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Cover Page Footnote
Professor of Law, Fordham University School of Law. I would like to thank Justin Hughes and Timothy Wu for helpful comments and Amy Mikolajczyk for excellent research assistance.
INNOVATION IN COMPLEMENTARY INTERNET MARKETS

Mark R. Patterson*

INTRODUCTION

A common use of the Internet is as a new means for delivering existing products. In some instances, the entity delivering the product is the original producer of it and simply uses the Internet as an additional means of delivery. This describes, for example, the Internet ventures through which the major record companies formerly made available their recordings. In other instances, though, a new entity uses the Internet to deliver another’s product, and in doing so it may or may not have the cooperation of the original producer. Entities playing this sort of role include Amazon.com and peer-to-peer (“P2P”) file transfer services like Napster and, more recently, Grokster.

When these new Internet entities deliver, or facilitate the delivery of, products protected by another’s intellectual property rights, the result has generally been controversial. So, for example, when Napster made it easy to search for and transfer musical recordings, record companies sued it for copyright infringement. But Napster, like other new Internet entities, argued that it was not an infringer of the record companies’ products, but

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2. The providers of peer-to-peer (“P2P”) services do not generally deliver the products themselves, but provide their users with the ability to deliver the products.

had instead created an entirely new product that served as a complement to the music recordings.\(^4\)

This Article addresses these conflicting claims. The paradigmatic case that I will discuss is the introduction of what I will call a "New Service" that provides a new way of delivering or using "Old Products." Thus, Napster gave computer users the ability to use song files in a new way.\(^5\) Another example of a New Service is Google's AdWords, which, by allowing buyers to purchase the right to have their URLs appear when searches are made for others' trademarks,\(^6\) uses the trademarks (the Old Products) in a new way. Other examples include the use of trademarks as metatags in World Wide Web ("web") pages in order to place the pages in search results\(^7\) and Google's new Print service for searching books.\(^8\)

The Article asks two questions about these cases. First, what sort of contribution must a seller make for it to be appropriate to view its contribution as a truly New Service, rather than merely as free riding on Old Products? I will argue that whether a New Service in fact creates a new market turns on whether its value depends directly on the value of particular instances of the Old Products on which it is built. In most cases where there is such a dependence, the price charged by the provider of the New Service will vary with the particular Old Products at issue. That price variance will then be evidence that the New Service is, to some extent, merely part of the Old Product market; if not, it is indeed new.

Second, what is the legal significance of the creation of a new market, or of the failure to create one? This question is more difficult. Generally speaking, a product in a new market would be viewed as outside the scope of intellectual property protections in the old, distinct market.\(^9\) But doctrines of vicarious and contributory infringement may impose secondary

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5. By "using" the Old Products, I mean to include not just the acts of putting them to their ultimate uses, but also any other acts in which users wish to engage. So, for example, in the case of Napster and song files, I mean to include not just listening to the songs (or playing the song files), but also transferring the song files from one user to another.

6. For a more detailed discussion of the operation of AdWords, see infra notes 21-23 and accompanying text.

7. See infra text accompanying note 91.

8. See infra text accompanying notes 92-97.

9. See infra text accompanying notes 29-31. The issues discussed here have also been discussed by Timothy Wu. See Timothy Wu, Copyright's Communications Policy, 103 Mich. L. Rev. 278 (2004). He focuses particularly on copyright, where the Old Product market is copyrighted content and the New Service market is typically the dissemination of that content, and he provides an excellent discussion of how copyright has evolved its current focus on dissemination. See id. The focus here is somewhat more general and emphasizes the secondary liability issues. In a sense, the goal here is to answer a question left open by Wu. See id. at 362 ("[U]nlike other technological challengers throughout history, it is not at all clear that entities like Napster, Aimster, or KaZaA represent legitimate market entrants.").
liability on the creator of a New Service that is used by others to infringe an Old Product. I argue here that it is the distinction between the Old Product market and the New Service market that should determine whether secondary liability is appropriate.

Although the approach presented in this Article was developed before the U.S. Supreme Court’s recent decision in *Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd.*, it is not necessarily inconsistent with the Court’s decision. The test proposed here is consistent with the one set out in *Sony Corp. of America v. Universal City Studios, Inc.*, and that aspect of the *Sony* decision was not disturbed in *Grokster*. In fact, *Grokster* itself focused in part on considerations analogous to those discussed here, though it ultimately relied on an alternative rationale beyond the scope of this Article.

I. NEW SERVICES FOR OLD PRODUCTS

To illustrate the considerations on which this Article focuses, it is helpful to compare P2P services like Napster and Grokster with Google’s AdWords program. P2P services facilitate, to a greater or lesser extent, communication between users of the services. The distinguishing characteristic of these services is that the communication is initiated and directed not by the services themselves, but by the users. That is, the communication is essentially user-to-user, or peer-to-peer, and the service itself merely provides passive assistance.

It is the level of assistance that the services provide that has been the key issue in the legal challenges that have been brought against them, at least until the Supreme Court’s decision in *Grokster*. *Napster* provided a centralized database of the files that users could obtain from other users.

