

Trademark in Commons-Based Peer Production:

How Trademark Fails Where Copyright Succeeds

The past decade has seen the rapid growth of what Yochai Benkler calls 'commons-based peer production', a mode of production in which voluntarily formed communities create new goods and make them available as a public commons. Far from being anti-property, this mode of production is deeply reliant on property rules which reduce transaction costs and protect the resulting commons. Copyright law has proven very amenable to this task, as exemplified by the success of the Free Software Foundation's General Public License (GPL), and more recently, by the growth of the Creative Commons (CC) family of copyright licenses. Trademark law has not proven so flexible, and in many cases impedes rather than assists the goals of peer-production communities. In this paper, I will give an analysis of why copyright has proven so useful to commons-based peer producers and why trademark has failed to serve in the same capacity. I'll conclude by looking at potential trademark licensing strategies which might improve how trademark serves the economic and moral needs of commons-based peer producers and consumers of such goods.

Property Licensing and Commons-Based Peer Production

'Commons-based peer production' (which I'll shorten to 'peer production') is Yochai Benkler's¹ term for a mode of economic production where communities form in order to create goods which are then shared in a commons. While Benkler's work shows that this mode of production isn't exactly new, the internet's ability to share information at effectively zero cost to the producers, and to aggregate like-minded producers from across the globe into functional

¹ Benkler, 2001: Coase's Penguin: http://law.duke.edu/pd/papers/Coase's_Penguin.pdf

communities, has caused a rapid growth of the mode in the past decade. The most notable example of this mode of production is of course Linux and the Free Software community, a community of computer programmers and affiliated creative individuals who have collaborated to produce software which by traditional measures is worth billions of dollars.² In this paper, my examples and discussion will be drawn mostly from Free Software, because it has a mature license culture which is amenable to analysis. However, Benkler gives many other examples of peer production, like NASA's 'clickworkers' program, which invited people to find craters on the moon over the web, and Project Gutenberg, where volunteers type in and proofread public-domain literature. My analysis will largely apply to them as well, inasmuch as these projects usually desire the same social goals as free software projects, though their organizations may not yet formally capture value via intellectual property licensing in the same way free software projects are.

Why has this mode of production grown so much? The most obvious and important reason is that the internet makes collaboration and publication cheaper.³ However, other factors come into play as well, albeit in a lesser role. Key among these other factors in the software world is the use of so-called 'copyleft' copyright licensing, in which license to copy and derive from the source code of a piece of software is granted to anyone, as long as changes to the code are shared back to the commons. The original 'copyleft' license is the GNU General Public License (GPL)⁴, but since that license was written in the early 80s, many others variations on the theme have been created. The core of a copyleft license is a principle of 'share alike', in which a

² Wheeler, 2001: <http://www.dwheeler.com/sloc/redhat71-v1/redhat71sloc.html> See also <http://libresoft.urjc.es/debian-counting/sarge/index.php?menu=Statistics>, which suggests that the latest release of Debian (the most comprehensive available collection of Free Software) could contain \$191B worth of development effort.

³ Gone into in some detail in Benkler's *Coases's Penguin*, and (to a lesser extent) in the first section of Chapter 2 of Landes and Posner's *Economic Structure of Intellectual Property*

⁴ other open licenses, like the so-called MIT and BSD licenses, predate the GPL, but they are essentially public-domain licenses, which lack some of the community-forming properties which will be discussed later in the paper.

copying license is granted only if the copier agrees to publish derived works under the same license as the original work. If the copier does not publish derivatives under the same license, the copyright license has been violated, and the copier can be forced to either cease distribution of the derived works, or to open their changes. This is distinct from public domain, where there are no restrictions on copying and re-licensing. While the GPL has never been formally tested in court, companies as large as Apple and Linksys (now part of Cisco) have settled GPL violation cases out of court by releasing the contested derivative works under the GPL.

Structural Impacts of Copyright Licensing

Just like for-profit companies which license their intellectual property aggressively, because peer production communities often exist primarily because of the good they create, the licensing of that good is extremely important. Because the licenses regulate the relationship of community members and outsiders to the community's shared resources and products, the licenses and their goals have a great deal of both social and economic impact on how the relevant communities are structured and behave.

