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JACOBSEN V. KATZER: FAILURE OF THE ARTISTIC LICENSE AND REPERCUSSIONS FOR OPEN SOURCE

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The case of Jacobsen v. Katzer *is among the earliest to consider the enforceability of open source software licenses, and is therefore of key interest to the open source community. To the disappointment of that community, the United States District Court for the Northern District of California held that an open source project creator could pursue a breach of contract claim but not a copyright infringement claim against a defendant for violating the project's license terms. However,* Jacobsen *should not be read to suggest a general judicial approach to all open source licenses, but rather as confirmation of the long-thought weakness of the Artistic License.* Jacobsen *suggests the relevant legal rules could be improved to create a stronger presumption of copyright enforceability for open source licenses as well as a clear ability to enforce nonstandard open source license terms under contract.*

I. INTRODUCTION

Open source software[2] development has become an increasingly important part of the software development landscape. Many important products today have open source foundations,[3]

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[2] Open source has both a common definition and a narrower more technical definition advanced by the open source community. *See* The Open Source Definition, http://www.opensource.org/docs/osd (last visited Feb. 8, 2008) (on file with the North Carolina Journal of Law & Technology). This article uses open source in the more common sense — any software distributed with its source code form that users have some authorization to modify, copy, or redistribute. *See infra* notes 13–18 and accompanying text.

[3] GNU/Linux, an operating system, is perhaps the best-known open source product, powering all manner of devices from servers to cell phones. *See* Ryan Paul, *Evaluating Prospects for Linux Growth in 2008*, ARS TECHNICA, Jan. 4, 2008, http://arstechnica.com/news.ars/post/20080104-evaluating-prospects-for-linux-growth-in-2008.html (on file with the North Carolina Journal of Law & Technology) (noting a 13.3% market share for Linux smartphones in 2007, more than Blackberry, Windows, or Palm). Other notable products include the

and open source is becoming increasingly accepted in mainstream corporate America.[4] Because the typical open source project has its source code assets readily available to the public, such a project runs the risk that individuals will obtain and misuse valuable intellectual property. With no physical or technical barriers to this misuse, those behind the open source project rely on the protection of legal remedies.

Despite the fact that open source software has existed for decades, open source licenses are largely untested in the courts.[5] Licensors have often been successful in obtaining compliance pre-litigation,[6] and there is public pressure against misappropriating open source assets.[7] For these reasons, the recent district court case of *Jacobsen v. Katzer*[8] has attracted attention.[9] In *Jacobsen,*

MySQL database server and the Apache webserver that powers roughly half of the webservers on the internet. *See* Netcraft: Web Server Survey Archives, http://news.netcraft.com/archives/web_server_survey.html (last visited Feb. 8, 2008) (on file with the North Carolina Journal of Law & Technology) (reporting Apache market share). Even software thought of as proprietary may have open source foundations, as exemplified by Apple's Mac OS X, built on the open source BSD operating system. *See* UNIX, http://www.apple.com/macosx/technology/unix.html (last visited Feb. 8, 2008) (on file with the North Carolina Journal of Law & Technology).

[4] *See, e.g.*, Christopher Lawton, *Business Technology: Linux Shoots for Big League of Servers—Low-Cost Operating System Pushes Into Microsoft, Sun Strongholds,* WALL ST. J., June 19, 2007, at B5 (discussing the increased use of open source Linux for complex enterprise systems, in addition to common use for internet servers).

[5] *See, e.g.,* Brian W. Carver, *Share and Share Alike: Understanding and Enforcing Open Source and Free Software Licenses*, 20 BERKELEY TECH. L.J. 443, 464 (2005).

[6] *See id.* at 464–68.

[7] In particular, the open source community is vigilant in publicly criticizing misuse of open source software. *See, e.g.,* Dealing With a GPL Violation?, http://ask.slashdot.org/article.pl?sid=08/03/04/0023245 (Mar. 4, 2008, 00:41 EST) (on file with the North Carolina Journal of Law & Technology) (noting in comments that publicity about violation "achieved [the] desired goal"); *GPL Violation – NVIDIA*, SLASHDOT, May 1, 2000, http://slashdot.org/features/00/05/01/0047219.shtml (on file with the North Carolina Journal of Law & Technology).

[8] No. C 06-01905 JSW, 2007 WL 2358628 (N.D. Cal. Aug. 17, 2007).

[9] *See, e.g.*, Peter Galli, *Open-Source Licensing Suffers Setback in Court*, EWEEK.COM, Aug. 28, 2007, http://www.eweek.com/c/a/Linux-and-Open-

the court denied the licensor plaintiff's attempt to seek an injunction under copyright law.[10] Instead, it held that the license could be enforced under contract, not copyright law.[11] This is a disappointment to licensors in general, as copyright remedies are often more attractive than contract remedies.[12] While the license at issue in *Jacobsen* was a less common license and the District Court's decision is not binding precedent, the court's opinion is troubling because it has the potential to become persuasive authority, as it is the first to squarely confront the license enforcement issue.

While on the particular facts of the *Jacobsen* case, the court was justified in denying copyright infringement relief, broader concerns for effective protection of open source software demand new legal rules that ensure access to both copyright and contract remedies for open source software providers. This paper begins with a review of the background of open source licenses and the facts of the *Jacobsen* case. Next, the order of the District Court is analyzed in the context of present law. Finally, the paper concludes with a discussion of the implications of *Jacobsen* on other open source projects and what sort of legal rules would best serve to protect them.

II. BACKGROUND

A. *Nature of Open Source Licenses*

In the general sense, open source software is licensed to permit "users to copy, distribute, or modify the source code, and publicly

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Source/OpenSource-Licensing-Suffers-Setback-in-Court/ (on file with the North Carolina Journal of Law & Technology); Paul Krill, *Open Source Court Ruling Impacts Debated*, INFOWORLD, Aug. 28, 2007, http://www.infoworld.com/article/07/08/28/opensource-lawsuit_1.html (on file with the North Carolina Journal of Law & Technology).

