013) 37 (9) Telecommunications Policy 794, 799.

growing market hungry for content[104]. As a result, ISPs benefit from their ability to control networks and manage traffic according to their interests in questionable ways: they block, degrade or prioritise traffic showing anti-competitive behaviour[105].

This has not gone unnoticed by the internet law scholars: network neutrality, a term coined by Tim Wu[106] briefly discussed by Lessig and Lemley[107], describes the need for an anti-discriminatory traffic control of data flow by the ISPs. Lessig and Lemley noted its importance in preserving the E2E principle online, while Wu has focused more on online competition and innovation. Although traffic management is acknowledged as *sine qua non* online, competition at the infrastructure level should aim at preserving innovation at the edges, giving incentives to independent developers (OCPs) instead of central hubs (ISPs)[108]. The principle of network neutrality has found wide support in the literature and has stirred up debate over its legal implementation: the FCC's 2010 for Internet Openness[109] and the European Framework on electronic communications[110] contain similar rules for transparent control management by the ISPs, while Chile[111] and the Netherlands[112] have already

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104 Note the following comment by Ed Whitacre, Jr., then Chief Executive Officer at AT&T: "Now what [content providers] would like to do is use my pipes free, but I ain't going to let them do that because we have spent this capital and we have to have a return on it." Available online <http: //www.businessweek.com/magazine/content/05_45/b3958092.htm.> accessed 12 December 2013.

105 For more details, see J Sluijs, *Network Neutrality and European Law* (Wolf Legal Publishers, 2012) 16-18.

106 T Wu, 'Network Neutrality, Broadband Discrimination' (2003) 2 Journal of Telecommunications and High Technology Law 141.

107 M Lemley, L Lessig, 'The End of End-to-End: Preserving the Architecture of the Internet in the Broadband Era' (2000) 48 UCLA L Rev. 925; L Lessig, *The Future of Ideas: The Fate of Commons in a Connected World* (Random House 2002) 168-175.

108 B van Schewick, 'Towards An Economic Framework for Network Neutrality Regulation' (2007) 5 Journal on Telecommunications & High Technology Law 329 *cf* C Yoo, 'Beyond Network Neutrality' (2005) 19 Harv. JL & Tech.1.

109 FCC 10-201 'Preserving the Free and Open Internet' (2010), available online <http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-10-201A1.pdf> accessed 12 December 2013.

110 European Parliament Resolution on Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions - The Open Internet and Net Neutrality in Europe (B7-0000/2011); Motion for a European Parliament Resolution on Completing the Digital Single Market (2012/2030).

111 Ley 20453 Neutralidad en la Red (2010), available online (in Spanish). <http://www.leychile.cl/Navegar?idNorma=1016570> accessed 12 December 2013

112 Article 7.4a Telecommunications Act 2011. For an English translation of the main provisions, see < https://www.bof.nl/2011/06/27/translations-of-key-dutch-internet-freedom-provisions/#nnprov>, accessed 12 December 2013.

passed national legislation implementing network neutrality. Currently the US and the EU seem to be approaching the matter in a different manner: on one hand, the FCC Chairman's proposal in May 2014 for new rules for internet traffic[113] has been received as a blow to network neutrality, with tech giants pleading for "light-touch rules to ensure that the Internet remains open, dynamic, and spontaneous"[114]. On the other, the European Parliament in April 2014 voted to preserve net neutrality across the 28 member states[115].

The matter of net neutrality has been widely discussed in the literature[116] as pertaining mostly to anti-trust and online competition legislation of online communications. As such, an in-depth analysis on net neutrality would fall outside the remit of the present chapter. For the purposes of this thesis, the focus is rather on how network neutrality relates to a general claim for preserving the net architecture. Following the argument made in the previous section discussing the physical layer,

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113 Statement by FCC Chairman Tom Wheeler on Broadband Consumers and Internet Congestion (rel. June 13, 2014), < http://www.fcc.gov/document/chairman-statement-broadband-consumers-and-internet-congestion> accessed 10 July 2014.

114 Comments of the Internet Association in response to the Federal Communications Commission's ("Commission" or "FCC") May 15, 2014 Notice of Proposed Rulemaking ("NPRM" or "Notice"), GN Docket No. 14-28, 14 July 2014, < http://internetassociation.org/wp-content/uploads/2014/07/Comments.pdf> accessed 28 July 2014.

115 <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+AMD+A7-2014-0190+237-244+DOC+PDF+V0//EN>, accessed 10 July 2014.

116 C Marsden, *Net Neutrality: Towards a Co-Regulatory Solution* (A&C Black 2010); B Frischmann, B van Schewick, 'Network Neutrality and the Economics of an Information Superhighway: A Reply to Professor Yoo' (2006) 47 Jurimetrics J. 383; L Lessig, 'In Support of Network Neutrality' (2007) 3 ISJLP 185; H Shelanski, 'Network Neutrality: Regulating With More Questions Than Answers' (2007) 6 J on Telecomm & High Tech L 23; T Wu (n 106) 141; C Yoo (n 108); T Wu, C Yoo, 'Keeping the Internet Neutral?: Tim Wu and Christopher Yoo Debate' (2006) 59 Fed. Comm. L.J. 575; D Clark, 'Network Neutrality: Words of Power and 800-pound Gorillas' (2007) 1 Int'l J. Comm. 701; S Crawford, 'Transporting Communications' (2009) 89 B.U. L. Rev. 871; J Crowcroft, 'Net Neutrality: The Technical Side of the Debate: A White Paper' (2007) 1 Int'l J. Comm. 567; R Frieden, 'Network Neutrality or Bias? Handicapping the Odds for a Tiered and Branded Internet' (2006) 29 Hastings Comm. & Ent. L.J. 171; C Hemphill, 'Network Neutrality and the False Promise of Zero-Price Regulation' (2008) 25 Yale J. on Reg. 135; B Hermalin, M Katz, 'The Economics of Product-Line Restrictions with an Application to the Network Neutrality Debate' (2007) 19 (2) Information Economics and Policy 215; M Lemley, L Lessig, 'The End of End-to-End: Preserving the Architecture of the Internet in the Broadband Era' (2001) 48 UCLA L. Rev. 925; B van Schewick (n 108); P Weiser, 'The Next Frontier for Network Neutrality' (2008) 60 Admin. L. Rev. 273; C Yoo, 'Network Neutrality and the Economics of Congestion' (2006) 94 Geo. L.J 1847; N Economides, J Tåg, 'Net Neutrality on the Internet: A Two-Sided Market Analysis' (2012) 24 (2) Information Economics and Policy 91; E Felten, 'Nuts and Bolts of Network Neutrality' (2010) R 2.0., available online <http://regulation2point0.org/wp-content/uploads/downloads/2010/04/php9e.pdf> accessed 12 December 2013.

the net neutrality debate is explored here in terms of a rights-based approach to protect key architectural principles such as the E2E.

In fact, the driving force behind the debate on network neutrality was primarily based on the need to preserve the End-to-End architecture. Lessig and Lemley have highlighted the need to maintain innovation at the edges; Comcast and Verizon's desire to build central control hubs by altering the internet's decentralised design would be a serious threat to innovation in the digital era[117]. Moreover, as shown in Chapter 3, the E2E principle as the basis for the net decentralised infrastructure has been instrumental in building an ideal environment for free exchange of ideas. Thus, trying to turn the internet into a centralised communications system similar to telephony or cable television networks would be particularly problematic not only in terms of online innovation but also for free speech[118]. Further to this, a sustainable future for the internet would also become questionable if the internet service providers were to determine communications and act as central control points of online data flow. Vinton Cerf has noted that keeping the internet open and interoperable should be a core aim for national broadband policies[119]. In the same vein, Clark and Blumenthal had warned in 2000 about the risk of "compromising the Internet's original design principles", predominantly the End to End principle, as the Internet became increasingly commercialised[120]. Traffic management, although a necessity online, can also suggest a new design choice – opposing directly the E2E – in that it discriminates data and handles it on grounds of profitability of the network operators.

