MASTER OF STUDIES IN LEGAL RESEARCH (Mst)

Enforcing the GNU General Public Licence: Copyright or Contract?

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ABSTRACT:

The GNU General Public Licence (GPL) is one of the most widely used licences in the field of Free and Open Source Software (FOSS). Principally a legal document drafted to facilitate the development, use and transfer of software, the licence also embodies a strong ideological character that seeks to challenge the paradigmatic representation of software as property. At its core, the GPL places great emphasis on the licensee's freedom to view, use, modify and distribute a covered work. However, for all its claims to openness and freedom, the GPL functions by way of *restrictions.* These restrictions are primarily designed to prohibit privatisation of the work by downstream licensees, but they also restrict other forms of conduct deemed contrary to the established practices of FOSS development.

This paper asks a seemingly simple legal question, yet it is one that is deeply entangled in the ideological and strategic complexities of a field that has received little in the way of judicial clarification. The question is whether the GPL's restrictive provisions are contractual in nature or merely property-based restrictions that act unilaterally to define the scope of the granted rights. Focusing almost exclusively on Anglo-American jurisprudence, this paper will consider a variety of licensing issues relating to formalities, the nature and scope of rights, and remedies in order to determine on which side of the property/contract divide the GPL's restrictive provisions reside, or perhaps *should* reside.

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TABLE OF ABBREVIATIONS:

- Free and Open Source Software (FOSS)
- Free Software Foundation (FSF)
- Free Software Definition (FSD)
- Open Source Initiative (OSI)
- Open Source Definition (OSD)
- GNU General Public Licence (GPL)
- Commission on New Technological Uses of Copyrighted Works (CONTU)
- Relational Contract Theory (RCT)
- Contributor Agreement (CA)
- Contributor Licence Agreement (CLA)
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Introduction

[0.0] Introduction:

This paper questions the enforceability of 'bare licence' restrictions in the context of Free and Open Source Software (FOSS) licensing, focusing exclusively on the GNU General Public Licence (GPL) [1] as the archetypal 'restrictive' or 'copyleft' licence. [2] The GPL acts as a template licence which, when attached to a computer program, guarantees downstream licensees certain fundamental freedoms in relation to that work. These freedoms include (a) the freedom to run the program, (b) the freedom to study how the program works, (c) the freedom to redistribute copies, and (d) the freedom to distribute modified versions of the program. [3] To ensure that those licensees who have exercised these freedoms under the GPL cannot deny others those same freedoms, the licence imposes restrictions on how redistribution of a covered work by a licensee may take place. [4]

For several years, there has been debate over whether the restrictive terms of the GPL are enforceable as pure property-based restrictions, namely on the basis of the underlying copyright, or whether they are enforceable as contractual provisions that arise as a result of the parties' mutual agreement. The former interpretation is seen as

[1] *GNU General Public Licence, Version 3* [hereafter GPLv3] See *Appendix*

[2] FOSS licences are often understood as being either '*restrictive*' or '*permissive*'. This paper will deal only with issues relevant to *restrictive* FOSS licences. For further discussion on this distinction see; Lawrence Rosen. *Open Source Licensing: Software Freedom and Intellectual Property Law* (Prentice Hall PTR, 2005). ch 5-6.

[3] Richard M. Stallman, *Free Software Definition* in *Free Software Free Society: Selected Essays of Richard M. Stallman* (ed. Gay, Soho Books, 2002) 43

[4] See Preamble; "To protect your rights, we need to prevent others from denying you these rights or asking you to surrender the rights. Therefore, you have certain responsibilities if you distribute copies of the software, or if you modify it: responsibilities to respect the freedom of others." GPLv3 (n 1)

advantageous to GPL licensors because, unlike contractual restrictions, the property-based restrictions of the bare licence do not require formal assent in order to be enforceable and the remedies for violation are typically exclusionary, not compensatory in nature. However, others have expressed concern at the ostensibly reciprocal nature of the rights and duties under the GPL, questioning whether the imposition of such restrictions *should* be made through contract, especially given the fact they do not merely impose *negative* duties on licensees – *in rem* rights normally requiring people to abstain from certain types of interference – but instead demand affirmative action, imposing *positive* duties on licensees that appear more contractual in nature.

[0.1] Scope and Structure

The paper is composed of four chapters. **Chapter 1** explores the GPL's origins, providing a brief exposition on the historical factors that have been formative to the licence's creation and current function. **Chapter 2** then examines the GPL as a 'bare licence,' looking at the strategic advantages that accompany an interpretation of its restrictions as being purely property based. Furthermore, consideration will be given here as to the concerns that arise in response to this interpretation. **Chapter 3** then considers whether, given the concerns identified in Chapter 2, the GPL is capable of forming a contract. Indeed, as will be shown, there are many factors that conspire against a contractual interpretation of the licence. As a theoretical exercise, this part will then ask whether viewing the GPL as a contract through the lens of *Relational Contract Theory* may overcome these factors barring formation. **Chapter 4** considers the role of "contributor agreements" as an increasingly common way in which to structure FOSS legal relations. The question here will be whether contributor agreements can be understood as a response to the enduring legal uncertainty surrounding 'restrictive' licences like the GPL.

The development and use of FOSS is an intrinsically global practice. Licensors and licensees are often dispersed throughout many different jurisdictions, this in turn precipitating a rich body of scholarship on the private international law dimensions of licensing. [5] Due to constraints, however, this paper will focus exclusively on the GPL from a domestic angle, and a limited one at that. This paper addresses the GPL with respect to Anglo-American common law (i.e. United States and England & Wales); the former due to the US-centric nature of the GPL and the latter due to the jurisdictional circumstances of the writer. Due to their similarities, much of the discussion will be jurisdiction-neutral; however, where differences arise these will be noted and discussed accordingly.

[0.3] Background:

Before proceeding to the substantive body of the paper, it may be useful to first outline some background concepts necessary to a discussion on the GPL and FOSS licensing:

- ***Object Code and Source Code:***

A computer program acts as a set of instructions that order a computer to carry out certain tasks. It is therefore a form of communication between man and computer. Accordingly, both man and machine need to be able to interpret the instructions when they are being issued or received. *Source code* is the higher-level set of commands, the human-readable

[5] See; Axel Metzger, *Internationalisation of FOSS Contributory Copyright Assignments and Licenses: Jurisdiction-Specific or "Unported"?* (2013) 10:2 *SCRIPTed* 177 <http://script-ed.org/?p=1063> accessed 10 October 2013; Axel Metzger, *Transnational Law for Transnational Communities The Emergence of a Lex Mercatoria (or Lex Informatica) for International Creative Communities* (2012) 3 JIPITEC 3 <http://www.jipitec.eu/issues/jipitec-3-3-2012/3523/metzger.pdf> accessed 10 October 2013; Catharina Maracke, *Creative Commons International: The International License Porting Project – Origins, Experiences, and Challenges*, (2010) 1 JIPITEC 4 <http://www.jipitec.eu/issues/jipitec-1-1-2010/2417/dippadm1268743811.97.pdf> accessed 10 October 2013.

programming language. [6] Once the programmer has written the source code, it is compiled into a lower-level language (assembly language) and then assembled into *object code*, the machine-readable form of the command, represented in binary as a series of 0-or-1 values. [7]

- ***Free Software and Open Source Software:***

While this paper uses FOSS as a term to refer generally to the body of software with its source code made freely available through a licence, it must be noted that *Free Software* and *Open Source* are in fact two distinct conceptions of this practice.

Free Software is software that is accompanied by a licence conforming to the *Free Software Definition* (FSD), its criteria focused on ensuring 'software freedoms' are upheld. The Free Software Definition is maintained by the *Free Software Foundation*, which, as will be discussed below, is an organisation that promotes an ideological narrative of software liberty.

Open Source Software, however, is the less ideologically-driven, more commercial-minded adaptation of Free Software. Its motivation for making source code available is grounded in a narrative of software development methodology, efficiency and free-market competition. The *Open Source Initiative* (OSI), the organisation dedicated to managing and promoting the open source trademark, maintains its own *Open Source Definition* (OSD) which acts as criteria by which licences can be certified as 'open source.' [8]

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[6] *Richard M. Stallman* (n 3) 3

[7] *Ibid*

[8] Open Source Initiative, *The Open Source Definition (Annotated)* (Version 1.9) <http://opensource.org/osd-annotated> (accessed 10 October 2013)

Despite their differing values, the FSD and the OSD are, for the most part, identical. [9] Indeed, the GPL is considered both FSD- and OSD-compatible. While the neutral term FOSS will be adopted in this paper, most of the discussion will be focused on the *Free Software* dimensions of the GPL and FOSS due to the fact that the licence was primarily drafted with Free Software values in mind.

Chapter 1: A Brief History of the GNU GPL:

The need to create anti-privatisation restrictions in software licences arose as a response to the extension of copyright law to explicitly cover computer programs. In the early days of software development, informality and open sharing were the norms governing the use, modification and redistribution of computer programs. Programming in the 1950s, 1960s and 1970s was seen as an ancillary project to the development of hardware: hardware being the physical computing apparatus on which computer programs were stored and executed. [10] In this pre-copyright period, computer programs were bundled and sold with the computer hardware, thus there was no perceived need to incentivise the development of computer programs through intellectual property law and its mechanisms of privatisation. [11] Indeed, computer programs at this point in time were seen as having no

[9] "Except that the wording is slightly different, the FSD and the OSD means almost the same thing in terms of the *duty* that programmers should bear: FOSS programmers should give users the "freedoms" (as in the FSD) or the "rights" (as in the OSD) to access, copy, modify and redistribute the software. Based on this reason, some scholars think that there is no pronounced difference between "free software" and "open source" because both labels describe the same type of technological artefact or the same type of programming practice." Chenwei Zhu. *Authoring collaborative projects: a study of intellectual property and free and open source software (FOSS) licensing schemes from a relational contract perspective* (PhD thesis, The London School of Economics and Political Science, 2011) < http://etheses.lse.ac.uk/294/> (accessed 10 October 2013) 18

[10] Michael L. Rustad, *Software Licensing: Principles and Practical Strategies* (OUP, 2010) 10

[11] Ian Murdock, *Open Source and the Commoditization of Software* in DiBona, Cooper & Stone (ed), *Open Sources 2.0: The Continuing Evolution* (O'Reilly, 2005) 93

realisable financial value separate from the hardware on which they ran. [12] Accordingly, source code was freely shared, without restrictions and without royalties, amongst communities of professional programmers and hobbyists alike. These activities were regulated by an informal moral code commonly referred to as the 'hacker ethic" which held that programmers were under an ethical duty to share their work so that others could study, understand, engage with, and improve upon the code; [13] the computer programmers' equivalent of Mertonian norms. [14] The primacy of ethical relations, as manifested in the 'hacker ethic,' could thus be viewed as a corollary to the absence of both a market for software and the laws needed for its regulation.

Others, however, viewed the primacy of this ethical relation as the *reason* for the market's absence. [15] It soon followed that a number of legal and technical developments would take place to ensure computer programs were subject to a system of exclusive and alienable property rights, thus securing a market for 'proprietary software.'

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[12] Computer programs during this period were seen only as product differentiators for expensive hardware. See Eben Moglen, *Anarchism Triumphant: Free Software and the Death of Copyright* (1999) <http://moglen.law.columbia.edu/publications/anarchism.html> accessed 10 October 2013.

[13] Steven Levy's pioneering study into hacker culture distilled this 'ethic' into the form of six principles. They are as follows: (1) Access to computers—and anything which might teach you something about the way the world works—should be unlimited and total. Always yield to the Hands-on Imperative!; (2) All information should be free; (3) Mistrust authority—promote decentralization; (4) Hackers should be judged by their hacking, not bogus criteria such as degrees, age, race or position; (5) You can create art and beauty on a computer; (6) Computers can change your life for the better. See; Steven Levy, *Hackers: Heroes of the Computer Revolution* (London: Penguin, 1994, c1984)

[14] See Robert Merton, *The Normative Structure of Science* in N.Storer (ed.) *The Sociology of Science: Theoretical and Empirical Investigations* (Chicago: University of Chicago Press, 1942) 267-278

[15] William Henry Gates, *An Open Letter to Hobbyists* (*Digibarn*, 3 February 1976) <http://www.digibarn.com/collections/newsletters/homebrew/V2_01/gatesletter.html> accessed 10 October 2013.

In 1980, following the recommendations of the Commission on New Technological Uses of Copyrighted Works (CONTU) in their 1978 report, [16] the U.S. legislature amended the Copyright Act to include computer programs as protected subject matter, analogising them to 'literary works.' [17] The United Kingdom would follow suit five years later, updating their copyright legislation to include computer programs under the Copyright (Computer Software) Amendment Act 1985. [18]

On the technical side, two major developments occurred during this period: (i) the cost of hardware dropped significantly, making personal computers more affordable for the domestic consumer market; and (ii) developers started to distribute mass-market software products (binary-use only) to this new market. The combination of these legal and technical developments precipitated a huge expansion in the software industry, simultaneously signalling the demise of the ethical relations that had persisted prior to commercialisation of the field. [19]

Cue Richard Stallman. As a programmer working at the Massachusetts Institute of Technology's (MIT) Artificial Intelligence Lab throughout the 1970's, Stallman had been part of the programming community for several years and was accustomed to the tenets of "hacker ethic." Finding himself caught in the trajectory of the transition from ethical to

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[16] Commission on New Technological Uses of Copyrighted Works, *Final Report of the National Commission on New Technology Uses of Copyrighted Works* (31 July 1978)

[17] Pub.L.No.96-517, 94 Stat.3015, 3028 (12 December 1980)

[18] Computer programs were later integrated into the Copyright, Designs and Patents Act 1988 (hereafter CDPA) through Section 3(1)(b). There have additionally been legislative changes implemented through European Union law. See; Council Directive 91/250/EEC on the legal protection of computer programs [1991] OJ L122/42; amended by Council Directive 2009/24/EC on the legal protection of computer programs (codified version) [2009] OJ L111/16.

[19] For a discussion on the regulatory relationship between *law*, *market*, *norms* and *architecture*, See Lawrence Lessig, *The Law of the Horse: What Cyber-law Might Teach* (1999) 113 Harvard Law Review 501

legal regulation, he began experiencing what he referred to as the "psychosocial" harms of proprietary culture; i.e. a programmer's feeling of alienation from both his craft and community. [20] Facing a "stark moral choice" of either "join[ing] the proprietary software world, signing non-disclosure agreements and promising not to help [fellow programmers]" or "leav[ing] the computer field altogether," [21] he instead decided to embark on creating a complete operating system that would adhere to the original ethos of the 'hacker ethic,' an operating system that would be freely accessible and modifiable by others: The GNU operating system. [22]

To achieve this, Stallman sought a means by which to ensure that developers who benefited from open access to a source code, who in turn modified and made extensions to the code, would give back their changes so as to help the project improve. His earlier attempts at this took the form of a non-legally-binding community agreement which required members to "give back all extensions they made, so as to help EMACS [a text editor program] improve." [23] Aware of the shortcomings of informal enforcement following a dispute with a fellow programmer, [24] Stallman recognised the role that *copyright* itself could play as a means of *legally* preventing developers from taking and privatising code made freely available to them without reciprocation. Accordingly, he

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[20] Richard M. Stallman, *Why Software Should be Free* in *Free Software Free Society* (n 3) 124

[21] Richard M. Stallman, *The GNU Project* (GNU Operating System, 1998) <http://www.gnu.org/gnu/thegnuproject.html> accessed 10 October 2013

[22] "The name GNU was chosen, following a hacker tradition, as a recursive acronym for "GNU's Not Unix." See *Richard M. Stallman* (n 21)

[23] Richard M. Stallman, *The EMACS Full-Screen Editor* (November 2006) <http://www.lysator.liu.se/history/garb/txt/87-1-emacs.txt> accessed 10 October 2013; See Christopher Kelty, *Two Bits: The Cultural Significance of Free Software* (Duke University Press, 2008) 187

[24] See Richard M. Stallman, *RMS Lecture at KTH (Sweden)* (30 Oct 1986) <http://www.gnu.org/philosophy/stallman-kth.html> accessed 10 October 2013

created the first "copyleft" licence as a means of retrofitting the original 'hacker ethic' into the legal framework of copyright, the idea being that the licensee would have permission to use, modify and redistribute code provided that any distributions they made were licenced to all others under the same terms, thus ensuring continued access for the community. [25] This licence, the GNU EMACS General Public Licence (GNU EGPL), would, through several iterations, later become what is now widely known as the GNU GPL. [26]

In the mid-1980s, Stallman founded the Free Software Foundation (FSF) as a non-profit organisation to support and oversee the development of what had now become known as *Free Software*; [27] His writings on the subject of *Free Software* and its 'four software freedoms' advocate a strong ideological and ethical understanding of the relations of software production and use in contrast to the dominant norms of proprietary culture. [28]

The GPL version 2.0 was released in 1991, this time receiving legal oversight in the drafting process. This was followed by a period of massive growth in non-proprietary software, the GPL receiving a significant boost in use largely due its adoption by

[25] Stallman was given the idea for the name 'copyleft' from a fellow programmer: "Don Hopkins (a very imaginative fellow) mailed me a letter. On the envelope he had written several amusing sayings, including this one: "Copyleft—all rights reversed." I used the word "copyleft" to name the distribution concept I was developing at the time." *Richard M. Stallman* (n 21)

[26] Free Software Foundation, *GNU EMACS General Public Licence* (February 1988) <http://www.free-soft.org/gpl_history/emacs_gpl.html> accessed 10 October 2013.