[10] *Jacobsen,* 2007 WL 2358628, at *7.

[11] *Id.*

[12] This is particularly true on two fronts: relaxed standards for injunctions and more generous monetary damages. *See infra* notes 69–70, 103 and accompanying text.

distribute derived works based on the source code."[13] Often, open source licenses restrict these permitted activities, such as requiring attribution or continued same-license open source distribution of re-distributed or derivative works.[14] This last restriction—requiring continued use of the same terms—can be thought of as a form of reciprocity and is the core of what has become known as "copyleft" licenses.[15] A contrast can be drawn to public domain software that exists without copyright protection.[16] While public users can similarly copy, distribute, modify, and prepare derivative works based on public domain software,[17] no one is legally in the position to impose restrictions upon their actions. Thus, the ability of open source authors to impose restrictions has been asserted as the result of the author holding a copyright.[18]

Discussing open source licenses as a single monolithic license must be avoided; licenses have proliferated in recent years, and there are dozens of licenses that can be generally categorized as "open source."[19] These licenses vary both in prevalence and in

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[13] BLACK'S LAW DICTIONARY 939 (8th ed. 2004) (definition of open source license); *see also* LAWRENCE ROSEN, OPEN SOURCE LICENSING: SOFTWARE FREEDOM AND INTELLECTUAL PROPERTY LAW 2–8 (2005) (discussing how best to define open source).

[14] BLACK'S LAW DICTIONARY, *supra* note 13 at 934.

[15] ROSEN, *supra* note 13, at 105–07; What is Copyleft?, http://www.gnu.org/copyleft/copyleft.html (last visited Jan 29, 2008) (on file with the North Carolina Journal of Law & Technology).

[16] True public domain software is fairly limited. Copyright protection is automatic, so even unregistered works are protected. *See* 17 U.S.C. § 408(a) (2000). Further, the copyright term is such that works with expired copyrights all pre-date invention of the modern computer. *See* 17 U.S.C §§ 302–304 (2000). However, works of the US government are in the public domain, as is other software that is uncopyrightable due to lack of creative expression or some other factor. 17 U.S.C § 105 (2000) (providing no copyright for federal government works); 17 U.S.C § 102 (2000) (requiring "original works of authorship").

[17] When software is in the public domain, no one holds the § 106 exclusive rights under the Copyright Act. 17 U.S.C. § 106 (2000).

[18] What is Copyleft?, *supra* note 15 ("[W]e use copyright to guarantee [users'] freedom.").

[19] *See* Open Source Licenses by Category, http://www.opensource.org/licenses/category (last visited Jan. 29, 2008) (on file

restrictiveness. The GNU[20] General Public License (GPL) 2.0[21] is the most common open source license;[22] it includes high profile projects such as the Linux operating system kernel. The GPL is the license most associated with copyleft and imposes the significant restriction that all derivative works must also be licensed under it.[23] Other licenses, which can be broadly grouped as "academic licenses," place fewer restrictions on the use of the open source code.[24] The Artistic License,[25] which was at issue in the *Jacobsen* case, is also relatively common,[26] and its restrictions

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with the North Carolina Journal of Law & Technology) (listing more than fifty open source licenses).

[20] GNU is a recursive acronym for "GNU's Not Unix," an operating system project associated with GNU/Linux. Overview of the GNU System, http://www.gnu.org/gnu/gnu-history.html (last visited Feb. 8, 2008) (on file with the North Carolina Journal of Law & Technology).

[21] GNU General Public License, version 2, http://www.gnu.org/licenses/old-licenses/gpl-2.0.html (last visited Jan. 29, 2008) (on file with the North Carolina Journal of Law & Technology).

[22] *See* Open Source License Resource Center, http://www.blackducksoftware.com/oss (last visited Jan. 29, 2008) (on file with the North Carolina Journal of Law & Technology) (determining, based on a database of open source projects, that 59.24% of projects use the GNU General Public License (GPL) 2.0, and 11.36% of projects use the related GNU Lesser General Public License (LGPL) 2.1).

[23] GNU General Public License, version 2, *supra* note 21, at para. 2(b) ("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.").

[24] *See* ROSEN, *supra* note 13, at 73–102. An example is the BSD (Berkeley Software Distribution) License, which permits reuse of code in almost any way. *Id.* at 76–77. The BSD License only requires licensees to retain a copyright notice, to not use the original author's name to promote later products, and to disclaim warranties. *Id.* at 80–83.

[25] The Artistic License, http://www.perl.com/pub/language/misc/Artistic.html (last visited Feb. 29, 2008) (on file with the North Carolina Journal of Law & Technology). The Artistic License was drafted for and is strongly associated with the Perl programming language, and is focused on concepts of artistic control or moral rights. ROD DIXON, OPEN SOURCE SOFTWARE LAW 57–58 (2004).

[26] Open Source License Resource Center, *supra* note 22 (finding usage of the Artistic License at 7.78% of projects and third behind the GPL v2 and LGPL v2.1). It is common for modules in the Perl language, of which there are numerically many, to be licensed under this license. *See* The CPAN Search Site,

largely concern original author attribution.[27] The Artistic License has been criticized by the Free Software Foundation as "too vague; some passages are too clever for their own good, and their meaning is not clear."[28] The Foundation is not alone in its view,[29] and the community maintaining the license has even expressed concern about the viability of the Artistic License.[30] Subsequently, the Artistic License 2.0,[31] which is not as common as the original, was released to address some of these criticisms and as a result is less ambiguous than its predecessor.[32]

It is within this framework that the license issues of *Jacobsen* must be considered. The case has attracted attention not because of its interpretation of the original Artistic License, but because of concern that similar judicial reasoning could emerge in a case concerning the GPL, which is the most common license.

