ENFORCING THE GNU GPL

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I. INTRODUCTION

Artists and authors push for strong legal protection against forces that seek to erode future innovation and the American way of life. These groups are supported by some of the most powerful copyright holders and creative associations in the United States, such as the Motion Picture Association of America and the Walt Disney Corporation. They have not only altered public perception about the rights to which creators are entitled, they have also successfully lobbied Congress. This has led to an outcry by scholars who believe the broad rights of creators threaten innovation and even freedom. Lawrence Lessig describes the

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^{1.} See, e.g., Matt Richel & Neil Strauss, Metallica to Try to Prevent Fans from Downloading Recordings, N.Y. TIMES (Late Ed.), May 3, 2000, at C1 ("Napster has . . . forced [Metallica] to 'take a stand.' That stand entailed hiring a company to visit Napster to compile a log of the online handles of Napster users who say they have Metallica music to offer."); Business Software Alliance, Anti-Piracy Information, http://www.bsa.org/usa/antipiracy (last visited Jan. 13, 2006) ("Poor software management can cost a company or an individual, not only in terms of legal and financial risk but also in terms of lost efficiency and productivity. Remember, software piracy is not simply a crime under U.S. copyright law. It can also destroy computers and data."); Motion Picture Association of America, MPAA Anti-Piracy Information, http://www.mpaa.org/piracy.asp (last visited Jan. 13, 2007) (providing information on the MPAA's actions against motion picture piracy); Hal Plotkin, Free Mickey, SFGATE.COM, Sept. 26, 2002, http://www.sfgate.com/cgi-bin/article.cgi?file=/gate/archive/2002/09/26/bonoact.DTL (last visited Jan. 13, 2007); Recording Industry Association of America, What the RIAA Is Doing About Piracy, http://www.riaa.com/issues/piracy/riaa.asp (last visited Jan. 13, 2007) (providing information on the RIAA's actions against music piracy).

^{2.} For example, the Sonny Bono Copyright Extension Act lengthened the term of copyrights to the life of the author plus 70 years; for anonymous and pseudonymous works, the term is 95 years from the year of first publication or 120 years from the year of creation, whichever expires first. See 17 U.S.C. § 302 (2006), amended by Pub. L. No. 105-298, § 112 Stat. 2827. Section 1201 of the DMCA eroded fair use rights. See generally Woodrow Neal Hartzog, Falling on Deaf Ears: Is the "Fail-Safe" Triennial Exemption Provision in the Digital Millennium Copyright Act Effective in Promoting Fair Use?, 12 J. INTELL. PROP. L. 309 (2005).

^{3.} Numerous scholars have argued against the shift of rights in favor of creators. See generally LAWRENCE LESSIG, FREE CULTURE: HOW BIG MEDIA USES TECHNOLOGY AND THE LAW TO LOCK DOWN CULTURE AND CONTROL CREATIVITY (2004) (arguing that the increased commercialization of ideas has shrunk the public domain of ideas, jeopardizing personal freedom); Yochai Benkler, Free as the Air to Common Use: First Amendment Constraints on the Enclosure of the Public Domain, 74

trend as a "war against the freedom to innovate," and has noted how creativity and innovation are built upon the ideas of the past, but the creators of past ideas try to control the new generation of creators that wish to build upon older works. By giving past creators stronger rights, future creativity and free society are hindered.

The trend of copyright expansion has reached software. Prior to 1980, no protection existed for software source code outside of state trade secret law. But amendments to the Copyright Act over the past quarter century have expanded federal protection to software, giving rise to unique problems. Consider the case of an out-of-copyright book or song. Publishers can cheaply print the book or place it on Web sites such as Project Gutenberg. The song can be digitally enhanced or remixed, and made available to the public on compact disc. But unlike traditional forms of expression, software utility is heavily dependent upon technology. When a software copyright expires, the hardware it runs on will be obsolete, as will the purpose of the software.

Some scholars and software creators argue for a drastic decrease of property rights for software, and others go as far as to call for the abolishment of protection for software. But another group seeks to offset strong property rights by having a parallel creative commons as a counterbalance. For example, James Boyle states that:

[i]t is not that openness is always right. Rather, it is that we need a balance between open and closed, owned and free, and we are

- 4. Lawrence Lessig, Professor of Law, Stanford Law School, Clearing the Air About Open Source, Keynote Address from the 2005 O'Reilly Open Source Convention (Apr. 6, 2005) (audio of speech available at http://cdn.itconversations.com/ITC.OSBC2005-LawrenceLessig-2005.04.06.mp3).
- 5. Lawrence Lessig, Professor of Law, Stanford Law School, Keynote Address from the 2002 O'Reilly Open Source Convention (July 24, 2002) (transcript available at http://www.oreillynet.com/pub/a/policy/2002/08/15/lessig.html).
- 6. The Computer Software Copyright Act of 1980 officially extended copyright protection to software. See John H. Butler, Note, Pragmatism in Software Copyright: Computer Associates v. Altai, 6 HARV. L. J. & TECH. 183, 183 (1992). However, the Copyright Office accepted applications for software beginning in 1964. Id. Several early cases hinted at the patentability of software. See, e.g., Diamond v. Diehr, 450 U.S. 175 (1981) (holding a process for curing rubber is patentable, where the process, which involved programming, incorporated a known math equation). Not until 1994 did the Federal Circuit clarify this issue. See In re Alappat, 33 F.3d 1526, 1545 (Fed. Cir. 1994) ("Consequently, a computer operating pursuant to software may represent patentable subject matter, provided, of course, that the claimed subject matter meets all of the other requirements of Title 35.").
- 7. At the time this Article went to press, Project Gutenberg had 20,000 out-of-copyright books available online for free. Project Gutenberg, http://www.gutenberg.org (last visited Jan. 13, 2007). Volunteers scan books and help correct errors that arise from text-recognition software. *Id.*
- 8. See Richard Stallman, Science Must 'Push Copyright Aside', NATURE WEBDEBATES (June 8, 2001), http://www.nature.com/nature/debates/e-access/Articles/stallman.html.

N.Y.U. L. REV. 354 (1999) (arguing that the increased commoditization of information has decreased information in the public domain and hindered the public's free speech rights under the First Amendment); Arti Kaur Rai, Regulating Scientific Research: Intellectual Property Rights and the Norms of Science, 94 Nw. U. L. Rev. 77 (1999) (arguing that privatization of molecular biology research hinders invention and development). But see R. Polk Wagner, Essay, Information Wants to Be Free: Intellectual Property and the Mythologies of Control, 103 COLUM. L. REV. 995 (2003) (arguing that strong intellectual property rights will not decrease, and may in fact increase, what is available in the public domain).

systematically likely to get the balance wrong. Partly this is because we still do not understand the kind of property that exists on networks.... We still do not intuitively grasp the kind of property that cannot be exhausted by overuse (think of a piece of software) and that can become more valuable to us the more it is used by others (think of a communications standard).

Open source software is a powerful tool for offsetting monopoly rights. Open source contributors, who are referred to as the Open Source Community, number more than one million in the United States alone. Software developers contribute to collaborative projects that allow others to freely use their software and simultaneously promote the continued creation of such software. The result of this movement is high-quality programs, such as the GNU compiler collection, the Linux kernel, and the Firefox Web browser.

The most commonly used license for this software is the GNU General Public License ("GPL"). Between sixty-five and seventy percent of open source software is GPL-licensed. Because it gives users

^{9.} James Boyle, *A Closed Mind About an Open World*, Fin. Times, Aug. 7, 2006, http://www.ft.com/cms/s/64167124-263d-11db-afa1-0000779e2340.html.

^{10.} David A. Wheeler, Why Open Source Software/Free Software (OSS/FS, FLOSS or FOSS)? Look at the Numbers! (Nov. 14, 2005), http://www.dwheeler.com/oss_fs_why.html (noting that a study from Evans Data's North American Developer Population Study in February 2004 "found that more than 1.1 million developers in North America were spending at least some of their time working on Open Source development projects").

^{11.} See Bruce Parens, Free Software Leaders Stand Together, http://perens.com/Articles/StandTogether.html (last visited Jan. 13, 2007) ("The success of the Open Source model arises from copyright holders relaxing their control in exchange for more and better collaboration. Developers allow their software to be freely redistributed and modified, asking only for the same privileges in return."); Open Source Initiative, http://www.opensource.org/index.html (last visited Jan. 13, 2007).

^{12.} The high quality results, in part, from the speed at which the software can be improved. Christian Nadan has noted that

[[]t]he basic idea behind open source is very simple: When software developers can read, redistribute, and modify the source code for a piece of software, the software evolves. People improve it, people adapt it, people fix bugs. And this can happen at a speed that, if one is used to the slow pace of conventional software development, seems astonishing.

Christian H. Nadan, *Open Source Licensing: Virus or Virtue*, 10 Tex. INTELL. PROP. L.J. 349, 352 (2002) (citing Open Source Initiative, http://www.opensource.org/index.html (last visited Jan. 13, 2007)).

^{13.} Free Software Foundation, GNU General Public License, http://www.gnu.org/licenses/gpl.txt (last visited Jan. 13, 2007) [hereinafter Free Software Foundation, GPL v.2].

^{14.} See Steven J. Vaughan-Nichols, Open-Source GPL Rewrite on Fast Track?, EWEEK (May 27, 2005), http://www.eweek.com/article2/0,1895,1821418,00.asp; David A. Wheeler, Make Your Open Source Software GPL-Compatible. Or Else (Mar. 21, 2005), http://www.dwheeler.com/essays/gpl-compatible.html. Note that these statistics are for GPL version 2. When GPL version 3 is released, some software will continue to be released under the earlier version, leading to a split. Linus Torvalds, the creator of Linux, stated that:

[[]t]he Linux kernel is under the GPL version 2. Not anything else. Some individual files are licenceable [sic] under v3, but not the kernel in general. And quite frankly, I don't see that changing. I think it's insane to require people to make their private signing keys available, for example. I wouldn't do it. So I don't think the GPL v3 conversion is going to happen for the kernel, since I personally don't want to convert any of my code.

Posting of Linus Torvalds to http://lkml.org/lkml/2006/1/25/273 (Jan. 25, 2006, 17:39 EST).

a limited right to use software at no charge,¹⁵ it is not surprising that it is regarded, at best, as an "unorthodox concept in contemporary society." Richard Epstein aptly notes that intellectual property regimes, like open source, "often creates strange bedfellows on the left and the right sides of the political spectrum," with those opposed to strong rights ranging from socialist to libertarian.¹⁷

The philosophy of making software open goes against the practice of obtaining monopolies to maximize profit. This point was illustrated when software developer Daniel Wallace alleged in federal court that the GPL constitutes a "price fixing scheme" meant to "deflate or eliminate the free market valuation of computer programs." Wallace sought a permanent injunction against "the promotion or use" of the GPL "to artificially control the... pricing of computer software programs in the course of commerce conducted in the United States." On appeal to the Seventh Circuit, the court held that "the GPL does not restrain trade. It is a cooperative agreement that facilitates production of new derivative works, and agreements that yield new products that would not arise through unilateral action are lawful." The court did not address the enforceability of the GPL, but instead concluded that "[t]he GPL and open-source software have nothing to fear from the antitrust laws."

But the promise of the GPL as a means for promoting openness has yet to be realized. Scholars and advocates struggle to articulate the legal groundwork that makes the license enforceable. Hindering this work is a

^{15.} The licensor may charge for the cost of the source code's medium of distribution. *See* Free Software Foundation, GPL v.2, *supra* note 13, § 3(b). The cost of distributing source code, however, has decreased drastically over the years. One single-layer DVD can hold 4.7 gigabytes of data. One would need more than 3000 1.4 MB floppy disks to hold the same amount of information.

^{16.} Eben Moglen, Free Software Matters: Enforcing the GPL, I (Aug. 12, 2001), http://emoglen.law.columbia.edu/publications/lu-12.html [hereinafter Moglen, Free Software].

^{17.} Richard A. Epstein, Why Open Source Is Unsustainable, Fin. Times, Oct. 21, 2004, http://www.ft.com/cms/s/78d9812a-2386-11d9-aee5-00000e2511c8.html (online version modified Nov. 9, 2004).

^{18.} See Parens, supra note 11 ("It's the share and share alike feature of the GPL that intimidates Microsoft, because it defeats their Embrace and Extend strategy. Microsoft tries to retain control of the market by taking the result of open projects and standards, and adding incompatible Microsoft-only features in closed-source. Adding an incompatible feature to a server, for example, then requires a similarly-incompatible client, which forces users to 'upgrade.' Microsoft uses this deliberate-incompatibility strategy to force its way through the marketplace. But if Microsoft were to attempt to 'embrace and extend' GPL software, they [sic] would be required to make each incompatible 'enhancement' public and available to its competitors. Thus, the GPL threatens the strategy that Microsoft uses to maintain its monopoly."). See also Ryan Hatch, Open Source Software Licenses Present Quagmire, NAT'L L. J., Oct. 17, 2005, at S2.

^{19.} Second Amended Complaint at 3–4, Wallace v. Free Software Foundation, No. 1:05–CV–0618–JDT–TAB (S.D. Ind. Jun. 7, 2005), available at http://sco.tuxrocks.com/Docs/Wallace_v_FSF/Wallace_v_FSF-15.pdf.