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117 L Lessig, M Lemley (n 107) 936-938.

118 See for example La Quadrature Du Net, 'Time for EU Wide Net Neutrality Regulation' (2010), available online < http://www.laquadrature.net/files/LQDN-20100930-ReponseNetNeutralityQuestionnaire.pdf> accessed 12 December 2013.

119 V Cerf, 'The Open Internet: What It Is, And Why it Matters' (2002) 2 (59) Telecommunications Journal of Australia 18.1. Note also the following words by Tim Berners-Lee: "Yes, regulation to keep the Internet open is regulation. And mostly, the Internet thrives on lack of regulation. But some basic values have to be preserved. For example, the market system depends on the rule that you can't photocopy money. Democracy depends on freedom of speech. Freedom of connection, with any application, to any party, is the fundamental social basis of the Internet, and, now, the society based on it." Available online <http://dig.csail.mit.edu/breadcrumbs/node/144> accessed 12 December 2013.

120 D Clark, M Blumenthal, 'Rethinking the Design of the Internet: The End to End Arguments v the Brave New World' (2001) 1 (1) ACM Transactions on Internet Technology (TOIT) 70.

Yet, although the need to preserve the decentralised neutral net architecture has been widely observed, the debate around net neutrality revolves mainly around innovation and less around free speech. Mapping on previous similar regulative attempts, such as the non-discrimination rules introduced for the telegraphs[121] or the common carriage regulation[122], network neutrality does not specifically address free speech, nor does it address a rights-based policy model. Network neutrality is understood mainly as a set of much needed rules to regulate competition in the market. Tim Wu has described net neutrality as

> "a salutary distance between each of the major functions or layers of the information economy. It would mean that those who develop information, those who own the network infrastructure on which it travels, and those who control the tools or venues of access mush be kept apart from one another, At the same time … the government also (must) keep its distance and not intervene in the market to favour any technology, network monopoly or integration of the major functions of an information industry."[123]

However, how effective can an anti-trust regulation be in addressing free speech issues without state interference? [124] Arguably regulating competition in the market is not by itself enough to guarantee transparency and restore online trust[125].

Moreover, in focusing too narrowly on the ISPs, network neutrality fails to address potential spill-overs to other parties in the network layer that can also act as

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121 "... messages received from any individual, company, or corporation, or from any telegraph lines conne1cting with this line at either of its termini, shall be impartially transmitted in the order of their reception, excepting that the dispatches of the government shall have priority." An Act to Facilitate Communication Between the Atlantic and Pacific States by Electric Telegraph (16 June 1860).

122 C Yoo, 'Is There a Role for Common Carriage in an Internet-Based World?' (2013) 51 (2) Houston L Rev 545; C Sandvig, 'Network Neutrality is the New Common Carriage' (2007) 9 info 136.

123 T Wu (n 45) 304.

124 There is a small yet important part in the literature that examines traffic managements taking a rights-based approach focusing mostly on free speech issues. See, M Ammori, 'Beyond Content Neutrality: Understanding Content-Based Promotion of Democratic Speech' (2009) 61 Federal Communications Law Journal 273 (examining First Amendment doctrines through the lens of content promotion in order to build a rights-based framework for network neutrality); M Ammori, 'First Amendment Architecture' (2012) Wisc. L Rev 1 (suggesting a test applying principles and not standards for determining the constitutionality of free speech regulation); A Schejter and M Yemini, 'Justice, and Only Justice, You Shall Pursue: Network Neutrality, the First Amendment and John Rawls's Theory of Justice' (2007) 14 Michigan Telecommunications and Technology Law Review 137–457 (redrafting network neutrality on Rawlsian theory of justice).

125 "To say that competition can then be a reason not to examine industry practices and mandate as much disclosure as possible is exactly backward. For it is such information that is necessary to make competition work in the first place." T Wu, 'Wireless Carterfone' (2007) 1 International Journal of Communication 389, 423.

gatekeepers. Take for example the content providers striking opaque deals with internet service providers or acting themselves as ISPs. The latest example is Google: once an avid supporter of net neutrality, the moment it entered broadband services, Google Fiber included in its terms of services a broad prohibition against customers attaching "servers" to Google's network; this includes also the use of peer-to-peer (P2P)[126] software, where a computer can be both a client and a server[127].

Furthermore, enforcement of net neutrality rules is itself a questionable matter. Although the regulatory state agents in the US and the EU have stepped in to ask ISPs to comply with net neutrality rules, their authority is contested. Recently, BEREC, the European Telecommunications regulator, has expressed the view that it does not have the competence to intervene in regulating the market if it desires to uphold fundamental human rights[128]. Similarly, in 2011 Verizon sued FCC[129] claiming it had no authority to impose net neutrality rules on ISPs. At the time of writing the D.C. Circuit Court of Appeals has just issued on 14th January 2014 its long-awaited decision, whereby it strikes down the FCC's network neutrality rules accepting Verizon's argument that these rules are in excess of the FCC's statutory authority and in direct violation of Verizon's rights under the First Amendment[130].

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126 For the sake of argumentative clarity, P2P and E2E are used interchangeably as they are both instrumental elements of the decentralised distributed net architecture. The fact that P2P is software while E2E is the general engineering principle is a minor definitional detail of little importance for the purposes of this thesis.

127 <https://medium.com/future-participle/5a2d9322bdc4> accessed 12 December 2013. See also Google's response to complaints about violation of net neutrality rules, available online <https://dl.dropboxusercontent.com/u/1914342/Google%20Fiber%20Response%20to%20McClendon%20Complaint%20%28AS%20FILED%20072913%29.pdf> accessed 12 December 2013.

128 "Freedom of expression and citizens' rights, as well as media pluralism and cultural diversity, are important values of the modern society, and they are worth being protected in this context – especially since mass communication has become easier for all citizens thanks to the Internet. However, intervention in respect of such considerations lies outside the competence of BEREC, and we will not comment much on these issues, although it is noted that as public bodies, NRAs are obliged to respect the rights of citizens if restrictions are imposed on end users' access to or use of services." BEREC, "Response to the European Commission's consultation on the open Internet and net neutrality in Europe" BoR (2010) 42 20, available online <http://www.erg.eu.int/doc/berec/bor_10_42.pdf> accessed 12 December 2013.

129 *Verizon v FCC*, No 11-1355 (D.C. Cir.), <http://www.fcc.gov/document/verizon-v-fcc-no-11-1355-dc-cir> accessed 12 December 2013.