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http://search.cpan.org (last visited April 10, 2008) (on file with the North Carolina Journal of Law & Technology) (index of Perl modules, each provides its license terms).

[27] *See* The Artistic License, *supra* note 25; ROSEN, *supra* note 13, at 95 (noting the license "protects the rights of software authors to attribution and integrity").

[28] Various Licenses and Comments About Them, http://www.gnu.org/philosophy/license-list.html#ArtisticLicense (last visited Jan. 29, 2008) (on file with the North Carolina Journal of Law & Technology). Some of these passages are analyzed in Part III.A.2 *infra.*

[29] ROSEN, *supra* note 13, at 98 ("The Artistic License is [an] amateur license. It is a license that a lawyer would have difficulty explaining and that a judge would probably not be able to understand.").

[30] The Artistic License Must Be Changed (Sept. 29, 2000), http://dev.perl.org/perl6/rfc/211.html (on file with the North Carolina Journal of Law & Technology) ("The Artistic License, as it currently stands, is legally ambiguous, and as a copyright license, it does not appear to legally achieve the goals set forth in the Preamble.").

[31] Artistic License 2.0, http://www.perlfoundation.org/artistic_license_2_0 (last visited Jan. 29, 2008) (on file with the North Carolina Journal of Law & Technology). Generally with open source licenses, software licensed under an older version of the license does not automatically become licensed under a newer version of the license. For example, Perl itself continues to be licensed under the Artistic License 1.0. The "Artistic License," http://dev.perl.org/licenses/artistic.html (last visited Apr. 10, 2008) (on file with the North Carolina Journal of Law & Technology).

[32] Notably, the newer license also allows redistribution of modified software under other open source licenses, such as the GPL. *Id.* at para. 4(c)(ii).

B. *Facts and Holding in* Jacobsen v. Katzer

In *Jacobsen v. Katzer*, the United States District Court for the Northern District of California considered issues of enforcement of the Artistic License[33] used for the Java Model Railroad Interface Project ("JMRI Project") an open source software project.[34] The core of the suit was the claim that Matthew Katzer and his associated company appropriated intellectual property from Robert Jacobsen and the JMRI Project.[35] While a number of matters were at dispute, including claims of improperly obtained patents,[36] of key interest is the allegation that Katzer copied decoder files[37] from the JMRI Project and resold them as his own company's creations.[38] This act was alleged to be copyright infringement in violation of the terms of the Artistic License.[39] On the copyright infringement claim, Jacobsen sought a preliminary injunction.[40]

The District Court denied the preliminary injunction, holding that Jacobsen did not have a claim for copyright infringement, but potentially had one for breach of contract.[41] At the beginning of its analysis, the court cited the Ninth Circuit opinion in *S.O.S., Inc. v. Payday, Inc.*[42] for the proposition that "[a] licensee infringes the owner's copyright where its use exceeds the scope of the license."[43] Noting that the license rights in the Artistic License are "intentionally broad,"[44] the court concluded that "[t]he condition

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[33] Jacobsen v. Katzer, No. C 06-01905 JSW, 2007 WL 2358628, at *6 (N.D. Cal. Aug. 17, 2007) (noting that Artistic License was the license at issue).

[34] *Id.* at *1.

[35] Amended Complaint for Declaratory Judgment, Violations of Copyright and Federal Trademark Laws, Unfair Competition, and Unjust Enrichment at 7–8, Jacobson v. Katzer, No. 3:06-cv-01905 JSW (N.D. Cal. filed Sep. 11, 2006), 2006 U.S. Dist. Ct. Pleadings LEXIS 4108 [hereinafter Amended Complaint].

[36] *Id.* at 11–12.

[37] The decoder files permit interoperability between different brands of model railroad control hardware. *Id.* at 14.

[38] *Id.* at 14–15.

[39] *Id.*

[40] *Jacobson*, 2007 WL 2358628 at *5.

[41] *Id.* at *6–7.

[42] 886 F.2d 1081, 1088 (9th Cir. 1989).

[43] *Jacobson*, 2007 WL 2358628 at *7.

[44] *Id.* (noting that the license gives "any member of the public 'the right to use and distribute the [material] in a more-or-less customary fashion'" (alteration in

that the user insert a prominent notice of attribution does not limit the scope of the license."[45] Having found that the scope of the license was not exceeded, the court concluded that copyright infringement liability should not attach and that violation of the particular license terms would be a breach of contract matter.[46]

III. ANALYSIS

A. *Analysis of* Jacobsen *Order*

The District Court in *Jacobsen* does not fully explain its rationale. Nevertheless, it is possible to analyze the soundness of the court's order through the discussion of two questions triggered by the decision. The first is whether the breach of contract claim suggested by the court is in fact legally actionable. The second is whether the court was correct in deciding that no copyright cause of action existed.

1. *Availability of Breach of Contract to* Jacobsen *Plaintiffs*

At its core, a license is a contract governed by the same principles as other contracts.[47] To enforce such a license by suit for breach of contract, one must be able to demonstrate the formation of a valid contract. In the simple sense, the basic requirements of contract formation are offer, acceptance, and consideration. In the context of the open source project, the existence of an offer of rights to otherwise copyrighted intellectual

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original) (quoting Supplemental Declaration of Robert Jacobsen in Support of Motion for Preliminary Injunction, Exhibit A, *Jacobson*, No. 3:06-cv-01905 JSW, 2007 WL 2358628 (the Artistic License))).

[45] *Jacobson*, 2007 WL 2358628 at *7.