First, the existence of standard, liberal copyright licenses minimizes transaction costs and therefore increases efficiency, an outcome that Landes and Posner call 'the very raison d'etre of property rights.'⁵ A would-be participant in a given community typically need only look for the initials of the license ('CC-SA'⁶, 'GPL'⁷, 'BSD'⁸) to understand the basic terms and conditions which govern the pooled resources of the community and begin contributing immediately. Because the most popular licenses are widely used, the licenses also encourage interoperability and discourage redundancy. These lowered transaction costs makes bootstrapping new projects and new communities much faster than could occur otherwise. Conversely, projects which have

⁵ Economic Structure of Intellectual Property Rights, p. 12-13.

⁶ Creative Commons Share Alike: <http://creativecommons.org/licenses/by-sa/2.5/>

⁷ General Public License: <http://www.gnu.org/copyleft/gpl.html>

⁸ Berkeley Software Distribution: <http://www.opensource.org/licenses/bsd-license.php>

chosen to use other licenses which are not familiar or interoperable (hence increasing transaction costs for contributors) have frequently found that using 'different' licenses becomes a barrier to entry for contributors. In many cases, like Firefox, Open Office, and QT, three of the largest Open Source projects, the cost has been high enough that the project leadership changed from their once-custom licenses to the GPL.⁹

Secondly, the most common licenses (like the GPL and the Creative Commons 'Share Alike' license) reduce or eliminate free-rider problems, which is extremely advantageous. This is accomplished by legally requiring that those who wish to modify a common good make a payment in the coin of the realm- that is, by sharing their own ideas under the same legal terms. While not all licenses share this property, licenses that do have this property are substantially more popular than competitors. Freshmeat.net, a web site which tracks free software projects, reports that over 70% of the projects in its database use either the GPL or the LGPL (closely related to the GPL)¹⁰, and unpublished Creative Commons data suggests the 'share alike' license is in the majority there as well, despite the less established role of sharing in that community. Anecdotal evidence suggests that licenses which do not require sharing-alike, or which make exceptions for certain parties, are less popular because third parties can effectively take from the commons without returning value to them. For example, Apple's OS/X operating system is based on the 'BSD' project, which is effectively public domain, and to which Apple does not contribute back all changes. Many developers have cited the potential for this type of 'exploitation' as a reason to contribute to the technically similar Linux project instead.

Thirdly, the variety of licenses available in the peer production community increases economic differentiation, allowing rights holders and potential contributors to choose terms and policies which most closely fit their needs. In comparison with traditional copyright

⁹ <http://www.dwheeler.com/essays/gpl-compatible.html> has a number of other examples of this phenomenon.

¹⁰ <http://freshmeat.net/stats/>

maximalism, the choice of licenses allows the creator to match their license with their desires. Such differentiation is recognized to be economically desirable, and is at present a key motivator for many of the artists who license their work under the Creative Commons- traditional maximalist copyright requires them to make an either/or choice between free online publicity and economic compensation (for example), while the flexibility of the CC licensing scheme allows them to achieve both in a controlled manner.

Finally, the open nature of peer-produced goods increases innovation. As Eric Von Hippel has discussed in great depth¹¹, end-users are often a huge source of innovation, and peer-production licenses facilitate that innovation. Licenses that allow end-users to tinker and change the good itself without cost, fear of retribution, or other complications encourage the growth of new ideas, and by encouraging their sharing, ensure that these new ideas get out to the greatest possible number of consumers. In a related impact, because the typical open license does not explicitly privilege any particular group of IP owners, the organizations and communities that form around these licenses tend to be extremely meritocratic. Instead of seeking permission or judgement from traditional hierarchies, innovators and their ideas can compete in a darwinian fashion. Because the community has access to both the winners and losers, the 'winner' of the competition becomes the new core of the commons, often after taking some ideas from the 'loser' as well. Thus, in many cases where traditional licensing would require one option to be picked early on, and competitors excluded, open licensing facilitates competition and a resulting true 'best of breed' solution. These two impacts combined to mean that peer-production can be very innovative and efficient even when many traditional economic incentives are not present.