130 *Verizon v FCC* (DC Cir Jan 14, 2014) available online at <http://www.cadc.uscourts.gov/internet/opinions.nsf/3AF8B4D938CDEEA685257C6000532062/$file/11-1355-1474943.pdf> accessed 21st January 2014. For counterarguments to Verizon's view, see the brief by the Open Internet Coalition. The brief explains the inconsistency in Verizon's arguments

Interestingly enough, while net neutrality proponents do not take a rights-based approach, there is a growing tendency for online intermediaries challenging such state regulation to invoke the First Amendment. This claim seemed to find some resonance after the ruling in *Citizens United v. FEC*[131], where it was found that campaign spending by corporations amounts to free speech. Although the speech under review in *Citizens United* was political[132], which is hardly the case in network neutrality, the fear of an era of Lochnerism[133] in internet-related legislation is not irrational. Tim Wu – echoing Schauer's First Amendment opportunism – explains how online corporations hijack the First Amendment to escape regulation:

> "Once the patron saint of protesters and the disenfranchised, the First Amendment has become the darling of economic libertarians and corporate lawyers who have recognized its power to immunize private enterprise from legal restraint."[134]

It comes as no surprise that the state's authority to regulate a profitable market, such as broadband, is contested. Nor is it strange that the First Amendment is evoked to protect the corporations' online activity. However, it seems somewhat ironic that the First Amendment is used to enable intermediaries to discriminate between forms of online speech. Network neutrality, in focusing too narrowly on the user's rights as a consumer, fails to answer to infringements of the user's fundamental rights online. The state would only have limited authority in regulating the market, its measures facilitating purely economic interests. By contrast, Baker's theory in reserving a positive right for the state under the First Amendment to promote free speech, could supply cogent solutions in this respect. It might be that a public policy model

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as by invoking Turner they appear as "speakers"/"editors" with the authority to decide on content, although in the past they have denied liability arguing that they are acting as "mere conduits for the transmission of information sent by others." Brief of Intervenors Open Internet Coalition, Public Knowledge, Vonage Holdings Corporation, and National Association of State Utility Consumer Advocates N 11-1355 (2012), available online <http://publicknowledge.org/files/Joint_intervenors_open_internet_brief.pdf> accessed 12 December 2013.

131 *Citizens United v. Federal Election Commission*, 558 U.S. 310 (2010).

132 S Crawford, 'Verizon v FCC: Why It Matters', available online <http://scrawford.net/verizon-v-fcc-why-it-matters/> accessed 12 December 2013.

133 The Lochner era, taking its name from the 1905 case Lochner v. New York identifies a period in American jurisprudence marked by a number of decisions interpretating substantive due process to invalidate legislation conflicting with economic liberties as unconstitutional.

134 T Wu, 'The Right to Evade Regulation: How Corporations Hijacked the First Amendment' (2013), available online <http://www.newrepublic.com/article/113294/how-corporations-hijacked-first-amendment-evade-regulation>, accessed 12 December 2013.

focusing on the promotion of free speech values instead of simply imposing anti-trust regulations could perhaps address network neutrality concerns in an effective manner.

Monopolies and media concentration is not an unknown concept in free speech jurisprudence and literature: in *Red Lion Broadcasting Co v FCC*[135], the Supreme Court acknowledged that besides state-mandated suppressions of speech, there are also additional potential threats posed by censorial tactics of privately-owned mass media. For most First Amendment scholars, free speech is a matter of design[136]: a free market by itself cannot promote free speech unless it is additionally structured to fully guarantee the right's constitutional protection. However, as observed by Balkin[137], First Amendment scholars[138] seem to be building a rights-based free speech model on the assumption that the media ecology will remain unchanged:

> "The basic problem of media access", Balkin posits, "is not constitutional in the legal sense, i.e. what the U.S. Constitution demands or forbids. Rather it is "constitutional" in a technological and social sense: what kinds of technologies, business models, social formations, and user practices constitute the media ecology."[139]

As noted earlier, Baker's work on media concentration has shown how the First Amendment includes also the state's right to make structural adjustments[140] to ensure diversity and distribution[141]. While rejecting the neoliberal claim that the

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135 *Red Lion Broadcasting Co v FCC*, 395 U.S. 367 (1969).

136 L Lessig, 'The Architecture of Innovation' (2001) 51 Duke LJ 1783; M Cooper, M Lemley, L Lessig, *Open Architecture as Communications Policy: Preserving Internet Freedom in the Broadband Era* (Center for Internet and Society, Stanford Law School, 2004); J Balkin, 'Media Access: A Question of Design' (2007) 76 Geo. Wash. L. Rev. 933, 957.

137 J Balkin ibid.

138 Balkin mostly discusses Barron's and Meiklejohn's theories and rejects them as unfit for the internet in that they seem to be only concerned with the rights of the listeners; this applies to a one-to-many rather than a many-to-many communicatory platform. See also J Barron, 'Access to the Press – A New First Amendment' (1967) 80 Harv L Rev 1641; A Meiklejohn, *Political Freedom: The Constitutional Powers of the People* (OUP 1965).

139 Balkin (n 136) 939.

140 It should be noted that Baker reserves editorial rights under the First Amendment for cable operators when the state interference threatens the institutional integrity of the Press. CE Baker, *Media, Markets, and Democracy* (Cambridge University Press, 2002).

141 CE Baker (n 140) 125–28; CE Baker, 'Press Performance, Human Rights and Private Power as a Threat' (2011) 5 (2) Law and Ethics of Human Rights 219; CE Baker, 'Media Structure, Ownership Policy, and the First Amendment' (2004) 78 S. Cal. L. Rev. 733.
See also D Hawthorne, M Price, 'Rewiring the First Amendment: Meaning, Content and Public Broadcasting' (1994) 12 Cardozo Arts & Ent. L.J.; M Price, D Hawthorne, 'Saving Public

consumer's choice is able to shape the market[142], Baker further explains that the market is only one architectural choice among many; its value "subject to contextual debate"[143]. Namely, even when one accepts that the First Amendment allows state interference to structure the media in order to promote free speech[144], there is no "one size fits all" structural regulation that applies to all media. The Internet in this respect is, and should be treated as, a medium different to cable television, radio, or even print press. In addition, as explained in Chapter 3, that Internet has built a new ecology for free speech, itself built on principles causing it to operate on free flow of information. However, Baker concedes that the internet by itself does not eliminate the concern for media concentration; although it has great potential to be a diverse communicatory platform, it can still be structured to facilitate the interests of a handful of dominant players[145]. This seems to be the case with the current traffic management throttling P2P and creating central bottlenecks.

The benefits of a decentralised structure in communications have been praised in the literature[146]. As shown in Chapter 3, the E2E principle results in keeping the Internet a decentralised information environment with control points at its edges. End nodes can be a server and a client in this respect, namely they can assume both the role of suppliers and consumers of data without the need for intermediation. To make this last point clearer, recall the point mentioned in Chapter 3, section 2, where it was noted how the internet was created primarily to cover the need for sharing online resources built on an older time-sharing project by JCR Licklider. In other words, not only can traffic management rely on the distribution offered in P2P networks,

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Television: The Remand of Turner Broadcasting and the Future of Cable Regulation' (1994) 17 Hastings Comm. & Ent. L.J. 65; O Fiss, 'The Censorship of Television' (1999) 93 NW. U. L. Rev. 1215.

142 CE Baker, 'Media Structure, Ownership Policy, and the First Amendment' (n 140) 748, 749; CE Baker, 'Turner Broadcasting: Content Regulation of Persons and Presses' (n 53).

143 According to Baker, different levels of structural regulation reflect different concepts of democracy. As to how media should be ideally structured, Baker admits that this is a highly contextual matter and reaches this conclusion after considering Habermas's discourse theory of democracy. CE Baker, 'Media Structure, Ownership Policy and the First Amendment' (n 140) 760-761.

144 "[a]rguably the First Amendment is best understood to distinguish between content suppression and content promotion, condemning only the former." CE Baker (n 54) 930-931.