^{20.} *Id.* at 4. These arguments have taken place with regard to GPL v.2. However, drafts of GPL v.3 make no attempt to clarify the legal mechanisms for enforcing the license. *See generally*, Free Software Foundation, GPL v.3, 2nd discussion draft, *available at* http://gplv3.fsf.org/gpl-draft-2006-07-27.html (last visited Jan. 13, 2007) [hereinafter, Free Software Foundation, GPL v.3 draft].

^{21.} Wallace v. IBM, 467 F.3d 1104, 1107 (7th Cir. 2006).

^{22.} Id. at 1108.

chicken-and-egg problem, where the lack of related precedent causes parties to settle lawsuits, and frequent settlement prevents the generation of precedent.²³ The legal uncertainty makes risk-assessment nearly impossible, which in turn prevents companies from adopting GPL-licensed software.²⁴

The question of GPL enforcement has greater urgency now that the license is evolving. A second draft of the third version of the GPL ("GPL v.3") was released in July 2006 and a final version is expected on March 15, 2007. Draft 2 of GPL v.3 broadens the license to cover software-related patents, and prohibits digital rights management that limits access to the software. However, Draft 2 does not address any of the legal ambiguities that plague the second version of the license ("GPL v.2").

Two competing theories attempt to explain why the GPL is enforceable. The first theory, backed by the GPL's creator Richard Stallman, declares that the GPL is a non-contractual license, rather than

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If you convey a covered work, knowingly relying on a non-sublicensable patent license that is not generally available to all, you must either (1) act to shield downstream users against the possible patent infringement claims from which your license protects you, or (2) ensure that anyone can copy the Corresponding Source of the covered work, free of charge and under the terms of this License, through a publicly available network server or other readily accessible means.

Free Software Foundation, GPL v.3 draft, *supra* note 20, § 11.

27.

Regardless of any other provision of this License, no permission is given for modes of conveying that deny users that run covered works the full exercise of the legal rights granted by this License. No covered work constitutes part of an effective technological 'protection' measure under section 1201 of Title 17 of the United States Code. When you convey a covered work, you waive any legal power to forbid circumvention of technical measures that include use of the covered work, and you disclaim any intention to limit operation or modification of the work as a means of enforcing the legal rights of third parties against the work's users.

^{23.} As of January 13, 2007, there were no published cases in the United States discussing whether the GPL is enforceable. See Stephen Mutkoski, Open Source Software Issues in Acquisitions and Other Inbound Transactions, PLI Order No. 9747, at 348 (Mar. 23, 2006) ("As an example, these commentators point out that the most prevalent copyleft license, the GPL, is not a contract that creates binding obligations to act a certain way (e.g., to provide source code and grant intellectual property licenses) but rather a unilateral grant of permission to use the GPL licensed code provided that you also provide source code and intellectual property licenses to the larger work that you create. There is still some debate around this issue and there are not yet any court decisions dealing with these aspects of the intersection of licensing and copyright law.").

^{24.} See Red Hat Quarterly Report (Form 10-Q), at 38 (Jan. 9, 2006), available at http://sec.edgaronline.com/2006/01/09/0001193125-06-003422/Section10.asp ("If third-party enterprise software application providers do not continue to make their applications compatible with our Linux-based operating system offerings, our software will cease to be competitive."); Hatch, supra note 18. But see Novell, Inc. Quarterly Report (Form 10-Q), at 24 (Mar. 11, 2005), available at http://sec.edgaronline.com/2005/03/11/0001193125-05-048002/Section7.asp ("We believe that a major shift toward open source software is underway as companies are more critically evaluating the cost effectiveness of their information technology ('IT') investments, are intrigued about having access to the source code, and are looking for ways to avoid vendor lock-in.").

^{25.} See Free Software Foundation, Second Discussion Draft of Revised GNU General Public License Released, http://www.fsf.org/news/gplv3-dd2-released.html (projecting that a third draft of GPL v.3 would be released by March 2007) (last visited Jan. 13, 2007).

a contract. Eben Moglen, general counsel for Stallman's Free Software Foundation ("FSF"), has stated that "[l]icenses are not contracts: the work's user is obliged to remain within the bounds of the license not because she voluntarily promised, but because she doesn't have any right to act at all except as the license permits." This theory presents problems, because it does not account for the possibility of the licensor withdrawing the license to the detriment of the licensee. Draft 2 of GPL v.3 states that "[a]ll rights granted under this License are granted for the term of copyright on the Program, and are irrevocable provided the stated conditions are met." However, the draft provides no guidance regarding what kind of legal remedy is available to a licensee if the licensor attempts to revoke previously granted rights.

The second theory holds that the GPL is a contract. This theory is plausible, because traditional software licenses are generally interpreted as contracts. But such licenses also have cash consideration. Contract proponents argue that consideration does exist under the GPL. But ultimately, they are unable to show that there is a meeting of minds between the licensor and licensee, thus failing the requirements of contract formation.

This Article provides a legal foundation for versions two and three of the GPL by resolving the "license versus contract" debate. Part II provides background and explains the license's so-called "viral" nature. It further discusses the most well-known GPL-licensed software package, Linux. Part III introduces the FSF's non-contractual theory, which holds that the GPL is a "pure" license, similar to licenses found in real property law. It also discusses the theory that the GPL is a valid contract with an offer, acceptance, consideration, and a meeting of minds. Part III then explains the weaknesses in both of these theories. Part IV proposes that the GPL is a failed contract, which lacks only It advocates enforcing the license through state promissory estoppel law and the Copyright Act.³⁰ Part IV further recommends that the Copyright Act be amended to provide a federal cause of action for all open source software claims.31 Finally, Part IV addresses the issue of standing to enforce the GPL, and it discusses the idea of using the GPL as a defense in a copyright action, under the unclean hands and copyright misuse doctrines. Part V concludes.

^{28.} Moglen, Free Software, supra note 16.

^{29.} Free Software Foundation, GPL v.3 draft, supra note 20, § 2 (emphasis added).

^{30.} One scholar currently suggests promissory estoppel as a means for enforcing the GPL. See LAWRENCE ROSEN, OPEN SOURCE LICENSING 64–66 (2004), available at http://www.rosenlaw.com/oslbook.htm.

^{31.} For a definition of copyleft, see *infra* note 43.

II. OVERVIEW OF OPEN SOURCE SOFTWARE AND THE GNU GENERAL PUBLIC LICENSE

A. Definition of Open Source

There is some debate within the Open Source Community as to what properties software must possess to be "open source." But the most widely accepted set of guidelines comes from the Open Source Initiative ("OSI"), a non-profit corporation that maintains a certification mark program as well as the Open Source Definition.³² Under the OSI definition, there are several properties that software must comply with to be open source. The license for the software cannot "restrict any party from selling or giving away the software" as part of an aggregate software distribution, nor can any royalty or fee be required for the same.³³

To meet the OSI requirements, the source code must be distributed with the software.³⁴ Software developers write software in programming languages, such as C++ and Java. These lines of instructions are known as "source code." Because software developers can read and understand source code, they can modify the code to change the way the program works.³⁵ Source code is compiled into binary code, which cannot be understood by developers, but can be read in machines. This is the format in which commercial software comes. Because the code is virtually incomprehensible to humans, it cannot be modified.³⁶ Consequently, for developers to improve software, it is imperative that the program's source code be freely available.³⁷

The OSI definition further requires that the software license permit the creation of derivative works from the software. It must allow these derivative works to be distributed under the terms of the original license. Alternatively, the licensor can prohibit distribution of derivative software, but must allow the distribution of "patch files" that update the software. The definition also has provisions that address non-discrimination (either against particular persons or specific fields of endeavor), neutrality of the license, and the automatic attachment of rights to recipients of redistributed software. ³⁸

^{32.} See Open Source Initiative, http://www.opensource.org (last visited Jan. 13, 2007).

^{33.} Open Source Initiative, The Open Source Definition, http://www.opensource.org/docs/definition.php (last visited Jan. 13, 2007).

^{34.} *Id*.

^{35.} STEVEN WEBER, THE SUCCESS OF OPEN SOURCE 4 (2005).

^{36.} Id.

^{37.} See Open Source Initiative, The Open Source Definition, http://www.opensource.org/docs/definition.php (last visited Jan. 13, 2007) ("We require access to un-obfuscated source code because you can't evolve programs without modifying them. Since our purpose is to make evolution easy, we require that modification be made easy.").

^{38.} *Id*.

B. Overview of the GPL

The GPL received little attention prior to the recent success of Linux, but the license has existed for nearly two decades. It is the result of a movement started by Richard Stallman, seeking to break software monopolies by offering high-quality, non-proprietary alternatives to consumers.³⁹ Frustrated by his experience with closed-source software, Stallman developed a "copyleft license" that in 1989 evolved into the first version of the GPL.⁴¹ His idea was to use copyrights to protect the public's right to use software as opposed to preserving the creator's monopoly.⁴² For programs licensed under the GPL, third parties retain the right to use, modify, and redistribute an author's copyrighted work.⁴³ If the author modifies and distributes the program, the author must make the program's source code available to the public.⁴⁴

The core of all versions of the GPL are the four freedoms: (1) the freedom to run the program for any purpose; (2) the freedom to study how the program works and to modify it; (3) the freedom to redistribute copies of the software; and (4) the freedom to revise the software and release the revisions to the public.⁴⁵ The license lets third parties run the software for any purpose and to make changes to the software's source code. A software developer can take proprietary software, insert GPL-licensed code, and use that software without violating the terms of the license. But if the software developer distributes new software that includes GPL-licensed source code, the original software becomes subject to the GPL.⁴⁶ The requirement that distributed, derivative

^{39.} See Eben Moglen, General Counsel, Free Software Foundation, Freeing the Mind: Free Software and the Death of Proprietary Culture, Keynote Address at the University of Maine Law School's Fourth Annual Technology and Law Conference (June 29, 2003) [hereinafter Moglen, Freeing the Mind], available at http://emoglen.law.columbia.edu/publications/maine-speech.html ("We're not destroying the global software industry, we're destroying the monopoly."); WEBER, supra note 35, at 46–49.

^{40.} See infra note 43.

^{41.} Free Software, The History of the GPL, http://free-soft.org/gpl_history/ (last visited Jan. 13, 2007).

^{42.} See generally id.

^{43.} GNŪ.org, What Is Copyleft?, http://www.gnu.org/copyleft/copyleft.html (last visited Jan. 13, 2007). See also UNESCO, UNESCO Free Software Portal, http://www.unesco.org/webworld/portal_freesoft/license_info.shtml (last visited Jan. 13, 2007). Work that is licensed under

copyleft is often designated with a backwards copyright symbol, \bigcirc , though the symbol holds no legal meaning. See Arikah's Portal, Encyclopedia, Travel Guide & Resources, Copyleft, http://www.arikah.net/encyclopedia/Copyleft.

^{44.} *Id*.

^{45.} See GNU.org, The Free Software Definition, http://www.gnu.org/philosophy/free-sw.html (last visited Jan. 13, 2007).

^{46.} See Free Software Foundation, GPL v.2, supra note 13, § 2 ("You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License."); Free Software Foundation, GPL v.3 draft, supra note 20, § 5 ("You may copy and convey a work based on the Program, or the modifications to produce it from the Program, in the form of source code under the terms of section 4 above, provided that you also meet all of these conditions.... (b) You must license the entire work, as a whole, under this License to anyone who comes into possession of a

software be released under the original license distinguishes the GPL from non-copyleft licenses such as the BSD license.⁴⁷

A common belief is that the software developer would now be forced to release the source code to the once-proprietary software to any person that asks. The GPL is thus erroneously referred to as "viral," based on the belief that software licensed under it "infects" any software that incorporates the licensed code. But describing the GPL as an infectious disease is, at best, an oversimplification. As one attorney notes, "the GPL and other open-source licenses do not have some special magic feature that allows them to infect other software. They have license limitations that apply to derivative works, just like any other copyright license."

For example, suppose a software developer incorporates one line of GPL-licensed source code in a program that contains 20,000 lines. Under a strict reading of the GPL, if the developer sells the software, she is obligated to release the entire 20,001-line source code for her program to anyone upon request. Her lines of source code are considered to be "changes" to the GPL-licensed software. Note, however, that she can refuse to release the source code to the 20,000 lines of code. In Part III, this Article will show that the developer would instead have to remove the line of GPL-licensed software and pay damages for violating the original author's copyright.

C. Linux

To understand the emergence of Linux, it helps to look back at the history of UNIX. UNIX is a powerful operating system that was created

copy. This License must apply, unmodified except as permitted by section 7 below, to the whole of the work, and all its parts, regardless of how they are packaged. This License gives no permission to license the work in any other way, but it does not invalidate such permission if you have separately received it."). For a discussion of what constitutes distribution, see Bennett M. Sigmond, *Free/Open Source Software Licensing—Too Big to Ignore*, COLO. LAW. DEC. 2005, at 89, 94.

^{47.} See GNU.org, The BSD License Problem, http://www.gnu.org/philosophy/bsd.html (last visited Jan. 28, 2007).