[46] *Id.*

[47] *See, e.g.*, McCoy v. Mitsuboshi Cutlery, Inc., 67 F.3d 917, 920 (Fed. Cir. 1995) (noting "a license is a contract governed by ordinary principles of state contract law" (internal quotations omitted)); Apple Computer, Inc. v. Microsoft Corp., 717 F. Supp. 1428, 1432 (N.D. Cal. 1989) (noting "[a] copyright license is a contract like any other contract"). *But see* ROSEN, *supra* note 13, at 53–56 (explaining the concept of a bare license, which serves merely as permission, that can be unilaterally revoked by the licensor, to do something otherwise prohibited).

property is not likely to be in dispute. The other two requirements, acceptance and consideration, present more complicated questions.

The matter of acceptance and assent to the contract terms in the *Jacobsen* dispute is closely related to the issue of enforceability of click-wrap and shrink-wrap agreements, which turn on manifestations of assent.[48] One case in this area, *Register.com, Inc. v. Verio, Inc.*,[49] found assent to terms of a contract not by an explicit "I agree" click, but by information that was merely posted and encountered by the offeree during its repeated use of the offeror's services.[50] The *Register.com* court also signaled a disinterest in requiring strict formal assent when it was clear that the offeree "knew perfectly well what terms [were] demanded."[51] The outcome in *Register.com* is in contrast to the outcome in *Specht v. Netscape Communications Corp.*,[52] an earlier case in the same circuit, where the court found no implicit assent to posted contract terms by presumably one-time internet downloaders.[53] *Netscape* demonstrates that there is a lower bound to situations where the court will find implied assent.

By analogy, it would be unreasonable to believe that Katzer, in the *Jacobsen* case, was unaware of the existence of license requirements for the JMRI files. He was active in the industry, and was likely aware of the basic character of his competitor as an open source provider. Indeed, the primary point of distribution for JMRI source code is the prominent open source project site SourceForge,[54] downloads from which a reasonably attentive user would be aware are governed by open source licenses. It is difficult to believe that a software professional in the mid-2000s

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[48] *See generally* Kevin W. Grierson, Annotation, *Enforceability of "Clickwrap" or "Shrinkwrap" Agreements Common in Computer Software, Hardware, and Internet Transactions*, 106 A.L.R.5th 309 (2003).

[49] 356 F.3d 393 (2d Cir. 2004).

[50] *See id.* at 401–02.

[51] *See id.* at 401.

[52] 306 F.3d 17 (2d Cir. 2002).

[53] *See id.* at 30–35.

[54] SourceForge.net: Welcome to SourceForge.net, http://sourceforge.net (last visited Mar. 15, 2008) (on file with the North Carolina Journal of Law & Technology) ("SourceForge.net is the world's largest Open Source software development web site.").

would not have at least some notion of the nature of open source software and that a variety of licenses exist. Addressing the awareness point concretely in the *Jacbsen* case context, the JMRI source files at issue came packaged with a file named "COPYING" which included the text of the Artistic License.[55] Furthermore, each of the files at issue in the dispute included a notice at the top explicitly calling one's attention to the existence of the "COPYING" file and the license.[56] The precise and explicit removal of this notice in the redistributed files[57] also tends to be evidence of awareness of the existence of the license. On these facts, by analogy to *Register.com*, the use of privileges under the JMRI license with knowledge of the license is an appropriate basis to imply assent to the contractual license terms.

The existence of consideration represents another contract formation issue lacking an obvious answer in *Jacobsen,* and in the open source licensing context generally. The archetypal consideration is monetary payment, of which there was none in the *Jacobsen* case.[58] Yet, consideration may actually be broader than monetary payment, including all manners of promises, acts, forbearances, and adjustments of legal relations sought and given in exchange for one another.[59] In the Artistic License,[60] there is an exchange of promises. The licensor is granting rights in its copyrighted intellectual property, effectively promising not to enforce otherwise available property rights.[61] In exchange for this access, the licensee must promise to do or not to do certain things. For example, if the licensee modifies the licensed matter, he must "insert a prominent notice in each changed file stating how and

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[55] JMRI Defense: Evidence KAM Copied From JMRI, http://jmri.sourceforge.net/k/copycomparison.html (last visited Jan. 29, 2008) (on file with the North Carolina Journal of Law & Technology).

[56] *Id.*

[57] *Id.*

[58] *See* Amended Complaint, *supra* note 35, at 14–15 (characterizing Katzer's actions as not involving payment).

[59] RESTATEMENT (SECOND) OF CONTRACTS § 71 (1981).

[60] The Artistic License, *supra* note 25.

[61] *See, e.g.*, *id.* at para. 1 (providing "[y]ou may make and give away verbatim copies"); *id.* at para. 3 (providing "[y[ou may otherwise modify your copy"); *id.* at para. 4 (providing "[y]ou may distribute the programs").

when [they] changed that file."[62] Therefore, as there is no need for the consideration to be substantial, the mere fact that the licensee's copies are legally encumbered in such a way as to restrict what he or she may do with them is sufficient for consideration.

Even with formation of a valid contract between Jacobsen and Katzer, the availability of an adequate remedy remains critical. The license term at issue is one of attribution;[63] as such, damages for breach may be unquantifiable, or at least difficult to quantify. In such cases, courts generally award nominal damages.[64] Yet, the *Jacobsen* defendants go further and argue that California law requires pleading damages to state a valid claim for breach of contract.[65] This argument goes too far. The only situation in which there is no claim is when there are no damages to interests whatsoever.[66] When harm exists, but it is not easily quantifiable, as with the lack of attribution in the *Jacobsen* case, damages to interests and a stated claim likewise exist.

Under contract law, injunctive relief against continued use of the software is more important to a non-profit project such as JMRI than compensatory monetary damages. While monetary damages are generally the remedy for breach of contract, injunctions may be available in cases where the payment of damages would be inadequate.[67] For example, where harm from a

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[62] *Id.* at para. 3.

[63] *See* Amended Complaint, *supra* note 35, at 15 (complaining Katzer "strip[ped] out the names of the developers").