145 CE Baker (n 91) 898.

146 Y Benkler, *The Wealth of Networks: How Social Production Transforms Markets and Freedom* (Yale University Press 2006) 261-65; M Burstein, 'Towards a New Standard for First Amendment Review of Structural Media Regulation' (2004) 79 N.Y.U. L. Rev. 1030.

but at the same time the autonomy of the nodes can be retained. The last point has been briefly mentioned by Musiani, who *inter alia* urges for a legal evaluation of P2P as a "means of definition and protection of the rights of users on Internet-based services."[147] In this case, adopting a digitised version of Baker's theory would mean in essence that the state regulation to preserve the architectural principle of E2E can be considered as falling directly within the scope of the First Amendment. In this approach, the user is not treated as a consumer but as a right-holder. Thus the justificatory basis of network neutrality is no longer regulating the market but upholding the First Amendment values online.

Network neutrality is conceived sometimes as an internet governance decision to promote the public interest by means of regulating the online market[148]. As such, it comes as no surprise that it is met with disbelief and has been regarded by many as an overly paternalistic regulation stifling online innovation and entrepreneurship. Should we adopt however Baker's theory and accept that the state has a positive obligation under the First Amendment to produce structural regulations to uphold the user's fundamental rights, all network neutrality arguments are on a more solid basis. In this techno-legal approach, distribution is still the main objective, yet – unlike network neutrality – its justificatory basis is not regulating the market, but guaranteeing the user's right to free speech and the access to speech of others[149].

4.4. The Content Layer, Content Agnosticism and Self-Realisation

The discussion of informational flow in all the internet governance layers revolves mainly around the debate on network neutrality. It has already been explained how the issue of network neutrality spans across most internet layers. So far, the physical

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147 F Musiani, 'Caring About the Plumbing: On the Importance of Architectures in Social Studies of (peer-to-peer) Technology' (2012) 1 Journal of Peer Production 5.

148 C Yoo, 'Would Mandating Broadband Network Neutrality Help or Hurt Competition: A Comment on the End-to-End Debate' (2004) 3 Journal of Telecommunications and High Technology Law; T Wu (n 106); E Felten (n 113).

149 See also D Nunziato, *Virtual Freedom: Net Neutrality and Free Speech in the Internet Age* (Stanford University Press 2009) (discussing network neutrality on grounds of an affirmative concept of the First Amendment).

and the logical layers have been examined, not strictly on net neutrality grounds but mostly as to their infrastructure's potential to accommodate the value of self-realisation in Baker's free speech policy model. That being said, the analysis attempted here would not be complete if the content layer was not also addressed.

This layer refers to the information as it reaches the user, and as such has been the layer most familiar to the lawmaker regulating free speech. However, little has been said as to its underlying architectural value for free speech policymaking. Chapter 3 has described in detail how the principle of modularity guarantees that multiple packets of information are exchanged between the nodes of a network without any content-specific restrictions. Namely, the content of the information is not important to the different layers processing and handling the packets that contain the message sent from one end point to another.

Interestingly, this architectural principle echoes Baker's urge for content agnosticism of the First Amendment. As Baker notes, "if the First Amendment protects people's choices related to self-fulfilment and involvement in social, political, or cultural change, it must normally be agnostic in respect to content or effect"[150]. In other words, the scope of protection should not be content-based but the result of an evaluation of the speech under review in terms of its coerciveness: if it does not promote the listener's self-realisation, thus being overly coercive, then it does not merit constitutional protection. However, as Baker observes further, marketplace theories typically focus on the content of the speech. The content agnosticism carried in the principle of modularity could therefore serve Baker's policy model in that it avoids examining the content of the processed packets of information.

As in the case of the E2E principle, the architectural pattern of modularity has also not remained intact throughout time. Many content-based restrictions employing technological means such as filtering and blocking demonstrate this well; mostly associated with authoritarian regimes, such restrictions have not been further linked to private ordering. However, as Laura DeNardis observes, there is an "increasing privatisation of Internet governance, particularly at the level of infrastructure

150 CE Baker (n 25) 1003.

management"[151] employing non-transparent means of content-based discrimination of information, completely antithetical to the content agnosticism once prevalent in the net infrastructure.

One such potentially disruptive technology credited "with the ability to dramatically change the architecture, governance and use of the internet"[152] is the deep packet inspection, widely known as DPI. Abolishing the content-agnostic effect of modularity, this technology involves the engineering of inspection points into the network infrastructure that scrutinise the entire contents of a packet[153]. This ability to view and monitor the content of user's activity, including searches, blog posts and email, raises many issues as to the manipulation and content-based discrimination of information[154].

Initially used as a firewall-incorporated technology to inspect incoming traffic to boost the security of local area networks[155], DPI is now used as a pervasive and non-transparent method of reading and analysing packets of information for many purposes, interfering with the user's right to free speech. State actors use DPI mainly for censoring or surveillance purposes, while there are also instances of legal uses of DPI for the purposes of criminal investigations[156]. Non-state actors use DPI for targeted advertising or network management purposes. The latter refers to a layered management of the offered services into different levels of technological efficiency ("access-tiering"), which correspond to different customer packets of services. As

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151 L DeNardis, 'The Emerging Field of Internet Governance' (2010) Yale Information Society Project Working Paper Series 1, 2.

152 R Bendrath, M Mueller, 'The End of the Net As We Know It? Deep Packet Inspection and Internet Governance' (2011) 13 (7) New Media & Society 1142.

153 As noted in Chapter 3, section 3.1. encapsulation and the processing of separate data packets in separate layers result in the content of the message remaining unknown until it reaches its final destination and all packets are reassembled. In DPI, the content of a packet is deciphered, including both its header and its payload, namely the actual content of each packet. This is opposed to earlier similar techniques, such as the shallow packet inspection, analysing only the header of each packet. For more technical details, see for a fair description in R Bendrath, 'Global Technology Trends and National Regulation: Explaining Variation in the Governance of Deep Packet Inspection' (2009) International Studies Annual Convention.

154 Bendrath noted the ability of the network owner to manipulate internet traffic in real time by employing the integrated controlling functions offered by DPI. R Bendrath ibid 14.

155 R Bendrath (n 153) 17.

156 In the US, DPI is also used to enable the ISPs compliance with the Communications Assistance for Law Enforcement Act (CALEA) requirement to embed surveillance technologies in their network in order to aid criminal investigations.

such, these functions of content-based manipulation of information and restricted access are closely connected to the principle of network neutrality, discussed in the previous section. Yet, as noted above, we seem to still be a long way from establishing an obligation of ISPs to offer their services without unduly interfering with the user's privacy and freedom of speech. Consider the Court ruling in *Comcast Corp. v. FCC*[157], where it was held that FCC had no jurisdiction over Comcast's network management policies. The Court also vacated FCC's 2008 order, which followed a complaint that Comcast was using DPI to throttle the use of BitTorrent, a peer-to-peer protocol widely used for exchanging both illegal and lawfully obtained content. Comcast claimed that the use of DPI was intended only for the purposes of managing scarce network capacity, however the FCC found that Comcast's practices "impeded consumers' ability to access content and use applications of their choice" and were in breach of the Communications Act 1934.

Although this is considered as one of the first attempts to enforce network neutrality rules, the FCC's failure to show that its regulations were ancillary to statutorily mandated responsibilities[158] led to the Court finding for Comcast. However, as noted earlier, discussion of network neutrality revolves mainly around innovation and is not necessarily focused on securing the user's freedom of speech. To express this argument in reverse, even if there had been a legislative basis for network neutrality, this would still not be able to offer protection to the user's free speech from invasive technologies, such as DPI. Paul Ohm notes how the US Congress could impose network privacy by amending the Electronic Communications Privacy Act of 1986 (ECPA).[159] In clarifying and restricting the acceptable exceptions for ISP monitoring, ECPA could be used as a legislative basis for network neutrality, mandating a "net non-scrutiny" of communications online. In the same manner, European legislation seems to be at a similar turning point. After the failure of the Government of the United Kingdom to take any action in response to complaints about BT's trial of advertising software using deep packet inspection without its users' knowledge and consent, the European Commission issued a reasoned opinion

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157 *Comcast Corp. v. FCC*, 600 F.3d 642.