^{48.} See Phil Albert, GPL: Viral Infection or Just Your Imagination?, LINUXINSIDER, May 25, 2004, http://www.linuxinsider.com/story/33968.html ("Companies refer to open-source software as 'potentially viral software' in the end-user licenses that accompany their proprietary software. The end-user license includes limitations against using the proprietary software with open-source licensed software."); Margaret Jane Radin, Humans, Computers, and Binding Commitment, 75 IND. L.J. 1125, 1132 (2000) (describing the GPL as a viral contract or attempted contract that attempts "to make commitments run with a digital object"); Greg G. Vetter, The Collaborative Integrity of Open-Source Software, 2004 UTAH L. REV. 563, 633–34 (""Viral" is not used in the sense of a computer virus, but in the sense that the GPL license terms seek to 'infect' the whole of the software that contains any GPL-licensed open-source software. Taken as the GPL license intends, this colloquial use of 'infect' means simply that the GPL license terms must be honored for all software in the modified work, otherwise the license for the explicitly GPL-licensed open-source software is violated upon a redistribution of the software.").

^{49.} Albert, supra note 48.

in 1969 by AT&T/Bell Laboratories.⁵⁰ Prior to its development, AT&T signed a consent decree in 1956 to settle an antitrust suit with the Department of Justice, which limited the company's operation in domestic telephone service and certain government contracts.⁵¹ These terms lead company lawyers to advise AT&T against commercializing software.⁵² AT&T initially made the source code available only to universities, but gradually expanded distribution to government agencies, non-profits, and eventually businesses, resulting in variations of UNIX appearing in the computing community.⁵³ But years later, AT&T later realized that the consent decree did not apply to software, and began charging for UNIX source code.⁵⁴ UNIX, in essence, was once again closed-source.

An American computer science professor named Andrew Tanenbaum created a UNIX-like operating system called MINIX in the late 1980s, and released the source code. In 1991, Finnish student Linus Torvalds began searching for a way to create a robust, non-proprietary operating system for Intel 386 and 486 computers. Working with the MINIX code, he developed the skeleton of an operating system, called the Linux kernel, and released the first version in August, 1991.

Torvalds incorporated Stallman's GPL-licensed software with the kernel.⁵⁸ With the help of a small group of volunteers, the GNU/Linux operating system was born and in 1992, was released under the GPL.⁵⁹ The project first attracted hundreds, then thousands of volunteers.⁶⁰

^{50.} Dennis M. Ritchie, The Evolution of the Unix Time-sharing System, http://cm.bell-labs.com/cm/cs/who/dmr/hist.html (last visited Jan. 13, 2007).

^{51.} Bell Labs, A Brief History of Lucent Technologies, http://www.bell-labs.com/history/lucent.html (last visited Jan. 13, 2007).

^{52.} Salon.com, Free Software Project | Chapter 1: Boot Time, Part 2, http://archive.salon.com/tech/fsp/2000/03/06/chapter_one_part_2/index1.html (last visited Jan. 13, 2007).

^{53.} See, e.g., Duke University, A Brief History of Social Science Computing at Duke, http://www.socsci.duke.edu/history.html (last visited Jan. 13, 2007) ("In the late 1970's and early 1980's UNIX computing emerged as a viable alternative to the mainframe for scientific computing."). See also Peter H. Salus, The History of Unix Is as Much About Collaboration as It Is About Technology, Oct. 1994, BYTE.COM, http://www.byte.com/art/9410/sec8/art3.htm ("The AT&T lawyers, concerned with consent-decree compliance, had believed it was safe to allow universities to have Unix. Soon they decided to let two more agencies license the system: the U.S. government and The Rand Corporation, a research organization run on government funds. But this decision was the proverbial camel's nose. There were 33 institutions on Ferentz's 1975 list of users; there were 138 in September 1976, 37 of them outside the U.S. And, in 1977, Interactive Systems (Santa Monica, CA) became the first company to support Unix commercially. It was soon followed by Human Computing Resources in Toronto.").

^{54.} See Ragib Hasan, History of Linux, http://ragibhasan.com/linux (last visited Jan. 13, 2007); The UNIX System, History and Timeline, http://www.unix.org/what_is_unix/history_timeline.html (last visited Jan. 13, 2007).

^{55.} Hasan, *supra* note 54. *See also* John Markoff, *ID Tags Vulnerable to Software Viruses*, *Study Finds*, N.Y. TIMES, Mar. 16, 2006 (noting Tanenbaum's American nationality).

^{56.} WEBER, *supra* note 35, at 54–57.

^{57.} See id.

^{58.} *See id.* at 101–03; Hasan, *supra* note 54.

^{59.} WEBER, supra note 35, at 101-103.

^{60.} Id.

Vendors moved in, combining the Linux kernel with free software to form complete Linux operating systems, such as Red Hat.⁶¹ Companies soon found that they could earn money by providing services such as technical support and warranties for a fee.⁶² Graphical user interfaces were created to give Linux a look and feel closer to that of Windows.⁶³

Linux's popularity came at a price. The number of users has risen dramatically since 1991, with current estimates between eleven and twenty-nine million people. This increase in users has lead to a wave of lawsuits. The most high-profile cases, to date, have been brought by the SCO Group, Inc. ("SCO"). SCO claims that it owns the copyrights to UNIX, and it alleges that Linux developers copied lines of UNIX code into the Linux kernel. These suits illustrate the problem of not having precedent concerning the validity of the GPL. Novell and Hewlett-Packard perceived a risk to corporate users and offered, for a price, to indemnify their enterprise software customers against SCO suits. This illustrates the need for clarification of the enforceability of the GPL.

III. CURRENT THEORIES: PURE LICENSE OR CONTRACT?

Scholars vary in whether they identify the GPL as a contract⁶⁸ or a non-contractual license. Robert Merges notes that [b]y its own terms, the copyleft agreement is an unusual license; at the most basic level consider the problem of determining damages when the licensee frustrates the licensor's expectation of zero profits under the contract. The GPL's unusual nature has led to a divisive debate over whether it can be enforced, and if so, how. Though some parties argue that the

^{61.} Id.

^{62.} *Id*.

^{63.} *Id*.

^{64.} TUX Magazine, So I've Heard a Lot About This Linux Phenomenon. What Is It Anyways?, http://tuxmagazine.com/node/1000008 (Nov. 26, 2004) (estimating that there were between eleven and fifteen million Linux users in 2004); The Linux Counter, Estimates of the Number of Linux Users, http://counter.li.org/estimates.php (last visited Jan. 13, 2007) (estimating 29 million Linux users in 2005).

^{65.} Press Release, The SCO Group, SCO Files Slander of Title Lawsuit Against Novell (Jan. 20, 2004), http://ir.sco.com/ReleaseDetail.cfm?releaseid=126926.

^{66.} Stephen Shankland, SCO: Unix Code Copied into Linux, CNET News.com, May 1, 2003, http://news.com.com/2100-1016 3-999371.html.

^{67.} See Ina Fried, HP Outlines Linux Indemnity Plan, CNET NEWS.COM, Sept. 24, 2003, http://news.com.com/HP+outlines+Linux+indemnity+plan/2100-1016_3-5081407.html; Novell, Novell Linux Indemnification Program, http://www.novell.com/licensing/indemnity (last visited Jan. 13, 2007).

^{68.} See Jason B. Wacha, Taking the Case: Is the GPL Enforceable?, 21 SANTA CLARA COMPUTER & HIGH TECH. L.J. 451, 456 (2005) ("It is likely that a court, in the U.S. or abroad, would recognize the GPL as a contract."); Robert W. Gomulkiewicz, De-bugging Open Source Software Licensing, 64 U. PITT. L. REV. 75, 83–84 (2002) ("The GPL makes creative use of a contract to reverse the copyright monopoly by permanently giving away the exclusive rights of a copyright holder, what Stallman whimsically calls 'copyleft.").

^{69.} Moglen, Free Software, supra note 18 passim.

^{70.} Robert P. Merges, The End of Friction? Property Rights and Contract in the 'Newtonian' World of On-Line Commerce, 12 BERKELEY TECH. L.J. 115, 129 (1997).

license is unenforceable,⁷¹ the main disagreement regards whether the GPL is a license or a contract.

A. Pure License

A license, by definition, is "[a] revocable permission to commit some act that would otherwise be unlawful; especially, an agreement . . . that it will be lawful for the licensee to enter the licensor's land to do some act that would otherwise be illegal, such as hunting game." A license places no conditions on the licensee, but can be revoked by the licensor at any time. Outside of real property, examples of such "simple" licenses include parking spaces, forestry permits, driver's licenses and marriage licenses. Such simple licenses are generally government-issued.

If the GPL is a mere license and the licensee fails to abide by the terms of the GPL, no contract has been breached. Rather, the licensee has not met the terms of the license. The licensor can then sue the licensee for copyright infringement:

Because the GPL does not require any promises in return from licensees, it does not need contract enforcement in order to work.... The licensor plaintiff says "Judge, the defendant is redistributing my copyrighted work without permission." The defendant can then either agree that he has no permission, in

^{71.} See, e.g., Andrew Orlowski, SCO Says GPL Unenforceable, Unconstitutional and Void, THE REGISTER, Oct. 28, 2003, http://www.theregister.co.uk/2003/10/28/sco_says_gpl_unenforceable_unconstitutional. According to SCO's court filing,

[[]t]he General Public License ('GPL') is unenforceable, void and/or voidable, and IBM's claims based thereon, or related thereto, are barred. . . . The GPL is selectively enforced by the Free Software Foundation such that enforcement of the GPL by IBM or others is waived, stopped or otherwise barred as a matter of equity.

Id.

^{72.} BLACK'S LAW DICTIONARY 931 (7th ed. 1999).

^{73.} See Carson v. Dynegy, Inc., 344 F.3d 446, 452 (5th Cir. 2003) ("Assuming, arguendo, that a nonexclusive license was created, whether such a license was irrevocable rests solely with whether [the plaintiff] received consideration."). See also I.A.E., Inc. v. Shaver, 74 F.3d 768, 775–76 (7th Cir. 1996) (discussing the existence of explicit and implied non-exclusive non-contractual licenses).

^{74.} See Haygan v. United States, 627 F. Supp. 749, 751 (D.D.C. 1986) (holding that plaintiff's parking application for a parking space in a government parking lot created a license, rather than a contract); Hage v. United States, 35 Fed. Cl. 147, 166 (Fed. Cl. 1996) (holding that special use permit is a revocable license rather than a contract); Johnson v. State ex rel. Okla. Dept. of Pub. Safety, 109 P.3d 366, 369 (Okla. Civ. App. 2005) ("The operation of a motor vehicle on a public highway is not a natural, absolute right, but a conditional privilege which may be granted, suspended, or revoked under the police power of the state. A driver's license is not a contract or a property right in the constitutional sense, and therefore its revocation does not constitute the taking of property. The privilege is granted to those who are qualified, who comply with reasonable police power requirements in the interest of public safety and welfare, and is withheld from those who do not." (quoting Robertson v. State ex rel. Lester, 501 P.2d 1099, 1101 (Okla. 1972))); Costerus v. Neal, No. Civ.A. 00-12156-MEL, 2001WL 267456, at *4 n.5 (D. Mass. Mar. 9, 2001) (holding that, under Massachusetts law, plaintiff's Firearm Identification Card "was a license, not a contract, and cannot be the basis of an impairment of contract claim"). But see Son Broadcasting, Inc. v. United States, 52 Fed. Cl. 815, 822 (Fed. Cl. 2002) (holding that special use forestry permit satisfies the elements of a binding government contract).

which case he loses, or assert that his permission is the GPL, in which case he must show that he is obeying its terms. A defendant cannot simultaneously assert that the GPL is valid permission for his distribution and also assert that it is not a valid copyright license, which is why defendants do not "challenge" the GPL. 75

Violating the GPL, under this view, is no different than violating a fishing license by catching too many fish—you lose your license and pay a fine, but you do not surrender your fish to the licensor.⁷⁶

Under the non-contractual interpretation, the GPL is a unilateral grant of rights. Because the licensor does not receive consideration from the licensee, it does not meet all of the requirements for a valid contract. According to proponents of this view, the owner of a piece of intellectual property can establish conditions preventing the owner from suing a user:

The GPL grants the user conditional permissions such as permission to copy, redistribute and modify the work. These permissions are intended to protect a user from copyright infringement if the software is used in accordance with the permissions. The permissions are not intended to create contractual obligations on either party.⁷⁸

But the non-contractualists have failed to account for the fact that licenses, by definition, are "a revocable permission." If a landowner granted a license to a neighbor for what would otherwise be trespass, the landowner could revoke the right at any time. The same premise has been recognized for software: "nonexclusive licenses are revocable absent consideration." In 1995, the Eastern District of Michigan found that "[a]lthough copyright transfers are often made by contract, they need not be. An assignment or exclusive license of copyrights is treated

^{75.} Pamela Jones, *The GPL Is a License, Not a Contract*, LWN.NET, Dec. 3, 2003, http://lwn.net/Articles/61292 (quoting Eben Moglen).

^{76.} Id.