[27] Stallman makes the first reference to 'free software' in his initial announcement of the GNU Project. Richard M. Stallman, *Initial Announcement* (27 September 1983) <http://www.gnu.org/gnu/initial-announcement.html> accessed 10 October 2013

[28] *Richard M. Stallman* (n 3)

successful projects like the GNU/Linux operating system. [29] Commercial players, increasingly aware of the latent potential of FOSS, began to invest heavily in its development and use. The GPL version 3.0 (GPLv3) was released in 2006, updating its provisions to reflect the radical changes that had taken place in the legal and technical environment since 1991. The FSF, overseeing the drafting process, invited a wide range of interested parties to make submissions on the draft, [30] eventually producing a licence that, while notably more legalese than earlier drafts, still remains true to its 'hacker ethic' roots.

Accordingly, following four decades of radical legal and technical developments, the ethical notion of sharing software solidified itself into the terms of the GPLv3. In this solidified form, a relatively simple idea has come to be expressed through a myriad of complex *legal* restrictions; restrictions that stipulate, amongst other things, the following:

- All redistribution (whether verbatim or modified) must occur itself under the GPL and only the GPL, with no additional licence terms. [31]
- All redistribution must keep intact all copyright notices on the work [32] (i.e. attribution).
- All modified redistribution must carry prominent notices stating that it has been modified along with the date of modification. [33]

[29] See, Ragib Hasan, *History of Linux* (18 October 2005) <http://ragibhasan.com/linux> accessed 10 October 2013

[30] See Free Software Foundation, *GPLv3 Process Definition* (28 March 2007) <http://gplv3.fsf.org/original-process-definition> accessed 10 October 2013; Free Software Foundation, *Comment System* <http://gplv3.fsf.org/wiki/index.php/Comment_system> accessed 10 October 2013

[31] *GPLv3* (n 1) ss. 4 and 5(b)

[32] *GPLv3* (n 1) ss.4 and 5(b)

- Redistribution of the work in object code form must be accompanied by the source code. [34]

- Redistribution of the work as part of a larger program requires the entire work "as a whole" to be licenced under the GPL (viral clause). [35]

The listed restrictions above are those which serve to protect against code being privatised and redistributed as proprietary software. [36] It is perhaps interesting to note also that the GPL's restrictions *do not* prevent a licensee, or a licensor for that matter, from charging a fee for the distribution of a copy. [37] What is interesting to note about the restrictions is that they are all triggered on the act of *distribution*. [38] The legal argument, according to both Eben Moglen and Richard Stallman as architects of the licence, is that these restrictions are merely *bare licence* restrictions that limit the scope of the licence grant (i.e. limit the permission that is granted to distribute) and as such are property-based. As will be discussed in the following chapter, there are significant strategic advantages to this understanding of the restrictions, advantages that allow licensors to effectively protect against privatisation of the code.

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[33] *GPLv3* (n 1) s.5(a)

[34] *GPLv3* (n 1) ss.6(a)-(d)

[35] This clause is often referred to as the '*viral*' clause. See Greg Vetter, "*Infectious" Open Source Software: Spreading Incentives or Promoting Resistance?* (2004) 36 Rutgers Law Journal 53

[36] Evidently, the licence is composed of more terms; terms which deal with issues relating to disclaimer of warranties, choice of law, patent pledges ; See *GPLv3* (n 3). However, these are not the 'restrictive' terms that are the focus of this paper.

[37] Stallman expresses with his mantra "free as in 'free speech,' not as in 'free beer.'" See *Richard M. Stallman* (n 3) 43

[38] The concept of 'distribution' is key to the GPL's restrictive effect. There is much debate over what constitutes "distribution" where FOSS is concerned. E.g. making available, use internal to an organisation etc. See McDonagh, L. *Copyright, Contract and FOSS* in ed. Shemtov and Walden, *Free and Open Source Software: Policy, Law and Practice* (OUP, 2013) 74

Chapter 2: Property-Based Restrictions:

It is often asserted by FOSS commentators that the GPL is a '*bare licence*.' [39] Central to this assertion is the understanding that a licensor, as the copyright holder, is exercising their copyright in a purely unilateral manner, not as part of a measured reciprocal exchange. This gives rise to a conception of the GPL that is extremely licensor-centric. This licensor-centrism, while creating a rather disconcerting imbalance in the legal relationship between the parties, is nonetheless viewed by many as a necessary means to ensure there is effective protection against privatisation of free software and the violation of software freedoms. By viewing the GPL as such, licensors are afforded strong, exclusionary powers that are said to reflect the essential character of the property right that copyright law grants; powers that, it is claimed, are used by GPL licensors in order to promote innovation and creativity in accordance with the stated rationale of copyright law. [40] However, a certain degree of care must be taken here to separate rhetoric from substantive law.

The 'bare licence' is traditionally an instrument of real property law. It is relatively unfamiliar in the context of intellectual property. Given this, it has yet to be subjected to rigorous analysis by common law courts in this context. As this chapter will demonstrate, unilateral restrictions on the transfer of intellectual property raise a number

[39] Pamela Jones, *The GPL is a license, not a Contract, Which is Why the Sky isn't Falling* (*Groklaw*, 14 December 2003) <http://www.groklaw.net/articlebasic.php?story=20031214210634851> accessed 10 October 2013; Eben Moglen, *Free Software Matters: Enforcing the GPL I* (12 August 2001) <http://moglen.law.columbia.edu/publications/lu-12.htm > accessed 10 October 2013; Eben Moglen, *Free Software Matters:Enforcing the GPL, II* (10 September 2001) <http://moglen.law.columbia.edu/publications/lu-13.html> accessed 10 October 2001.

[40] See Falzone AT and Ridder CK, *Brief of Amici Curiae Creative Commons Corporation, the Linux Foundation, the Open Source Initiative, Software Freedom Law Centre, Yet Another Society, the Perl Foundation, and Wikimedia Foundation, Inc. In Support of Plaintiff-Appellant and Urging Reversal* (2008) <http://jmri.sourceforge.net/k/docket/cafc-pi-1/ccc_brf.pdf > accessed 10 October 2013>

of concerns. The first part of this chapter will assess how the bare licence acts as a strategic instrument with which to uphold the 'software freedoms' that are central to the GPL. Here, consideration will be given to issues related to formalities, enforcement and revocation, and the nature and scope of rights. The second part will then consider whether there are, or perhaps should be, any *endogenous* (i.e. within the property right itself) or *exogenous* (i.e. external to the property right) restraints on the use of unilateral property restrictions under the GPL.

[2.1] The Bare Licence

The bare licence is an integral feature of *real property* law. In this context, its primary function is to act as a form of 'personal permission or consent, granted otherwise than for consideration, to enter, traverse or be present upon the land of another." [41] The ability to grant such permission or consent in this manner reflects the prerogative of the owner or possessor of land. Indeed, the bare licence can best be conceptualised as a self-imposed negation of an owners exclusionary prerogative. [42] It is a renunciation of any claims that the owner may have against an individual whose entry upon the land would otherwise constitute the tort of trespass. [43] Accordingly, the permission is unilateral and proceeds entirely from the will (i.e. consent) of the owner. Restrictions under a bare licence are said to operate in much the same way; i.e. they are unilaterally created, proceeding entirely from the owner's will. They are not covenants separate to the grant that are mutually agreed to by the parties, but are instead integrally linked to the grant of

[41] Gray and Gray, *Land Law* (OUP, 2011) 1288

[42] "The correlatives of licence and trespass belong to a simplified world in which stark concepts of permission and denial of permission are wholly in place." *Gray and Gray* (n 41) 1297

[43] *Gray and Gray* (n 41)

permission itself, acting to define its scope. In this sense, the restrictions in a bare licence are *property-based* because they merely act to define those elements of the exclusionary property right which the licensor has prevented from passing to the licensee in the grant.

There are *three* significant properties of the bare licence and its restrictions that arise from this understanding; properties which, as will be demonstrated below, make it a strategic instrument on which to implement and enforce the GPL's restrictive terms.

[2.1.1] Creation

Firstly, the bare licence's unilateral nature means that *creation* of the grant and its restrictions is contingent solely upon the will of the owner. Unlike a contractual licence, which requires assent and consideration from *both* parties, a bare licence requires no such formalities in the matter of its creation. [44] All that is required to create a bare licence is an expression of consent, either explicitly or implied, by the owner of the property. The owner's consent may also be established by inference from relevant circumstances or conduct. [45] This minimalistic approach to formalities gives the bare licence, as an instrument of real property law, its reputation as a 'silent mediator,' which is to say that it legally facilitates 'an indescribably broad range of everyday human activity' without the outward appearance of such relations having legal effect. [46] Thus, the example of a dinner invitation is often given to illustrate this point: i.e. a permissive relation that would not necessarily be conceived of as something explicitly *legal* in nature, but instead as

[44] *Gray and Gray* (n 41) 1291.

[45] *R(Beresford) v Sunderland* [2004] 1 AC 889 at [75] Per Lord Walker of Gestingthorpe

[46] *Gray and Gray* (n 41) 1288

something ordinarily mediated by social norms and etiquette. [47] Indeed, the ability of the bare licence to serve as this 'silent mediator' – i.e. as a means of granting restricted access to intellectual property without intrusive formalities like 'acceptance' placing fetters on such an act – is seen as compatible with the "transactional informality" that is reminiscent of the "hacker ethic."

Furthermore, as Richard Stallman explains, '[if the GPL is contractual then it] would require every distributor to get a user's formal assent to the contract before providing a copy. To hand someone a CD without getting his signature first would be forbidden. What a pain in the neck!" [48] Admittedly, contemporary contract law no longer requires a licensee's signature to indicate formal assent, doctrine having progressed beyond the medium of pen and paper in much the same way that software distribution has progressed beyond the optical disc. Nonetheless, demonstrating 'acceptance' as the manifestation of assent to the GPL can be highly problematic given the nature of FOSS development, even in light of contract law's modernisation. Requiring GPL licensors to engineer an environment in which the licence is presented or build an 'interactive interface' into the program so as to satisfactorily demonstrate that 'assent' has been given acts as an additional obstacle to the free dissemination of code; indeed, in many cases it is prohibitively burdensome given technical constraints. This will be discussed further in relation to contractual formation in Chapter 3.

[47] "An indescribably broad range of everyday human activity is *silently mediated* by the availability of such permission (emphasis added)." *Gray and Gray* (n 39) 1288. Eben Moglen draws upon the analogy of a dinner invitation with respect to the GPL as a bare licence. See, Pamela Jones, *The GPL is a License, Not a Contract* (3 December 2003) <http://lwn.net/Articles/61292/> accessed 10 October 2013.

[48] Richard M. Stallman, *Don't Let 'Intellectual Property' Twist your Ethos*, (9 June 2006) <http://www.gnu.org/philosophy/no-ip-ethos.html> accessed 10 October 2013

On this issue of *creation*, many FOSS commentators are quick to point out that Section 9 of the GPL *prima facie* rejects the idea that a licensee must 'accept' the licence in order for it to take effect. This textual provision is often presented in support of the argument that the GPL is a bare licence created unilaterally and operative even in the absence of the licensee's acceptance:

> "*You are not required to accept this License in order to receive or run a copy of the Program. Ancillary propagation of a covered work occurring solely as a consequence of using peer-to-peer transmission to receive a copy likewise does not require acceptance.* However, nothing other than this License grants you permission to propagate or modify any covered work. These actions infringe copyright if you do not accept this License. Therefore, by modifying or propagating a covered work, you indicate your acceptance of this License to do so (emphasis added)." [49]

The important point to understand about this section is that it is composed of two tiers. The first tier (italicised) stipulates that acceptance is *not* required for receiving or running a copy of the program; however, the second tier (non-italicised) stipulates that acceptance *is* required for modification or propagation (i.e. distribution) of the program. This reflects the fact that the GPL's restrictive provisions are only triggered by distribution (as discussed above). However, this does little to address the question of whether the restrictions themselves arise unilaterally or through agreement. Indeed, if it was the drafters' intention for it to be the former, it seems rather strange that they would refer at all to the notion of 'acceptance;' a term idiosyncratic to the language of contractual formation. It is interesting to note here that early in the drafting process the

[49] GPLv.3 (n 1) s.9

original title for this provision was "*Section 9: Not a Contract*"; [50] a clear indication of its unilateral design. However, this title failed to make it through to the finalised version of the licence due to 'forceful objections […] principally from lawyers." [51] Accordingly, we are left with a provision which, given an objective reading, fails to clarify whether the licence and its restrictions are unilaterally or mutually created.

To conclude on the issue of creation, it appears that implicit to the rejection of formalities is the understanding that licensors *should* be able to enjoy and exercise their copyright in a unilateral manner. Indeed, this ability to unilaterally exercise – i.e. grant access to – one's work without the need to comply with certain formalities is viewed by FOSS advocates as part of the essential character of copyright as a property right; a form of property that, as recognised by Article 5 of the Berne Convention for the Protection of Literary and Artistic Works, "the enjoyment and exercise [of which] shall not be subject to any formality." [52] However, formalities serve an important role in preventing parties from assuming obligations without a full appreciation of what they entail. As will be discussed below, there must undoubtedly be some limits on the extent to which a copyright owner can 'enjoy and exercise' their copyright *without* formalities.

It is important also to note that there is a strategic dimension to this rejection of formalities, one which reinforces the licensor-centric nature of powers under the GPL. To establish the GPL as a validly formed contract is almost entirely to the advantage of the licensee because it allows for bilateral enforcement of the terms *and* prevents the licensor

[50] Free Software Foundation, *GPLv3 Second Discussion Draft Rationale* (27 July 2006) <http://gpl3-dd1to2-markup-rationale.pdf> accessed 10 October 2013

[51] *GPLv3 Second Discussion Draft Rationale* (n 50)

[52] Berne Convention for the Protection of Literary and Artistic Works 1886. Article 5(2).

from revoking the licence at will. [53] Accordingly, a licensee under the GPL will have little incentive to dispute the existence or validity of formation because to do so would be to deny themselves the added protections of being a contracting party. [54] Conversely, the licensor will always possess their copyright, retaining the baseline powers of exclusion notwithstanding the existence or validity of contractual formation. In this sense, the rejection of formalities with respect to the GPL can be seen as an attempt to pre-empt a power imbalance in the licensor-licensee relation or at least maintain the status-quo of owner/non-owner, thus giving greater powers with which to ensure against privatisation and against actions that prevent others from enjoying their software freedoms.

[2.1.2] Enforcement and Revocation:

It is slightly misleading to think of a bare licence itself as being enforceable. [55] FOSS commentators, including this writer, often inadvertently refer to the GPL as being 'enforceable' in and of itself, but in doing so make an unwarranted analytical leap. More accurately, it is the underlying property right that is enforced by the licensor. As noted above, the restrictions in a bare licence merely act to define those elements of the exclusionary property right which the licensor has prevented from passing to the licensee in the grant. Accordingly, the licensor enforces his or her *copyright* when the terms of the

[53] *Wood v Leadbitter* (1845) 13 M & W 838 at 845; *Canadian Pacific Railway Co. v The King* [1931] AC 414 (Canada) 430

[54] "Since the FOSS licence is the only means by which authorisation to use the software is granted, and failing that authorisation, the use will almost invariably be a breach of copyright, there is little value in a user trying to dispute the existence or validity of the licence under either English or Scots Law." See; Andrew Katz, *United Kingdom* in *Free and Open Source Software Law Book* (2011) < http://ifosslawbook.org/uk/> accessed 10 October 2013.

[55] *Andrew Katz* (n 54)

licence are violated. [56] The corollary effect of this is that the licensee cannot enforce a licence term against the licensor because they do not possess a proprietary or contractual right under the licence, merely a *defence*. [57] Accordingly, when facing an accusation of infringement the licensee can plead the licence as a defence, but he or she will lack grounds to initiate a claim against the licensor on the basis of the licence itself. [58] The unilateral nature of the enforcement powers thus provides a strategic advantage to GPL licensors by creating a power imbalance in the legal relationship.

This is compounded by the fact that a bare licence is *revocable at will*, which is to say that it may be 'lawfully brought to an end [by the licensor] even though its termination is sudden, unreasoned, arbitrary and unfair." [59] This characteristic of the bare licence follows from the liberal conception of property which considers the owner's control over selective access to his land to be unfettered and absolute, even to the point that principles of natural justice do not apply. [60] This ability to revoke the licence at will has the potential to leave unsuspecting licensees exposed and vulnerable, particularly in circumstances where considerable reliance has been placed on the initial permissive grant. In the case of real property law, revocation is usually followed by a 'grace period' allowing for the licensee to vacate the property, [61] (in particular with regard to premises

[56] *Ibid*

[57] *Ibid*

[58] *Ibid*

[59] Gray and Gray (No 41) 1297

[60] See Australian case *Heatley v Tasmanian Racing and Gaming Commission* (1977) 137 CLR 487 at 511 per Acklin J. In the United States, this absolutist form of control was used in a supposedly neutral manner to exclude individuals from public property on the basis of race. See *Uston v Resorts International Hotel Inc*, (1982) 455 A2d 370 at 374.