[64] RESTATEMENT (SECOND) OF CONTRACTS § 346(2) (1981) ("If the breach caused no loss or if the amount of the loss is not proved under the rules stated in this Chapter, a small sum fixed without regard to the amount of loss will be awarded as nominal damages.").

[65] Defendants' Motion to Dismiss, Motion to Strike and Memorandum in Support at 3, Jacobson v. Katzer, No. 3:06-cv-01905 JSW (N.D. Cal. Dec. 21, 2007), *available at* http://jmri.sourceforge.net/k/docket/192.pdf (citing Hawkins v. Oakland Title Ins. & Guarantee Co., 331 P.2d 742, 745 (1958)).

[66] *Hawkins*, 331 P.2d at 745 (noting absence of an allegation that there was *any reduction at all* in value to the land at issue).

[67] *See e.g.,* Art Movers, Inc. v. Ni West, Inc., 4 Cal. Rptr. 2d 689, 693 (Ct. App. 1992) ("A permanent injunction is an equitable remedy for certain torts or wrongful acts . . . where a damage remedy is inadequate."); RESTATEMENT (SECOND) OF CONTRACTS § 359(1) (1981) ("[A]n injunction will not be ordered

license violation is difficult to quantify, as in the *Jacobsen* case, a court may use its discretion to award equitable relief in the form of an injunction. Such equitable relief is hard to come by in a breach of contract dispute, where there is a strong preference towards monetary damages. A court may also apply contract law to provide a preliminary injunction, if warranted by likelihood of success on the merits and on balance of the harms involved.[68] Thus, a preliminary injunction under a contract law theory may be elusive to Jacobsen as the visible harm is likely to be much greater to a commercial license than to authors who freely distribute their software.

The availability of injunctive relief under contract law largely depends on the ability of the party seeking such relief to persuade the court to use its equitable powers, often a difficult task. In contrast, copyright law has presumptions that weigh in favor of injunctive relief. On a prima facie showing of copyright infringement, a presumption of irreparable harm attaches, entitling a plaintiff to a preliminary injunction.[69] Further, upon prevailing on the merits, a copyright plaintiff is entitled to a permanent injunction against further infringement.[70] With these advantages in mind, this paper addresses the merits of the copyright infringement claim in *Jacobsen.*

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if damages would be adequate to protect the expectation interest of the injured party.").

[68] *See* Butt v. State, 842 P.2d 1240, 1246 (Cal. 1992) (noting that "a court must weigh . . . (1) the likelihood that the moving party will ultimately prevail on the merits and (2) the relative interim harm to the parties from issuance or nonissuance of the injunction").

[69] *See* Triad Sys. Corp. v. Se. Exp. Co., 64 F.3d 1330, 1335 (9th Cir. 1995); Apple Computer, Inc. v. Franklin Computer Corp., 714 F.2d 1240, 1254 (3d Cir. 1983) ("A copyright plaintiff who makes out a prima facie case of infringement is entitled to a preliminary injunction without a detailed showing of irreparable harm.").

[70] *See* Gnossos Music v. Mitken, Inc., 653 F.2d 117, 118 (4th Cir. 1981) (noting "[t]he owners of the infringed copyrights are . . . entitled to an injunction"). *But cf.* eBay, Inc. v. MercExchange, LLC, 547 U.S. 388 (2006) (holding permanent injunctions should not be automatic in the context of patents).

2. *Unavailability of Copyright Infringement Due to License Ambiguity*

In analyzing the district court's conclusion that there was no copyright infringement in *Jacobsen*, the scope of the license is the core question, as only actions outside the scope of a license constitute copyright infringement. In essence, the issue is whether the court was correct to conclude, "[t]he condition that the user insert a prominent notice of attribution does not limit the scope of the license."[71]

In principle, requirements present in a copyright license can operate either as restrictions on scope of the license or as independent contractual covenants.[72] The construction adopted depends largely upon state common law interpretative methods, including the general rule that an ambiguous clause be construed against the drafter.[73] In *Jacobsen*, the attribution requirements at issue arise from two clauses in the Artistic License. The first is the requirement that the licensee "duplicate all of the original copyright notices" when distributing verbatim copies.[74] The second is the requirement that the licensee "do[es] not advertise [the software] as a product of [its] own" when redistributing the software as an aggregated package or commercially.[75] While a claim of violation of the first clause in *Jacobsen* is tenuous given its limitation to situations of verbatim copying, the second appears to have been violated as the defendant claimed authorship of the redistributed files.[76]

The violation of this second clause could be seen either as exceeding a scope limitation or as breaching an independent covenant. The preamble of the Artistic License characterizes the purpose of several itemized requirements in the license, and provides that:

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[71] Jacobsen v. Katzer, No. C 06-01905 JSW, 2007 WL 2358628, at *7 (N.D. Cal. Aug. 17, 2007).

[72] Sun Microsystems, Inc. v. Microsoft Corp., 188 F.3d 1115, 1121–22 (9th Cir. 1999).

[73] *Id.* at 1122.

[74] The Artistic License, *supra* note 25, at para. 1.

[75] *Id.* at para. 5.

[76] JMRI Defense: Evidence KAM Copied From JMRI, *supra* note 55.

> [t]he intent of this document is to state the conditions under which a Package may be copied, such that the Copyright Holder maintains some semblance of artistic control over the development of the package, while giving the users of the package the right to use and distribute the Package in a more-or-less customary fashion, plus the right to make reasonable modifications.[77]

This preamble provides a number of interpretive construction issues. At first glance, the initial clause comes across as favorable towards scope restriction, flatly saying the document is meant to state conditions for copying.[78] However, further examination reveals problematic issues. One is the ambiguous use of the terms "copy," "use," "distribute," and "modify," each of which are terms of art, with distinct meanings in copyright law. Further, the construction of the sentence is not parallel. For instance, do the conditions only limit copying itself, while use, distribution, and modifications are allowed by some nebulous customary/reasonable standard? With rules of construction disfavoring the drafter, the answer to this question could well be yes. Yet, the unclear legal effect of text labeled a preamble only compounds the uncertainty. Based upon this analysis, it seems reasonable to construe the license against the licensor and to read the restrictions, as the *Jacobsen* court did, as independent covenants, the breach of which does not result in infringement of the underlying copyrights.