^{77.} Id. See also Examining an Attack on the GPL, LWN.NET, http://lwn.net/Articles/59505 (last visited Jan. 13, 2007).

^{78.} Carol Kunze, *UCITA*, *in* GEORGETOWN OPEN SOURCE SUMMIT REPORT 87, at 88 (2002), available at http://opensource.georgetown.edu/report/osreport.pdf. See also Moglen, Free Software, supra note 16 ("The essence of copyright law, like other systems of property rules, is the power to exclude.... This right to exclude implies an equally large power to license—that is, to grant permission to do what would otherwise be forbidden. Licenses are not contracts: the work's user is obliged to remain within the bounds of the license not because she voluntarily promised, but because she doesn't have any right to act at all except as the license permits.").

^{79.} One scholar who has pointed this out is Lawrence Rosen, who notes that the GPL is a bare license, and thus "can be revoked by the licensor at any time." ROSEN, *supra* note 30, at 62.

^{80. 3} MELVILLE B. NIMMER, NIMMER ON COPYRIGHT, § 10.02[B][5] (2000). See also Carson v. Dynegy, Inc., 344 F.3d 446 (5th Cir. 2003) ("[A]s consideration was not present, any license ostensibly granted to Dynegy was revocable by Carson."); Keane Dealer Services, Inc. v. Harts, 968 F. Supp. 944, 947 (S.D.N.Y. 1997) ("An implied license is revocable, however, where no consideration has been given for the license.").

like a conveyance of property, which may be achieved by gift or sale. Absent consideration, however, nonexclusive licenses are revocable."⁸¹

The GPL is a nonexclusive software license. Under a pure license theory, a software licensor could thus revoke the GPL's grant of rights to third parties at any time and for any reason. Once revoked, the license theory does not specify recourse for the licensee that relied upon the license. Despite this fact, pure license advocates have focused almost exclusively on the possibility of a breach by the licensee, and neglected the possibility of the licensor revoking rights that she granted under the GPL. Draft 2 of GPL v.3 attempts to deal with this possibility by stating that "[a]ll rights granted under this License are granted for the term of copyright on the Program, and are irrevocable provided the stated conditions are met." But merely stating that the license is irrevocable does not make it so. Part IV discusses how promissory estoppel could be used to bridge this gap, via a failed contract theory.

B. Contract

A contract is "a promise or a set of promises for the breach of which the law gives a remedy, or the performance of which the law in some way recognizes as a duty," where "promise" is defined as "a manifestation of intention to act or refrain from acting in a specified way, so made as to justify a promisee in understanding that a commitment has been made." Under this view, the licensor makes an offer defined by the terms of the GPL, and the licensee accepts by incorporating and distributing the GPL-licensed code. The burdens that the licensor undertakes constitute consideration. Many copyright attorneys and scholars believe that the GPL is a contract, and hold this view despite the FSF's assertions to the contrary.

A large minefield lies in the issue of specific performance. If the GPL is a contract, then a plaintiff could seek specific performance from a GPL-violating defendant, forcing the defendant to make her software

^{81.} Johnson v. Jones, 885 F. Supp. 1008, 1112 n.6 (E.D. Mich. 1995).

^{82.} For example, referring to Moglen's land analogy, some courts have held that a simple license cannot be enforced under the Statute of Frauds because "it is not a contract, but merely the permission or authority to do a particular act or series of acts upon the land of another without possessing an interest therein." Rentfro v. Dettwiler, 26 P.2d 992, 994 (Mont. 1933). See also 3 KENT'S COMMENTARIES ON THE LAW 453 (John M. Gould ed., 1901) ("But a license is an authority to do a particular act, or series of acts, upon another's land, without possessing any estate therein. It is founded in personal confidence, and is not assignable nor within the statute of frauds."); Woodbury v. Parshley, 7 N.H. 237 (1834) (holding that a license to be exercised upon land is not within the statute of frauds, and may be granted without a contract in writing).

^{83.} RESTATEMENT (SECOND) OF CONTRACTS §§ 1, 2 (1981).

^{84.} See Watcha, supra note 68 at 474. Consideration is present under the GPL because "the licensee and the licensor make mutual promises to each other. The licensee, as consideration, agrees to keep all copyright notices intact, to insert certain required notices, and to redistribute code only under certain conditions." Id.

^{85.} See supra Part III.A; Moglen, Free Software, supra note 16 and accompanying text.

open source. ⁸⁶ The FSF vehemently denies that the GPL can be used to "force" proprietary software to become open source by relying on their non-contractual license theory:

There is no provision in the Copyright Act to require distribution of infringing work on altered terms. What copyright plaintiffs are entitled to, under the Act, are damages, injunctions to prevent infringing distribution, and—where appropriate—attorneys' fees. A defendant found to have wrongfully included GPL-licensed code in its own proprietary work can be mulcted in damages for the distribution that has already occurred, and prevented from distributing its product further. That's a sufficient disincentive to make wrongful use of GPL-licensed program code. And it is all that the Copyright Act permits.⁸⁷

If the GPL is a contract, there is nothing to stop a plaintiff from seeking such an extreme remedy. Whether a court would award specific performance is another matter. Richard Epstein has argued against the idea that a court would permit such an award, noting that a court would be far more likely to award damages in the case where a large software company accidentally incorporates a few lines of open source code into proprietary software.⁸⁸

This raises the issue of what an appropriate remedy would be in the event of a major GPL violation. Suppose that a software company knowingly incorporated thousands of lines of GPL-licensed code into its proprietary software. If consideration for the author is the release of changes back to the community, how would a court financially compensate the author under contract law? Money damages would not be an appropriate remedy if the original consideration from the company was the release of source code for any derivative software. Moreover, there could be hundreds of authors who contributed to the code over time, making it impossible to assess the value of an individual's contribution. The difficulty of assessing potential liability could deter companies and organizations from adopting any GPL-licensed software, limiting the adoption of the open source software.

^{86.} See generally Restatement (Second) of Contracts \S 1, 2.

^{87.} Jones, *supra* note 75 (quoting Eben Moglen). *See also Examining an Attack on the GPL*, *supra* note 77.

^{88.} Epstein, *supra* note 17 ("In principle, the entire Microsoft operating system could count as 'the work' that becomes open source because a few lines of open source code have been incorporated into it by inadvertence. I doubt very much whether courts will tolerate that extreme remedy, if they enforce the clause at all. Just imagine if Microsoft insisted that it had exclusive rights to any derivative work that incorporated its code! In both cases, it is much more likely that courts would allow the incorporator to remove the offending lines of code, or to pay some damages for the improper inclusion.").

^{89.} Id.

C. The GPL Is Not a Contract

Before analyzing whether the GPL meets the requirements of a contract, one must examine the application of contract law to software licenses. Several courts have found that Article 2 of the UCC applies to software licenses. Other states apply common law. Under either of these approaches, the GPL is not a contract. As Raymond Nimmer notes, the GPL as a document alone cannot constitute a contract, which is "the total legal obligations of the parties arising out of their agreement as enforced in law." In particular, the document does not evidence a meeting of minds with regard to consideration. The GPL is therefore properly characterized as a failed contract.

Article 2 states that "[a] contract for sale of goods may be made in any manner sufficient to show agreement, including conduct by both parties which recognizes the existence of such a contract." For valid contract formation, an offer and acceptance must exist. A "sale" takes place, where the title is past from the buyer to seller for a "price," that is payable "in money, goods, realty, or otherwise." Under the common law, there must likewise be an offer, acceptance, and consideration, in addition to mutual assent to the terms.

- 93. U.C.C. § 2-204 (2005).
- 94. Id. § 2-206.
- 95. Id. §§ 2-106, 2-401, 2-304.

^{90.} See RRX Indus., Inc. v. Lab-Con, Inc., 772 F.2d 543, 546 (9th Cir. 1985) (holding that, where "the sales aspect of the transaction predominates," the UCC should be applied); I.Lan Sys., Inc. v. Netscout Serv. Level Corp., 183 F. Supp. 2d 328, 331 (D. Mass. 2002) ("Despite Article 2's requirement of a sale, courts in Massachusetts have assumed, without deciding, that Article 2 governs software licenses."); Softman Prods. Co. v. Adobe Sys. Inc., 171 F. Supp. 2d 1075, 1084 (C.D. Cal. 2001); M.A. Mortensen v. Timberline, 998 P.2d 305, 310 (Wash. 2000) (accepting the parties' decision that Article 2 applies to the licensing of software).

^{91.} See Berthold Types, Ltd. v. Adobe Sys., Inc., 101 F. Supp. 2d 697, 698 (N.D. Ill. 2000) (holding that a pure software license agreement does not result in a transfer of title, rendering Article 2 inapplicable). Note that Maryland and Virginia rejected both Article 2 of the UCC and the common law in favor of adopting the Uniform Computer Information Transactions Act ("UCITA"). Warren E. Agin & Scott N. Kumis, A Framework for Understanding Electronic Information Transactions, 15 Alb. L.J. Sci. & Tech. 277, 301 (2005).

^{92.} Contemporary Intellectual Property, Licensing & Information Law: Privacy, Data Protection and Security Balance (Sept. 6, 2005), http://www.ipinfoblog.com/archives/privacy-data-protection-and-security-privacy-data-protection-and-security-balance.html.

^{96.} See generally SAMUEL WILLISTON, A TREATISE ON THE LAW OF CONTRACTS §§ 3:1 to 3:5 (Richard A. Lond ed., Lawyers Cooperative Publishing 1990) (1920). Note, however, that Louisiana civil law does not require consideration for the formation of a contract. Cuoco v. Pik-a-Pak Grocery Corp., 379 So.2d 856, 858 (La. Ct. App. 1980) ("In order to meet the requirements for the formation of a contract, a promise requires consideration at common law. At civil law, instead, the question is not whether a promise is supported by consideration, but whether an obligation has a cause and, from this viewpoint, a party's will to be bound is an effective cause."). This Article does not consider the implications of Louisiana law on GPL enforcement.

^{97.} See 17 AM. JUR. 2D Contracts § 18 (2004). See also Midgett v. Cook Inlet Pre-Trial Facility, 53 P.3d 1105, 1114 (Alaska 2002) ("To establish the existence of a contract, four elements must be shown: (1) an offer that encompasses the agreement's essential terms; (2) unequivocal acceptance; (3) consideration; and (4) mutual intent to be bound."); Hartbarger v. Frank Paxton Co., 857 P.2d 776, 780 (N.M. 1993) ("Ordinarily, to be legally enforceable, a contract must be factually supported by an offer, an acceptance, consideration, and mutual assent."); Kostelnik v. Helper, 770 N.E.2d 58, 61 (Ohio

1. Offer

An offer in the common law is "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." According to Article 2 of the UCC, "an offer to make a contract shall be construed as inviting acceptance in any manner and by any medium reasonable in the circumstances." While an offer alone does not bind either party, the offer allows the offeree to accept and convert the offer into a binding contract.

When a software developer chooses to license software under the GPL, she makes an offer. The terms and conditions of the GPL clearly state the scope of the offer, and allow the offeree to accept or reject them. There is a separate issue, discussed *supra*, of whether a software developer who incorporated GPL-licensed code into a program is "forced" to license the software due to the use of copyleft in the GPL. The GPL, however, gives all software developers the option of rejecting the license with the risk of becoming a copyright infringer. A person who incorporates GPL-licensed software into a new program furthermore can choose not to distribute the new software, and thereby decline to make an offer.

2. Acceptance

According to the *Restatement (Second) of Contracts*, acceptance of an offer "is a manifestation of assent to the terms thereof made by the

^{2002) (}holding that contract formation requires an offer, acceptance, contractual capacity, consideration, a manifestation of mutual assent, and legality of the object and of the consideration); Doe v. HCA Health Servs. of Tenn., Inc., 46 S.W.3d 191, 196 (Tenn. 2001) (holding that the elements of a valid contract are a meeting of the minds of the parties in mutual assent to the terms, sufficient consideration, free from fraud or undue influence, not against public policy, and sufficiently definite to be enforced).

^{98.} RESTATEMENT (SECOND) OF CONTRACTS § 24 (1981).

^{99.} U.C.C. § 2-206(1)(a).

^{100. 27} Am. Jur. 2D *Proof of Facts* § 559 (1980) (citing Gorco Constr. Co. v. Stein, 99 N.W.2d 69 (Minn. 1959) and Sharp Bros. Contracting Co. v. Commercial Restoration, Inc., 334 S.W.2d 248 (Mo. Ct. App. 1960)).

^{101.} See U.C.C. § 2-206; 27 Am. Jur. 2D Proof of Facts § 559.

^{102.} See, e.g., Free Software Foundation, GPL v.2, supra note 13, § 3; Free Software Foundation, GPL v.3 draft, supra note 20, § 2.

^{103.} See supra note 48 and accompanying text.

^{104.} See Free Software Foundation, GPL v.2, supra note 13, § 5 ("You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works."); Free Software Foundation, GPL v.3 draft, supra note 20, § 9 ("You are not required to accept this License in order to receive or run a copy of the Program... However, nothing else grants you permission to propagate or modify the Program or any covered works. These actions infringe copyright if you do not accept this License. Therefore, by modifying or propagating the Program (or any covered work), you indicate your acceptance of this License to do so, and all its terms and conditions.").