[61] *Winter Garden Theatre (London) Ltd v Millennium Productions* [1948] AC 173 (HL) 204 per Lord MacDermott

used for residential occupation) [62] ; similarly, for intellectual property, it is common for the licensee to receive some form of notice before legal action is taken pursuant to revocation (e.g. a cease and desist letter). [63] Nonetheless, even with notice of revocation, a licensee may still be in a highly vulnerable position; for example, where upstream code licenced under the GPL has already been embedded and distributed in a physical device by the licensee or where it forms a necessary interoperable component of a larger system. More importantly, the fear of such exposure through revocation could ultimately deter potential users and contributors from participating in the use and development of FOSS *ab initio*; an undesirable prospect for a licence primarily intended to promote and encourage participation in software development. [64] Indeed, as will be discussed in Chapter 4, the rise of 'contributor agreements' in FOSS development can be seen as a direct response to this concern, providing an alternative *contractual* instrument to facilitate contributions to FOSS projects and commercial entities in order to mitigate fears that a contributor might unilaterally revoke their licence at a later point.

The following briefly considers *three* factors which may have the potential to mitigate the concerns relating to unilateral revocation of the GPL.

[2.1.2.A] The 'Irrevocable Grant:

The first factor can be found in the text of the GPL itself. As stated in Section 2:

[62] *Parker v Parker* [2003] EWHC 1846 (Ch) at 276 per Lewison J.

[63] Software Freedom Law Center, *A Legal Issues Primer for Open Source and Free Software Projects* (3 March 2008) <http://softwarefreedom.org/resources/2008/foss-primer.html> accessed 10 October 2013.

[64] David McGowan, *Legal Implications of Open Source Software* (2001) U.Ill.L.Rev. 241, 302 (fn 283)

"All rights granted under this Licence are granted for the term of copyright on the Program, and are *irrevocable* provided the stated conditions are met (emphasis added)." [65]

The wording of this section appears incongruous with the revocable nature of the bare licence. Instead, the assurance that the licence is 'irrevocable' makes the provision more akin to a contractual *offer* due to the ostensibly binding nature of the grant. [66] Whether this is the case is debateable. [67] The assurance of irrevocability could merely be a gratuitous representation which has no legal significance; a simple gesture to reassure licensees that, provided the terms are abided by, they have nothing to fear. Eben Moglen has put himself on record stating that the "GPL is software that cannot be revoked;" however, no legal argument has been put forward to substantiate his claim. [68] As noted by Sapna Kumar, 'merely stating that the licence is irrevocable does not make it so.' [69]

The U.S. case of *Microsystems Software, Inc. v. Scandinavia Online* came very close to addressing the issue of GPL revocability. [70] The case involved two individuals,

[65] GPLv3 (n 1) s.2

[66] An *offer* is defined as "an expression of willingness to contract on specified terms, made with the intention that it is to become binding as soon as it is accepted by the person to whom it is addressed." Edwin Peel and Guenter Treitel*, The Law of Contract* (13th ed, Sweet & Maxwell, 2011) 2-002. A similar definition of "offer" is found under US contract law as "the manifestation of willingness to enter into a bargain so made as to justify another person in understanding that his assent to that bargain is invited and will conclude it." American Law Institute, *Restatement (Second) of Contracts*. (1981) §.24

[67] See Chapter 3 on Contract

[68] See Lawrence Lessig. *Battling Censorware*, (INDUSTRY STANDARD , 3 April 2000) <http://web.archive.org/web/20000510182446/http://www.thestandard.com/article/display/0,1151,13533,00.html> accessed 10 October 2013.

[69] Sapna Kumar. *Enforcing the GNU GPL* (2006) University of Illinois Journal of Law, Technology and Policy 1, 14

[70] *Microsystems Software, Inc. v Scandinavia Online AB*, 98 F.Supp. 2d 74 (D.Mass. 2000); 226 F.3d 35 (1st Cir. 2000)

Eddy Jansson and Matthew Skala, who, having reverse-engineered Microsystem's parental blocking device 'Cyber-Patrol,' subsequently released a program called 'CPHack' that allowed users to circumvent the parental filter. [71] Pursuant to the Court's finding of copyright infringement and breach of the EULA, Jannson and Skala entered into a settlement with Microsystems, agreeing to stop distribution of CPHack and to assign to Microsystems the copyright in their infringing work. [72] At first it was believed that Jansson and Skala's infringing work had been distributed to third parties under the GPL, leading many to view the assignment process as one involving a unilateral revocation of the GPL. However, by their own admission, Jansson and Skala had failed to correctly apply the GPL to CPHack, leaving only fragmentary references to the GPL in the distributed program. [73] Accordingly, doubts remain as to whether the events demonstrate the GPL to be unilaterally revocable at will; an issue yet to be explicitly considered by a common law court.

[2.1.2.B] Promissory Estoppel:

A second factor which has the potential to mitigate concerns over the GPL's revocability is found in the equitable doctrine of *promissory estoppel*. Applied to the GPL, promissory estoppel may serve to estop or prevent a licensor from revoking or terminating a licence where the licensee has altered his position in reliance of it. [74] Unsurprisingly, several

[71] Robin Lionheart, *The Story of CPHack* (4 May 2004) <http://cphack.robinlionheart.com/#slapp> accessed 10 October 2013.

[72] Matthew Skala, *Yes, I Settled* (27 March 2000) <http://cryptome.org/skala.htm> accessed 10 October 2013

[73] Eddy Jansson, *The Breaking Revisited: Why I Did it* (7 November 2001) <http://gazonk.org/~eloj/articles/the_breaking_revisited.html> accessed 10 October 2013

[74] Regarding the law of England & Wales see; *Hughes v Metropolitan Railway Company* (1877) 2 App Cas 439; *Central London Property Trust Ltd. V High Trees House Ltd.* [1947] 1 KB 130; *Societe Italo-Belge*

scholars have noted the doctrine's potential role in circumstances where the GPL has been unilaterally revoked by the licensor. [75]

There are, however, several important points to note about promissory estoppel. Firstly, the doctrine has, with respect to its jurisdiction, various requirements that must be satisfied before a court will apply it. [76] Under the law of England and Wales, there must be an unequivocal promise by words or conduct from the licensor. [77] Here, the GPL text is likely to provide a sufficiently unequivocal promise, certainly when one takes into account the 'irrevocable' grant under Section 2. There must also be evidence that the promisee has had a change in position as a result of their reliance on the promise; a relatively easy requirement to satisfy given that the licensee, in reliance of the licensor's promise, performed acts that would otherwise be restricted by copyright. [78] Furthermore, as an equitable doctrine, it must be shown that there would be an inequity if the licensor were to go back on the promise. Had the licensee breached any of the GPL's terms prior to revocation, it would be difficult to argue that reneging on the promise was inequitable. In such a situation, the licensee's failure to demonstrate 'clean hands' would prevent him or her from invoking the doctrine. On the contrary, where the licensee had acted

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pour le Commerce et L'industie v. *Palm and Vegetable Oils (Malaysia) Sdn Bhd (The Post Chaser)* [1982] 1 All ER 19, 26-27 per Goff J. Regarding US Law, See *Restatement (Second) of Contracts* § 90 (1981).

[75] Sapna Kumar (n 69); David McGowan, *Legal Implications of Open–Source Software* (n 64)

[76] The requirements differ under the respective jurisdictions of England & Wales and the United States. See above (n 74)

[77] Ewan McKendrick, *Contract Law*: *Text, Cases and Materials* (5th ed, OUP, 2012) 220; *Woodhouse A. C. Israel Cocoa SA v Nigerian Produce Marketing Co* [1972] AC 741

[78] *Kumar* disagrees with the assertion that mere use alone will likely be enough to establish reliance, arguing instead that it is likely only to be found where the licensee makes a derivative work or distributes the work. See *Kumar* (n 69) 25 ("if the licensee merely uses the company's software and does not create a derivative work, it will be more difficult to prove detrimental reliance.")

exclusively within the scope of the licence only to later have it revoked, it would be difficult to refute the inequity of the licensor's act.

It is also important to note that under English law promissory estoppel is a 'shield not a sword,' [79] which is to say that a licensee does not have enforcement powers under the GPL, but merely a means of preventing a licensor bringing a claim for infringement after having reneged on his initial promise. [80] The result of this – and perhaps the most evident disadvantage of relying on promissory estoppel to protect GPL licensees – is that the licensee will likely have to go trial before the doctrine will provide any substantial protection. For licensees fearful of the significant costs associated with a trial, it is probable that they will either settle or discontinue use of the disputed program. Accordingly, promissory estoppel provides a reassuring theoretical back-stop for GPL licensees, but does little to compensate for the intrinsic power imbalance that persists in practice under bare licence relations.

[2.1.2.C] De Facto Restraints:

The third and final factor which acts to mitigate concerns over GPL revocability relates to the distributed nature of FOSS development and its emphasis on collaborative authorship. Approaching the bare licence as a legal instrument in isolation – a charge which may be laid against this writer – has the tendency to overemphasis its unilateral powers and disregard the contextual factors that may act as restraints on those powers. Indeed, if one

[79] The *Restatement (Second) of Contracts* § 90 (1981) embodies an understanding of promissory estoppel being an affirmative cause of action in the U.S; the restatement summarising the principles already established case law prior to the American Law Institutes' clarification.

[80] Combes v Combes [1951] 2 KB 215

is to contextualise the GPL as a bare licence within the distributed practice of FOSS development, we begin to see how these powers are somewhat diminished in practice.

In accordance with Yochai Benkler's 'commons-based peer production' model, FOSS is commonly produced in granular components, each component or line of code capable of being independently written, and therefore owned, by different contributors. [81] The granular contributions are not useful by themselves, but are instead designed to interact with other contributions as an operable whole. Accordingly, licenced code becomes highly intertwined to the point that unilateral relations of permission become *de facto* bilateral relations. A single contributor can be both licensor and licensee to numerous others. As Greg Vetter puts it, "a web of license interdependency has begun." [82] The web of permissions creates a *de facto* restraint on licensors' powers; a restraint grounded in the fear of 'mutually assured destruction' following unilateral revocation. This notion of 'mutually assured destruction' is central to how the GPL deals with software patents; [83] indeed, this is how more general cross-licensing frameworks deter patent aggression between parties (e.g. technical standardization and FRAND licensing). [84] This matrix of power behind FOSS is reflected both in the ownership and governance models of several FOSS projects (although radically changing in light of the Contributor Agreement model; see Chapter 4). Thus, within this framework of interdependency,

[81] Yochai Benkler, *Coase's Penguin, or, Linux and the Nature of the Firm* (2002) 112 Yale Law Journal 369, 379

[82] Greg Vetter (n 35) 81

[83] *GPLv3* (n 1) s.7; See also, *Lawrence Rosen* (n 2) 126

[84] See Susannah Sheppard, *Balancing Free with IP: if open source solutions become de facto standards, could competition law start to bite?* (2009) IFOSS L. Rev. 1(2) 73

owners must take into account the interests of the community when exercising their exclusionary prerogatives or risk potential legal retaliation from the community. [85]

This practical restraint on unilateral revocation is, however, not without its shortcomings. Firstly, the 'web of licences' protects only those who have themselves contributed code to a project; and even then protects only those whose contributions are not easily excisable from the operable whole. As a result, passive end-users and downstream licensees of GPL software will find little assurance in the face of unilateral revocation. Secondly, the disparity between distributed ownership in theory and distributed ownership in practice must not be overlooked. It is increasingly common for large FOSS projects to be stewarded and/or sponsored by corporate entities that have employees working full-time on FOSS development. This results in an aggregation of copyright in the corporate entity by way of statutory 'work for hire' provisions. Equally, for smaller projects, core individuals who have made significantly larger contributions will possess comparatively more legal clout than those who have made only minor contributions. In addition, the more recent trend of using Contributor Agreements (CA) to assign the copyright in contributors' work to a central entity has had the effect of undermining the 'web of licences' restraint. As will be discussed in Chapter 4 of the paper, part of the stated rationale behind using CAs is to avoid the perceived difficulties associated with distributed ownership, particularly in relation to issues of re-licensing and enforcement.

To conclude the discussion on the properties of *enforcement*, it has been shown that the unilateral nature of the bare licence creates a significant power imbalance in favour of the licensor. While there are several factors which potentially mitigate this

[85] Groklaw, *Twin Peaks v Red Hat - Look Both Ways Before Crossing* (14 September 2012) <http://www.groklaw.net/articlebasic.php?story=20120913073511444>

imbalance with respect to the GPL (i.e. Section 2's assurance of irrevocability, the equitable doctrine promissory estoppel and FOSS's licence interdependency), these factors act more as shields against *revocation at will,* not as positive rights which the licensee can enforce against the licensor. This imbalance is not a product of the bare licence *per se*, but is merely reflective of the fact that the bare licence is an incident of the owner's exclusionary prerogative, albeit a self-imposed negation. Accordingly, the terms licensor and licensee merely mask the true relation at play: owner and non-owner.

[2.1.3] Nature and Scope of the Rights:

The third property that follows from categorising the GPL as a bare licence relates to the nature and scope of the enforceable rights. With copyright being the legal right underlying the restrictive provisions, these provisions can be categorised as embodying rights *in rem*. Rights *in rem* are those that attach to a 'thing' and are enforceable against the world (*erga omnes*). [86] In contrast, contractual rights (*in personam*) apply only to 'persons;' accordingly, they are only enforceable against those who have assented and therefore privy to a contractual relationship. [87]

For GPL licensors, it is strategically advantageous to argue that the rights they possess *vis-à-vis* direct licensees and subsequent downstream licensees are rights *in rem*. This is for two main reasons. The first reason concerns the licensor's ability to control the work all the way down the chain of distribution; extremely valuable in the context of

[86] Thomas W. Merrill and Henry E. Smith, *The Property/Contract Interface* (2001) 101 Colum. L. Rev. 773, 780 ("Both civil law and common law jurisdictions have long recognised that certain rights are good "against the world" while others apply only against named persons or entities."); See also, Albert Kocourek, *Rights in Rem* (1920) 68 U. Pa. L. Rev. 322; Hohfeld, *Fundamental Legal Conceptions as Applied in Judicial Reasoning* (1917) 26 Yale L.J. 710.

[87] *Ibid* 789

FOSS development where programs are passed through many downstream parties. The second reason concerns the availability of remedies that *in rem* rights offer licensors on violation of the restrictive terms. In this respect, FOSS advocates are extremely eager to receive copyright remedies – in particular injunctive relief – for GPL violations due to the exclusionary, as opposed to compensatory effect, they secure. This is perhaps the single most important factor that underpins FOSS advocates' insistence on the GPL being property-based. If the remedies for violation were contractual, they would essentially be meaningless in many cases. Indeed, how does one compensate for breach when the grant is often made free of charge?

[2.1.3.A] Downstream Control of The Work:

For contractual restrictions (*in personam*) to be enforceable between the original licensor and each successive transferee along a chain of distribution, there would have to be privity of contract. This would require the original licensor to form an agreement with each successive downstream recipient of the code; a difficult task given the complex, often chaotic, nature of FOSS distribution. David McGowan notes that if a rights-holder were to post "open source code and the GPL terms on website and each community member downloaded the code from that site, each licensee would be in privity with the rights holder." [88] This form of centralised distribution – which McGowan rightly adds 'is at odds with the freedom of hackers to share code directly with each other' [89] – would mitigate concerns over contractual privity for the initial downloads; however, it would not address these concerns with respect to subsequent transfers, where there would be no direct interaction linking back to the original licensor.

[88] McGowan, *The Legal Implications of Open Source Software* (n 64) 298

[89] *Ibid*

Accordingly, by categorising the restrictions as property-based (*in rem*), GPL licensors are able to sidestep the obstacles to enforcement presented by contract and its doctrine of privity. Thus, where the restrictions are viewed as embodying rights *in rem*, all downstream licensees must act within the scope of the licence or be liable for infringement to the original licensor, irrespective of how far down the chain of distribution they may be. This reaching form of control was demonstrated when the Software Freedom Conservancy instigated an infringement suit against Best Buy, Samsung and other consumer electronics companies - all remote downstream recipients of GPL-embedded products – on behalf of a licensor-developer. [90] The companies, with no direct relationship to the licensor, agreed to comply nonetheless so as to avoid trial. Accordingly, categorising GPL restrictions as operative on the basis of rights *in rem* provides an added degree of control by making the terms to "run with the asset." [91]

[2.1.3.B] Remedies

The main reason why FOSS advocates are so eager to view the GPL's restrictions as purely property-based (*in rem*) undoubtedly relates to the fact that remedies for copyright

[90] Complaint, *Software Freedom Conservancy Inc v Best Buy Co, Inc* No . 09-CIV-10155 (S.D.N.Y. Dec, 14 2009) <http://www.softwarefreedom.org/resources/2009/busybox-complaint-2009-12-14.pdf> accessed 10 October 2013

[91] It is interesting to note there is a significant amount of scholarship exploring how standard-form contracts used to distribute intellectual property goods essentially perform this function by "behave[ing] like servitudes by running automatically to every possessor of an object to which their terms are attached." Molly Shaffer Van Houweling, *The New Servitudes* (2008) 96 Georgetown L. J. 885, 916. For further reading on this issue, see Glen O'Robinson, *Personal Property Servitudes* (2004) 71 U. Chi. L. R. 1449; Niva Elkin-Koren, *What Contracts Cannot do: The Limits of Private Ordering in Facilitating a Creative Commons* (2005) 72(2) Fordam Law Review 375; Margaret Jane Radin, *Humans, Computers and Binding Commitment* (2000) 75 Ind. L. J. 1125; Severine Dusollier, *Sharing Access to Intellectual Property Through Private Ordering* (2007) 82 Chi-Kent. L. Rev. 1391; Jacques de Werra, *Moving beyond the Conflict between Freedom of Contract and Copyright Policies: In Search of a New Global Policy for Online Information Licensing Transactions - A Comparative Analysis between U.S. Law and European Law*(2002) Colum. 25 L.J. & Arts 239.

infringement are not only advantageous for licensors, but are in fact crucially vital to the licence having any meaningful enforcement powers at all. The reason for this lies in the fact that copyright remedies are triggered by an intrusion of a property right and are therefore directed towards preventing the harms that such an intrusion entails. Contractual remedies, on the other hand, are directed towards protecting the wronged party's 'expectation interest' that arises from the mutual exchanging of promises. [92] Accordingly, the award of *damages,* the most common form of contractual remedy, compensates the wronged party's loss of expectation by putting it in the position it would have been had the contract had been fulfilled. [93] Herein lies the problem with a contractual interpretation of GPL restrictions: how would a court determine a licensor's expectation interest pursuant to a contractual breach when, in many circumstances, GPL licensors grant licensees rights with an expectation of zero profit? The conclusion that many scholars have come to is that it cannot. [94] This has lead several commentators to conclude that, absent the ability to enforce GPL restrictions through the remedy of *injunctive relief* (a remedy *traditionally* made available on a demonstration of copyright infringement), "these types of license restrictions might well be rendered meaningless." [95]

FOSS licensors in the U.S. are fortunate to have had the Federal Circuit address this very issue over remedies. The case, *Jacobsen v Katzer*, is seen as the leading authority on the remedial nature of FOSS licence violation and, given its outcome, is

[92] Friedmann, *The Performance Interest in Contract Damages* (1995) 111 LQR 628

[93] Mindy Chen-Wishart, *Contract Law* (4th ed, OUP, 2012) 486-487

[94] Jacobsen v Katzer 535 F.3d 1373 (*Fed. Cir.* 2008) 1382 per Hochberg J. Academics and practitioners were in concurrence with Hochberg's assertion that the restrictions would be meaningless; See, Charles R. Macedo, *Copying of open source software in violation of artistic licence was not licensed* (2009) 4(2) JIPLP 92; Mark Henley, *Jacobsen v Katzer and Kamind Associates – an English legal perspective* (2009) 1(1) IFOSS L. Rev. 41.