158 *Am. Library Ass'n v. FCC*, 406 F.3d 689.

159 P Ohm, 'When Network Neutrality Met Privacy' (2010) 53 (4) Communications of the ACM 30-32.

calling for stronger data protection policies in compliance with EU's 1995 Data Protection Directive (95/46/EC). In 2009, the European Union opened an infringement case against the UK[160]; the case was closed in January 2012, following the amendment of the British national legislation[161] to prevent interception of the user's electronic communications without "their explicit consent." As with the Electronic Communications Privacy Act of 1986 (ECPA), the Regulation of Investigatory Powers Act 2000 (RIPA) could provide for net non-scrutiny, however it is still a long way from securing free speech and its underpinning values.

Ohm concludes that such approaches recast the net neutrality debate from innovation and economic prosperity to privacy values. Yet, this still misses the point of focusing on the individual; instead it maintains a narrow scope of simply regulating the provider's activity to comply with the law mandates. To put it differently, the legal provision that ISPs should not scrutinise the content of information does not preclude the discriminatory handling of information and traffic throttling. Moreover, where there is no clear expectation of privacy, scrutinising the content of packets could still be an acceptable policy by the ISPs.

Applying Baker's model, free speech protection is afforded on the merit of its ability to promote self-realisation. Deep packet inspection, as a highly intrusive method of restricting communications, falls into the regulatory ambit of Baker's doctrine. In monitoring, modifying and restricting communication, DPI leaves the users with limited choices, thus affecting their ability to choose for themselves. Most importantly though, this method seems to alter the net architecture: the principles of modularity and E2E seem threatened by erosion due to the introduction of intermediaries and firewalls handling information a la carte[162]. Respecting

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160 April 2009 (IP/09/570).

161 Regulation of Investigatory Powers Act 2000. However note the UK's new Data Retention and Investigatory Powers Bill rushed through Parliament and enacted in July 2014, which not only corrects but also builds on the problematic RIPA.

162 Laura DeNardis notes also another threatening development: the private sector internet backbone agreements. The private interconnection points (IXPs) are crucial to the internet infrastructure: these are the points where the various commercial networks conjoin, interconnect and exchange information. "Peering" agreements between telecommunications companies and backbone providers for mutually exchanging traffic are, however, not uncommon. The implications for freedom of speech are tremendous: not only can the IXPs serve as potential points of governmental control and censorship, but they can be also easily be monopolised by a small number of providers acting as the sole administrators of informational flow. L DeNardis (n 151) 12-14.

modularity and E2E as means of enabling free speech and self-realisation stretches further than the debate over network neutrality goes: a policy model focusing more on information and less on innovation would be more efficient in meeting the user's communicatory needs online.

5. Conclusion: Code is Law, But is That All?

The previous sections have explored the handling of data at the physical, the logical and the content layer and have shown how structural improvements to shield the core architectural values of decentralisation, interoperability, distribution and openness can promote Baker's policy model for free speech. It has been suggested that in respecting all these principles that have facilitated innovation and fostered the internet's growth, policymakers also realise the potential that such an environment holds for public law: the net architecture can be the perfect substantiation of the proposed Baker's policy model. In Baker's theory, the individual is at the core of the free speech policy; self-realisation is the value determining the regulatory protective scope for speech. Yet, the individual is also the driving force behind the digital landscape; the End-to-End principle and the modular net structure have built a decentralised communicatory platform that connects individual nodes without having a central point of control.

That being said, the internet is a dynamic field and besides engineering principles, it also embeds political and legal choices in its architecture. Its ability to implement and influence policymaking has been noted by many legal scholars since the early days of the internet and has led to the creation of the emerging research field of internet governance[163]. However, there is a second reading to this, often overlooked:

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163 For some general bibliography on internet governance see: W Benedek, V Bauer, M Kettemann (eds.), *Internet Governance and the Information Society: Global Perspectives and European Dimensions* (Eleven International Publishing 2008); E Brousseau, M Marzouki, C Méadel (eds.), *Governance, Regulation, and Powers on the Internet (*Cambridge University Press 2012); L Bygrave, J Bing (eds.) *Internet Governance: Infrastructure and Institutions* (Oxford University Press 2009); C Dany, *Global Governance and NGO Participation: Shaping the Information Society in the United Nations (*Routledge 2013); L DeNardis, *Protocol Politics: The Globalization of Internet Governance* (MIT Press 2009)*;* W Drake, *Reforming Internet Governance: Perspectives from the*

code and law are both dynamic interactive fields, shaped and redefined through communication. They both shape and inform one another, however they ultimately should strive to facilitate the needs of the individual to express oneself. This chapter has shown how the industry and the state have used pervasive means to control communication instead of enabling its flow. Professor Crawford has criticised the narrow focus of telecommunications policy strictly on economic success, as an approach carrying the risk of "encouraging the development of a sclerotic, dumbed-down, cable television version of the internet"[164]. Although the debate on net neutrality is a first good step in realising the correlation between the architecture (E2E) and free speech, it focuses strictly on regulating the market and less on the individual. As such, it seems to be missing the point: internet should not be treated as a market but as a communicatory platform. Lessig and Lemley's influential argument[165] about preserving the End-to-End principle has undoubtedly set the basis for the net neutrality debate and carries tremendous value as such.

The concern that the lack of transparency in cyberspace will result in the user's inability to make informed choices online[166] has been picked up by Tim Wu[167] and others to conceptualise their suggestions against online information monopolies. This concern of the policymaker enabling an informed choice for the individual is hardly a new one; Baker has described how such a goal is not achieved through a regulatory model controlling the market forces, but in securing information that promotes self-realisation. This approach seems to be performing a neat balance between state-centrism and corporate dominance, both of which pose great threats to

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*Working Group on Internet Governance (*United Nations Publications 2008); D MacLean, *Internet Governance: A Grand Collaboration*. United Nations Publications 2005); J Malcolm, *Multi-Stakeholder Governance and the Internet Governance Forum* (Terminus Press 2008); J Mathiason, *Internet Governance: The New Frontier of Global Institutions* (Routledge 2008); M Mueller, *Networks and States: The Global Politics of Internet Governance* (MIT Press 2010); M Mueller, *Ruling the Root: Internet Governance and the Taming of Cyberspace* (MIT Press 2004); N Saleh, *Third World Citizens and the Information Technology Revolution* (Palgrave Macmillan 2010); A Thierer, CW Crews Jr. (eds.), *Who Rules the Net? Internet Governance and Jurisdiction* (Cato Institute 2003); R Weber, *Shaping Internet Governance: Regulatory Challenges* (Springer 2009). See also Chapter 1 (n 65).