^{105.} Id.

offeree in a manner invited or required by the offer." But words of assent do not represent the only method of acceptance. Under section 5 of GPL v.2, "by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it." Draft 2 of GPL v.3 contains similar language. This is consistent with Article 2 of the UCC, which states that "[w]here the beginning of a requested performance is a reasonable mode of acceptance an offeror who is not notified of acceptance within a reasonable time may treat the offer as having lapsed before acceptance." Courts also allow for acceptance by performance under state common law.

The standards for what constitutes acceptance have relaxed with the introduction of shrinkwrap and electronic licenses. In *ProCD*, *Inc. v. Zeidenberg*, the Seventh Circuit found that "[a] vendor... may invite acceptance by conduct, and may propose limitations on the kind of conduct that constitutes acceptance. A buyer may accept a contract by performing the acts the vendor proposes to treat as acceptance." Acceptance under the GPL is analogous. A software author invites acceptance of the GPL by distributing her software with a copy of the license. If the recipient modifies the program and then distributes it, she triggers the terms and conditions of the license. If the recipient adheres to these restrictions, she will likely be found to have "accepted" the GPL. 114

The law regarding acceptance raises interesting issues. No valid contract would exist if a company unwittingly incorporated GPL-licensed

^{106.} RESTATEMENT (SECOND) OF CONTRACTS § 50 (1981).

^{107.} Free Software Foundation, GPL v.2, supra note 13, § 5.

^{108.} Free Software Foundation, GPL v.3 draft, *supra* note 20, § 9 ("[B]y modifying or propagating the Program (or any covered work), you indicate your acceptance of this License to do so, and all its terms and conditions.").

^{109.} U.C.C. § 2-206(2) (2005).

^{110.} See, e.g., Caley v. Gulfstream Aerospace Corp., 428 F.3d 1359, 1369–70 n.10, 1374–76 (11th Cir. 2005) (holding that "contracts generally can be accepted by performance under Georgia law and general contract principles"); Shively v. Santa Fe Preparatory Sch., Inc., 21 Fed. Appx. 875, 878 (10th Cir. 2001) (holding that New Mexico law recognizes acceptance by performance); In re Vic Supply Co., Inc., 227 F.3d 928, 932 (7th Cir. 2000) (holding that "[a]cceptance can be effectuated by performance as well as by a signature" (citing RESTATEMENT (SECOND) OF CONTRACTS § 30(2))); Allied Steel and Conveyors, Inc. v. Ford Motor Co., 277 F.2d 907, 912 (6th Cir. 1960) ("Here defendant offered to buy a machine, not at some time in the future, but to make a present purchase, with the understanding, which means upon the conditions, stated in the order. Plaintiff, by shipping the machine, accepted the offer, and thereby the offer became a contract, the terms and conditions of which became binding on both parties."). UCC § 2-206(1) states that "[u]nless otherwise unambiguously indicated by the language or circumstances... an order or other offer to buy goods for prompt or current shipment shall be construed as inviting acceptance either by a prompt promise to ship or by the prompt or current shipment of conforming or non-conforming goods."

^{111. 86} F.3d 1447 (7th Cir. 1996).

^{112.} Id. at 1452.

^{113.} See Epstein, supra note 17.

^{114. 27} Am. Jur. 2D Proof of Facts § 559 (1981).

software into its proprietary commercial software. The offeree in this case would have no knowledge of the offer, and there would be no meeting of the minds. For example, if one Microsoft employee accepts the terms of the GPL for Microsoft's proprietary software, Microsoft would not be bound because it has no constructive knowledge. The "nightmare scenario" described by Richard Epstein, in which the entire Microsoft Windows operating system becomes subject to the GPL due to error, is therefore not possible.

The GPL has been referred to as an adhesion contract, or a standard-form contract prepared by the party in the stronger position and signed by the party in a weaker position. The GPL is a standard-form license prepared by one party, the FSF. But even if the GPL is a contract, the licensor is not in a stronger position than the licensee. If the licensor's own software incorporated GPL-licensed code, then the licensor must offer the software under the terms of the GPL. Because neither of the parties chooses the license under which the software is licensed, no imbalance in bargaining position exists. If the licensor's software does not contain GPL-licensed code, the licensee can bargain with the licensor to offer the software under different terms. In fact, software developers sometimes offer software under multiple licenses, where the user can choose which license they want to use. For example, the MySQL database can be licensed under either the GPL or a commercial license.

It is worth noting that mere users may use GPL-licensed software without accepting the license. The license is not signed, nor does the offeree click an "I accept" button before obtaining the software. Thus, as long as the user does not modify or distribute the program, no acceptance has occurred. It is also possible that a user would receive a copy of the software without receiving the terms of the license. In either case, no contract is formed.

3. Consideration

The Achilles heel of the GPL contract theory is consideration. Under the common law, "[t]o constitute consideration, a performance or

^{115.} *Id*.

^{116.} See id. ("An offer can be accepted only by or on behalf of the offeree, and a purported acceptance by one other than the offeree, who in some manner has obtained knowledge of the offer, is ineffectual to complete a valid contract.").

^{117.} See Epstein, supra note 17.

^{118.} See BLACK'S LAW DICTIONARY 318–19 (7th ed. 1999). This is an argument that Daniel Wallace raised in his failed quest for an injunction against the use of the GPL. See supra notes 19–22 and accompanying text.

^{119.} See, e.g., MySQL, MySQL Open Source License, http://www.mysql.com/company/legal/licensing/opensource-license.html (last visited Jan. 13, 2007).

^{120.} See id. Note that some argue that the mixed use of open and proprietary licenses threatens free software. See, e.g., Mikko Valimaki, Duel Licensing in Open Source Software Industry, http://opensource.mit.edu/papers/valimaki.pdf (last visited Jan. 13, 2007).

a return promise must be bargained for."¹²¹ Section 2-304 of Article 2 states that a "price" must be paid, "in money, goods, realty, or otherwise."¹²² That is, it must be "sought by the promisor in exchange for his promise" and "given by the promise in exchange for that promise."¹²³ A nonexclusive license that is supported by consideration constitutes a contract. For the contract to be valid, however, the buyer must "accept and pay in accordance with the contract."¹²⁵ But what burden does the licensee of GPL software undertake that benefits the licensee? Contract proponents argue that the licensee's obligation to make modified source code available to the community constitutes sufficient payment or consideration. For several reasons, however, this argument ultimately fails. Though the license restricts how a licensee can use the licensor's work, there is no clear benefit to the licensor. Second, the GPL is not likely valid as a third-party beneficiary contract. Finally, there is no meeting of minds with regard to consideration. ¹²⁸

a. No clear benefit to the licensor

The GPL places a number of restrictions on the user of GPL-licensed software, such as requiring her to make modified source code available at cost. However, adhering to restrictions on the use of a licensor's copyrighted software is not consideration because the restrictions do not directly benefit the licensor. Rather, the license defines the scope of the rights that the licensee receives to the licensor's work.

The GPL is based on real property licenses. Suppose that a landowner grants a revocable license to the public to cross through a strip of the landowner's property to access a public beach. The

^{121.} RESTATEMENT (SECOND) OF CONTRACTS § 71(1)–(2) (1981).

^{122.} U.C.C. § 2-304 (2005). Note that courts have liberally interpreted what "otherwise" constitutes. "The few courts to have interpreted the 'or otherwise' language of a UCC provision like ours have concluded that it includes any consideration sufficient to ground a contract." *Pennsy Supply, Inc. v. Am. Ash Recycling Corp.*, 895 A.2d 595, 606 (Pa. Super. Ct. 2006).

^{123.} *Id*.

^{124.} Lulirama Ltd., Inc. v. Axcess Broad. Servs., Inc., 128 F.3d 872, 882 (5th Cir. 1997) (holding that a "nonexclusive license may be irrevocable if supported by consideration" because such a license "supported by consideration is a contract"); *accord* Carson v. Dynegy, Inc., 344 F.3d 446, 452 (5th Cir. 2003) ("[A] nonexclusive license supported by consideration is a contract.") (quoting *Lulirama*, 128 F.3d at 882).

^{125.} U.C.C. § 2-301.

^{126.} See, e.g., Adam Goodman & Pete Comas, Macrohard, Linux Magazine, Dec. 15, 1999, http://www.linux-mag.com/1999-12/macrohard_01.html; Wacha, supra note 68, at 474 ("In addition, consideration is present. A payment of money is not required for legal consideration to exist. Under the GPL's terms, the licensee and the licensor make mutual promises to each other. The licensee, as consideration, agrees to keep all copyright notices intact, to insert certain required notices, and to redistribute code only under certain conditions.").

^{127.} See Wacha, supra note 68, at 475.

^{128.} Id.

^{129.} See Free Software Foundation, GPL v.2, supra note 13, § 3(b); Free Software Foundation, GPL v.3 draft, supra note 20, § 6(b); supra note 15 and accompanying text.

landowner does not explicitly receive anything in return from the public. Though the landowner may limit the public's access to certain times of day, these "burdens" on the public do not serve as consideration for using the landowner's property. They are merely limitations on the access that the public is receiving. ¹³⁰

A software developer likewise uses the GPL to grant the public a revocable right to use her software. This right is subject to restrictions of use that limit what the user can do with the software and which specify the requirements for creating derivative works. The mere fact that the rights granted are limited is not enough to meet consideration requirements under the UCC or the common law, nor is it clear enough to imply a meeting of minds.

The only tangible return that the developer might receive under the license are user-modifications to her code. But the developer may not benefit from these changes. The developer might be ignorant of any changes that licensees have made to the software. After all, the GPL does not require developers who make changes to licensed software to ensure delivery of the changes to the upstream contributors. It is also possible that the developer is not interested in any changes to the software. Scholars have studied the motivations of open source developers and have found that the motivations for contributing to open source projects vary significantly.¹³¹ For example, a developer may modify GPL-licensed software: (1) as part of her employment; (2) to improve her programming skills for career advancement; or (3) to adapt the software for a specific purpose.¹³²

b. Third-Party Beneficiary Contract

Courts have primarily examined the role of third-party beneficiaries with regard to standing to sue, not contract formation. These cases have found that standing to sue applies only to parties that are intended beneficiaries of the contract.¹³³ Two competing theories exist regarding

^{130.} See supra, note 82.

^{131.} See generally Karim R. Lakhani & Robert G. Wolf, Why Hackers Do What They Do: Understanding Motivation and Effort in Free/Open Source Software Projects, in PERSPECTIVES ON FREE AND OPEN SOURCE SOFTWARE (2005), available at http://freesoftware.mit.edu/papers/lakhaniwolf.pdf; Guido Hertel et al., Motivation of Software Developers in Open Source Projects: An Internet-Based Study of Contributors to the Linux Kernal, 32 RES. POL'Y 1159 (2003); Yunwen Ye & Kouichi Kishida, Toward an Understanding of the Motivation of Open Source Software Developers, in PROCEEDINGS OF THE 25TH INTERNATIONAL CONFERENCE ON SOFTWARE ENGINEERING 419, available at http://delivery.acm.org/10.1145/780000/776867/p419-ye.pdf?key1=776867&key2=1822798611&coll=portal&dl=ACM&CFID=27744130&CFTOKEN=4871 2950.

^{132.} See Lakhani & Wolf, supra note 131, at 6-7.

^{133.} See, e.g., Flexfab, L.L.C. v. United States, 424 F.3d 1254, 1259 (Fed. Cir. 2005) (holding that because the plaintiff-appellant was not a direct party to the contract at issue, it had standing to sue for enforcement "only if it was an intended third-party beneficiary"); Bochese v. Town of Ponce Inlet, 405 F.3d 964, 982 (11th Cir. 2005) ("The contracting parties' intent to benefit the third party must be specific and must be clearly expressed in the contract in order to endow the third party beneficiary

consideration and the formation of third-party contracts.¹³⁴ The Bargain Theory holds a third-party beneficiary contract invalid if the third party has not offered any consideration to the licensor.¹³⁵ For example, in California, if a third party claims breach of contract, it must show that "in return for the promise, it conferred some benefit the other party was not already entitled to receive, or suffered some prejudice it was not already bound to endure." The Bargain Theory does not support the GPL being a contract. The third-party beneficiary, in this case the public, is not offering anything back as consideration to the licensor. The license lacks the requisite *quid pro quo* to be elevated to a contract.

The alternate Will Theory holds any third-party beneficiary contract valid, provided that the third-party consideration is the goal of both parties. This theory, which has greater acceptance by the courts, fails as well. It is true that in some jurisdictions, a stranger to a contract can be a third party beneficiary that serves as consideration for the contract. However, this is true only when the clear purpose of the contract was to benefit the third party. Courts, however, cannot

with a legally enforceable right."); Continental Casualty Co. v. Am. Nat'l Ins. Co., 417 F.3d 727, 734 (7th Cir. 2004) (holding that under New York law, "only an intended beneficiary of a contract may assert a claim as a third-party beneficiary." (internal citations omitted)); Fleetwood Enters. Inc. v. Gaskamp, 280 F.3d 1069, 1076 (5th Cir. 2002) (noting that a court will not create a third-party contract by implication, and that "the intent to make someone a third-party beneficiary must be clearly written or evidenced in the contract"); Southwest Ctr. for Biological Diversity v. Berg, 268 F.3d 810, 820 (9th Cir. 2001) (holding that intended third-party beneficiaries have the right to enforce contracts that give them beneficiary status).