[95] *Jacobsen v Katzer* (n 94)

often portrayed as a victory for FOSS licensing. However, what becomes apparent through a close reading of the case is that while violation of the terms were said to give rise to copyright remedies, the reasoning with which the court arrived at this conclusion is slightly problematic (it is not clear whether the Court treated the licene as a contract or bare licence on the whole) and also, given more recent developments in case law, somewhat redundant.

The case concerned the 'Artistic License;' an open source licence containing restrictive terms relatively similar in nature to the GPL's. [96] The question before the Federal Circuit was whether the licensee's failure to comply with certain terms of the 'Artistic License' gave the licensor a remedy in contract or copyright. In argument, it was stressed by Jacobsen (the licensor) that Katzer's (the licensee) modification and distribution of his program 'DecoderPro,' which allowed model railway enthusiasts to program decoder chips controlling model trains, was copyright infringement. [97] The District Court, however, took a different view on the matter, stating that Jacobsen's claim should have been a contractual one, since the restrictive provisions in question were merely independent covenants that did not limit the 'intentionally broad' scope of the licence grant. [98] Categorising them as the *licence conditions* (i.e. terms which limit the scope of the licence grant) was seen by the District Court to 'create liability for copyright infringement where it would not otherwise exist.' [99]

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[96] Open Source Initiative, *Artistic Licence* <http://opensource.org/licenses/Artistic-1.0> accessed 10 October 2013

[97] *Amended Complaint for the Declaratory Judgement, Violations of Copyright and Federal Trademark laws, Unfair Competition, and Unjust Enrichment*. (2006) Case 3:06-cv-01905-JSW, 24

[98] *Jacobsen v Katzer* 2007 WL 2358628 (N.D. Cal)

[99] *Ibid* 7

Fearing that the District Court's decision could deprive licensors of copyright remedies for violations, effectively rendering their restrictive provisions powerless, a number of public licensing heavyweights, including the Creative Commons Corporation, Linux Foundation, Open Source Initiative, and Wikimedia Foundation, filed a joint amicus brief in support of Jacobsen's appeal to the Federal Circuit. [100] The brief issued a strong and unanimous rejection of the District Court's finding that the restrictive terms in question were covenants to the grant and not conditions on the grant itself. [101] Unsurprisingly, the brief put forward a strong argument for the 'bare licence' approach. [102] Their reasoning for this centred on the inadequacy of contractual damages and the 'essential' need for licensors to have exclusionary remedies like *preliminary injunctions* made available; a remedy which, as contended in the brief, 'is significantly easier to obtain on a copyright claim […] because a *copyright holder enjoys a presumption of irreparable harm upon showing a likelihood of success on the merits* (emphasis added)." [103] The importance of this 'presumption of irreparable harm' cannot be understated. Indeed, it is integral to the Amici's insistence on copyright remedies and to FOSS advocates' insistence on the bare licence approach in general. Without the availability of such a presumption, the inability to demonstrate quantifiable harm as a monetary figure would undoubtedly prevent FOSS licensors receiving an effective remedy through either

[100] Falzone AT and Ridder CK (n 40)

[101] *Ibid*

[102] *Ibid*

[103] *Brief of Amici Curiae* (n 40) 16

contract *or* copyright, *harm* being a fundamental criterion to the award of an injunction. [104] More will be said about the role of this presumption below.

The Federal Circuit ultimately allowed Jacobsen's appeal. It was held by the Court that the relevant terms of the Artistic License were *licence conditions* limiting the scope of the grant, not contractual covenants. As a result of this finding, Katzer's failure to insert a prominent notice in his modified source version was held to be an infringement of Jacobsen's copyright. [105] Whereas the District Court viewed the restrictive terms as an extension to the scope of copyright to cover non-economic rights (thus needing to be contractual to be effective), the Federal Circuit emphasised the indirect nature of the economic benefits flowing from the terms; benefits that 'serve[d] to advance the arts and sciences in a manner and at a pace that few could have imagined just a few decades ago." Accordingly, the restrictions were seen to fall *within* the scope of U.S. copyright law as they served to "vindicate the economic, rather than the personal rights" of the author. [106] Furthermore, it was acknowledged that "because a calculation of damages [would be] inherently speculative, these types of [restrictive provisions] might well be rendered meaningless absent the ability to enforce through injunctive relief." [107]

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[104] For a discussion on 'harm' central to the remedy, See, Erin V. Klewin, *Reconciling Federal Circuit Choice of Law with eBay v MercExchange's Abrogation of the Presumption of Irreparable Harm in Copyright Preliminary Injunctions* (2012) 80 Fordham L. Rev. 2113

[105] "It is outside the scope of the Artistic Licence to modify and distribute the copyrighted materials without copyright notices and a tracking of modifications from the original computer files." *Jacobsen v Katzer* (n 94) 1382

[106] Gilliam v. ABC, 538 F.2d 14, 20-21 (2d Cir. 1976). The Federal Circuit in *Jacobsen* briefly discuss how these 'economic' benefits are shown: "The attribution and modification transparency requirements directly serve to drive traffic to the open source incubation page and to inform downstream users of the project, which is a significant *economic goal of the coyright holder that the law will enforce* (emphasis added). *Jacobsen v Katzer* (n 94) 1382

[107] *Jacsobsen v Katzer* (n 94) 1382

The Court, having clarified that Katzer's violation of the Artistic Licence's terms constituted copyright infringement and, furthermore, that this infringement established a "presumption of irreparable harm" so as to provide sufficient grounds for the granting of a preliminary injunction, then remanded the case back to the District Court to apply the legal finding to the facts. The decision was publicised as a great success for FOSS licences and seen as an endorsement from the judiciary. [108] Unfortunately, subsequent events brought this 'success' into doubt.

First of all, the Federal Circuit's approach to distinguishing covenants from conditions, which consisted mostly of using contractual interpretative tools to identify words like 'provided that' as being indicative of their *conditional* nature (i.e. limiting the grant), was later shown to be highly unprincipled and invited subsequent courts to question its validity, which they did. [109]

Most importantly, however, it later came to light that the Federal Circuit in *Jacobsen* had potentially erred in applying the presumption of irreparable harm as good law. [110] Several years prior to the Federal Circuit's judgment, the Supreme Court of the United States in *eBay v Mercexchange* had essentially overruled the presumption, albeit with respect to patent infringement, establishing in its place a four factor test for courts to

[108] Mark Radcliffe, *Jacobsen and FOSS Community Win Big in Jacobsen v Katzer Settlement* (Law and Life: Silicon Valley, 19 February 2010) <http://lawandlifesiliconvalley.com/blog/?p=405> accessed 10 October 2013.

[109] "*"Jacobsen v. Katzer* did not provide much guidance on when a license term falls into one category or the other. Most importantly, the court did not address the extent to which the parties, by careful drafting, can dictate or influence the categorization." Robert Gomulkiewicz, *Enforcement of Open Source Software Licenses: The MDY Trio's Inconvenient Complications* (2011) 14 Yale J. L. & Tech. 106, 125

[110] Generally see, Klewin, E. *Reconciling Federal Circuit Choice of Law with ebay v Mercexchange's Abrogation of the Presumption of Irreparable Harm in Copyright Preliminary Injunctions* (2012) 80 Ford. L.Rev. 2113

utilise when determining whether to grant *permanent* injunctions. [111] The ruling in *Ebay* eventually found itself being applied to *preliminary* injunctions in the copyright context, culminating in the decision in *Flexible Lifeline Systems v Precision Lift,* [112] where the presiding judge concluded that "Elvis has left the building;" a somewhat humorous reference to the copyright case of *Elvis Presley Enterprises v. Passport Video* in which the presumption had been applied. [113]

It is debatable whether the Federal Circuit Court in *Jacobsen* had been incorrect in their application of the presumption of irreparable harm; their decision arguably justified on the basis of the Court's unique jurisdictional position. While several other Circuit courts prior had applied the *Ebay* decision to injunctions for copyright infringement, [114] the Federal Circuit was required, in accordance with its own precedent, to apply Ninth Circuit law to its analysis. [115] At the time, the Ninth Circuit had retained the presumption of irreparable harm and so it was deemed applicable. [116] Indeed, while the Federal Circuit in *Jacobsen* "recognised that *eBay* may have altered the landscape," the Court "did not afford [the] decision any weight in its analysis." [117] Nonetheless, by the time *Jacobsen* reached the District Court on remand, Ninth circuit law had been brought in line with the other circuits as a result of the Supreme Court decision in *Winter v Natural Resources*

[111] *Ebay v Mercexchange* (2006) 547 U.S. 388

[112] *Flexible Lifeline Systems v Precision Lift, Inc. et al* 654 F. 3d 289 (9th Cir. 2011)

[113] *Elvis Presley Enterprises* Inc. *v*. *Passport Video*, 349 F.3d 622 (9th Cir. 2003)

[114] *Christopher Phelps* & Associates, LLC *v*. *Galloway* 492 F.3d 532 (4th Cir. 2007); *Peter Letterese* and Associates, Inc. *v*. *World Institute of Scientology Enterprises*, Inc., 533.F.3d 1287 (11th Cir. 2008); *Coxcom*, Inc. *v*. *Chaffee*, 536 F.3d 101 (1st Cir. *2008*).

[115] Hutchins v ZollMed Corp, 492 F.3d 1377 (Fed. Cir. 2007).

[116] MGM Studios, Inc. v Grokster, Ltd. 518 F.Supp. 2d 1197 (C.D. Cal. 2007).

[117] *Erin v. Klewin* (n 110) at p.2138

Defense Council. [118] The District Court held that "the standard under *Winter* requires Jacobsen to demonstrate, by the introduction of admissible evidence with a clear likelihood of success that the harm is *real*, *imminent and significant, not just speculative or potential* (emphasis added)." [119] Jacobsen's motion for preliminary injunction was denied, the Court considering the stated harms to be too speculative. The parties eventually reached an out of court settlement. [120]

The aftermath of *Jacobsen* bears little resemblance to the 'victory' it was first heralded to be. While the violation of the Artistic Licence's terms was found to constitute copyright infringement, the need to demonstrate quantifiable harm under the new *Winter* test puts effective remedies out of reach for many FOSS licensors, many of whom do not seek compensation for their licence grant. [121] Furthermore, for FOSS business models that are built around indirect revenue gathering mechanisms (services, support, maintenance etc.), the remote nature of the harms resulting from infringement might be considered too 'speculative or potential' to warrant the granting of injunctive relief. This leaves the issue of remedies for FOSS licences, viewed as either contracts or bare licences, rather uncertain.

Under the law of England and Wales, the position is similarly uncertain for remedies. This is primarily due to the lack of case law explicitly dealing with FOSS

[118] *Winter v Natural Resources Defence Council* (2008) 555 U.S. 7

[119] *Jacobsen v Katzer* 609 F.Supp. 2d. 925 (N.D.Cal. 2009)

[120] *Settlement Agreement,* Federal District Court Doc 402-1 <http://www.trainpriority.com/court_docs/402-1.pdf> accessed 10 October 2013

[121] Ravicher argues that FOSS licence violations may still satisfy the *Winters* test. Ravicher, *Amici Brief: Jacobsen v Katzer* (Software Freedom Law Center, June 15 2009) <http://www.softwarefreedom.org/resources/2009/jacobsen-amicus-brief.html#Q1-1-12> accessed on 10 October 2013

licence restrictions. Should a court find the GPL to be a validly formed contract, a determination of damages for violation of its terms would be difficult to assess due to the licensor's lack of quantifiable 'expectation' interest. Alternatively, a finding of copyright infringement would make available the award of damages which would be assessed either by an account of profits analysis or by measuring the loss in value to the copyright owner; [122] both of which, unfortunately, would be difficult for a court to measure where the software is made available free of charge. Injunctive relief is available for copyright infringement; however, the courts are reluctant to grant such an extraordinary remedy so lightly. A licensor would have to satisfy a number of factors, as set out in *American Cyanamid v. Ethicon*, before an interim injunction would be granted. [123] Here, the claimant would have to show, among other factors, that (a) there is an arguable case, (b) that damages would not provide an adequate remedy, and (c) that the balance of commercial convenience is preserved. [124] The licensor claimant would also have to give an undertaking to the defendant to pay his or her costs if the injunction claim were to fail. Since the criteria for injunctive relief are heavily fact-dependent, it is difficult to say whether a GPL licensor would be successful. The discretionary nature of the court's remedial powers would require a case-by-case analysis in any event. Accordingly, there is much uncertainty both in the US and England as to remedial outcomes for violations of the GPL's restrictive terms.

[122] Copyright, Designs and Patent Act 1988 (UK) ss. 96-97

[123] *American Cyanamid Co v Ethicon Ltd*. [1975] AC 396, per Lord Diplock at 408-409

[124] Laddie J. refines the test with a number of principles. See, *Series 5 Software Ltd v Clarke & Ors* [1996] 1 All E.R. 853

[2.1.4] Concluding Remarks:

This section has explored the various properties of the GPL as a bare licence composed of restrictions that are property-based. These properties (i.e. the absence of formalities, the unilateral powers of enforcement, downstream control over the work, and copyright remedies on violation) are deemed strategically advantageous because they are seen to endow the licensor with the necessary power with which to protect the work against privatisation.

Given Stallman's initial aversion to the application of copyright to software, it seems rather contradictory that he should later embrace copyright as the foundational mechanism by which the GPL ensures code remains free. However, in doing so, Stallman endeavours to show that copyright, even in its most absolute form, has within it the latent capacity to be exercised in a manner that restricts not only so as to provide the 'contract space' in which permissions can be bought, [125] but also so as to protect, somewhat ironically, against privatisation.

Accordingly, while the powers of the bare licence are strong and unilateral, when channelled through the substantive terms of the licence, they take on a qualitatively different character which seeks to promote, rather than deny, access to copyright works. He endeavours to show that this can be achieved entirely within the framework of established copyright law, producing a qualitative outcome that acts as a counterpoint to the proprietary culture of software and its restrictive use of copyright.

[125] "Under the standard economic conception of property rights, it is copyright law that allows contracts to be written: copyright law defines the characteristics of the work and the property rights in the work – the contract space." *Summary Chapter: The Digital* Shift in Kretschmer, Derclaye, Favale and Watt *The Relationship Between Copyright and Contract Law* (UK Intellectual Property Office, 2010) 3

However, one must take care in relying on arguments to this effect. Indeed, if used to differing substantive effect in the proprietary context, FOSS advocates would undoubtedly find the bare licence mechanism abhorrent, an overreach of the powers granted by copyright. Accordingly, it is necessary to question the extent to which unilateral property-based restrictions should be allowed to operate to restrict a licence grant in the context of intellectual property. The following section considers the various limitations that might constrain such a use of copyright.

[2.2] Limitations on Property-Based Restrictions:

This section takes a more sceptical approach to the previous one, asking instead whether there are any legal or policy-based concerns that might act to constrain a licensor's ability to structure the legal relation under the GPL as a purely unilateral and property-based one. This assessment will look at both *endogenous* constraints (i.e. features of the property right itself) and *exogenous* constraints (i.e. distinct bodies of law and elements of public policy).

By way of clarification, it must be noted that this section focuses exclusively on limitations that concern the bare licence (i.e. unilateral *property* licensing practices). While there are several legal or public policy grounds on which licensing practices in general may be limited, these are often concerned with the problematic relationship between copyright and *contract*. Accordingly, the first-sale doctrine (copyright exhaustion) will not be discussed; indeed, it is rather nonsensical to ask whether a unilateral property grant is a 'sale' which, by definition, involves a contractual *exchange.* Furthermore, while there may be anti-trust/competition law issues relating to the GPL

(highly unlikely given the clear rejection of such arguments in *Wallace v IBM*), [126] it is difficult to see how these would act as limitations on bare licences alone.