164 S Crawford, 'The Internet and the Project of Communications Law' (2007) bepress Legal Series 1996.

165 M Lemley, L Lessig (n 107) 970.

166 L Lessig, *Code: Version 2.0.* (Basic Books 2006) 80.

167 T Wu (n 45). See also T Wu (n 106) 141; T Wu, 'The Broadband Debate: A User's Guide' (2004) 3 J. Telecomm. & High Tech L 69.

free speech in the digital era. In doing so, this policy model addresses all main concerns of the networked; focused more on the individual and less on the market, this approach stands better chances of success in reaching consent on a global scale. Lessig's technological determinism – that by ensuring a vibrant and transparent marketplace of ideas, free speech is guaranteed on the internet – seems to be capturing only a part of the regulatory challenges for free speech jurisprudence online[168]. This chapter has examined the potential of the net architecture as a means of implementing the First Amendment ordinance in the digital era. In this sense, it has not viewed the Law and the Code as competing modalities, seeking to shape each other. On the contrary, it has sought to find their common ground for drafting a free speech policy model for the internet: the value of self-realisation.

168 See also V Mayer-Schönberger, 'Demystifying Lessig' (2008) Wis. L. Rev. 713.

Chapter 6: Post Scriptum

"[T]hen the rule adapts itself to the new reasons which have been found for it, and enters on a new career. The old form receives a new content, and in time even the form modifies itself to fit the meaning it has received."

Oliver Wendell Holmes, jurist[1]

1. Make it New!

The title is borrowed from a slogan frequently cited in the works of modernists in the neo-avant-guard period. Attributed to Ezra Pound, the slogan dates back to 1935, when he first used this as the title for his published selection of poems. Pound's provocative choice of this title for a selection of essays on old literature did not go down well. His editor at Faber, T.S. Elliott, expressed his concern over Pound's peculiar sense of novelty: "we [the editorial team at Faber] may have missed subtle literary allusion but if we do I reckon general public will also"[2]. In essence, Pound's definition of novelty indicated his central imperative to revitalise poetry by modernising its tool: language. This thesis has sought to provide a similar modernising view by reviewing the classical theories of free speech in a new context: the net architecture. This has been done in three stages: the thesis has explained how the net architecture needs to be understood[3], recognised[4] and finally embraced by the lawmaker[5].

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1 OW Holmes, *The Common Law* (Little, Brown, Boston 1881) 53.
2 H Carpenter, *A Serious Character: The Life of Ezra Pound* (Boston: Houghton Mifflin 1988) 526.
3 Chapter 3.
4 Chapter 4.
5 Chapter 5.

The previous chapter has set this modernising mechanism in motion. Having explored the traditional free speech theories earlier in the thesis, Baker's theory on liberty was further examined as to the common ground shared with the internet's architectural principles. This is not to suggest that Baker's theory on liberty is flawless; as argued previously, Baker's theory, despite its criticisms, provides some a valuable basis for discussing the main issues concerning online regulation of free speech. In expressing his concern over private ordering and in viewing the First Amendment as including also the state's responsibility to promote free speech, Baker provides some much needed answers when examining free speech in the digital era. As early as Chapter 1, it was noted how non- transparent intermediation and indirect state interferences online appear to be rendering the First Amendment obsolete in the digital era. This has impacted greatly on the user's trust[6]. How could this trust be restored?

The answer to this question, as shown in Chapter 2, is to be found away from the parochial absolutism of a constitutional right to free speech against direct state mandated action. In this respect, Baker's reading of the First Amendment finds the right balance between state centrism and corporate dominance; a free speech policy online should no longer be simply about distrust against the government, but should also factor in the general feeling of disdain against online intermediaries acting as gatekeepers. The latter may also be protected under the First Amendment; this is an argument frequently supported in the digital era that perplexes matters further. Namely, online corporations themselves claim First Amendment rights online as a way of escaping state regulation. The First Amendment in this sense serves as a tool of control determining online governance: the state supports the "emergence of free speech and first amendment principle as anti-regulatory tools for corporate

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6 The last point is vividly described in the opening remarks by Ronald Deibert, Director of Citizen Lab at the High Level Leader Meeting in the IGF 2013: "I am going to begin my presentation with the "E" word. No, not "Ethics." "Edward." Yes, that's right Edward Snowden. I know in bringing up his name I am making many in this room uncomfortable. It makes governments uncomfortable, for obvious reasons. It makes the private sector uncomfortable too. Data we entrust to private companies, that we assumed were protected based on the terms of service we sign with them, have, it turns out, routinely been shared with third parties without our consent."
Available online <https://citizenlab.org/2013/10/deibert_hllm_igf2013/> accessed 12 December 2013.

counsel"[7], while corporations "hijack the First Amendment" to further their interests. The First Amendment protection stretching to corporations has been very recently affirmed in *Citizens United v. Federal Election Commission*[8] and is expected to see more instances of corporates arguing for corporate personhood to gain First Amendment protection on the internet[9].

Such observations, however, should be treated with caution; they should not be taken to suggest that the internet has changed free speech or its underpinning values. On the contrary, the internet has taken features that have always been there and made them more salient: although one of the most individualistic of liberties, free speech remains also deeply communal[10], namely an essential right for building communities. The internet, as a network that brings together communities, has brought out the core values underpinning free speech[11]. This thesis has discussed how one of those values, autonomy, seems to be instrumental in both the First Amendment and the net architecture. This thesis has taken a techno-legal approach to highlight how the First Amendment should be read in the digital era in order to be fully applicable. The approach undertaken here is user-centric, however it focuses more on the online and legal values and less on the user generated norms on the internet[12]. As such, the thesis is disassociated with the internet governance models: it

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7 J Balkin, 'Digital Speech and Democratic Culture: A Theory of Freedom of Expression for the Information Society' (2004) 79 NYU L Rev 1, 23; M Tushnet, 'Corporations and Free Speech' in D Kairys (ed), *The Politics of Law: A Progressive Critique* (Basic Books 1998) 253.

8 *Citizens United v Federal Election Commission*, 558 U.S. 310 (2010). For a good account of how this case carries out a different reading of the First Amendment, see KM Sullivan, 'Two Concepts of Freedom of Speech' (2010) Harv. L. Rev. 124, 143. See also R Epstein, A Richard, 'Citizens United v. FEC: The Constitutional Right That Big Corporations Should Have but Do Not Want' (2011) 34 Harv. JL & Pub. Pol'y 639; R Dworkin, 'The Decision That Threatens Democracy' (2010) The New York Review of Books, available online <http://www.nybooks.com/articles/archives/2010/may/May 13/decision-threatens-democracy/ > accessed 12 December 2013.

9 E Volokh, 'The Google Anti-Stop-Online-Piracy-Act Statement, Corporate Speech and the First Amendment', available online <http://www.volokh.com/2012/01/18/the-google-anti-stop-online-piracy-act-statement-corporate-speech-and-the-first-amendment/>accessed 12 December 2013; P Scheer, 'Battle Over SOPA Shows Why Corporations Need First Amendment Protection', available online <http://www.huffingtonpost.com/peter-scheer/sopa-pipa-first-amendment_b_1218349.html> accessed 12 December 2013.

10 J Balkin (n 7) 43.

11 See also A Murray, *The Regulation of Cyberspace: Control in the Online Environment* (Routledge-Cavendish, Oxon 2007) 115-118, 234-237, highlighting the importance of the community for online policy making.

12 The power of the community as a legitimising factor for online governance models has been discussed widely in the literature. See for example, J Bohman, 'Expanding Dialogue: The Internet, the Public Sphere and Prospects for Transnational Democracy' (2004) 52 (1) The Sociological

does not suggest a new institutional governance scheme altogether, but strives to bring out the jurisprudential foundations in order for the current internet governance models to be operational[13].

Next follows a section explaining how the techno-digital approach employed in the thesis links with similar views discussed in the literature.