134. Aristides N. Hatzis, *Rights and Obligations of Third Parties*, in 3 ENCYCLOPEDIA OF LAW & ECONOMICS: THE REGULATION OF CONTRACTS 200–22 (Boudewijn Bouckaert & Gerrit De Geest eds. 2000), *available at* http://encyclo.findlaw.com/4800book.pdf. *See also* P.S. ATIYAH, AN INTRODUCTION TO THE LAW OF CONTRACT 355–94 (5th ed. 1995); HUGH COLLINS, THE LAW OF CONTRACT 284–85 (2d ed. 1993).

135. Hatzis, supra note 134.

136. Kremen v. Cohen, 337 F.3d 1024, 1028 (9th Cir. 2003) (citing CAL. CIV. CODE § 1605 (West 2006)). The court further noted that "[t]he adequacy of consideration doesn't matter, but it must be 'something of real value." *Id.* (citing Herbert v. Lankershim, 9 Cal.2d 409, 475 (Cal. 1937)). *But see, e.g.*, Ross v. Imperial Construction Co., Inc., 572 F.2d 518, 520 (5th Cir. 1978) ("Alabama law is clear to the effect that one for whose benefit a valid contract has been made, although that person is not a party thereto and does not furnish any consideration therefore [sic], may maintain an action on the contract against the promisor." (quoting Harris v. Bd. of Water & Sewer Comm'rs of Mobile, 320 So. 2d 624, 628 (Ala. 1975))).

137. See Kremen, 337 F.3d at 1028.

138. See Deckard v. General Motors Corp., 307 F.3d 556, 564 (7th Cir. 2002) ("[A] stranger to the contract and the consideration may maintain a suit to enforce . . . an agreement when it clearly appears that it was the purpose, or a purpose, of the contract to impose an obligation on one of the contracting parties in favor of such third party." (quoting Jackman Cigar Mfg. Co. v. John Berger & Son Co., 52 N.E.2d 363, 367 (Ind. App. 1944))); SCA Tax Exempt Fund Ltd. Partnership v. Kahn, No. 91-5912, 1992 U.S. App. LEXIS 22223 (6th Cir. 1992) (citing United Am. Bank of Memphis v. Gardner, 706 S.W.2d 639, 641 (Tenn. App. 1985) (holding that, under Tennessee law, the "requisites necessary to establish a third party beneficiary relationship are: (1) a valid contract made upon sufficient consideration between promisor and promisee; and (2) the clear intent to have the contract operate for the benefit of the third party")).

139. Deckard, 307 F.3d at 564. See also Kremen, 337 F.3d at 1029 ("The contract must establish not only an intent to confer a benefit, but also 'an intention... to grant [the third party] enforceable rights." (quoting Klamath Water Users Protective Ass'n v. Patterson, 204 F.3d 1206, 1211 (9th Cir. 1999))).

assume that a software developer's motivation in licensing software under the GPL is to help a third party, such as the Open Source Community. Again, studies show differing motivation. In 2002, the Boston Consulting Group and Open Source Technology Group conducted a broad survey of the software developers who contributed to open source projects, yielding 684 usable responses. Of these, 28.5% said that they contributed source code to fulfill their own obligation to license changes under the GPL and have little concern as to what changes subsequent users release to the community. The motivation of software developers is far more diverse then merely benefiting third parties.

c. Meeting of the Minds and Consideration

The failure to have a meeting of minds is perhaps the most overlooked weakness in the contract theory. For a contract to be binding, there must be a meeting of the minds of the parties with mutual assent to all of the terms. The terms of the contract include consideration. This idea goes back to 1891, when the Supreme Court held that:

nothing is consideration that is not regarded as such by both parties. To constitute a valid agreement there must be a meeting of minds upon every feature and element of such agreement, of which the consideration is one. The mere presence of some incident to a contract which might under certain circumstances be upheld as a consideration for a promise, does not necessarily make it the consideration for the promise in that contract. To give it that effect it must have been offered by one party and accepted by the other as one element of the contract. ¹⁴³

For each of the elements of a contract examined so far, the meeting of minds requirement is met. When GPL software is distributed to the public with a copy of the license attached, 144 the language of the license

^{140.} See Open Source Technology Group, The Boston Consulting Group/OSTG Hacker Survey, http://www.ostg.com/bcg (last visited Jan. 13, 2007).

^{141.} *Id*.

^{142.} See, e.g., ProCD, Inc. v. Zeidenberg, 86 F.3d 1447, 1450 (7th Cir. 1996) ("In Wisconsin, as elsewhere, a contract includes only the terms on which the parties have agreed. One cannot agree to hidden terms"); Russell v. GTE Gov't Sys. Corp., 232 F. Supp. 2d 840, 854 (S.D. Ohio 2002) (holding that, under Colorado law, if contracting parties ascribe different meanings to a material contract term that is ambiguous, then there has been no meeting of the minds, and the contract is invalid); Hooters of Am., Inc. v. Phillips, 39 F. Supp. 2d 582, 606 (D.S.C. 1998) (holding that, under South Carolina law, "[i]n order to have a valid and enforceable contract, there must be a meeting of the minds between the parties with regard to all the essential and material terms of the agreement"); In re Pre-Press Graphics Co., Inc., 310 B.R. 905, 913 (N.D. Ill. 2004) (holding that, under Illinois law, for a valid contract to exist, the essential terms must be certain and definite and "there must be a meeting of the minds about the existence of a contract, as well as its terms").

^{143.} Fire Ins. Ass'n v. Wickham, 141 U.S. 564, 579 (1891) (internal citations and quotations omitted).

^{144.} All software distributed under the GPL license is required to have the license attached. See

makes clear to the potential licensee what the offer is and what constitutes acceptance. The GPL lists the limitations that incorporating GPL-licensed code places on the licensee's original code, leaving no ambiguity in the terms of the license.

But with regard to consideration, the GPL is at best, vague, and at worst, a gratuitous promise. A meeting of minds with regard to consideration cannot be discerned from the license itself. The licensee specifies limitations to the licensor's grant of rights, not burdens to the licensee. The GPL does not detail what benefits the licensor receives in exchange for this grant.

Raymond Nimmer is correct: the GPL, as a mere piece of paper, does not constitute a contract. Hammering the GPL into a contract-shaped mold for legal stability is very tempting. Contract law is more developed then licensing law and offers a wide range of legal remedies that are not available under the Copyright Act. Judges and intellectual property attorneys have little experience in dealing with non-contractual licenses.

But no matter how one construes the GPL, the requirement of consideration is not met. Though the licensor's restrictions in rights might benefit the licensor, the GPL does not state whether those restrictions would translate into consideration and if consideration would benefit the licensor or a third party. The lack of a meeting of minds makes the GPL contract theory fly in the face of the UCC, state common law, and common sense. This leads us back to Moglen's now plausible assertion that the GPL is not a contract.¹⁴⁶

IV. WHY THE GPL IS ENFORCEABLE: PROMISSORY ESTOPPEL AND THE COPYRIGHT ACT

A. How to Enforce the GPL

1. Current Law

The GPL's validity does not rest upon exotic forms of property or upon the manipulation of the license into a contract. Rather, the license is enforceable by the licensor through federal copyright law and by the licensee through a state promissory estoppel action.

State law exists for enforcing promises without consideration on the basis of reliance. Section 90 of the *Restatement (Second) of Contracts* states:

Free Software Foundation, GPL v.2, supra note 13, § 1; Free Software Foundation, GPL v.3 draft, supra note 20, § 4.

^{145.} See supra note 92 and accompanying text.

^{146.} See supra note 28 and accompanying text.

A promise which the promisor should reasonably expect to induce action or forbearance on the part of the promise... and which does induce such action or forbearance is binding if injustice can be avoided only by enforcement of the promise. 147

This type of enforcement is more commonly known as promissory estoppel. All states have adopted some variation of the above provision.¹⁴⁸

To determine whether a promise should be enforced, a court must determine whether the promisor reasonably expected to induce action by the promisee, and whether such action was in fact induced. The doctrine applies to any promise that lacks consideration and that induced the type of reliance required. A "true application of the doctrine . . . should not require that the promisor received any benefit, or that the detriment of the promisee was requested."

Suppose a company licensed software to a licensee under the GPL and then reneged on its terms. Further suppose that the licensee relies on the company's promise by spending time and money to create a derivative work. If the company revokes the license and sues the licensee for copyright infringement, the licensee can raise a promissory estoppel argument. She can then seek to have the license enforced because she properly relied on the company's promise to her detriment. Note, however, that 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.

But what happens if a licensee violates a term of the GPL? Promissory estoppel only protects the party that relied on the promise.¹⁵² In this case, the author of the software has a generic copyright infringement case. If a party violates the GPL, all rights are terminated under the license and the author can sue for copyright infringement.¹⁵³

^{147.} RESTATEMENT (SECOND) OF CONTRACTS § 90(1) (1981).

^{148.} Eric Mills Holmes, Restatement of Promissory Estoppel, 32 WILLAMETTE L. REV. 263, 265–267 (1996) ("[T]his Article establishes for the first time that all American jurisdictions (including American Samoa, Guam, Puerto Rico, and the Virgin Islands) have adopted and apply a doctrine of 'promissory estoppel' grounded in Section 90 of the Contracts Restatements."). The article further notes that Georgia and Louisiana have adopted promissory estoppel by statute. Id.; accord GA. CODE ANN. § 13-3-44 (West 2006); LA. CIV. CODE ANN. art. 1967 (2006).

^{149.} RESTATEMENT (SECOND) OF CONTRACTS § 90(1).

^{150.} See 4 SAMUEL WILLISTON & RICHARD A. LORD, A TREATISE ON THE LAW OF CONTRACTS § 8.5, 85–95 (4th ed. 1992); C.C. Marvel, Annotation, *Promissory Estoppel*, 48 A.L.R. 1069, 1074 (1927) ("The idea that the action or the forbearance on the part of the promisee should reasonably have been expected by the promisor has been frequently expressed.").

^{151.} Marvel, *supra* note 150, at 1073.

^{152.} See RESTATEMENT (SECOND) OF CONTRACTS § 90(1).

^{153.} See Free Software Foundation, GPL v. 2, supra note 13, § 4; GPL v.3 draft, supra note 20, § 8. According to Jason Schultz, a staff attorney for the Electronic Frontier Foundation, "if SCO has violated the GPL by not allowing IBM to use [its] code, it is not a 'breach' of a contract that must be enforced but rather a situation where whatever permission SCO had to use and modify GPLed code is now revoked—making SCO itself a copyright infringer." Matt Whipp, OSDL Paper Lambasts SCO as 'Shyster', PC PRO, Nov. 25, 2003, http://www.pcpro.co.uk/news/50823/osdl-paper-lambasts-sco-asshyster.html (quoting Jason Schultz).

Though no contract exists, the author has an exclusive right enforceable under the Copyright Act. 154

This interpretation of the GPL is similar to the one shown in two recent judgments from Germany. Is In 2004, the Munich District Court noted that whether both parties agreed to the GPL was irrelevant because the licensee violated the license's terms, making the licensee an infringer. Similarly, in 2006 the District Court of Frankfurt am Main held that "if the GPL were not sufficient to form a legal relationship with Plaintiff, Defendant would not have any right to copy, distribute or modify the three programs, such that a copyright infringement by the Defendant would have taken place." Is In 2004, the Munich District Court of Plaintiff, Defendant would not have any right to copy, distribute or modify the three programs, such that a copyright infringement by the Defendant would have taken place."

To clarify the German decisions, suppose that a software developer posts her software on the Internet and states: "If you use my software and adhere to conditions X, Y, and Z, I promise not to sue you for copyright infringement." Someone uses the software developer's software and does not comply with conditions X, Y, and Z. Regardless of whether the software developer's promise is a contract, she can sue the user for copyright infringement. If the user argues that a contract exists, the software developer could sue the user for breach of contract. Either way, the software developer will be able to collect damages. Note that in the United States, however, the remedy of specific performance would only be available if a court found a contract to exist between the two parties. 158

Now suppose that the user does adhere to terms X, Y, and Z, but the software developer reneges and sues the user for copyright infringement. State promissory estoppel laws should protect the user's reliance on the software developer's promise. The doctrine applies because the user relied on the software developer's promise to his detriment and because his reliance was reasonable, given that many

^{154.} See 17 U.S.C. § 106 (2006).

^{155.} *In re* Welte v. Deutschland GmbH, Landgericht München I [LG] [Munich District Court] May 9, 2004, No. 21 O 6123/04, *available at* http://www.jbb.de/urteil_lg_muenchen_gpl.pdf (unofficial translation at http://www.jbb.de/judgment_dc_munich_gpl.pdf).