¹¹ Eric von Hippel, *Innovation by User Communities: Learning from Open-Source Software*, p. 42 Sloan Management Review 82 (2001), and also Eric Von Hippel, 'Democratizing Innovation', 2005

We have seen, then, a number of positive qualities which peer-production communities have which are directly or indirectly the result of their copyright license.¹²

- extremely low transaction costs stemming from clear, predictable, and interoperable licensing
- high social cohesion, because of the explicit social contract provided by the license
- avoidance of the free-rider problem, by requiring sharing
- increased contractual/economic efficiency by giving more license choices to producers of IP
- increased innovation stemming from increased end-user creativity and greater structural/hierarchical flexibility

The State of Trademark Licensing in Peer Production Communities

It should be clear from the previous section that copyright licensing in a peer production common creates a unique problem for peer production communities. Trademark law's justification is based in notions of consumer protection- traditionally justified by the affiliation of a mark with a specific source, and in a more modern economic analysis, with the intent of associating marks with a specific level of quality, hence lowering customer search costs.¹³ This is a complex notion in the peer production space, because the good can be legally taken and modified by essentially anyone, and so the notion of the 'source' of the product is a fuzzy one. For example, the 'core' of the Linux project (known as the 'kernel') is distributed by Linus Torvalds, the original author of the code, and who is now the primary coordinator for many

¹² It is worth noting here that the original goal of the 'copyleft' families of licenses were moral and ethical in nature, not the social or economic goals listed here. However, because even the original author of the copyleft (Richard Stallman) has asserted that there is no moral responsibility to 'share' trademarks, and because those moral goals are not shared by all peer-production communities (notably the 'Open Source' movement and the Creative Commons movement), this goal of copyright licensing is not particularly relevant to our analysis here.

¹³ Landes and Posner, 'Economic Structure of Intellectual Property Law', p. 166-168.

thousands of community members who contribute changes and fixes to the code base. Among these contributors are such major companies as IBM, Hewlett Packard, Sun, and literally hundreds of other smaller companies. In many cases, these companies are partial copyright holders in the kernel code itself. Having contributed into the commons, these companies then take Linus's original source, and publish derivative works based on Linux, incorporating not only the original source but sometimes dozens and in some extreme cases even thousands of changes into the version they distribute.

Such a situation raises many questions in a trademark context. To consumers, what does 'Linux' mean? Is 'Linux' only applicable to the original code, and not the derivative works? What if the derivative works have been using the name for a decade? Clearly in the vast majority of cases, the marks have been used in good faith, intending to show that the product contains and is based on Linux, but is that enough? What is the source of this product (in the trademark sense), and who owns the mark? Is it Linus? Is it the hundreds of copyright holders in the product? Is it the distributors who have generally kept good faith with the community, and contributed much of their own goodwill to the product? If transfer of trademark requires corresponding transfer of 'goodwill', what exactly is that goodwill in a context where the core good (the code) has already been transferred? Clearly, this is a complicated matter, and as will be discussed, no project has dealt with it to the satisfaction of all parties.

It is clear that in most current cases, free and open source software trademark license policies (where they exist) do not create the same conditions as copyright licensing. Most notably, the Firefox¹⁴ web browser and Linux kernel¹⁵ (two of the largest and most recognizable open source software projects) license their trademarks so as to substantially restrict their use, including in the Firefox case limitations on redistribution of modified source code under the

¹⁴ <http://www.mozilla.org/foundation/trademarks/policy.html>

¹⁵ <http://www.linuxmark.org/>

Firefox name, and in the Linux case, licensing fees for use of the mark. These licenses are controversial in free software communities¹⁶¹⁷, mostly because they are presumed to conflict (in spirit, if not in letter) with the terms of the copyright licenses under which the code is granted. Besides the obvious conflict with the spirit of the copyright license, this model does not benefit peer-production communities in the same way as the relevant copyright licenses. Most notably, this approach privileges a single group (the owner of the mark) and allows that group to control the 'direction' of the commons on a basis other than their direct level of contribution to the shared good. It also decreases innovation in use of the mark and hence can reduce the impact of the marketing of the brand, because of the high barrier to entry for new contributors.