[2.2.1] Endogenous Limitations:

An owner of copyright enjoys various rights while a copyright is in term. These rights are recognised and conferred by statute. [127] As property rights, they operate so as to *exclude* all others from performing certain acts in relation to the work. [128] Both the English and U.S. copyright statutes provide an exhaustive list that defines the various acts which only the copyright owner has the exclusive right to perform in relation to the work (e.g. copying, distribution, performance, communication, adaptation etc). [129] In this sense, statutory law acts to grant copyright owners certain exclusionary powers in relation to their work, and in doing so, simultaneously limits those powers to a defined list. This can be viewed as an *endogenous* limitation because it is integral to the nature of the property right itself.

In this respect, it might be argued that GPL licensors, by creating unilateral restrictions on the permissive grant to their work, are effectively establishing for themselves rights that go beyond those conferred by statutory law, thus exceeding the *endogenous* limitations of copyright. A proponent like Eben Moglen would undoubtedly

[126] *Wallace v International Business Machines Corp. et al.* 467 F.3d 1104 (7th Cir. 2006). Daniel Wallace's complaint was that the GPL's requirements on redistribution amounted to predatory pricing. This was dismissed outright by Easterbrook J. who concluded that lower prices were signs of a healthy, competitive market. Indeed, Easterbrook concluded his judgment by stating that "the GPL and open source software have nothing to fear from the anti-trust laws."

[127] Copyright, Designs and Patents Act 1988 (UK) s.1; U.S.C. 17 §.102 (US)

[128] Macqueen, Waelde, Laurie & Brown, *Contemporary Intellectual Property: Law and Policy* (2nd ed, OUP, 2010) 124

[129] s.16 CDPA 1988 (UK) and 17 U.S.C s106 (US)

disagree with this assertion by stating that copyright law grants rights holders the ability to restrict others from *distributing* a protected work and accordingly that it is only *distribution* that the GPL's terms place restrictions on. [130]On the face of it, this sounds legally coherent. However, there is a conceptual unease presented by this argument; one that reflects the fact that by restricting a licensee's permission to distribute to only those instances where a certain precondition has been satisfied, "owners could precondition the license upon behaviours that are neither related to the use of the work, nor to the use of copyright," thus creating legal obligations outside the scope of copyright, yet operative by way of it. [131]

Particularly unsettling from the perspective of property law is where the preconditions require *positive* acts from licensees, as is the case with the GPL where distribution is only permitted where the licensee acts positively to – among other things – provide attribution. Niva Elkin-Koren reflects this sentiment in relation to Creative Commons licences, [132] pointing out that "[i]mposing a duty to acknowledge the original author on third parties is particularly interesting since it is a positive duty, normally not associated with property rights." [133]

As licensors start requiring *positive* acts on the grant, licensees and third-parties are burdened with additional *information costs*; costs arising from the fact that they must

[130] "We give permissions here and the enforcement weight of our license lies in the fact that you have no permission to propagate, that is, you have no permission to do what copyright law requires permission to do, but through this license." Eben Moglen, *Transcript of Opening Session of First International GPLv3 Conference* (16 January 2006) <http://www.ifso.ie/documents/gplv3-launch-2006-01-16.html> accessed 10 October 2013.

[131] Niva Elkin-Koren (n 91) 405

[132] Creative Commons Licences, depending on the class, are quite similar to the GPL , save for the fact that they are used to licence *content* (e.g. music, images etc.) not *computer programs*. Creative Commons, *About the Licences* <http://creativecommons.org/licenses/> accessed 10 October 2013

[133] Niva Elkin-Koren (n 91) 405

now identify *how* exactly it is they are required to act in order to fall within the scope of the granted permission and avoid infringement. [134] The significance of this is apparent when one views the *endogenous* limitations on property rights as being theoretically grounded in Merrill and Smith's 'functional explanation' for why legal systems utilise two modalities of rights; i.e. rights *in personam* and *in* rem (or contract and property respectively). [135]

According to Merrill and Smith, property and contract provide two distinct strategies for *informing* individuals as to the various obligations and duties they are under both in relation to others and in relation to things. Property, or rights *in rem*, represent an '*exclusion*' strategy; [136] that is they establish a standardised, limited, but general rule that all individuals, save for the owner, are under an obligation to refrain from using a given resource (*erga omnes*). By limiting the forms of property rights through doctrine [137] (*endogenous* constraints), members of society are able to easily identify where this 'exclusion' rule applies, thus reducing the time and cost of having to gather information on how they must engage with resources subject to property. [138] Contract, or rights *in*

[134] Regarding *information costs*, See Merrill and Smith (n 86)

[135] Merrill and Smith (n 86)

[136] "Exclusion strategies […] proceed by restricting access to a particular resource rather than by specifying permitted or prohibited uses. Exclusion identifies a person or entity as the manager of the resource (the owner), and then delegates to this manager the discretion to select from among an open-ended set of potential uses." Merrill and Smith (n 86)

[137] For example, the principle implicit to common law: *numerus clausus. "*Generally speaking, the law will enforce as property only those interests that conform to a limited number of standard forms.[…] In the common law, the principle that property rights must conform to certain standardized forms has no name. In the civil law, which recognizes the doctrine explicitly, it is called the *numerus clausus-the* number is closed." Thomas W. Merrill & Henry E. Smith*, Optimal Standardization in the Law of Property: The Numerus Clausus Principle*, (2000) 110 Yale L.J. 1. 3

[138] "[F]ree customization of property forms would create an information-cost externality; mandatory standardization is the legal system's way of reducing these external costs to an acceptable level." Merrill and Smith (n 86) 777

personam, instead represent a '*governance'* strategy which allows parties to structure obligations in 'non-standard ways that entail greater precision or complexity," thus being "better suited to individual needs and aspirations than would ever be possible using exclusion rights alone." [139] Accordingly, information relating to obligations under a contract can be extremely complex and specific; however, since this complexity and specificity is relevant only to those privy to the contract, it does not impose significant informational costs on other members of society. [140]

Copyright, as property, performs an informative function by providing clear *exclusionary* rules outlining the various acts that an individual cannot perform in relation to a work. If an owner of a work wishes to grant a licence with precise and complex requirements that depart from the default rule of exclusion, like in the case of the GPL, then it follows that such rights *should* be structured as *contractual* rights, both to ensure that parties who wish to perform acts with the work are *informed* as to the complexities, but also so as not to weaken the default exclusionary rule of property itself. [141]

While this *endogenous* limitation is rather theoretical in nature, it nonetheless serves to illustrate that conceptualising the GPL as a restrictive unilateral licence is, at the very least, stretching copyright to its limits as a property right. One of the reasons why conceptual problems seem to arise in this respect is due to the fact that as we enter the ill-defined penumbra of property rights it is likely that *exogenous* constraints will be more

[139] Merill and Smith (n 86) 797

[140] "The parties to a contract are free to be as whimsical or fanciful as they like in describing the promise to be performed, the consideration to be given in return for the promise, and the duration of the agreement." Merrill and Smith (n 137) 3

[141] Merrill and Smith offer an extremely illustrative example of the way in which allowing new forms of property to arise leads to the "information processing costs of all person who have existing or potential interests in [that] type of property go up." i.e. the "watch" example. Merrill and Smith (n 137).

prominent and will therefore be focused on more intently at the expense of an inquiry into the *endogenous* constraints discussed above.

[2.2.2] Exogenous Limitatons:

In addition to promissory estoppel and the 'web of licences' restraint which were already discussed in Chapter 2.1.2. (which will not be discussed again here to avoid repetition), there are a number of other potential *exogenous* constraints that may limit the use of unilateral *bare* licence restrictions.

A possible *exogenous* constraint in this respect may be found in the doctrine of *copyright misuse*. The doctrine is unique to the United States, although continental European jurisdictions have a functionally similar doctrine referred to as 'abuse of rights.' Under the copyright misuse doctrine, defendants to an infringement claim are provided with a defence where it is found that the copyright owner has "used [their copyright] in a manner violative of the public policy embodied in the grant of copyright." [142] This broad reference to public policy leaves the scope of the doctrine rather uncertain. However, some examples of its application include cases where rights holders have attempted to restrict competitive behaviour otherwise permissible through the use of licences, [143] have attempted to prohibit acts permitted by fair use, [144] or have attempted to leverage copyright to obtain protection where copyright law clearly did not confer it. [145] Indeed, this last application may be of relevance to the GPL given the way in which it can be

[142] *Lasercomb Am., Inc. v. Reynolds*, 911 F.2d 970 (4th Cir. 1990)

[143] *Alcatel USA, Inc. v. DGI Techs., Inc.,* 166 F.3d 772, 793-94 (5th Cir. 1999); *Lasercomb* (n 145)

[144] *Video Pipeline, Inc. v. Buena Vista Home Entm't, Inc.*, 342 F.3d 191 (3d. Cir. 2003)

[145] *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1026 (9th Cir. 2001); *Assessment Techs. of WI, LLC v. WIREdata, Inc.,* 350 F.3d 640, 647 (7th Cir.2003).

viewed to leverage copyright to demand affirmative acts from a licensee outside the scope of copyright law. However, one would have to question whether such use is "violative of the public policy embodied in the grant of copyright law," as it might be argued – as it was by the Federal Circuit in *Jacobsen v Katzer* – that the restrictions requiring attribution serve an important purpose in vindicating the *economic* rights of authors. Indeed, it might be argued that anti-privatisation restrictions, which are designed to ensure that the work remains open, "promote the progress of science and useful arts" by ensuring a vibrant quasi-commons of software is accessible for future creators. [146]

A second possible *exogenous* restraint is one that reflects a broader policy concern, this concern expressing itself through a simple question: is it reasonable to subject licensees to unilateral property restrictions which require affirmative action, even in circumstances where the licensee is *not aware* of such restrictions being in effect? Essentially, this is a concern over *notice*.

The concern over *notice* reflects our underlying apprehension to hold individuals accountable to legal obligations for which they are not aware. Mark Patterson thoroughly criticises the "GPL as bare licence" argument in this respect, stating that while it may be plausible that a GPL licensor can unilaterally enforce property restrictions on a licence grant, this should *only* be permitted "when the owner has not given the user any reason to believe that the user may have unlimited access to the copyrighted work." [147] Here, Patterson is calling out GPL licensors and FOSS advocates on the disparity between the rhetoric and legal effect of their licences, in doing so demonstrating the confusion that

[146] U.S. Const. art 1, §8, cl.8

[147] Mark Patterson, *Must Licences Be Contracts? Consent and Notice in Intellectual Property* (2012) 40 Fla. St. L. Rev. 105, 135

arises when FOSS ideology uses the exclusionary nature of copyright to popularise the idea of freedom.

As noted by Maggiolino & Montagnani, "[i]t is commonly believed that the computer programs produced and distributed with [FOSS licences] belong to the public domain." [148] Indeed, FOSS unashamedly promotes itself through a strong rhetoric of freedom from licence restrictions. For those not attuned to the legal complexities of FOSS licensing, this promotional strategy creates an image of FOSS as being synonymous with public domain software. Given this, Patterson argues that "a grant of access that appears to be unrestricted should in fact be unrestricted." [149] Indeed, the promotional materials which are often first presented to users before downloading FOSS (e.g. advertising materials on website repositories like SourceForge which promote unfettered freedom to use, modify and distribute software) [150] might be understood "to provide users with an implied licence to unrestricted use [including redistribution] of the software." [151] Thus, "a copyright owner that wants to restrict the terms of a license must at least ensure that licensees know of the restrictions, or that restrictions are intended." [152]

Accordingly, this second *exogenous* restraint, one concerned with notice, may act to limit the exercise of unilateral property restrictions by requiring that such restrictions

[148] Maggiolino & Montagnani, *From Open Source Software to Open Patenting: What's New in the Realm of Openness?* (2011) 42 IIC 804, 811

[149] Mark Patterson (n 147) 135

[150] "When a user finally arrives as SourceFourge.net, the banner at the top of the page encourages the user to 'Find, Create, and Publish Open Source Software for free.' Nothing at all in that slogan, or indeed elsewhere in the general material on the website, alerts the uses that the use of the software that they obtain on the site is subject to restrictions." Mark Patterson (n 147) 135-6

[151] Mark Patterson (n 147) 135

[152] Mark Patterson (n 147) 135

are brought to the attention of the licensee. It might be argued that the GPL already satisfies such a need for notice through its requirement that licensors and licensees attach a 'prominent notice' when distributing covered works. However, as Patterson rightly points out, "[t]he fact that a licence requirement exists does not mean that all users are aware of it." [153] He argues instead that "current *contractual* rules are now well-established and apparently reflect a determination of what level of notice is *sufficient* (emphasis added)." [154] Accordingly, Patterson gives a simple answer to the question that features as the title of his article, a question that is primarily directed at the GPL: *Must Licences Be Contracts?* Yes.

In this sense, we come full circle and recognise that the *endogenous* restraints discussed above (i.e. the scope of property rights being limited information cost considerations) and the *exogenous* restraints (i.e. concerns over copyright misuse and notice) are fuelled by the same concerns and inevitably point to the same conclusion: that the restrictive terms of the GPL as a bare licence *should* be limited. Accordingly, if licensors should wish to impose restrictions on licensees, restrictions that are positive in nature and act outside the scope of copyright, then this should be accomplished through *contract*, not a bare licence.

[153] Patterson (n 147) 149 (fn 204)

[154] Patterson (n 147) 148

Chapter 3: A Contractual GPL

Having explored the GPL as a bare licence – in doing so revealing the various concerns related to its categorisation of restrictions as purely property-based – it is now necessary to ask the question that follows from Mark Patterson's assertion that the GPL *should* be a contract: can it be a contract?

There are many forces that conspire against a contractual interpretation of the GPL. Indeed, the drafters of the licence, in their efforts to devise an instrument that gives effective powers to the licensor so as to uphold software freedoms, reject a contractual reading of the licence which is seen as comparatively ineffective. However, as Raymond Nimmer rightly notes, "[t]he fact that a person drafted a form license intended that it not be used for a contract does not matter." [155] That the GPL is a *template* licence is significant in this respect because it means that it can be adopted within the context of a relationship; the particulars of which may perhaps be more determinative of the legal outcome than the licence text itself. Accordingly, the intentions of the drafters will only be relevant to the extent that they manifest themselves through an objective reading of the licence as adopted in context. Indeed, this approach to objective interpretation is likely to be that which a court will adopt when presented with a case concerning the GPL.

In assessing whether GPL restrictions can be enforced contractually, two primary questions must be addressed: (1) have the parties demonstrated *agreement* and (2) have the parties exchanged *consideration*? What becomes apparent in answering these questions is that both the character of the licence and the technical environment in which it is adopted do not lend themselves willingly to answering these questions in the

[155] Raymond T. Nimmer, 'Is the GPL license a contract? The wrong question' (2005) <http://www.ipinfoblog.com/archives/licensing-law-issues-is-the-gpl-license-a-contract-the-wrong-question.html>

affirmative. The chapter will then discuss whether viewing the GPL through the lens of *Relational Contract Theory* (an alternative theory of contract which stresses the continuous, developing, relational nature of contractual obligations) might remedy the concerns that arise in response to these formal questions, providing a contractual framework to which the GPL is more suited.

Before proceeding, it must be noted that the chapter will focus only on *formation* issues. There are undoubtedly many interesting legal issues that arise as a result of viewing the GPL's restrictions as contractual in nature; however, given constraints, the aim of this chapter is to simply establish whether, given the limits on bare property licensing, the GPL can be enforced as a contact at all.

[3.1] Formation:

[3.1.1] Agreement:

All modern legal systems, including those of the Anglo-American tradition, share, in one form or other, their understanding of contract as *agreement*. [156] Agreement denotes a relation that is balanced; i.e. a relation of two autonomous individuals who undertake 'voluntary' or 'self-imposed' obligations to one another on the basis of their informed consent. [157] With a desire to create a strategic licence that favours licensors at the expense of informing licensees about its restrictive effect, it is conceivable how the standardised template of the GPL may fail to provide the necessary pre-conditions for agreement.

[156] John Cartwright, *Contract Law: An Introduction to the English Law of Contract for the Civil Lawyer* (Hart Publishing, 2007) 85

[157] Stephen E. Smith, Contract Theory (OUP, 2004) 56

Indeed, attempts to reject the notion of agreement are evident both through the licence text itself and the accompanying commentary of its drafters. [158]

As discussed in Chapter 2, Section 9 of the GPL appears to reject the notion of 'agreement' by stating that licensees are not *required* to accept the licence in order to run or receive the program. [159] However, it was shown in Chapter 2 how Section 9 is in fact a two-tiered provision; acceptance not required for these acts, but undoubtedly required if the licensee should wish to modify or distribute the covered work. [160] It is important to note that even though the first tier does not *require* acceptance, the wording of the section does not explicitly prevent it either. This means that the GPL as a template is, at the very least, *capable* of forming the basis of an agreement.

Both the English and U.S. courts, in conducting their contractual assessment, will look to the parties' communicated intentions, using the objective analysis of 'offer and acceptance' in order to ascertain whether an agreement has in fact been established. [161] This analysis is more than "simply a convenient method of establishing agreement," it is a rule that establishes the *only* way in which a contract can be formed. [162] Accordingly, the following applies this rule to the GPL, taking into account the myriad of ways in which it is adopted in context.