^{156.} *Id.* at 8 ("Since the defendant used the software 'netfilter/iptables' contrary to the license conditions of the GPL—in particular, by not making reference to the GPL and by not making the source code available—he would have infringed upon the plaintiff's copyright. This would apply regardless of whether the license conditions of the GPL were effectively agreed upon by and between plaintiff and defendant or not. Because, if the GPL had not been agreed upon by the parties, the defendant would be, in any case, lacking the required rights of use in order to be legally able to copy, distribute, and make available to the public the software 'netfilter/iptables.'") (unofficial translation).

^{157.} *In re* Welte v. D-Link Germany GmbH, Landgericht Frankfurt Am Main [LG] [Frankfurt Am Main District Court] Sept. 6, 2006, No. 2-6 O 224/06, *available at* http://www.jbb.de/urteil_lg_frankfurt_gpl.pdf (unofficial translation at http://www.jbb.de/judgment_dc_frankfurt_gpl.pdf).

^{158.} See BARRON'S LAW DICTIONARY 480 (4th ed. 1996) (defining specific performance).

software developers conditionally allow others to use their software for no charge. 159

Under a failed contract framework, a plaintiff sues under a federal copyright theory. But if the plaintiff does not uphold her end of the bargain, she will have to pursue a state remedy. There is no way to interpret the GPL, on its face, such that a federal cause of action exists in both situations.

2. Adding Copyleft to the Copyright Act

A better solution for improving the enforceability of the GPL is for Congress to amend the Copyright Act to recognize open source licenses and grant both licensors and licensees a federal cause of action for violations. The idea of a federal solution to copyleft has been debated in the Open Source Community since at least 2000. A discussion of this topic warrants more detailed research than this Article provides. Nevertheless, an introduction to the idea is important because of the powerful, yet largely overlooked, solution that open source legislation represents.

The United States Constitution gives Congress the power "[t]o promote the progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective

^{159.} See, e.g., Free Software Foundation, FSF/UNESCO Free Software Directory, http://directory.fsf.org (last visited Jan. 13, 2006) (offering over 5000 free software packages designed to run under free operating systems).

^{160.} See, e.g., Letter from Linas Vepstas to Richard Stallman (May 2000), available at http://linas.org/theory/copyleft.html ("What if we work as a group, with our elected representatives, and get some variation of the ideas in the GPL enacted in 'a real law', viz. a Federal law drafted by the (United States) legislature and signed into law by the President. [sic]"). Note that the British Parliament recently explored copyleft legislation as part of a larger debate on digital rights management. The All Party Internet Group ("APIG") undertook a public inquiry on Digital Rights Management, including examining whether content sharing licenses, including copyleft and the creative commons, require legislation changes to be effective. Digital Rights Management 1, http://www.apig.org.uk/current-activities/apig-inquiry-into-digital-rights-management/DRMreport.pdf. The final report, however, argued that legislation was not necessary. Id. at 11–12; see also GNU.org, What Is Copyleft?, supra note 43.

^{161.} The idea of copyleft legislation has been briefly raised by a few scholars. See e.g. Michael J. Madison, Reconstructing the Software License, 35 LOY. U. CHI. L.J. 275, 340 (2003) ("What I suggest here is that if the open source model wants to govern, to produce and preserve an information commons, then it may be better off abandoning the discourse of copyright licensing and finding an alternative, perhaps in copyright law and legislation, perhaps elsewhere. The current legal forms of copyright do not sustain the goals of the open source model any more than they sustain the DMCA or information licensing generally."); Kenneth J. Rodriguez, Note, Closing the Door on Open Source: -Can the General Public License Save Linux and Other Open Source Software, 5 J. HIGH TECH. L. 403, 418 (2005) (suggesting, in passing, that Congress "create legislation to ensure that no company can step in and hamper the development of the open source software movement by a series of legal maneuvers"). However, no literature contains proposals or detailed suggestions for how a legislative solution to copyleft would work. Note that this issue is separate from legislation requiring the government to adopt open source software over proprietary software. These suggestions are for the purpose of improving enforceability of open source software and not to force people to use certain software.

Writings and Discoveries." From this authority, Congress enacted the Copyright Act. Though open source software licenses utilize the copyright system, these licenses are better characterized as a distinct form of intellectual property. Traditionally, the government creates incentives for creation by granting monopolies of limited scope and duration. Open source licenses, in contrast, encourage the creation of software by offering a large body of software to the public to serve as a catalyst for new development.

State tools are not sufficient to untangle the nuances of open source licensing. As shown *supra* in Part IV, the GPL does not fit neatly into the category of a contract, thus making it difficult to predict whether individual courts will enforce the license. Because individual states do not rely on the same rules to analyze software licenses, outcomes of cases regarding the validity and enforcement of the GPL would vary by jurisdiction. Given that the GPL and other open source licenses are used worldwide and involve countless parties, ¹⁶⁵ such divergence would raise transaction costs for any party seeking to use or build upon open source software. This could slow the movement, preventing a re-balancing of rights between creators and the public.

A federal law would clarify the risks for parties entering into open source agreements, thereby reducing the transaction costs of switching from proprietary software. Furthermore, it would prevent software developers from having to cobble together *ad hoc* forms of intellectual property for the privilege of giving away their monopoly rights to their programs. An open source licensing provision could read as follows:

- (a) SCOPE OF OPEN SOURCE LICENSING. Any author who creates software entitled to a copyright may choose to release the work under an open source license, whereby the author:
- (1) offers any member of the public the right to use her software;
- (2) does not charge a fee or require any non-monetary payment or consideration for the licensor's use of the author's software; and
- (3) provides the source code to any software being licensed, at a price no greater than that of the storage media and shipping of said storage media combined.
- (b) NON-REVOCABLE RESTRICTIONS PERMITTED. The author may utilize non-revocable restrictions on the types of use of her software that are permissible, including, but not limited to:
- (1) forbidding commercial use of the software;

^{162.} U.S. CONST., art. I, § 8, cl. 8.

^{163.} See, e.g., Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 575-76 (1994).

^{164. 18} Am. Jur. 2D Copyright and Literary Property § 2 (2004).

^{165.} See, e.g., Linux Online, About the Linux Operating System, http://www.linux.org/info (last visited Jan. 13, 2007).

- (2) requiring a user that incorporates the software into a derivative work to make the derivative work available to the public under the terms that the original work utilized;
- (3) requiring a user that incorporates the original work into a derivative work to make the source code available for the changes made to the original work;
- (4) requiring a user that incorporates the original work into a derivative work to make the source code available for the entire derivative work; and/or
- (5) requiring a user to attribute the original work to the author. (c) FEDERAL CAUSE OF ACTION. This section creates a federal cause of action for author or user of an open source licensed work seeking to enforce the rights granted in this section.

Such an amendment to the Copyright Act could also be expanded to cover works in addition to software. For example, the Creative Commons Licenses, inspired by the GPL, are designed to protect creative works such as Web sites, scholarship, music, film, photography, literature, and courseware. The licenses provide a mechanism for granting the public rights to non-software creative works. An author can use a "share alike" provision, which allows others "to distribute derivative works only under a license identical to the license that governs [the original author's] work."

Legislative protection would benefit anyone outside the software industry by increasing the availability of cheap and effective software. But as Lawrence Lessig stated, when discussing the need to act against parties that stifle innovation: "I'm the first one to acknowledge [that] I'm a puny, insignificant law professor, and if you are depending upon me you are hopeless and lost." Likewise, for copyleft legislation to be enacted, the full community must step forward to persuade Congress that action is necessary.

B. Who Can Enforce the GPL?

The GPL's validity is moot if no party can enforce the license. A software author does not give up her copyright by licensing the work under the GPL, but merely authorizes others to use it subject to the license's terms.¹⁷¹ It is obvious that the authors of the GPL-licensed work

^{166.} Creative Commons, About Us, http://creativecommons.org/about/history (last visited Jan. 13, 2007).

^{167.} Creative Commons, Choosing a License, http://creativecommons.org/about/licenses (last visited Jan. 13, 2007).

^{168.} Note that share alike is one of the many options under the Creative Commons license. *Id.*

^{169.} *Id*.

^{170.} Lessig, supra note 4.

^{171.} See generally, Free Software Foundation, GPL v.2, supra note 13; Free Software Foundation, GPL v.3 draft, supra note 20.

could sue under a breach of license or infringement action. If a party does not follow the terms of the license, that party infringes upon the author's copyright, either because the license no longer exists or because the party has breached the terms of the license. But many times, authors do not step forward to enforce even flagrant violations of a license.

Though a few GPL enforcement cases have been filed in the United States, all have settled.¹⁷² Thus, enforcement happens almost exclusively out of court. For example, Harald Welte operates GPL Violations, a group that raises public awareness of the infringing use of free software to put pressure on license infringers.¹⁷³ He has been involved with out-of-court GPL enforcement in Europe and the United States, both in situations where he has authority to bring legal action and in those that he does not.¹⁷⁴

Currently, there is little more than speculation regarding which third parties could enforce GPL compliance in court. To be the plaintiff in a lawsuit, a party must have standing to sue. To determine whether a party has standing, one must know what type of interest the party has in the issue in controversy. In copyright infringement cases, the copyright holder (or the holder's successor in interest) is the only party with standing. However, there are two other groups that could be involved in a GPL suit.

A defendant to a copyright infringement suit can raise the GPL as a defense using a common law unclean hands theory. If a defendant breaches a license agreement, but paid for GPL-licensed software to obtain a license to proprietary software, the defendant can raise a copyright misuse defense. Though these scenarios may seem far-fetched, both have already occurred.

^{172.} Heather J. Meeker, *Precedent Is Lacking When It Comes to GPL Enforcement*, LINUXINSIDER, Sept. 21, 2005, http://www.linuxinsider.com/story/H2sZTQHTlAB1Z2/Precedent-is-Lacking-When-it-Comes-to-GPL-Enforcement.xhtml. One example of such a case is *Drew Technologies Inc. v. Society of Auto Engineers, Inc.*, which was filed in November 2003, settled in early 2005, and was consequently dismissed. *Id.*

^{173.} See id; GPL Violations Homepage, About the gpl-violations.org Project, http://www.gpl-violations.org/about.html#whois (last visited Jan. 13, 2007).

^{174.} Meeker, *supra* note 172 ("In some of the real enforcement cases (involving legal authority), I have enforced my own copyright. In some other cases, I have received copyright from other Linux (kernel) authors by a copyright assignment, or something equivalent in 'Droit d'Auteur' countries like Germany. . . . Obviously I reserve the right to inform any organization about illegal copyright infringement they might be committing, even if I'm not the copyright holder." (quoting Harald Welte)).

^{175.} See Silvers v. Sony Pictures Entm't, Inc., 402 F.3d 881, 886 (9th Cir. 2005) ("Congress wanted to ensure that an owner of any exclusive right in the copyright was entitled to bring a suit for infringement. Congress foresaw a permissible division of exclusive rights; the owner of any one of those exclusive rights may sue, with other owners being entitled to notice and joinder. In this sense, Congress intended to 'unbundle' the exclusive rights.").

^{176.} *Id*.

1. The Unclean Hands Defense

The idea of utilizing the GPL as a defense was illustrated in *Computer Associates International v. Quest Software, Inc.*¹⁷⁷ Computer Associates International ("CA") used code covered by the GPL in developing its Enterprise Database Administrator software ("EDBA"). CA claimed that the GPL-licensed code it used fell under a narrow exception to the GPL. Quest disputed this, and claimed that the EDBA was subject to the GPL.

The legal community raised the argument that Quest did not have standing to raise issues regarding the GPL. One attorney claimed that because CA never licensed EDBA to Quest, Quest never "requested" the source code, and instead, misappropriated it. According to this argument, Quest would be a copyright infringer with no defenses.

But scholars and practitioners overlooked the defendant's ability to raise the GPL as a defense to copyright infringement. A copyright defendant is free to raise common law affirmative defenses. This includes the defense based on the ancient maxim, he who comes into equity must come with clean hands. The Supreme Court stated that:

[t]his maxim is far more than a mere banality. It is a self-imposed ordinance that closes the doors of a court of equity to one tainted with inequitableness or bad faith relative to the matter in which he seeks relief, however improper may have been the behavior of the defendant. That doctrine is rooted in the historical concept of court of equity as a vehicle for affirmatively enforcing the requirements of conscience and good faith.¹⁸⁶

Therefore, if a plaintiff violates the GPL and attempts to sue a defendant for infringement, the defendant can argue that the plaintiff has unclean hands.

^{177. 333} F. Supp. 2d 688, 697 (N.D. Ill. 2004). By way of disclosure, the author of this Article worked on Quest's appeal.

^{178.} Id.

^{179.} Id. at 698.

^{180.} *Id.* ("Defendants claim that plaintiff's [sic] are violating the GPL by attempting to claim a copyright in a program that contains Bison source code.").

^{181.} Phil Albert, *Time for a Court Ruling on the GPL?*, LINUX INSIDER, Aug. 31, 2004, http://www.linuxinsider.com/story/36238.html.

^{182.} See id.

^{183.} Id.

^{184.} See, e.g., id.

^{185.} Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co., 324 U.S. 806, 814 (1945).

^{186.} Id. at 815.