Instead of strict traditional trademark policies, some projects use a bifurcated approach, where one mark is fiercely protected, but another related mark is licensed more liberally. For example, the Debian Project has attempted to create two logos¹⁸, one of which is strictly held, and the other of which is basically granted freely and left mostly unprotected. While no other projects have followed this model exactly, some have at least pursued similarly bifurcated strategies. For example, the trademarks of the Fedora Project, a project funded by Red Hat, Inc., and from which Red Hat derives their 'Red Hat Enterprise Linux', are tightly held by Red Hat, but are licensed less restrictively than the mark for 'Red Hat Enterprise Linux'. This model has been moderately successful, but is still frequently confusing to potential contributors. The distinction between the marks is not always clear, and changes are not typically allowed, so the barriers to participation and restrictions on the nature of participation are still much higher than they would be in the copyleft/copyright case. Additionally, since the licenses are per-project and extremely varied, there is still frequently uncertainty over what the rights are. As a result of all

¹⁶ <http://www.zdnet.com.au/news/software/0,2000061733,39197321,00.htm>

¹⁷ <http://lists.debian.org/debian-legal/2005/06/msg00277.html>

¹⁸ <http://www.debian.org/logos/>

these problems, the 'bifurcated' rights approach again fails to have the same benefits as the copyright licenses under which the same projects distribute their non-mark IP.

Unfortunately, these two strategies are not particularly pleasing to most groups, because of both their obvious GPL-conflicting and less obvious organizational/structural issues. As a result, most FLOSS groups do not claim or register marks. Linux, for example, was an unregistered trademark until 1996- as 'open' (practically, even more so) than the code and community that the mark represented. However, in 1996, the 'Linux' mark was registered by someone uninvolved with the community who proceeded to demand payment from various Linux-related companies.¹⁹ Those companies, armed with use research done by the community, contested the mark, and it was eventually transferred to Linus Torvalds, the original creator of Linux.²⁰ It is clear from this example that while on the surface a policy of virtual abandonment would seem to be in accordance with goals of openness, lack of a trademark policy can create substantial worries about free-riding and uncertainty over the terms of use, each of which can retard reaching general organizational goals. Again, the contrast with the clarity and structure of the copyright licensing is clear.

Potential Trademark Licensing Strategies in a Peer Production World

Given that neither traditional mark enforcement nor naive abandonment of the mark are in keeping with a share-alike, commons-based approach to intellectual property management, what alternatives are there for these communities? A number of strategies are plausibly desirable, but all seem to have at least some serious flaws.

The alternative most often proposed within the free software community is the creation of a GPL-style license that would allow widespread copying and modification of the mark without registration, as long as the modifications are disclosed to the owner/creator of the mark.

¹⁹ <http://www2.linuxjournal.com/article/0220>

²⁰ <http://assignments.uspto.gov/assignments/q?db=tm&qt=sno&reel=&frame=&sno=74560867>

This suggestion fails on multiple counts. Such an approach would share many of the positive qualities that a GPL-style copyright license allows, like lowered transaction costs and (potentially) innovation and control by meritocracy. However, it has a critical difference, in that it fails to stop free-riding in the same way that the GPL does. Many free software projects see their mark as a source of revenue, as well as a badge of origin, and so the 'coin of the realm' is either cash or reputation- neither of which are apparently guaranteed by a naive share-alike approach. There are obvious legal flaws as well. Such an approach fails to hold legal water- to match the openness GPL, it would have to be a 'license in gross', disclaiming quality, and runs a serious risk of committing genericide. This particular objection has proven the death knell for all proposed GPL-like trademarks of which I'm aware.

Another potential alternative, more grounded in traditional copyright law, would be the creation of certification and collective marks that would reflect that new goods and new community members were consciously meeting roughly the same standards, and were affiliated with the original product and community. In a peer-production community, this approach has some serious benefits over a traditional, strict trademark licensing policy. It would lower transaction costs, by requiring the mark-owning community to lay out clear standards for use of the trademark on derived goods and for claims of affiliation with the originating community. Such an approach, then, would increase participation in the marks and the communities, meeting a primary goal for the communities, and increase certainty for at least some uses of the mark, and hence lower transaction costs and increase social cohesion. In addition, personal and technology affiliation are some of the leading drivers for community usage of trademark, so while this approach might not cover all bases, it would certainly address some of the most common community requirements for a peer-production trademark license.