2. Towards a Techno-Legal Model: What This Is and What This Is Not

The thesis has suggested a policy model based on a techno-legal approach: instead of simply commenting on the troubled relationship between the law and the code online, their underpinning values have been examined with a close focus on free speech. This is certainly not the first time the literature discusses how code and law can shape online activity and influence each other. Joel Reidenberg has been among the first to discuss the "Lex Informatica", namely how the network technology, could be used as a tool to "effectively formulate information policy rules"[14]. Lessig, on the other hand, has been more pessimistic in finding that the code has replaced law online[15], while Shapiro has noted the quest between state and non-state actors to gain control over the code[16]. This thesis has suggested that the truth is neither here nor there. While all of these propositions make some important valid points and

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Review 131-155 (regarding the Internet as a public of publics, based on active agents engaging in an online participatory democracy); M Mueller, J Mathiason, H Klein, 'The Internet and Global Governance: Principles and Norms for a New Regime' (2007) 13 (2) Global Governance: A Review of Multilateralism and International Organizations 237-254. (discussing the preservation of the technical model as an online norm); H Koh, 'Transnational Public Law Litigation' (1991) Yale Law Journal 2347-2402 (on how online norms are internalized in domestic legal systems through a transnational legal process.)

13 A Murray, 'Regulation and Rights in Networked Space' (2003) 30 (2) Journal of Law and Society 187.

14 J Reidenberg, 'Lex Informatica: The Formulation of Information Policy Rules Through Technology' (1997) 76 Tex. L. Rev. 553, 584.

15 "We are no more ready for this revolution than the Soviets were ready for theirs. We, like (the Soviets), have been caught by a revolution. But we, unlike them, have something to lose." L Lessig, *Code and Other Laws of Cyberspace* (Basic Books, New York 1999) 234.

16 A Shapiro, *The Control Revolution: How the Internet is Putting People in Charge and Changing the World We Know* (Public Affairs 1999) 168-233.

have greatly influenced internet policy making and online governance, they all seem to adopt a technologically deterministic view. It is argued here that that the net infrastructure -although it can be controlled to shape online activity - has the capacity to promote the values protected in law. In this sense, it has lent some techno-legal realist arguments and has explained how this approach can be set in motion when regulating free speech online.

Building on previous work by Niva Elkin-Koren and Barbara van Schewick, who have both noted the importance of the net infrastructure for online economic discourse, this thesis now suggests a similar argument for online free speech: a dialectic relationship between technology and free speech jurisprudence. In other words, instead of examining technology as an exogenous ruling modality, technology is perceived as becoming endogenous to the policy model suggested in the thesis. Elkin-Koren describes how technology should become endogenous to the economic analysis of the internet:

> "The introduction of new technologies has a dialectic relationship with other processes. Legal rules and market processes may directly affect the types of technologies available by explicitly prohibiting the use of certain technologies by law or by providing certain incentives to particular technologies and not others. ... Technology should, therefore, become endogenous to the analysis, and the economic discourse should be expanded to address it"[17].

The code is thus not understood here as an inimical ontology: the focus is not on it being a means of control, nor on the fact that as a hybrid modality it can shape online behaviour[18]. Although these are all valid arguments, they offer little help in building a robust free speech policy model online, which has been the focal point of this thesis. In addition - as explained in the introductory chapter - although a few scholars have indeed noted the significance that the net infrastructure holds for law and governance[19], their work is not narrowly focused on free speech.

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17 N Elkin-Koren, E Salzberger, *Law, Economics and Cyberspace: The Effects of Cyberspace on the Economic Analysis of Law* (Elgar Publishing 2004) 106.

18 For more details, see Chapter 2 section 1.

19 See also Caravas and Teubner explaining how the law's dependency on the computer code is expressed through the embodiment of legal values and norms. V Karavas, G Teubner, 'http://www. CompanyNameSucks. com: The Horizontal Effect of Fundamental Rights on Private Parties Within Autonomous Internet Law' (2003) 23 bepress Legal Series; V Karavas, 'The Force of Code: Law's Transformation under Information-Technological Conditions' (2009) 10 German LJ 463.

In this vein, the thesis seems to be mostly in agreement with Reidenberg's view seeing in technology a "panoply for opportunities" to put decisions in the hands of individual citizens. "In essence", Reidenberg notes, "Lex Informatica and legal rules both parallel and overlap one another. This relationship means that policymakers must add Lex Informatica to their set of policy instruments and should pursue Lex"[20]. Inasmuch as the net architecture embodies the values underpinning the right to free speech, it can be a powerful tool used to promote free speech online and as such it should inform the current legal approach. This tool, however, will still be in need of constitutional values to ensure it is used correctly. These values are needed not only to constrain direct and indirect control[21] of the "Code" by public and private ordering; they are also instrumental in restoring trust online and gaining the consent of the networked. As such, "Cyberspace will not demolish the authority of law, but rather reinvent it, and elevate it, if you want, to its own level of hyper reality"[22]. This thesis has shown how free speech jurisprudence can and ought to be reconfigured online based on policies respecting the net architecture.

3. A Final Caveat: Why Respecting the Architecture Is Important[23]

The architecture of the internet has been a point of reference framing the arguments put forth in this thesis. A closer examination of its core values in Chapter 3 has been complemented by frequent mentions in other chapters that highlighted further its interaction with free speech jurisprudence noted in Chapters 4 and 5. As explained

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20 J Reidenberg (n 14) 578.

21 Lessig in as early as 1999 had observed the role of constitutional values for Internet governance: "For our constitutional tradition is one which limits governmental power by limiting government's direct legislative action yet the future of the government's regulation of the Net is a future where government regulates by indirect legislative action. Constitutional values should constrain both indirect and direct regulation; so far it is not clear that they do." L Lessig, 'The Limits in Open Code: Regulatory Standards and the Future of the Net' (1999) 14 Berkeley Tech. LJ 759, 763.

22 V Mayer-Schönberger, 'The Authority of Law in Times of Cyberspace' (2001) JL Tech. & Pol'y 1, 22.

23 I wish to thank the Directors of the Alexander von Humboldt Institute for Internet and Society in Berlin - Prof. Wolfgang Schulz and Dr Jeanette Hofmann - for their valuable advice and questions on this point.

above, this thesis suggests a free speech policy model built on respect for the integrity of the net architecture insofar as it promotes autonomy. It has been contended that autonomy is a value found to support both the net infrastructure and the right to freedom of speech. This conclusion seems to provide valuable guidance as to how free speech matters should be approached online. However, one final point needs to be clarified before we are able to accept the suggested policy model here. Arguably, a techno-legal approach, maintaining a narrow focus on preserving the net architecture, although appealing, carries the danger of the proposition being trapped in its own devices: Can't the net architecture change and evolve?

Architecture, as law, is a dynamic field. Both can change and evolve over time. In free speech jurisprudence, changes are introduced through the courts; although the underpinning rationales remain the same, their doctrinal interpretation does not and it should not be a static matter. In the same way, computer engineering has provisions for change in the form of "designing for tussle"[24]; technologists take advantage of the deliberately flexible design to experiment with different policies and architectures that contribute better to the internet's sustainability. One such example is IPv6: an amendment to the Internet Protocol (IP) replacing the previous regime of IPv4 to tackle the problem of address exhaustion[25]. In this sense, to suggest that free speech should try to catch up with the net architecture[26] and influence its design would be an arduous and unnecessary task.