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[158] "Section 9 means what it says: mere receipt or execution of code neither requires nor signifies contractual acceptance under the GPL. Speaking more broadly, we have intentionally structured our license as a unilateral grant of copyright permissions, the basic operation of which exists outside of any law of contract. Whether and when a contractual relationship is formed between licensor and licensee under local law do not necessarily matter to the working of the license." Free Software Foundation, *GPLv3 Second Discussion Draft Rationale* (n 30) 22 (fn 77)

[159] GPLv3 (n 1) s.9.

[160] Ibid

[161] It is important to note the objective approach of the analysis. See, Storer v Manchester City Council [1974] 3 All ER 824 (CA); Smith v Hughes (1871) LR 6 QB 597.

[162] John Cartwright (n 156) 93

Offer:

It is not too difficult to identify an 'offer' under the GPL. An *offer* is defined as "an expression of willingness to contract on specified terms, made with the intention that it is to become binding as soon as it is accepted by the person to whom it is addressed." [163] This expression of willingness might be objectively ascertained through either Section 2 of the GPL, [164] the grant provision of the licence, which provides that the grant is 'irrevocable' or, as Lawrence Rosen suggests, through the very act of "posting the software […] on a public website in such a way that all prospective licensees will be able to retrieve the software under the terms of the license." [165]

Acceptance:

Establishing that a licensee has 'accepted' the GPL, however, is considerably more problematic. To accept the licence, a licensee must make a "final and unqualified expression of assent" to the offer, [166] but in order to do so he or she must be aware of the terms that make up that offer, or, at the very least, be aware of their existence. [167]

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[163] Edwin Peel, *The Law of Contract* (13th ed, OUP, 2011) 2-002. A similar definition of "offer" is found under US contract law: "the manifestation of willingness to enter into a bargain so made as to justify another person in understanding that his assent to that bargain is invited and will conclude it." American Law Institute, *Restatement (Second) of Contracts*, s.24

[164] GPLv3 (n 1) s.2

[165] Lawrence Rosen (n 2) 60

[166] Peel (n 163) 2-016

[167] "…the basic formation information must be conveyed […] The acceptor, as a reasonable person, would have had to know that a contract had been offered and that the offeror intended a particular action […] to signify acceptance." Elizabeth MacDonald, *When is a Contract Formed by the Browse-Wrap Process?* (2011) 19(4) Int'l J.L.& Info.Tech 285, 296.

Depending on the nature of the work and the medium in which it is made available, satisfying the evidential burden intrinsic to this requirement can be difficult for GPL licensors. Proprietary software licensors, distributing either physically or electronically, benefit from adopting standardised methods by which their licences are presented to – and request explicit assent from – licensees before transfer or use takes place (e.g. shrink-wrap, click-wrap agreements); methods which, although having raised some concerns in the past decade, have largely been recognised as legally valid through case law both in the U.K and U.S., [168] the latter receiving further endorsement through various draft model laws and reform projects like *Uniform Computer Information Transaction Act* (UCITA) [169] and the American Law Institute's *Principles of the Law of Software Contracts*. [170]

Where GPL licensors are capable of adopting these standardised methods, and indeed choose to adopt them, it is likely that a court will be satisfied as to the licensee's acceptance. However, through a combination of indifference (perhaps fuelled by the widely held belief that the licence is purely property based) and technical limitations, [171] many GPL licensors do not explicitly present the terms, nor do they allow for the licensee to express assent to the terms through an unequivocally affirmative act such as clicking "I agree."

[168] ProCD v Zeidenberg 86 F.3d 1447 (7th Cir. 1996)

[169] The *Uniform Computer Information Transactions Act* (UCITA) is largely based upon the proposed Article 2B reforms to the UCC. It has only been adopted in two states and there has been much academic opposition to it. See Cem Kaner, *Why you Should Oppose UCITA* (2000) 17 Computer Lawyer 5.

[170] American Law Institute, *Principles of the Law of Software Contracts Final Draft* (March 2009)

[171] "[C]lick-wrap may conflict with important methods of software distribution such as FTP download, CD-ROM anthologies, and web mirroring […] Redistribution of the software [may] take place over non-Web channels that do not support click-wrapping of the download, and […] covered code (or re-used portions of covered code) may run in a non-GUI environment that cannot support popup dialogues." Open Source Initiative, *The Open Source Definition Annotated* (n 8)

Instead, where the work is made available electronically, the licence and its terms are commonly found within the file structure of the work itself. Here, the licensee will be deemed to have expressed assent through the acts of modification or propagation of the work, as an objective reading of Section 9 would suggest (i.e. "by modifying or propagating a covered work, you indicate your acceptance of this License to do so."). For licensees who do not access the file structure and therefore do not view the licence, it is highly questionable whether they can be said to have knowledge of – so as to given assent to – the terms in order to form agreement. For example, a licensee may distribute the program without viewing the files and, while having performed the act that was deemed to constitute acceptance, did so only with "simple act intention" (i.e. the intention to perform the relevant act) and not the necessary "legal act intention" (i.e. to express assent to the contract) that is relevant to finding agreement. [172] Where a licensee modifies and then distributes the program, it might be argued he or she must have necessarily viewed the licence when modifying the files, and therefore performed the act as one that expressed contractual assent. However, from an evidentiary point of view, this too presents many complications.

Where a licensee merely receives or runs a work which has the licence displayed in the file structure (i.e. does not distribute it but merely keeps a copy for personal use), then there will likely be no assent. However, since it is only on distribution that a GPL licensor will wish to enforce the licence's restrictive provisions contractually (absent the ability to enforce them through copyright), failing to establish acceptance in these circumstances is of trivial concern to the licensor. [173]

[172] *See* Elizabeth MacDonald (n 167) 300

[173] This is reflected in the rationale for the two-tier 'acceptance' provision. See GPLv3 (n 1) s.9

Accordingly, assessing whether the licensee has accepted the licence will be an extremely context-dependent exercise. The lack of standardisation with respect to how acceptance is to be demonstrated under the GPL creates a significant barrier to the uniform judicial interpretation of the licence. Indeed, in many cases it will be very difficult to point to an *exact* moment in time when the parties are said to reach a "meeting of the minds" such as to form agreement, thus creating an evidential burden seemingly prohibitive to contractual enforcement of the GPL's restrictions.

[3.1.2] Consideration:

For the GPL's restrictive terms to be contractually enforceable, it is not enough that the parties demonstrate agreement; they must also demonstrate to the court that consideration has been exchanged. As will be shown, this requirement proves rather problematic given the fact that GPL software is often made available free of charge.

Consideration has traditionally been viewed as consisting "either in some right, interest, profit or benefit accruing to one party, or some forbearance, detriment, loss or responsibility, given, suffered, or undertaken by the other." [174] Central to consideration is the notion of exchange. The exchange must be something of value in the eyes of the law (although the law will not question the adequacy of that value); this value being what "induced the action, inaction, or promise of the other." [175] In this respect, "non-monetary performance of doubtful economic value" will be likely be scrutinised by a court before being recognised as sufficient. [176] Parties to a proprietary software licences satisfactorily

[174] The famous expression made by Sir Frederick Pollock; See, Sir Percy Winfield, *Pollocks Principles of Contract* (13th ed. London: Stevens and Sons1950) 133

[175] Jill Poole, *Textbook on Contract* (9th ed, OUP, 2008) 132

[176] Mindy Chen-Wishart, *Contract Law* (2nd ed, OUP, 2008) 134

demonstrate the exchange of consideration through the grant of rights and a corresponding monetary fee. The GPL, on the other hand, is often granted by licensors without a payment from the licensee. Nonetheless, the absence of monetary exchange by no means prevents a court from finding consideration flowing from the licensee to the licensor. [177] The following considers the possible forms this consideration may take under the GPL.

The Federal Circuit Court in *Jacobsen v Katzer* (see Chapter 2) explicitly addressed the issue of consideration in their analysis of the Artistic Licence, albeit somewhat unsatisfactorily. [178] Their discussion centred primarily on the wider practical benefits of collaboration that a licensor might receive in exchange for their permissive grant:

> "Through such collaboration, software programs can often be written and debugged faster and at lower cost than if the copyright holder were required to do all of the work independently. *In exchange and consideration for this collaborative work*, the copyright holder permits users to copy, modify and distribute the software code subject to the conditions that serve to protect downstream users and to keep the code accessible (emphasis added)." [179]

Indeed, many have placed great emphasis on the practical benefits that FOSS licensors receive in return for granting access to their works, in doing so arguing that they may indeed constitute consideration. These claimed 'benefits' often take the form of (i) feedback and contributions from the public (i.e. reports of bugs, source code

[177] Indeed, consideration is recognised in many forms under both English law – *Chappell & Co. v Nestle & Co.* [1960] AC 87 – and U.S. law: U.C.C. § 2-304(1) ("The price can be made payable in money or otherwise…")

[178] *Jacobsen v Katzer* (n 94)

[179] *Jacobsen v Katzer* (n 94) 1379

improvements, feature suggestions, interoperable works), increased numbers in potential distribution avenues (i.e. each new licensee becomes a new point of distribution for the code, maximising the full force of the 'network effect'), and (ii) indirect benefits of having the code circulate to wider user base, resulting in increased donations and resources, increased demand for consulting and support services, increased site advertising. [180] It has even been suggested that the spreading of 'political ideology can be regarded as an economic endeavour' in this respect. [181]

There are two main problems with arguments to this effect. First of all, while the above activities undoubtedly bestow a benefit upon the licensor, these benefits are too indirect. They are not explicitly requested by the licensor, nor are they explicitly promised by the licensee; accordingly they cannot be said to be that which induces him or her to enter the agreement. [182] Second, even if one is to assume these benefits are sufficient, it is not the case that every licensee who receives the code partakes in the activities that bring about such benefits. Indeed, many will just run the code, or perhaps modify it and use it privately. [183] Chenwei Zhu argues on this point that there are in fact two groups of GPL licensees; those who distribute, hence contributing back benefit, and those who do not. [184] Accordingly, in adopting this approach to consideration under the GPL, the question arises as to whether a court would be required to distinguish a licensee as being from the former or the latter group. As Zhu notes, the groups are not mutually

[180] For a highly detailed description of all these practical benefits; See, Will Hardy, *Recognising Consideration in Open Source Software Licences* (June 2009) <http://willhardy.com.au/legal-essays/oss-consideration/view/> accessed 10 October 2013.

[181] Will Hardy (n 180) 7

[182] Jill Poole (n 175)

[183] Chenwei Zhu (n 9) 159

[184] *Ibid*

exclusive; over time licensees may move from one to the other and vice versa (see further discussion on this temporal element below). [185]

Instead, it might be argued that consideration is provided by the more specific requirements in the licence, i.e. the restrictive provisions. The Federal Circuit in *Jacobsen* point to this as a possibility, stating "[t]he choice to exact consideration in the form of compliance with the open source requirements of disclosure and explanation of changes, rather than as a denominated fee, is entitled to no less legal recognition." [186] Some scholars have supported this view, arguing that the GPL is made up of reciprocal "mutual promises" (i.e. "the licensee's promise to abide by the GPL induces the licensor to make the offer [and the] licensor's grant of otherwise restricted rights induces the licensee to make her promise"). [187]

However, there are two problems with this approach. The first is that the licensee's promises may be viewed as "illusory" because they are "entirely dependent upon the will of the [licensee] whether [they] will become operative." [188] Indeed, a GPL licensee's promise to insert relevant notices and redistribute code under the stipulated conditions only takes effect *if* the licensee should decide to redistribute the work. [189] Once again, the two-tiered nature of the licence creates a temporal problem; one that

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[185] *Ibid*

[186] *Jacobsen v Katzer* (n 94)

[187] Jason B. Wacha, *Taking the Case: Is the GPL Enforceable* (2005) 21 Santa Clara Computer & High Tech. L.J. 451

[188] *British Empire Films Pty Ltd v Oxford Theatres Pty Ltd* [1943] VLR 163 per Lush J at 168. This issue is discussed by Ben Giles in his article *Consideration and the Open Source Agreement* (2002) 49 NSW Society for Computers and Law, available at <http://www.nswscl.org.au/journal/49/Giles.html> accessed 10 October 2013. While the case is Australian, the understanding that discretionary promises constitute 'illusory consideration' is also found in English law.

[189] GPLv3 (n 1).

causes certain obligations to arise at certain moments on the basis of certain acts. This temporal problem contributes to the concerns over 'illusory consideration' and also to the concerns of there being two distinct groups of licensees, some of whom might confer benefits to the licensor and some of whom may not (see above). This temporal element will be discussed further below when considering *Relational Contract Theory* as an alternative way in which to conceptualise the formation of a contract.

The second problem arises if one is to view the licensee's promise as one not to copy, modify or redistribute except as provided by the licence. The problem here relates to the doctrinal rule that holds the performance of an existing legal duty to be incapable of constituting consideration. [190] Under copyright law, an owner possesses an exclusionary right; all other individuals being under a statutory duty not to perform acts that are restricted by that right. [191] Accordingly, as Ben Giles succinctly puts it, "a licensee under the GPL cannot be said to be giving good consideration by promising not to copy/modify/distribute beyond the terms of the licence […] because the licensee is promising to do no more than they are required to do by law." [192]

To conclude on this issue, it appears that consideration is the GPL's 'Achilles' heel." [193] This is hardly surprising given the drafters insistence that 'arguments based on the contractual exchange of the code for promises of compliance have nothing to with us." [194] It is also interesting to note here the divergence between common law and civil law

[190] See *Collins v Godefrey* (1831) 1 B & Ad 950; *Glasbrook Brothers Ltd v Glamorgan County Council* [1925] AC 270

[191] Copyright, Designs and Patent Act 1988, s.16

[192] Giles (n 188)

[193] Sapna Kumar (n 69) 19

[194] Moglen (130)

regimes, consideration being unique to the former. Indeed, German Courts, applying the German Civil Code (*Bürgerlicehes Gesetzbuch*), have found the GPL to constitute a validly formed contract, [195] resulting from the fact that under German law "the seriousness of the parties [what courts generally look for to determine legally binding obligations] is not determined by any doctrine remotely akin to that of consideration." [196] Accordingly, in a civil law jurisdiction, consideration under the GPL is not the vulnerable 'Achilles heel' that it is under common law.

[3.1.3] Concluding Remarks:

The above has been an exercise in analysing the GPL in accordance with the formal doctrine of contemporary contract law. What becomes apparent is that common law courts are unlikely to find the GPL to be a valid contract in many circumstances due to evidential concerns over acceptance and the failure to find consideration.

On one level, these problems in the contractual analysis of the GPL can be attributed to the fact that the licence was drafted with the intention of it being purely property-based (i.e. bare licence). In this sense, scrambling to find agreement and consideration in places where they were not intended to be found will always prove extremely difficult. On a second level, it might be argued that these problems arise from the enduring influence of classical contract law and its insistence on discrete and

[195] *Welte v Sitecom*. (19 May 2004) No.21 O 6123/04 (LG München 1); *Welte v D-Link* (22 September 2006) No.2-6 O 224/06 (LG Frankfurt); See also, Höppner, J. The GPL prevails: An Analysis of the First-ever Court Decision on the Validity and Effectivity of the GPL (2004) 1(4) *Script*-ED 622, available at <http://www2.law.ed.ac.uk/ahrc/script-ed/issue4/GPL-case.asp#sdendnote4sym>

[196] Markensis, *The German Law of Contract* (2nd ed., Oxford: Hart, 2006) 87. See also, Axel Metzger and Till Jaeger, *Open Source Software and German Copyright Law* (2001) IIC 52

'presentiated' obligations. [197] By bringing all the past and future obligations of the parties into the present, a classical contract can be viewed as a device used to minimise the risk and uncertainty inherent in the otherwise boundless temporality of those obligations. [198] Accordingly, the GPL, which in many circumstances serves as a licence within a *community* of software developers (these developers undertaking a continuous exchange of code that is constitutive of an *on-going relation*) might be best understood through the lens of *relational contract theory*; a theory which challenges the discrete norms of classical contract that, even in contemporary doctrine, manifest themselves in formal requirements.

[3.2] GPL as Relational Contract:

Relational Contract Theory (RCT), one of the many contract theories to arise out of 20th Century socio-legal scholarship, asserts that a contract is more than just a discrete, one-off transactional exchange between parties; rather it is something composed of *social relations* that have 'the propensity to generate norms, define or inform parties' expectations, provide sources of reassurance, facilitate co-operation [and] create interdependence […]." In this respect, RCT provides a theoretical approach to contract that appears well suited to the practice of FOSS development given its normative dimensions (i.e. "hacker ethic"), its collaborative and community-based focus, and its on-going nature (i.e. FOSS being subject to a continual process of modification and refinement, licensing and re-licensing).

[197] Ian MacNeil. *The New Social Contract: An inquiry into modern contractual relations* (Yale University Press, 1980) [Hereafter *NSC*] 60

[198] MacNeil *NSC* (n 197)

This section considers whether RCT might provide a framework with which the GPL and the formal requirements of contract can be reconciled. This reconciliation, however, is purely a *theoretical* exercise.

Before proceeding, it must be noted that Chenwei Zhu provides a comprehensive analysis of RCT and FOSS licensing in his work *Authoring Collaborative Projects*. [199] Whereas Zhu employs RCT in order to depict the GPL as a relational "umbrella agreement" for the FOSS community, much like a *constitution* (i.e. it is 'based upon the evolution of consent among related actors over time' and 'articulates a higher order of shared conventions which comprise customary, expected, legal, and often non-legal rules and principles" [200]), this section focuses on the more specific issues relating to formation, questioning whether the defects identified in the previous section may be remedied by adopting a different theoretical angle.