However, this approach is still flawed on several counts. If the licensing guidelines miss some potential negative uses, this might fail to prevent free-riding on the community's reputation; alternately, if they are too restrictive, they will again raise transaction costs and stifle innovation. Furthermore, such an approach continues to concentrate power in the hands of the titular rights holder. That rights holder gets the privilege of defining community membership, and could, by means of the certification mark, unduly influence the content of the community-produced good in ways antithetical to the meritocratic and innovative nature of the community. The rights holder would also presumably still control the 'central' mark, with all that entails. Finally, it is only a partial solution- because of the restricted definition of certification and collective marks, such a solution would not cover the use of the marks in the case where the rights holder is also the primary distributor of the code base (which is common); nor would it likely cover the sale of community-branded merchandise²¹. Thus, while superior to most other approaches examined so far, this approach still leaves much to be desired if it is to approach the success of copyright licensing.

A third potential approach is to aggressively *encourage* an existing community to take advantage of the family of existing trademark fair-uses. Because trademark has often been used abusively in technology settings²², many technologists are underinformed and view trademark fairly skeptically; the same people who can elucidate on copyright fair use at length are frequently unaware that an analogous body of caselaw exists in trademark law. An approach which kept a strict formal licensing approach, but which educated the relevant community on their fair use rights and interpreted those as broadly as possible, might resolve many of the

²¹ The merchandise case is interesting, since communities who have willingly given away their most valuable property (their communally-produced goods) have proven stubbornly resistant to giving away this much less valuable right.

²² <http://chillingeffects.org/trademark/> has a list of several recent attempts, as well as historical background. High-profile cases include the various 'sucks' domain cases, and more amusingly, *Mattel v. MCA Records* (the 'Barbie Girl' parody case.)

primary concerns. There is some precedent for this in the copyright space- the Creative Commons licenses explicitly note that they do not abridge or supercede any fair use rights; a trademark license with similar language, coupled with an explicit listing of relevant (but not exclusive) fair use rights might achieve many of the primary community goals listed above. There is a long list of rights which courts have found do not cause dilution, and as a result could be explicitly encouraged. Among them:

- *Brother Records, Inc., v. Jardine* (member of the Beach Boys cannot claim sponsorship or endorsement by the Beach Boys) roughly defines a nominative fair use which would protect factual references to a project or technology.
- *Prestonettes, Inc. v. Coty* (allowing repackaging of trademarked perfumes) suggests that a 'first sale' doctrine may apply to trademark, as long as it is clear that a good has been repackaged.
- *Champion Spark Plug v. Sanders* (sale of remanufactured spark plugs) and *Nitro Leisure v. Acushnet* (sale of remanufactured golf balls) both suggest that customers have specific expectations about remanufactured or refurbished goods, and that re-distributors of these goods can avoid liability for trademark use by clearly indicating that the good is refurbished. The test proposed in Nitro- 'whether the used or refurbished goods are so different from the original that it would be a misnomer for them to be designated by the original trademark'- clearly allows some leeway.
- *Adolph Coors, Co. v. A. Genderson & Sons, Inc.* (barring resale of beer that had not been refrigerated, as per manufacturers requirements) suggests a 'quality control' doctrine that would allow resale with unmodified marks as long as quality control policies set by the mark holder for official distributors are met.

- *University Book Store v. Wisconsin* (University of Wisconsin registered a trademark designed and sold by others for 40 years, but which referred to U. of W.) suggests that if a community uses the mark in good faith to refer to the mark holder, and very minimal quality oversight has gone on, no abandonment has occurred.
- The Lanham act 43(c) 4. b says 'noncommercial' use is not dilution of a famous mark, which may cover many relevant marks.