Traditionally, the unclean hands doctrine only applies as a defense against an equitable claim, and most courts continue to take this position.¹⁸⁷ The Seventh Circuit, however, has decided that the doctrine of unclean hands applies both in equity and at law:

[W]ith the merger of law and equity, it is difficult to see why equitable defenses should be limited to equitable suits any more; and of course many are not so limited... and perhaps unclean hands should be one of these. Even before the merger there was a counterpart legal doctrine to unclean hands—in pari delicto—which forbade a plaintiff to recover damages if his fault was equal to the defendant's. ¹⁸⁸

The Fifth Circuit has also moved towards allowing equitable defenses against legal claims.¹⁸⁹

Defendants can thus wield the GPL as a shield. Applying the unclean hands doctrine to copyright law, if the plaintiff's software infringes upon third-party copyrights, the plaintiff cannot obtain an injunction against the defendant to halt distribution of the infringing software. More importantly, the defendant provides notice to the Open Source Community that the plaintiff's software violates the license, enabling parties with standing to sue the plaintiff for its GPL violation. The plaintiff is left with an unenforceable copyright until it brings its software into compliance by removing the improperly used GPL-licensed code. ¹⁹¹

^{187.} See Aetna Casualty & Surety Co. v. Aniero Concrete Co., Inc., 404 F.3d 566, 607 (2d Cir. 2005) (stating that, under New York law, if a plaintiff seeks damages in an action at law, the defendant cannot use an unclean hands defense); Union Elec. Co. v. Bell Tel. L.P., 378 F.3d 781, 788 (8th Cir. 2004) (stating that the unclean hands defense is not available against a claim for money damages under Missouri law); In re Woodborough Dev. Co., No. 96-15916, 1997 WL 572175, at *1 (9th Cir. Sept. 15, 1997) ("The doctrine of 'unclean hands' is equitable, not legal, and generally has no application to damages for breach of contract."); Daniel v. Ohio Cas. Ins. Co., No. 90-5806, 1991 WL 93118, at *4 (6th Cir. June 4, 1991) ("Accordingly, even if this case could be construed to hold that a person with 'unclean hands' could not obtain specific performance, it does not necessarily mean that damages would also be unavailable.").

^{188.} Byron v. Clay, 867 F.2d 1049, 1052 (7th Cir. 1989) (internal citations omitted). *See also* Scheiber v. Dolby Labs., Inc., 293 F.3d 1014, 1021 (7th Cir. 2002) ("'Today, "unclean hands" really just means that in equity as in law the plaintiff's fault, like the defendant's, is relevant to the question of what if any remedy the plaintiff is entitled to." (quoting Shondel v. McDermott, 775 F.2d 859, 868 (7th Cir. 1985))).

^{189.} See Bank of Saipan v. CNG Fin. Corp., 380 F.3d 836, 840 n.1 (5th Cir. 2004) (""[R]ecovery for money had and received, though legal in nature, is controlled by equitable principles, and . . . it is axiomatic that the "clean hands" doctrine functions in equitable actions." (quoting Texas Bank & Trust Co. v. Custom Leasing, Inc., 498 S.W.2d 243, 251 (Tex. Civ. App. 1973), rev'd on other grounds, 491 S.W.2d 869 (Tex. 1973))).

^{190.} See supra note 188 and accompanying text.

^{191.} Id.

2. The Copyright Misuse Defense

A defendant can likewise utilize the copyright misuse defense.¹⁹² This defense is based on the patent misuse defense, first articulated by the Supreme Court in *Morton Salt Co. v. G.S. Suppinger Co.*¹⁹³ Courts "may appropriately withhold their aid where the plaintiff is using the right asserted contrary to the public interest." The Court held that the plaintiff was barred from bringing an infringement suit, where the plaintiff's patent had been used to reduce competition against the plaintiff's unpatented product.¹⁹⁵ The defense continued developing around antitrust principles.¹⁹⁶ In 1990, it was extended to copyright cases by the Fourth Circuit Court of Appeals, on the grounds that "copyright and patent law serve parallel public interests." The defense "does not invalidate a copyright, but precludes its enforcement during the period of misuse." The defense of misuse focuses not only on harm to the court's integrity, but also on harm to the public.

In a copyright context, some courts maintain that antitrust principles must guide misuse. The Seventh Circuit, for example, noted that "[i]f misuse claims are not tested by conventional antitrust principles, by what principles shall they be tested?" But other courts have held that misuse has a broader scope of protection than just antitrust violations. The Fourth Circuit has stated that:

while it is true that the attempted use of a copyright to violate antitrust law probably would give rise to a misuse of copyright defense, the converse is not necessarily true—a misuse need not

^{192.} The first court to fully acknowledge the copyright misuse defense was the Fourth Circuit in Lasercomb America, Inc. v. Reynolds, 911 F.2d 970, 976–77 (4th Cir. 1990) (holding that because copyright and patent law serve parallel public interests, a "copyright misuse" defense analogous to the "patent misuse" defense should apply to copyright infringement actions). See also Ramsey Hanna, Note, Misusing Antitrust: The Search for Functional Copyright Misuse Standards, 46 STAN. L. REV. 401, 404–10 (1994) (discussing the development of the copyright misuse defense). Note that Christian Nadan has also raised the idea of copyright misuse and the GPL, but in the context of protecting the rights of an individual not adhering to the license. Christian H. Nadan, Open Source Licensing: Virus or Virtue, 10 TEX. INTELL. PROP. L. J. 349, 369 (2002).

^{193. 314} U.S. 488, 492 (1942).

^{94.} *Id*.

^{195.} Id. at 493-94.

^{196.} See Windsurfing Int'l. Inc. v. AMF, Inc., 782 F.2d 995, 1001 (Fed. Cir. 1986) ("The doctrine of patent misuse is an affirmative defense to a suit for patent infringement... and requires that the alleged infringer show that the patentee has impermissibly broadened the 'physical or temporal scope' of the patent grant with anticompetitive effect." (citing Blonder-Tongue Labs., Inc. v. Univ. of Ill. Found., 402 U.S. 313, 343 (1971))).

^{197.} See Lasercomb, 911 F.2d at 976.

^{198.} Practice Mgmt. Info. Corp. v. Am. Med. Ass'n, 121 F.3d 516, 520 n.9 (9th Cir. 1997).

^{199.} See Morton Salt Co., 314 U.S. at 494 ("It is the adverse effect upon the public interest of a successful infringement suit, in conjunction with the patentee's course of conduct, which disqualifies him to maintain the suit, regardless of whether the particular defendant has suffered from the misuse of the patent.").

^{200.} Saturday Evening Post Co. v. Rumbleseat Press, Inc., 816 F.2d 1191, 1200 (7th Cir. 1987) (quoting USM Corp. v. SPS Technologies, Inc., 694 F.2d 505, 512 (7th Cir. 1982)) (holding that copyright misuse must rise to a level of antitrust violation to qualify as a defense to infringement).

be a violation of antitrust law in order to comprise an equitable defense to an infringement action. The question is not whether the copyright is being used in a manner violative of antitrust law (such as whether the licensing agreement is "reasonable"), but whether the copyright is being used in a manner violative of the public policy embodied in the grant of a copyright.²⁰¹

Thus, in some circuits, the copyright misuse defense can prohibit the use of copyright to secure a right that is not within the scope of the Copyright Act and is contrary to public policy.

IBM has embraced the broader definition of copyright misuse in its defense against SCO. SCO is well known for filing several copyright suits regarding UNIX and Linux.²⁰² SCO claims to hold the copyright for UNIX System V and parts of the Linux kernels,²⁰³ and requires its clients to obtain a license to Linux before it will sell a license to its other software.²⁰⁴ It also filed a wave of lawsuits targeting companies that distribute Linux (such as IBM and Novell), as well as companies that merely use Linux (such as Autozone and DaimlerChrysler).²⁰⁵ As of early 2007, some of these cases are still winding their way through court.

IBM claims that even if SCO owed the copyrights it is asserting, SCO has misused them by: (1) claiming infringement of material it does not own, including the entirety of Linux; (2) attempting to control versions of UNIX owned by IBM (such as AIX and Dynix ptx) through SCO's license for UNIX System V; (3) asserting copyright over noncopyrightable material (such as software that is in the public domain); and (4) seeking to use their copyrights against IBM for purposes that are legally unenforceable. The court has not yet ruled on these claims.

^{201.} Lasercomb, 911 F.2d at 978.

^{202.} As of early 2007, these suits were still in progress. *See, e.g.*, IBM's Redacted Memorandum in Support of Its Motion for Summary Judgment, The SCO Group, Inc., v. Int'l Bus. Machines, No. 2:03CV-0294 DAK (D. Utah Oct. 12, 2006) [hereinafter IBM's Redacted Memorandum], *available at* http://www.zensden.net/misc/IBM-838-1.pdf and http://www.zensden.net/misc/IBM-838-2.pdf.

^{203.} See Press Release, The SCO Group, SCO Files Slander of Title Lawsuit Against Novell (Jan. 20, 2004), http://ir.sco.com/ReleaseDetail.cfm?releaseid=126926 and Press Release, SCO Announces Intellectual Property License for Linux, available at http://ir.sco.com/ReleaseDetail.cfm?ReleaseID=115527. Chris Sontag, senior vice president and general manager of SCOsource, stated: "We believe it is necessary for Linux customers to properly license SCO's IP if they are running Linux 2.4 kernel and later versions for commercial purposes. The license insures that customers can continue their use of binary deployments of Linux without violating SCO's intellectual property rights." Id.

^{204.} The SCO Group, Inc., SCO Intellectual Property License, http://www.theSCOgroup.com/scosource/linuxlicensefaq.html ("A SCO IP License for Linux is required for each system that is using SCO IP contained in Linux. The server license model is per processor, per server. The SCO IP License must include the same number of processors as are physically running on each server.") (last visited Jan. 13, 2006).

^{205.} See, e.g., Alexander Wolfe, Novell Moves to Dismiss SCO's Linux Suit, INTERNETNEWS.COM, Mar. 25, 2004, http://www.internetnews.com/bus-news/article.php/3331511; Steven Shankland, SCO Suits Target Two Big Linux Users, NEWS.COM, Mar. 3, 2004, http://news.com.com/2100-1014-5168921.html; Todd Weiss, Update: IBM Subpoenas Microsoft, Sun and HP in SCO Case, COMPUTERWORLD, Feb. 23, 2006, http://www.computerworld.com/news/special/pages/0,10911,2046,00.html.

^{206.} IBM's Redacted Memorandum, supra note 202, 95–100.

IBM's use of this defense illustrates how copyright misuse can be a useful tool for strengthening the GPL. As with the unclean hands defense, a finding of misuse against a GPL-violator would force it to come into compliance with the license before enforcing its copyrights. The finding would also be a red flag to the copyright holders and the Open Source Community, who could take action to enforce the copyrights.

V. CONCLUSION

Legal scholars have analyzed the GPL through various lenses. The FSF and the Open Source Community have seized upon the non-contractual license theory, perhaps in an attempt to prevent the use of draconian enforcement mechanisms, such as specific performance. Softer enforcement tools make the adoption of GPL software more palatable to risk-averse corporations and governmental entities. Pure licenses, however, are revocable, leaving GPL-licensees without power if the licensor breaches and sues for copyright infringement.

Attorneys have attempted to construe the GPL as a contract. If the contract model worked, it would provide the most protection to agreements made under the GPL. But there is no way to interpret the license such that the consideration requirement is met. Even if the author receives an indirect benefit from a licensee who later releases changes back to the public, there is no meeting of minds between the two parties with regard to what constitutes consideration. The same problem exists with trying to enforce the GPL as a third-party beneficiary contract—there is no meeting of minds regarding which third party is to benefit and what the benefit is. In some jurisdictions, moreover, the fact that the third party did not give consideration to the licensor will be prohibitive. Only a nebulous argument could be made—that the software developer in the past benefited from the Open Source Community and thus wanted to name the Community as a third-party beneficiary.

Though the GPL is not a contract, it is enforceable. The Copyright Act does not require the formation of a contract in order for an author to enforce her rights against a copyright infringer. Likewise, a licensee is protected if the licensor breaches and the licensee relied on the license to her detriment. All states have adopted some variation of the *Restatement (Second) of Contract*'s promissory estoppel provision.²⁰⁷ Because the GPL is a failed contract, it is enforceable under state law. Treating the GPL as a failed contract prevents judges from having to distort real property legal concepts to fit the needs of a software license. It provides protection to the licensee in circumstances where the licensor attempts to wrongfully sue the licensee for copyright infringement. The failed

contract can be enforced as an action by one or more of the software authors. It can also be enforced by a defendant in the form of an unclean hands or copyright misuse defense.

The failed contract model of the GPL captures the spirit of what the FSF was trying to create twenty years ago—a grant of rights sans quid pro quo to maintain the current body of free software and to spark the creation of new code available to the Open Source Community. Clear legal protection of the GPL will decrease the transaction costs of migrating to open source software by making it easier for individuals and business to weigh the risks and benefits. Legal clarity will thus expand the market for free software, reduce monopolies that are found in the current software marketplace, and provide society with a needed counterbalance to the current rights-oriented Copyright Act.