B. *Implications of* Jacobsen *on Open Source Licensing*

While the particulars of the *Jacobsen* case, factually and legally, suggest that it might have been correctly decided, the result is not what many believe it should be.[79] This section will first

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[77] The Artistic License, *supra* note 25.

[78] *Id.*

[79] *See, e.g.*, Galli, *supra* note 9; Mark Radcliffe, New Open Source Legal Decision: Jacobsen & Katzer and How Model Train Software Will Have an Important Effect on Open Source Licensing, LAW & LIFE: SILICON VALLEY, http://lawandlifesiliconvalley.blogspot.com/2007/08/new-open-source-legal-decision-jacobsen.html (Aug. 22, 2007) (on file with the North Carolina Journal of Law & Technology) (expressing the view that the scope of license issue was "wrongly decided").

consider if other licenses and factual situations would have fared better. It will then review general issues of licenses as contracts.

1. *Scope of Licenses: Beyond the Flawed Artistic License*

Jacobsen serves as a powerful illustration of why the Artistic License has been often criticized.[80] The copyright protection apparently desired by the JMRI authors was not available largely because the Artistic License was not construed as a limitation on the scope of the license, a prerequisite to finding copyright infringement. As of this writing, JMRI is no longer licensed under the Artistic License but under the popular GNU General Public License (GPL) Version 2.[81] As will be discussed next, several grounds exist to support the apparent view of the JMRI authors that the GPL is a better solution.

The language of the GPL is more definite on its role as limited scope license. The license is clear that "[a]ctivities other than copying, distribution and modification are not covered by this License; they are outside its scope."[82] The license further provides that "[y]ou may not copy, modify, sublicense, or distribute the Program except as expressly provided," and that " [a]ny attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under [the] License."[83] As such, evaluation of the GPL terms appears to support claims of copyright infringement under current legal rules.[84] Indeed, the publishers of the GPL have asserted a belief that the GPL is a bare license alone, and not a contract.[85]

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[80] *See supra* notes 28–30 and accompanying text.

[81] JMRI: Disclaimer, Trademark, Copyright and License Information, http://jmri.sourceforge.net/Copyright.html (last visited Jan. 29, 2008) (on file with the North Carolina Journal of Law & Technology).

[82] GNU General Public License, Version 2, *supra* note 21, at para. 0.

[83] *Id.* at para. 4.

[84] *See* Sun Microsystems, Inc. v. Microsoft Corp., 188 F.3d 1115, 1121–22 (9th Cir. 1999).

[85] *See* Eben Moglen, *Free Software Matters: Enforcing the GPL, I* (Aug. 12, 2001), http://emoglen.law.columbia.edu/publications/lu-12.html (on file with the North Carolina Journal of Law & Technology) (general counsel of Free Software Foundation expressing belief GPL is not a contract).

However, there can be some situations where a contract-based license is more desirable, as explored further below.

2. *Enforcing Licenses as Contracts*

Certainly one implication from *Jacobsen* is that open source licenses offered to the public have the possibility of enforcement in contract. While the remedies of copyright law are generally advantageous,[86] a plaintiff must have an ownership interest in the copyright to seek such remedies. In contrast, even an intermediate licensor can enforce a license in contract. Several contractually enforceable positions, both stronger and weaker than in *Jacobsen*, commonly exist.

Such a contract situation is first seen in the context of contract acceptance. Direct assent to the license, by signature or click-wrap, would strengthen acceptance by removing the inference necessary in *Jacobsen*.[87] On the other hand, it is possible to envision situations in which the user has bona fide ignorance of the license and an inference of contract assent would be difficult to establish. In such a case, copyright would be the only avenue for a remedy.[88]

Contract consideration can also be stronger or weaker than in *Jacobsen*. The element of consideration is stronger particularly in the event of money changing hands. Payment of money is not limited to commercial licenses, as many open source licenses are compatible with for-pay transactions, with the classic example of making a small payment in order to receive the software on some physical medium.[89] Weaker consideration exists, for example,

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[86] These advantageous remedies include relaxed standards for injunctions and more generous monetary damages. *See supra* notes 69–70, *infra* note 103, and accompanying text.

[87] *See supra* notes 48–55 and accompanying text.

[88] A copyright infringement claim would be available when the defendant, carrying on with the belief there is no license, would be violating the copyright owner's exclusive rights. If the existence of the license is not acknowledged, there is no issue of license construction.

[89] In such a case, the money consideration is intended for physical media, but the purchase occurs in the same general transaction as that in which the license is issued.

when the license demands nothing of the user, but rather allows them unfettered access to the licensed exclusive right.

Contract damages will not always be as uncertain as in the *Jacobsen* case. Of note is the existence of dual-licensing schemes, whereby the same software is available either under a no-cost open source license or under a commercial license.[90] In such cases, the harm from a breach of contract is essentially the contract price of the relevant commercial license. While monetary damages are quantifiable, this cuts against contract-based injunctions, which are typically used when monetary damages are inadequate. The conclusion from this analysis is that credible dual-licensing can be valuable for enhancing open source contract damages at the expense of injunctive relief.