[3.2.1] Incrimental Agreement:

Ian MacNeil, one of the founding fathers of RCT, argues that agreements are sometimes formed through 'an incremental process in which parties gather increasing information and gradually agree to more and more as they proceed." [201] MacNeil contrasts this with classical contract law's understanding of agreement as something consummated at a precise moment in time; namely, when offer and acceptance simultaneously coincide in a 'meeting of the minds.' Classical contract doctrine demands

[199] Chenwei Zhu (n 9)

[200] Mouzas and Furmston, *From Contract to Umbrella Agreement* (2008) 67(1) Cambridge Law Journal 37, 39. See also, Barnett, R.E. *A Consent Theory of Contract* (1986) 86 Colum. L. Rev 269

[201] Ian MacNeil, *Economic Analysis of Contractual Relations: Its Shortfalls and the Need for a Rich 'Classificatory Apparatus'* (1981) 75 Northwestern University Law Review 1018, 1041.

this instantaneousness so as to limit the scope of the transaction, maintaining rigidity and certainty through the exclusion of social relations that are flexible and subject to change over *time*. [202] These two conceptions – incremental and discrete – are not binary in nature, but instead represent two opposite ends of a continuum. Indeed, agreement takes many forms along this continuum, from the purely discrete (i.e. a purchase of a commodity from a store) to the more incremental (i.e. a drawn out negotiation between two parties with interwoven performance). Nonetheless, courts will always look for a specific moment at which 'agreement' can be said to have taken place, often constructing such a moment if the facts do not yield so willingly. [203]

This need to demonstrate a precise moment at which parties form 'agreement' is problematic for a contractual interpretation of the GPL given the lack of standardisation with respect to how that moment of agreement should temporally and spatially arise. [204] RCT alleviates this evidential burden somewhat by recognising that agreement takes many forms, often non-verbalised and in circumstances where the parties are not fully aware of every minute substantive detail that is being agreed to. Indeed, this recognition is said to merely reveal the 'social reality of exchange.' [205]

It is important to stress that the role of RCT is to reveal this social *reality*. RCT does not depart from classical doctrine so as to 'construct' agreement where it would not otherwise

[202] Ian MacNeil, *NSC* (n 197) 31

[203] The "who fired the last shot" approach to dealing with a battle of forms between two parties can be viewed as such a construction. Undoubtedly, there is an agreement of some sort between the two parties, however, it is difficult to identify it as arising on a precise moment without adopting a bright line rule. See, *Butler v Ex-Cell-O Corporation (England) Ltd*. [1979] 1 WLR 401; *GHSP Inc. v AB Electronic Ltd* [*2010*] EWHC 1828 (Comm)

[204] See Chapter 3.1 above

[205] Foster, K. *Review of The New Social Contract by Ian MacNeil* (1982) 1 Journal of Law and Society Vol.9 144

exist, but merely to uncover it from places where classical doctrine decides not to look. This can be contrasted with the *neo-classical* approach, epitomised by Easterbrook J.'s decision in the U.S. case *Pro-CD v Eisenberg*, which legitimises the relaxation of contractual formal doctrine on the basis of 'market efficiency.' [206] Under this latter approach, it is seen as unnecessary to demonstrate 'agreement' in the classical sense, because the evidential burden of such a requirement would "drive prices through the ceiling or return transaction to the horse-and-buggy age." [207] Accordingly, neo-classicalism can be viewed as creating a form of "constructive assent;" [208] the "legitimation mechanism" no longer being the agreement of two autonomous individuals, but instead the goal of maximising parties' wealth in the most efficient way possible. [209] The point being made here is that RCT retains 'agreement' as it's legitimation mechanism and so ultimately serves to uncover it, not fabricate it. With this in mind, it becomes clear that RCT, if it were to be applied in practice through some form of doctrinal modification, would not act to uncover agreement in all cases where the GPL is used.

Where RCT might be of use is in circumstances where parties to a GPL relationship are *participants* in the development of FOSS or *members* of a project community. Individuals in such circumstances can be said to be 'joining a relation;' [210] they become *internal* to a practice. In joining this relation, they assent to its unfolding,

[206] ProCD v Zeidenberg (n 168). In this respect, the *Uniform Computer Information Transaction Act* (UCITA) can be seen as an attempt to embrace neoclassicicism by legitimising the mass-market software licence on grounds of efficiency rather than consent.

[207] ProCD (n 168) 1452, per Easterbrook J.

[208] Post, D.W. *Dismantling Democracy: Common Sense and the Contract Jurisprudence of Frank Easterbrook* (2000) 16 Touro L. Rev. 1208 at 1238.

[209] Macneil, "Bureaucracy and Contracts of Adhesion"(1984) 22 *Osgoode Hall Law Journal* 5, at 20-21

[210] Chenwei Zhu (n 9)

gradually becoming aware of its intricacies as time progresses. [211]Accordingly, assent arises through heuristic means as the parties become familiarised with the relation's established practices and normative dimensions. This incremental form of agreement, neglectfully overlooked by the discretising nature of classical doctrine, is precisely that which RCT may give effect to where the GPL is concerned.

However, for parties to the GPL who are not *participants* or *members*, i.e. those who have not entered an unfolding relation or become internal to a practice, RCT will not function so as to construct agreement. Accordingly, an individual or entity that downloads GPL software purely with the intention of running the program, without the desire to participate in the relational activity of its development, cannot be said to 'incrementally' agree to the relation. The result of this is that there is a clear bifurcation between community and outsiders, the relational and the one-off. However, maintaining this bifurcation is tantamount to ensuring that 'outsiders' to the relational activities of FOSS development are not held liable to restrictive provisions of which they were not even made aware. Accordingly, if RCT insights were to be applied through some form of doctrinal modification, the evidential burden on GPL licensors may be alleviated in some cases; however, it would not act to construct agreement where it is otherwise lacking.

[3.2.2] Consideration Reconsidered:

The key ingredient of consideration that serves as the indicia of legal enforceability is *exchange*. Exchange, divorced from any specific legal meaning, may take many forms in

[211] MacNeil emphasises relation norm of "preservation of the relation." Many contractual relations are founded on the basis of this on-going, preserving character. Here, MacNeil contrasts the norm of preservation with discrete transactions that 'self-destruct rapidly by reason of performance, and are expected to be replaced by other discrete transactions." MacNeil *NSC* (n 197)

a society where there is great division and specialisation in labour. [212] It may be direct or indirect, bilateral or cyclical, instantaneous or temporally protracted. [213] However, within the context of contemporary contract law, *contractual exchange* is confined to a very limited ambit. It is viewed, in accordance with the dominant norms of contract, as something that must be '*discrete'* and '*presentiated*.' [214] As will be shown, this limited notion of 'exchange' works to exclude the broader notion of exchange embodied in the GPL.

Discreteness is described by MacNeil as 'a norm of precision, a focusing norm [that] enables people to deal precisely with one thing at a time – to keep their eyes on the ball – a vital factor in much human endeavour.' [215] Its role is to accentuate exchange as the 'transaction' at hand, artificially divorcing it from the social context, reducing it to a *bilateral* relation (excluding the "riffraff [that] is bound to create complicated relations outside the transaction"), and strictly limiting the substantive content of the transaction to provide specificity. [216]

Presentiation deals with the temporal element of exchange. It allows for the planning of exchange yet to take place by bringing the future into the present. Here, MacNeil discusses the idea of *promise* as 'an affirmation of the power of the human will

[212] MacNeil considers the division and specialisation in labour to one of the 'primal roots of contract.' He identified three other roots as part of an analysis of contract "backwards into history and prehistory." See, MacNeil, *The Many Futures of Contract* (1973) 47 S. Cal. L. Rev. 691

[213] "Direct bilateral exchange is, however, by no means essential. Exchange can equally well support specialization when it occurs in cycles in which no benefactor ever receives return benefits from the one upon whom he confers benefits." MacNeil (n 212)

[214] MacNeil *NSC* (n 197) 60

[215] *Ibid* 63

[216] *Ibid* 61

to affect the future.' [217] In this sense, promise performs the role of an 'exchange-projector;' it is able to give present communication of a commitment to future exchange, minimising the uncertainty and risk inherent in planning future action. To fulfil this planning function, contemporary contract law requires that future exchange be sufficiently specific and capable of being 'presentiated' at the time of the contract's formation. This is where the GPL, when viewed as being composed of 'mutual promises,' falls short.

As discussed above (see Chapter 3.1.2), the exchange that takes place under the GPL proves to be anything but *discrete*. The practical benefits that a licensor receives in exchange for the grant (e.g. reports of bugs, source code improvements, and feature suggestions) are not always direct, but are often cyclical in nature; which is to say that "the original [licensor] receives a 'return' from someone in the cycle, but not a return directly traceable to the original [licensee]." [218] Such practical benefits are also intrinsically tied to their social context, so they become difficult to separate into a transactional form. Admittedly, relaxation of the discrete norm to accommodate this form of exchange would be ill-advised. Indeed, modifying established doctrine to achieve recognition of these cyclical, practical, benefits would prohibit 'consideration' from performing its role as indicia of seriousness in any meaningful sense.

Instead, RCT may be used to provide a theoretical framework in which the GPL's terms, when viewed as being composed of 'mutual promises,' [219] demonstrates consideration without turning the notion into a vague sociological concept. This is

[217] *Ibid* 6

[218] Macneil (n 212) 697.

[219] See Kumar (n 69)

because the 'promises' under the GPL demonstrate a sufficient degree of *discreteness*; they are purely bilateral, direct and specific in substance. However, the promises suffer from a *temporal* problem. The licensee's 'promise' takes effect, not at the moment of formation, but instead at a later point in the relation where the performance of a specified act takes place (i.e. distribution). Thus, the promise is considered to be 'illusory consideration' because it fails to be presentiated; i.e. fails to establish a '*present commitment* to future exchange (emphasis added).'

While this temporal problem is evident in the drafting of Section 9, it is not a problem unique to the GPL. Indeed, the FOSS development model in general demonstrates itself to be fundamentally incapable of satisfying the demands of 'presentiation' under contemporary contractual norms. This is because the very essence of FOSS development, as a form of 'commons-based peer production' (i.e. an organisational/information processing system distinct from markets and hierarchies), is premised on the idea that '[t]he substantive decisions to contribute (e.g. what, when and how to contribute) are completely left to the individual." [220] Indeed, future exchange cannot be 'presentiated' in a promise at the time of formation because the GPL leaves this future exchange open.

RCT challenges the dominant norm of 'presentiation' on the basis that, in many circumstances, it does not authentically reflect the 'social reality of exchange.' Indeed, the world is full of contractual relationships that arise notwithstanding the absence of a discrete and presentiated exchange at the time of formation; instead, the parties to such contracts remain open to the uncertainty or, as Zhu phrases it, "serendipity" of on-going

[220] Chenwei Zhu (n 9) 176

relations, [221] valuing the 'preservation of the relation' over and above any express wealth-maximising benefits. In recognising these forms of *relational* contract, relationalists insist on expanding the temporal dimension of contract law's inquiry into exchange. Such an approach would undoubtedly prove more accommodating to the GPL and its notion of consideration as the exchange of promises, allowing the licensees' promises not to fail for their temporal defects.

However, as noted in relation to agreement, this approach, if incorporated into doctrine, would only accommodate those who demonstrate themselves to be a *participant* or *member* of FOSS development; i.e. someone who has entered into the unfolding relation. One-off users, failing to become participants in the relation, would undoubtedly fail to demonstrate consideration as exchange in this respect.

[3.2.3] Concluding Remarks:

RCT provides a fertile ground for the theoretical discussion of the relationship between the GPL and formal contract law. While relational elements have, to a greater or lesser degree, been incorporated into the law of contract over the years, it is unlikely that the theoretical discussion central to this section will ever be more than just that: a theoretical discussion.

As noted by MacNeil himself, sometimes contract scholars "must become something else – anthropologists, sociologists, economists, political theorists, philosophers – to do reasonable justice to the issue[s] raised by contractual relations." [222] Equally, there are

[221] Chenwei Zhu (n 9) 176

[222] Ian MacNeil, *Contracts, Adjustment and Long-Term Economic Relations under Classical, Neoclassical and Relational Contract Law* (1978) 72 Northwest. U. L. Rev. 854, 898-99 fn137

times when contract scholars, in order to do justice to the law of contract, must recognise the limits to which well-established concepts and doctrine can be stretched.

Chapter 4: Contributor Agreements:

It is evident from the discussion thus far that the question as to nature of the restrictive provisions in the GPL is far from being settled. In the absence of judicial clarification, it is likely to remain so. One might question whether this is an inherently bad sign. The fact that the GPL has been used to great effect over the last three decades *without* requiring any judicial treatment may instead point to the fact that the legal concerns identified are not so troubling for licensors and licensees as one may think.

However, as FOSS development and use has become a more mainstream practice attracting increased investment and involvement from commercial organisations, there are signs that these underlying legal concerns with the GPL and similar restrictive FOSS licences, while not manifesting themselves through litigation and case law, have instead manifested themselves through an increased reliance on alternative legal mechanisms with which to structure FOSS transfers.

This chapter briefly considers the role of the "*contributor agreement"* (CA) as an alternative and increasingly popular means of structuring the legal relationship between participants in FOSS development. [223] Unlike the GPL (a licence chosen and applied by the copyright owner as the governing licence of their work), the CA is a contractual

[223] Ross Gardler and Rowan Wilson, *Contributor Licence Agreement* (OSS Watch, 2 August 2012) <http://oss-watch.ac.uk/resources/cla> accessed 11 October 2013.

agreement put forward by the *recipient* of a work (typically a project entity [224] or commercial organisation using FOSS) that sets out the terms on which an owner (i.e. contributor) is permitted to have their code integrated into a larger undertaking or system (e.g. software package, operating system etc.).

While the organisations still rely on traditional FOSS licences like the GPL to make these larger works available to third parties, the fact that they reject such licences for the *receipt* of code, in part, reflects a concern over their legal effect. In this respect, a valid question is raised by Richard Fontana, legal counsel at Red Hat Inc: "If an open-source license is good enough for outbound licensing, why is it not good enough for inbound licensing?" [225]

[4.1] Assignments and Licences:

There are two main subspecies of what are commonly referred to as 'contributor agreements': (a) 'Contributor *Assignment* Agreements' (CAAs) whereby the contributor agrees to assign the copyright in their work to the project entity or organisation; [226] and (b) 'Contributor *Licence* Agreements' (CLAs) whereby the contributor agrees to grant a non-exclusive licence for their work to the project entity or organisation, the latter often allowing contributors to expressly indicate which licence or licences the project may use

[224] Project entity, in this context, refers to either a non-profit or for-profit organisation that performs the oversight function with respect to the development of a collaborative FOSS project (e.g. an operating system). The project provides a framework in which distributed developers can pool resources and work towards a common objective. Project entities often manage other intellectual property associated with the project (e.g. trademarks). Most large projects will have some form of organisational structure like this.

[225] Richard Fontana, *The Trouble with Harmony: Part 2* (11 Jul 2011) <http://opensource.com/law/11/7/trouble-harmony-part-2> accessed 11 October 2013.

[226] See Andres Guadamuz and Andrew Rens, *Comparative Analysis of Copyright Assignment and Licence Formalities for Open Source Contributor Agreements* (2013) 10(2) SCRIPTED 207, 208

for redistributing the work (the contributor usually having to choose from a list of licences pre-determined by the project entity). [227] Richard Fontana refers to these two different subspecies as the "maximalist" and the "minimalist" approach respectively. [228]

Both the maximalist and minimalist approach have their respective character and qualities; however, both can be seen to address the same problem, namely a lack of confidence in the ability of traditional FOSS licences like the GPL to legally protect entities as licensees receiving and integrating code to later distribute.

[4.2] A Response to Legal Uncertainty?

The CA can be seen primarily as a response to the concern over *licence proliferation* and the subsequent increase in *information costs* that such proliferation entails for project entities and commercial organisations wishing to merge different contributions together.

Licence proliferation refers to the 'explosion of choice' in licence options that FOSS developers may draw upon when making their code available. [229] While the trend itself is not directly related to the GPL, the concerns created by it can be traced back to the GPL and the principal argument that its restrictions are unilateral and property-based.

Indeed, it follows that when developers start adopting various different licences that are operationally similar to the GPL with property-based restrictions at their core (these restrictions stipulating any number of preconditions to be satisfied in order for the

[227] *Ibid* 208

[228] Richard Fontana, *The Trouble with Harmony: Part 1* (7 Jul 2011) <http://opensource.com/law/11/7/trouble-harmony-part-1> accessed 11 October 2013.

[229] http://opensource.org/proliferation. For a detailed discussion on the issues that arise from licence proliferation, See Robert W. Gomulkiewicz, *Open Source License Proliferation: Helpful Diversity or Hopeless Confusion?* (2009) 30 Wash.U.J.L.& Pol'y 261

licensee to fall within the scope of the grant), a chaotic proliferation of licence terms ensues, the substantive effect of these terms often being irreconcilable *inter se*. [230] This prevents project entities and commercial organisations from merging contributions without expending a significant amount of time and energy in ascertaining licence compatibility so as to avoid infringement. [231]

This reflects the point identified in Chapter 2.2 relating to *information costs* acting as an endogenous limitation on property restrictions. [232] Legal doctrine and principle act to limit such restrictions because, absent such limitations, property rights indubitably proliferate into numerous forms, in turn increasing information costs of those wishing to use the resource. [233] FOSS project entities and commercial organisations do not have the time or resources to process this information. Accordingly, as a response to the argument inherent in the GPL, these entities use their relative bargaining power to effectively pre-empt developers into discarding the GPL and similar licences, requiring them to instead adopt the CA as their granting mechanism; a standard form contractual agreement which reduces information costs and the concerns over infringement. In this sense, the CA can be seen as a response to the legal concerns raised by the GPL and its use of property-based restrictions.