All of these are significant fair uses that would moderate the impacts of a formal trademark policy, if the relevant community were educated and understand that a formal license did not preclude such uses.

This is not to say that these fair uses are clear cut; *Brandtjen & Kluge v. Prudhomme* (allowing a reseller to use the Brandtjen and Kluge mark on rebuilt printing presses) lays out 11 separate tests which can impact a finding of trademark infringement in potential fair use cases, including intent and 'the degree to which any inferior qualities associated with the reconditioned product would likely be identified by the typical purchaser with the manufacturer.' Despite this potential minefield of requirements, though, it seems likely that an educational and prescriptive list of fair use exceptions could still be crafted that would allow communities to use centrally held marks while mitigating the impacts of the high transaction costs and centralized power that tend to come along with centralized trademark licensing.

Finally, as noted in the last section, it is clear that in the case of rebuilt presses, recovered golf balls, and refinished spark plugs, the courts have elucidated a doctrine specific to rebuilt or remanufactured products which suggests that as long as consumer expectations are clearly set, use of a trademark to identify source is allowable. Similarly, there is a separate doctrine for resale of new/like-new products, suggesting that as long as the mark does not imply that the new good is from the original source, and quality is maintained, it is legal. Key to both of these

doctrines is a judicial understanding that certain modes of production which alter the relationship of the final product and the trademark (remanufacture and repackaging in these cases) have basically predictable results that are understood by consumers. This suggests a final track that peer producers could pursue in attempting to ameliorate the negative impacts of trademark law while still protecting their communities. Given that peer production is fairly new, and legitimately different in a number of dimensions from prior modes of production, it seems possible that a properly crafted trademark license for a copyleft-based product could attempt to codify the understandings of this new mode and appropriately expand the notion of 'source' in trademark law. It might be plausible to claim that, just as consumers understand the difference between a new good and a remanufactured one, educated consumers understand that the 'source' of a peer-produced good is a more flexible concept, characterized by the existence of a collaborative community and modifiable goods. The license could contend that uses of the mark within this more flexible concept of 'source' did not cause dilution, since consumers (particularly in the computer industry) are aware of the flexible nature of the 'source' in this context. Of course, such a process would still involve pursuing violations in which the mark was used in a confusing or dilutionary manner- for example, defining the Linux mark in this way would still involve pursuing those who used the mark to market an operating system with no code in common with Linux, or which used the mark on goods which did not in some way (directly or indirectly) benefit the community. Obviously, with no direct precedent to fall back on in court, this would be a risky process with uncertain outcome. However, if it succeeded, the payoff could be large- such a license would generally lower barriers to entry, would encourage experimentation and innovation with the mark, avoid free riding (since those using the mark to identify something clearly not tied to the community's goods would still be prosecutable), and increase efficiency by diversifying the choice of mark licensing schemes. Most importantly for

these communities, it would comport well with the communities' existing intellectual property licensing schemes, while still protecting consumers by comporting with their understanding of what 'source' means in a peer-production context.

Summary

Because 'source' in a peer production community is necessarily a fungible thing, there is no simple solution for peer-production communities who wish to maintain their trademark and not risk losing it to dilution. However, an analysis of peer production copyright licenses suggests that liberal approaches to IP, with specific community-protecting restrictions, can substantially increase participation and innovation. Peer production communities who have adopted such a copyright policy and wish to pursue a similar approach and obtain some of the same benefits in the trademark domain could be advised to license their marks in the following manner:

- Creation of collective and certification marks with clear, simple guidelines, so that those wishing to affiliate themselves or their related goods can do so simply and easily.
- Education of the potential community about trademark fair uses, and explicit notice in the mark license that the license does not prohibit such fair uses.
- In all relevant trademark documents, inclusion of and reference to a definition of 'source' which is broadly construed to include derivatives from the same source and contributing community members, allowing that source community to use the trademark in good faith.

Clearly, this approach would involve a ceding a great deal of control over the mark. However, as explained in the analysis in the paper, such an approach would likely still protect against abuse by those truly outside of the 'source' community, while lowering the cost of participation

and stimulating innovation. Such an approach has proven extremely successful in the copyright realm, and should be emulated if possible.