A final contract question involves the concept of a bare license. In essence, a bare license is a grant of permission to use property without a reciprocal promise.[91] The GPL has been asserted to be a bare license, enforceable only in copyright and not in contract.[92] There has been considerable scholarly debate on this point.[93] However, given the broad framework for contract formation available in the context of a public license,[94] it seems likely that the GPL, with an explicit requirement for acceptance as a condition of

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[90] *See, e.g.*, MySQL Licensing Policy (Mar. 16, 2006) http://www.mysql.com/company/legal/licensing/ (on file with the North Carolina Journal of Law & Technology).

[91] *See, e.g.*, Jacobs v. Nintendo of Am., Inc., 370 F.3d 1097, 1101 (Fed. Cir. 2004) (discussing bare licenses in patent context); *see also* ROSEN, *supra* note 13, at 53 (defining bare license in software context).

[92] Moglen, *supra* note 85 (asserting that "[l]icenses are not contracts").

[93] *See e.g.*, Robert W. Gomulkiewicz, *De-bugging Open Source Software Licensing,* 64 U. PITT. L. REV. 75, 82–83 (2002) (characterizing the GPL as a "creative use of a contract"); Sapna Kumar, *Enforcing the GNU GPL*, 2006 U. ILL. J.L. TECH. & POL'Y 1, 11–24 (2006) (concluding the GPL lacks consideration as a contract); Jason B. Wacha, *Taking the Case: Is the GPL Enforceable?,* 21 SANTA CLARA COMPUTER & HIGH TECH. L.J. 451, 455–56 (2005) (concluding the GPL is a contract).

[94] *See supra* notes 48–57 and accompanying text.

rights,[95] along with particular requirements for the licensee,[96] could be found to be enforceable as a contract.[97]

C. *Policy Considerations to Avoid Future Problems with Open Source Licensing*

The preceding sections have analyzed how existing law applies to the facts in *Jacobsen* and to other open source licensing scenarios. Because this is a developing area of law, perhaps the more important question is what the law in this area *should* be. This discussion assumes the primary policy objective is to encourage open source licensing and development.[98]

1. *The* Jacobsen *Appeal: Constraining* Jacobsen *and a Chance for New Policy*

As of the time of this writing, Jacobsen has filed an appeal with the Court of Appeals for the Federal Circuit seeking reversal of the order denying the copyright infringement claim.[99] Given the previous discussion, it seems legally tenable for the court to uphold the lower court order. If the court chooses to affirm the district

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[95] GNU General Public License, version 2, *supra* note 21, at para. 5 (providing that "by modifying or distributing . . . you indicate your acceptance of this License . . . and all its terms and conditions").

[96] *See, e.g.*, *id.* at para. 2 (requiring notice of changes, continued licensing under the GPL, and notice to end users of disclaimer of warranty as a condition to copying or distribution modified works).

[97] *See, e.g.*, Matthew D. Stein, *Rethinking UCITA: Lessons From the Open Source Movement*, 58 ME. L. REV. 157, 194 (2006) (concluding the obligations that must be accepted in the GPL "would likely be interpreted as a contract, not a bare license").

[98] The recommendations would be different without this assumption, but that line of inquiry is beyond the scope of this paper.

[99] Brief of Robert G. Jacobsen, Plaintiff-Appellant, Jacobsen v. Katzer, No. 2008-1001 (Fed. Cir. Dec. 17, 2007). Of note is the appeal to the Federal Circuit as opposed to the Ninth Circuit. Jurisdiction of the Federal Circuit is based on the patent law claims in the complaint, not the copyright law claims. *See* 28 U.S.C § 1295 (2000) (providing the Federal Circuit exclusive jurisdiction to appeals in cases where the district court jurisdiction "was based, in whole or in part" on a patent matter). The Ninth Circuit handles more copyright issues than the Federal Circuit, and it will be interesting to see if the jurisdiction has an impact on the end result of the case.

court's decision, it should narrowly target its holding to the particulars of the Artistic License. However, an argument exists that policy reasons should tilt the court towards overruling the order.

The denial of a copyright infringement claim in *Jacobsen* is based largely on the ambiguity of the Artistic License.[100] If the Federal Circuit chooses to affirm, it should strive to maintain the ability of open source licensors to seek infringement damages in as many situations as possible. This object can be accomplished by upholding the order of the district court only as to the constructional deficiencies of the Artistic License.

Such narrow tailoring promotes the availability of copyright infringement to open source licensors, which furthers important policy objectives, the first of which is copyright's ready access to injunctions against infringement.[101] In the archetypical open source case, the developer has chosen to forgo seeking substantial direct financial profit from his endeavors, choosing rather to derive some benefit from having his work openly available and in use.[102] This common situation suggests that compensation through ordinary contract damages is likely to be insufficient, and that an injunction against the offending use will be more valued by the developer. Additionally, if open source licenses develop a reputation for being seldomly enforced by injunction, fewer programmers will contribute to open source development, choosing rather to develop commercially or forgo development altogether.

The second policy reason to make copyright infringement claims more readily accessible is the availability of monetary

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[100] *See supra* notes 72–78 and accompanying text.

[101] *See supra* notes 69–70 and accompanying text.

[102] *See* 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 1, 18–19 (Joseph Feller, ed., 2005) (discussing a number of intrinsic, as well as extrinsic, motivations for open source programming).

damages, including statutory damages under copyright law.[103] As noted above, the actual damages to a non-commercial open source project can be hard to quantify.[104] Combined with the low legal budgets for the average small project, which suggest few claims would be litigated without the promise of copyright infringement damages, the expected value of the awarded damages from the perspective of the licensee will be much less. Without access to copyright claims and the corresponding damage awards for infringement in such cases, the breach of the licenses will be under-deterred.