The CA also acts to dispel any doubts over the contribution being 'bare' and thus revocable at will. This is an important consideration for project entities and commercial

[230] See Gomulkiewicz (n 229)

[231] "Different licenses provide different rights to do so, often with particular nuances or conditions attached. A programmer has little margin for error in understanding the right to create and distribute derivative works, and a misstep may infringe a copyright with the unpleasant possibility of an injunction and damages." Gomulkiewicz (n 229) 280

[232] See Merrill and Smith (n 86)

[233] See *Numerus Clausus*: Merrill and Smith (n 137)

organisations that have commercial interests reliant on the continued permission to use, modify and redistribute code. Having certainty in this respect ensures that organisations, depending on the nature of their business model, can continue to use FOSS in their products or continue to provide maintenance and support services as an accompaniment to the code. This in turn makes capital investment in FOSS development more attractive, the benefits of which are felt throughout the broader community.

On this issue of the contractual nature of CA, it is interesting to note that by standardising the contracting process the CA addresses many of the problems inherent in a contractual analysis of the GPL. [234] Whereas it was difficult in many circumstances to establish under the GPL whether the licensee had accepted the 'offer' (their not being aware of the licence and its terms due to the fact that it was residing in the file structure of the program), the CA ensures that the evidentiary burden of agreement is established by presenting the CA to the contributor through an interactive interface (i.e. click-wrap agreement) requiring explicit assent. [235] In this respect, the CA achieves a form of standardisation in its method of presentation that is much like that of a mass-market proprietary software licence; indeed, there is a slight irony that this standardisation is brought about by the party who is the recipient of the transfer (this role often performed by the licensor in the context of standard form software licensing).

[234] See Guadamuz and Rens (n 226); Maracke, C. *Copyright Management for Open Collaborative Projects – Inbound Licensing Models for Open Innovation* (2013) 10:2 SCRIPT-ed 140; Englehardt, T. *Drafting Options for Contributor Agreements for Free and open Source Software: Assignments, (non)exclusive Licence and Legal Consequences: A Comparative Analysis of German and US Law* (2013) SCRIPT-ed 149.

[235] Where an assignment of copyright is involved, depending on the jurisdiction, the agreement may have to be evidenced in writing with a signature. This is the case in the United Kingdom (CDPA 1988 s.90(3)) and the United States (s.204(a) Copyright Act 1977). Contributors are still often required to print, sign and 'snail' (a term used to describe conventional mail) the agreement to the project entity; however, both the US and the UK allow for signature formalities to be concluded by electronic means.

By ensuring that contractual formal requirements are satisfied, the project entity receives additional protections that would arguably not be present had they just received the code through a traditional FOSS licence like the GPL. The CA, as a contract, protects not only against unilateral revocation, but also allows for the contractual allocation of liability and risk between the parties. In this respect, the CA often requires an express warranty of non-infringement from the contributor to protect the project against third-party claims. [236]

[4.3] Concluding Remarks:

It is quite apparent that the CA is, in many ways, intended to address the legal concerns relating to the GPL and similar licences. By limiting through contract the way in which contributors make their works available, organisations are capable of reducing the *information costs* of legal compliance and, furthermore, capable of mitigating the chances of facing an infringement claim (either from the contributor or a third party). Furthermore, the CA represents a concerted effort to bring FOSS development in line with established contractual practices.

The rise of the CA has been highly controversial in FOSS circles. It represents a radical shift in the FOSS environment. This radical shift is largely attributed to the fact that the increasingly commercial nature of FOSS development has given greater weight to the legal concerns discussed in previous chapters, requiring a response that implements a degree of formalisation and standardisation in order to promote legal certainty.

[236] See Brock, A. *Commercial Agreements* in ed. Shemtov & Walden (n 38) 239 - 242

However, critics of the shift are slightly more sceptical of this rationale, particularly where the CA requires an assignment. Assignments unmistakeably act to centralise power by aggregating copyright ownership in a single entity. This appears incongruous with the distributed nature of FOSS. Indeed, it undermines the 'web of interdependency' restraint (as discussed in Chapter 2.1.2) that is seen as practical means of ensuring against licensor aggression. While, advocates of aggregation see the concentration of power as a necessary means to provide effective enforcement and flexibility in relicensing, [237] others see it as a means of extracting financial return through *dual-licensing*; where the entity, having been assigned the contributor's copyright, decides to licence the project under two different licences, one a FOSS licence and the other a proprietary licence, with the intention of making financial gains by effectively 'selling exceptions' to the restrictive provisions of the FOSS licence under the latter. [238] Indeed, many of the more ideologically driven FOSS advocates question whether this is an affront to the intrinsic values of FOSS (e.g. licensor equality, community values, software freedoms). [239]

Thus, the evolution from 'hacker ethic' to informal licence, from informal licence to legal licence, and from legal licence to contributor agreement may merely be indicative of the maturation of FOSS, its coming of age, a sign of its success as it enters the commercial mainstream. Equally, it may be a sign of FOSS, conceived of as a community-based practice with strong ethical relations, being unable to adapt to the

[237] Amanda Brock, Project Harmony looks to improve contribution agreements (24 June 2010) <http://opensource.com/law/10/6/project-harmony-looks-improve-contribution-agreements-0> accessed 11 October 2013

[238] Phipps, S. *Should Open Source Communities Avoid Contributor Agreements?* (27 August, 2010) <http://blogs.computerworld.com/simon-says/2010/08/on-contributor-agreements/index.htm>

[239] Stallman, *On Selling Exceptions to the GNU GPL* (7 January 2010) <http://www.fsf.org/blogs/rms/selling-exceptions>

commercial environment without having to lose part of its defining character in the process.

Conclusion:

This paper has sought to address a seemingly simple legal question: are the restrictive provisions of the GPL contractual in nature or are they merely property-based restrictions that act unilaterally to define the scope of the granted rights? The fact that this question can be phrased in such a concise manner – i.e. as a binary distinction between contract and copyright – belies the complexity of the issues that it must address.

To briefly summarise; in approaching this question, the paper started with an examination of the historical roots of the GPL. It was shown how the open and informal nature of software development *before* the arrival of copyright, as expressed through the 'hacker ethic,' was translated into a legal expression that served to maintain those relations in the face of proprietary culture's increasingly assertive presence. In this respect, Richard Stallman's decision to adopt copyright alone as the instrument with which to preserve those relations was a creative one. Indeed, it plays upon what appears to be an internal contradiction in the law by grounding the restrictive effect of the GPL's anti-privatization provisions in the exclusionary power that is central to copyright as a form of property.

Chapter 2 continued by looking at the various legal characteristics of the bare licence, identifying the more pragmatic reasons as to *why* Stallman and FOSS advocates favour this pure property-based interpretation of the GPL over a contractual one. In this respect, it was shown that there are a number of properties of the bare licence that make it

well-adapted to promoting and upholding software freedoms in the technical environment in which the licence is employed. Indeed, given the lack of formalities, the unilateral nature of enforcement and the ability to control downstream works in a more effective manner, the GPL, when viewed as a bare licence, demonstrates itself to be a strategically advantageous legal mechanism for FOSS. Nevertheless, the recent developments in the U.S. concerning the availability of injunctive relief for copyright infringement effectively makes redundant the central pillar around which this mechanism and all its advantages are constructed.

Having considered *why* the GPL is claimed to be composed of pure property-restrictions (a claim shown to be deeply rooted in the desire to promote a certain vision of software development and use), Chapter 2 then adopted a more critical stance, considering instead whether the GPL's licence restrictions *should* be understood in this manner. It was demonstrated how the bare licence's property-based restrictions arguably extend a copyright holder's power beyond the *endogenous* limits of the statutorily defined right. Accordingly, using Merrill and Smith's *information cost* framework as a way of delineating the two modalities of property and contract, it was shown how the GPL's restrictions, embodying a *governance* strategy more so than an *exclusion* strategy, appear more contractual in nature due to their complex and specific character (and due to the fact that they act positively).

Furthermore, it was shown how, working in tandem with this *endogenous* limitation, there are a number of *exogenous* considerations that may serve to preclude (or at least limit to an extent) the use of pure, unilateral, property-based restrictions. Most noteworthy in this respect is the consideration of *notice*. The *notice* argument proceeds from the premise that if a licensor should wish to restrict licensees in their use of a work,

then they must convey in some way their intent to do so. Indeed, according to Mark Patterson, failure to convey such intent may justify the finding of an implied, unlimited licence to the work. Indeed, the best way of ensuring that such intent is made explicit, as Mark Patterson noted, is through the law of contract.

Accordingly, Chapter 3 adopted this finding as its starting premise, proceeding onwards to the question of whether, if at all, the GPL could form the basis of a contractual agreement, such that the terms would be enforceable through the contract and the licensee would be given sufficient notice as to their restrictive effect. It was shown that the GPL, as a licence never intended to be contractually read, faces significant obstacles in satisfying contractual formation with respect to establishing both *agreement* and *consideration*. To a significant degree, this is attributable to the environment in which it is used; the technological limitations of the medium through which the interaction takes place working to obfuscate the intentions of the parties. In addition, the inability to demonstrate a direct benefit flowing from the licensee to the licensor as consideration for the grant can also be seen as a result of the distributed practices cyclical nature. That these environmental factors obscure agreement and consideration, broadly defined, is not synonymous with it not being there in some form or other. Thus, in an attempt to broaden the scope of the inquiry into contractual formation, Chapter 3 adopted insights from *Relational Contract Theory*. As a theoretical exercise, this allowed for a rethinking of formal doctrine and its role within the context of a networked environment. As was demonstrated, RCT provides a conceptual framework that shows a greater appreciation of the interactions that take place through the GPL. Nevertheless, while RCT provides an interesting counter-factual to established law (even though the later now embodies many insights of the former), this writer would not advocate doctrinal modification in this respect.

Chapter 4, in an attempt to contextualize the debate central to this paper, took into consideration a recent development: the contributor agreement (CA). The issues raised by the CA demonstrate that while licences like the GPL may not have their underlying legal concerns through adversarial disputes, these concerns are indeed expressed through using alternative instruments with which to structure FOSS transfers.

To draw a conclusion from this debate proves difficult. That the legal arguments are driven by a stronger ideological argument makes it difficult at times to separate the two. If anything, this is what can be drawn from the debate: namely, that the legal and the ideological are inseparable. Richard Stallman's decision to construct his "copyleft" licence on the rights afforded by copyright was by no means an endorsement of their being afforded in the first place. If anything, his use of copyright demonstrates a subversive act, an attempt to turn copyright on its head by using exclusionary rights to build a quasi-commons of free, accessible, modifiable and redistributable software in which the "hacker ethic" can live on despite the dominance of proprietary culture. This subversive act directed at copyright can be understood as an attempt to contest the notion of property that is dominant in proprietary culture.

On this point, the writer would like to do something rather unconventional and introduce a new idea. It is an idea that seeks to provide an explanation, both as a conclusion and as a basis for further reflection, as to the driving force behind the GPL and, in part, why it raises many legal concerns when assessed within the framework of established legal doctrine.

The idea can be expressed quite aptly through terms very familiar to the subject matter of this paper: a 'hack,' or more precisely, a 'legal hack.' Indeed, the GPL can be

understood as being a 'legal hack' on the framework of copyright in the sense that it brings about a 'qualitative differentiation' in our understanding of copyright. [240] It seeks to challenge the dominant conception of copyright as a form of property, this conception often referred to as the *liberal* conception. [241]

Drawing upon the metaphysical concept of the inviolability of human personality, the liberal conception of property, indigenous to the law of real property, espouses a solipsistic image of the owner and his interests, outside of which the interests of others are considered irrelevant. [242] This conception of property came to dominate real property jurisprudence during the later stages of a period in English history known as the "Enclosure Movement," when common agricultural land was being consolidated into compact units of privately owned land in order to reduce the perceived inefficiencies of common ownership. [243] As reference to real property jurisprudence began its slow seepage into the discourse of copyright – first in the form of rhetoric, followed then by a transition to rationale – courts and legislatures increasingly placed emphasis on the exclusive, unilateral nature of copyright, drawing upon the economic logic inherent to the liberal conception in order to justify the marginalisation of concerns relating to the

[240] See Wark, *A Hacker Manifesto* (2004, Harvard University Press)

[241] See Gallie, W.B. *Essentially Contested* Concepts (1955-56) Proceedings of the Aristotelian Society 167; Waldron, J. *The Right to Private Property* (Oxford, 1988); Radin, M.J. *The Liberal Conception of Property: Cross-currents in the Jurisprudence of Takings* (1988) 88 Columbia L. Rev. 1667.

[242] Perhaps best summarised by Sir William Blackstone, property, in accordance with the liberal conception, is viewed as "*that sole and despotic dominion which one man claims and exercises over the external things of the world in total exclusion of the right of any other individual in the universe.*" Blackstone, W. *Commentaries on the Laws of England* (first published 1765), vol 2 (Chicago, London: University of Chicago Press, 1979) 2

[243] Boyle, J. *The Second Enclosure Movement and the Construction of the Public Domain* (2004) 66 Law and Contemporary Problems 33

access, use and re-use of protected works by the community. [244] It was the extension of this logic to computer programs that, in the eyes of Richard Stallman, broke down the ethical relations that were central to software development.

Thus, the GPL can be understood as a mechanism which relies on this conception of property for its exclusionary character; however, channels this exclusionary force into terms that promote a qualitatively different *conception* of the copyright as a form of property. The GPL promotes through its 'legal hack' the conception of copyright ownership as a form of *stewardship*. [245]

Under the stewardship conception, the exclusionary nature of the property does not provide an answer to the question of 'how do I possess the thing,' but instead the question of 'how do I conserve the thing.' [246] In this sense, stewardship is a form of ownership that, while still shaped by the powers of exclusion and control, serves to promote the community's interest of 'sustainabilty,' 'need' and 'liberty' relevant to a given resource. [247]

In the context of software, *sustainability* can be understood as the commitment to avoid 'effective depletion, or degradation,' of a freely accessible commons of code. [248] Indeed, Software is by nature highly susceptible to depletion or degradation due to the fact that it can serve both a literary and mechanical purpose. Accordingly, where a certain

[244] See Lemley, M. *Property, Intellectual Property and Free Riding* (2005) 83 Tex. L. Rev. 1031

[245] See Raff, *Environmental Obligations and the Western Liberal Property Concept* (1998) 22 Melbourne U. L. Rev. 657; Yannaconne, *Property and Stewardship* (1978) 23 S. Dak. L. Rev. 71; Lucy and Mitchell, *Replacing Private Property: The Case for Stewardship* (1996) 55 C.L.J 566

[246] Moglen, *Copyleft Capitalism: GPLv3 & the Future of Software Innovation* (October 29, 2007) <http://archive.org/details/EbenMoglen-CopyleftCapitalismGplv3TheFutureOfSoftwareInnovation>

[247] Howe, H. R. *Copyright Limitations and the Stewardship Model of Property* (2011) I.P.Q. 183, 187

[248] Howe (n 247) 194

piece of code tasked with performing a necessary mechanical function has been depleted from the commons through privatisation, a programmer must either ask permission for its use or devise a route around it, often producing a less efficient alternative in the process.

The community's interest as *need* can be understood as the necessity to view source code for the purposes of education, research and interoperability. [249] Indeed, this has been shown to be a central concern to the GPL and all FOSS licences, manifest in their defining trait of providing access to the *source.*

Finally, the community's interest as 'liberty' can be understood here as being an individual's right to freedom of expression. In recent years, there has been much debate over the relationship between copyright and freedom of expression. [250] It is easy to see how the relationship is *prima facie* problematic: copyright, as the ownership of an expression of an idea, essentially restricts the wider community from reproducing or engaging with that expression without first having to seek permission.

Accordingly, when conceptualised as a 'legal hack' to the dominant conception of copyright, it is not surprising that the GPL encounters doctrinal problems. It is working within a system in order to bring about change. The insistence on the GPL being bare is important in this respect. Indeed, it is fundamental that we understand *copyright* being the target of the 'legal hack.' As intellectual architects of the licence, both Richard Stallman and Eben Moglen reject claims that the GPL is a contract by which the dominant norms

[249] Howe (n 247) 194

[250] See Gordon, W. "A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property" (1993) 102 Yale L.J. 1533; Griffiths, J. *Copyright Law and the Public's Right to Receive Information: Recent Developments in an Isolated Community* in E. Barendt and A. Firth (eds), *Yearbook of Copyright and Media Law 2001/2* (Oxford: OUP, 2002); *Scarlet v Sabam* (C-70/10) [2012] E.T.M.R. 4

of copyright are subverted. Instead, they insist that the GPL is subverting the dominant norms from within the system of copyright itself. As Moglen concludes, 'this use of intellectual property rules to create a commons in cyberspace is the central institutional structure enabling the anarchist triumph.' [251]

Word count: 25,300.

[251] Eben Moglen, *Anarchism Triumphant: Free Software and The Death of Copyright* (1999) <http://old.law.columbia.edu/my_pubs/anarchism.html>

APPENDIX

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Version 3, 29 June 2007

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