What this thesis has suggested is not a stubborn preservation of the internet architecture as such, speaking on strict formalistic terms. Instead, what is posited here is that free speech jurisprudence, insofar as it is underpinned by autonomy, should guarantee that the internet's design keeps promoting the autonomy of its users and their ability to make informed choices themselves. For this to be sustainable there needs to be not only a will on behalf of the net engineers, but also

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24 D Clark, J Wroclawski, K Sollins, R Braden, 'Tussle in Cyberspace: Defining Tomorrow's Internet' (2005) 13 (3) IEEE/ACM Transactions on Networking 462.

25 S Deering, R Hinden,'RFC 2460, Internet Protocol, Version 6 (IPv6) Specification' (December 1998), available online <http://www.ietf.org/rfc/rfc2460.txt> accessed 12 December 2013.

26 Unfortunately, the classic legal approach in law is to evaluate a new technology on the grounds of its relationship with the existing constitutional standards. In this sense – contrary to what is argued here – the lawmaker tries to match the online policies to the offline word in a revisionist manner, trying "to understand the power of the new in the context of the old." M Price, 'The Newness of New Technology' (2001) 22 Cardozo L Rev 1885, 1904.

the correct structural policies on behalf of the lawmaker. As Yoo notes[27], the technical evolution is characterised by an ambiguity as far as its outcome is concerned. This uncertainty should also be embraced by the lawmaker[28], who needs to liaise with the technologists and allow them the necessary space to experiment on better designing the internet of the future.

This thesis has shown how this approach can work with the right to free speech online. The autonomy rationale underpinning the protection for the right to speak freely has been identified in many of the main design principles responsible for the internet's growth and sustainability. In this respect, free speech can only thrive in a network promoting the users' autonomy and vice versa.

Of course, it is well known that the internet architecture taken as a whole is a field of constant struggle for control[29]. However, online policy making and the overall debate on online governance seem to be focusing more on the modalities seeking to influence the architecture and less on the actual values threatened from changes to the infrastructure. As a result, the internet's architecture has changed to enable better governmental and market regulation[30]. In Jewel v NSA, the EFF explained to the court the unconstitutional NSAs spying techniques to search great numbers of data by installing fiber-optic splitters on the internet backbone[31]. Exploiting the architecture to control the user and monitor his activity is gradually becoming the norm online. It is time that Lessig's (non-pathetic) dot should be at the heart of online policy-making and be recognised as an active part instead of merely a

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27 C Yoo, *The Dynamic Internet: How Technology, Users, and Businesses are Transforming the Network* (Rowman & Littlefield, 2012) 1-12.

28 A Murray (n 11) 252-257.

29 L DeNardis, 'Internet Points of Control as Global Governance: Paper No2 - Internet Governance Papers' (2013), Centre for International Governance Innovation), available online <http://www.cigionline.org/publications/2013/8/internet-points-of-control-global-governance> accessed 12 December 2013.

30 "Just as architecture is changing to better enable government regulation, so too is architecture changed to make the Net more like real space – more like real space, but threatening to regulate even more than real space. Better, more efficient regulation through code than the regulation effected in real space through code and contract." L Lessig, 'Cyberspace and Privacy: A New Legal Paradigm?' (2000) 52 (5) Stanford Law Rev 987, 997.

31 Plaintiffs Jewel, Knutzen and Walton's motion for partial summary judgment, available online < https://www.eff.org/document/plaintiffs-jewel-knutzen-and-waltons-motion-partial-summary-judgment> accessed 26 July 2014.

controlled subject. Its autonomy online should be guaranteed in order to make informed choices; the First Amendment can be a valuable tool in this respect.

This thesis has described a proactive free speech policy model focusing more on the structural amendments to the online design to promote free speech values, rather than determining the latitude for control over the user. It has further modelled this approach on Baker's theory on liberty, identifying autonomy as the dominant value behind both the net architecture and free speech jurisprudence. The suggested approach can provide answers to many of the threats to free speech encountered on the internet. The first chapter drew the reader's attention to the issue of online intermediation. Although this matter is not explicitly covered in this thesis[32], it is directly relevant to the user's right to free speech online. Intermediation is not necessarily a bad thing nor does it threaten free speech as such. On the contrary, the Supreme Court has validated time and again that the editorial discretion of the intermediaries can actually promote free speech online[33] by helping the user scan through vast amounts of data. That said, intermediation – often occurring in non-transparent and unaccountable ways – should be further regulated to ensure that it will not impair the user's autonomy by changing the net infrastructure. The policy model described in Chapter 5 of this thesis suggests a mechanism built along the lines of preserving an open Internet as the ideal platform for the user's self-realisation.

4. Autonomy

There is nothing more fitting as a last remark than the following excerpt from Eben Moglen's keynote in September 2013:

> "Having free media means having a network that behaves according to the needs of the people at the edge, not according to the needs of the servers in the middle. Making free media requires a network of peers, not a network of masters and

32 See Chapter 1, footnote 28.

33 C Yoo (n 27) 110-121. See also C Yoo, 'Free Speech and the Myth of the Internet as an Unintermediated Experience' (2009) 78 Geo. Wash. L. Rev. 697.

> servants. Not a network of clients and servers. Not a network where network operators control all the packets they move. This is not simple, but it is still possible. We require free technology."[34]

We live in times of great challenges to human rights: free speech has been no exception. At the same time though, we are experiencing an unprecedented moment in history, where the individual has more chances to evolve, express and develop than ever before. Technology has proven to be a great tool for autonomy. In the same manner that the industrial revolution broke new ground, we have now entered an era of individual revolution, where everything is at the fingertips of the average user. Taking a look at some of the most recent technological achievements and current projects illustrates this well: 3D printing, now also available at high street stores, has made it possible for the user to copy by creating without the need for an intermediary; in a similar manner, the Raspberry Pi, with 2.3 million sales at the end of 2013, has demystified computing for the masses. Internet projects such as the MIT's self-eye test kit[35] or NASA's CubeSats home kit for building your own satellite[36] are additional examples that demonstrate how the individual is placed at the centre of technology.

This, however, is not fully reflected in the current legal approaches to new technological media; in fact the internet-related legislation is generally concerned more with the market and focuses less on the individual. As discussed here, this disregard for the individual has resulted in the user's distrust and the law's inability to gain the consent of the networked for online policies. This thesis has examined a new policy model for free speech, which is modelled on the net architecture and maintains a user-centric approach. It has suggested that the value of self-realisation can provide valuable guidance for free speech jurisprudence in the digital era. The consent of the networked can still be won provided that the First Amendment is properly applied. For this, the lawmaker needs to understand the infrastructure of the

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[34] E Moglen, 'Why Freedom of Thought Requires Free Media and Why Free Media Require Free Technology' (2013) Keynote speech at Re:Publica, Berlin, transcript available online <http://en.goatsing.org/2013/09/08/eben-moglen-why-freedom-of-thought-requires-free-media-and-why-free-media-require-free-technology/> accessed 12 December 2013.

[35] L Landry, 'Ten Revolutionary Technologies That Have Spun out of MIT's Media Lab', available online <http://bostinno.streetwise.co/all-series/10-revolutionary-technologies-that-have-spun-out-of-mits-media-lab/> accessed 1 December 2013

[36] < http://www.nasa.gov/directorates/heo/home/CubeSats_initiative.html> accessed 12 December 2013

medium under regulation and the capacity it holds for promoting the values underpinning the right to free speech. Balkin has observed how,

> "[T]o protect free speech in the digital age, lawyers have to become cyberlawyers, not simply lawyers who study cyberlaw, but lawyers who think about how technology can best be structured and how public policies can best be achieved through wise technological design"[37].

The techno-legal model introduced in this thesis is hopefully a step forward in this direction, with many more yet to follow.

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[37] J Balkin (n 7) 51.

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