These same policy justifications, combined with the fact that the actual intent of most open source licenses is to avail the licensor of copyright remedies in breach, would support a reversal by the Federal Circuit. The court may then adopt a broad rule that imputes upon open source licenses the presumption that their terms serve to limit the scope of the license, thereby opening the door to copyright infringement claims. However, the problem with such a rule is one of definition: what licenses qualify as open source licenses and are thus entitled to the presumption? Most licenses share enough otherwise unique characteristics among themselves that an essential definition is possible.[105] In addition, some commercialization exceptions may also be needed to avoid opportunistic behavior exploiting the rule.[106] In exchange for effort in fashioning such a rule, the marketplace would be rewarded with greater certainty that open source licenses would be enforceable, thereby encouraging more parties to become involved in open source development projects.

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[103] Copyright statutory damages allow recovery of up to $30,000 per work infringed, or $150,000 for willful infringement, without any proof of harm. 17 U.S.C. § 504(c) (2000).

[104] *See supra* notes 63–66 and accompanying text.

[105] Such an effort has been undertaken privately in the form of the Open Source Definition of the Open Source Initiative. *See* The Open Source Definition, *supra* note 2.

[106] Exploitive behavior would include nominally complying with the open source requirements in order to take advantage of the favorable presumptions without actually conferring to users the open source benefits the policy seeks to encourage.

2. *Opportunities for Copyright Legislation and the Benefit of Private Bargains*

Open source licensing is made more complex by the fact that the conditions of many licenses go beyond straightforward licensing of the various exclusive rights of copyright, and instead create special terms that are based in private contract law. In theory, the Copyright Act could be amended to include exclusive rights more directly applicable to open source concerns. However, as discussed in this section, doing so in practice is likely only to make things more complicated. As such, the best policy objective is to ensure the efficient enforcement of the private bargains embodied in these licenses.

Looking first at the Artistic License, its essential novelty is granting the author more attribution and creative control than would be granted in the ordinary case of a copyright license to copy, distribute, and prepare derivative works. In essence, the Artistic License is attempting to create a private moral right similar to that of certain visual artists under section 106A of the Copyright Act.[107] Thus, one solution would be to extend moral rights to software works in copyright law. However, such a solution would create substantial costs, and there is no reason to believe a majority, or even a substantial minority, of computer programmers view themselves as needing artistic moral rights in their creations similar to those of creators of fine art. As the nature of programming and the reuse of code tends to disfavor artistic integrity, the majority would have to transact around the moral rights rule. Even absent any apparent desire of the programmer to enforce these rights, the prudent licensee will contract certainty in these regards. Therefore, it is likely more efficient to allow opt-in moral rights than to make moral rights the default rule.[108] This analysis supports the value of a straightforward regime to enforce the private bargain for these rights.

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[107] *See* 17 U.S.C. § 106A (2000) (providing rights of "attribution and integrity").

[108] This assumes the cost of opt-in is not much higher than that of opt-out. An efficient enforcement regime of opt-in can ensure this.

The GPL poses a different set of questions. Its key requirements serve to limit what a licensee can do with authorized derivative works and how the licensee may distribute further copies. Unlike the moral rights case of the Artistic License, these requirements in the GPL do not seek to create new rights for the copyright holder, but rather they seek to constrain the licensee's authorization to make copies or derivative works in comparison. Under the GPL, creators of derivative works must forgo the right of retaining copyright control over their creation and, instead, must license it to the general public. Using the Copyright Act to mimic the effect of the GPL would require the creation of some kind of special open source domain to which authors could dedicate their works.

It is unclear whether the creation of this special domain would be more efficient than the existing system. [109] For one, there would still need to be election by the author. The only difference would be a requirement to name a statutory provision rather than to name a public license agreement. Additionally, if the election did not serve to extinguish the author's exclusive rights in open source incompatible contexts,[110] there would still be a dispute if the user were acting under the special domain or under some license from the author. Lastly, it would be difficult for legislation to mirror the variety of options that the different open source licenses present, suggesting that authors would continue to attach supplemental terms. Simply enforcing license bargains avoids the need to confront these complications.

Strong enforcement of private bargains can be accomplished in multiple ways. One way is the previously mentioned presumption of license scope limitations in the context of open source licenses.

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[109] One way to create this special open source domain is through statute, providing that all works therein can be used, copied, and made the basis for derivative works, but such copies and derivative works are also in this special domain. The copyright holder would gain an exclusive right to insert works into this domain.

[110] If the authors lost all rights by electing the special domain, it would shrink the pool of open source developers, as they could no longer dual-license their works commercially. In such a case, the special domain would approach a sort of an elective public domain.

A second option is eliminating the uncertainty regarding contract formation, particularly with respect to acceptance. Instead of requiring searching proof of a manifestation of assent, the courts could fashion a rule of constructive acceptance when an individual downloads (or otherwise receives) a set of source files, including a clearly labeled license file containing reasonable and ordinary open source terms and conditions. This modification, together with further support of click-wrap assent for the end-user binaries, would reduce contract formation uncertainty. With less uncertainty, more developers could program confident that the non-standard terms in their license agreements are enforceable under contract law.

IV. CONCLUSION

In the *Jacobsen* case, the question of enforceability of an open source agreement under copyright law faced an early test, and resulted in a disposition that was not pleasing to the open source community. While the court's ruling is justified, both in the availability of a breach of contract claim and the lack of availability of a copyright infringement claim, the latter holds true largely as the result of the poorly drafted Artistic License. As such, there should be less concern that the conclusion of the *Jacobsen* court will carry over to a court reviewing the much more common GPL. Above all else, appellate review of *Jacobsen* needs to make clear that the result of the case is due to the construction of this particular license, and not the principles behind open source licenses in general.

Indeed, if the continued growth of open source development is important to society, it would be well-served by creating legal rules that increase the certainty of effective enforcement of open source licenses. Such rules should include a presumption that open source license terms serve as limitations on the scope of the license, as well as doctrines removing the remaining uncertainty regarding assent to license terms in order to bolster a licensor's contract claim. With improvement in these areas, the legal system can be a more effective partner in advancing the promise of open source software.

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