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14. For example, both Grokster and StreamCast offered free software that enabled their users to search other users’ databases for available files. The P2P networks enabled users who downloaded the software to communicate with other users and submit requests for downloads as well as to make files available for downloading by other users. *Grokster*, 125 S. Ct. at 2771; *see also* discussion *infra* note 15.
15. The Grokster program caused a user’s request to be sent to a “supernode” computer (which was not a Grokster computer) that had been given an indexing capacity by the software, or to “some other computer with comparable power and capacity to collect temporary indexes of the files available on the computers of users connected to it.” *Grokster*, 125 S. Ct. at 2771. StreamCast’s software utilized the Gnutella network and was similar in function to Grokster’s system “except that in some versions of the Gnutella protocol there [were] no supernodes.” *Id.* Neither company kept an index of the files available from its users, so both versions of software served the function of facilitating communication among users without hosting a central index.
16. In fact, that issue may still be important for cases without the sort of intent evidence in *Grokster*. *See infra* text accompanying notes 85-88.
With Grokster, on the other hand, users obtained lists of available files directly from other users.\textsuperscript{18} The U.S. Court of Appeals for the Ninth Circuit viewed this distinction as critical in Grokster, where it stated that “[t]he nature of the relationship between Grokster and StreamCast and their users is significantly different from the nature of the relationship between... prior versions of Napster and its users, since Grokster and StreamCast are more truly decentralized, peer-to-peer file-sharing networks,” in contrast to the “integrated service” provided by Napster.\textsuperscript{19}

This focus on the relationship between the New Service and its users is related to, but somewhat different from, the focus of this Article. The argument here is that the focus should be on the relationship between the New Service and the Old Products. That is, it is not as important whether the New Service aids its users in infringement as whether it does so by creating something new or by free riding directly on the infringement. Because the P2P services did not themselves profit directly from the infringement, as is discussed below, they should not be secondarily liable for it.\textsuperscript{20}

The AdWords program works differently. AdWords sells link or ad placements on the web pages where it displays the results of users’ searches for particular trademarks or other words associated with particular sellers.\textsuperscript{21} Sellers can purchase the right to have links to their web sites appear in the search results for particular keywords, and their links appear before the normal search results.\textsuperscript{22} After paying an initial activation fee, these “advertisers”—Google's term for those who purchase keywords through the AdWords service—pay additional fees every time users click on their links.\textsuperscript{23}

\textsuperscript{18} The U.S. Court of Appeals for the Ninth Circuit noted that “both StreamCast's decentralized, Gnutella-type network and Grokster's quasi-decentralized, supemode... network” do not maintain a central index or “control over index files” on individual computers. Grokster, 380 F.3d at 1163.

\textsuperscript{19} Id. at 1165.

\textsuperscript{20} See infra notes 54-57 and accompanying text.


\textsuperscript{23} Google charges a nominal one-time activation fee of five dollars. After the initial fee, advertisers determine the amount they are willing to pay per click and per day. The maximum cost-per-click (“CPC”) ranges from five cents to one hundred dollars. Google AdWords Help Center: How Much Does AdWords Cost?,...
Google thus charges directly for the use of the trademarks of others. It is therefore involved in any trademark infringement\(^24\) in a more direct way than the P2P services are involved in copyright infringement. Moreover, Google certainly plays a greater role in AdWords than Grokster does for those who use it to transfer files: Google delivers the product (the search results) to users, but Grokster does not. And Google probably should be viewed as playing a greater role in infringing activity than Napster as well, because, although Napster delivered file names to users, it did not deliver the recordings themselves, while Google does deliver search results. These points are elaborated below, following a discussion of current doctrine and its origins.

II. CURRENT DOCTRINE

The basic doctrinal rule in the P2P area asks whether the New Service has, or is capable of, substantial noninfringing uses. This rule was established in *Sony*,\(^25\) and it apparently survives after *Grokster*.\(^26\) *Sony* did not make clear, though, what constitutes a "substantial" noninfringing use.\(^27\) This uncertainty persisted in *Grokster*, where the two concurring

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\(^{24}\) As discussed in note 89 infra, there is some question as to whether the use of trademarks in AdWords qualifies as trademark infringement.


\(^{26}\) The U.S. Supreme Court held that the Ninth Circuit misapplied the *Sony* doctrine, "which it read as limiting secondary liability quite beyond the circumstances to which the case applied." *Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd.*, 125 S. Ct. 2764, 2778 (2005). Finding it unnecessary "to add a more quantified description of the point of balance between protection and commerce when liability rests solely on distribution with knowledge that unlawful use will occur," the Court left "further consideration of the *Sony* rule for a day when that may be required." *Id.* at 2778-79.

\(^{27}\) This was evident in the *Grokster* amicus briefs filed in the Supreme Court, which advocated a variety of interpretations. *See* Brief for Creative Commons as Amicus Curiae in Support of Respondents at 23-24, *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 125 S. Ct. 2764 (2005) (No. 04-480), 2005 WL 520502 (arguing that the *Sony* test is simply whether the product is capable of substantial noninfringing use, "regardless of the current proportion of legal versus illegal uses"); Brief of the National Venture Capital Association as Amicus Curiae in Support of Respondents at 7-9, *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 125 S. Ct. 2764 (2005) (No. 04-480), 2005 WL 497759 (emphasizing the importance of taking into account possible future uses); Brief for the United States as Amicus Curiae Supporting Petitioners at 17, *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 125 S. Ct. 2764 (2005) (No. 04-480), *available at* http://www.eff.org/IP/P2P/MGM_v_Grokster/050124_US_Amicus_Br_04-480.pdf. ("The proper focus of the *Sony* inquiry is on the commercial significance to the defendant's *business* of the noninfringing use in comparison to the infringing use.").
opinions differed on whether Grokster would have been liable under the “substantial noninfringing use” test.\textsuperscript{28}

The uncertainty of the “substantial noninfringing use” test can perhaps be traced to \textit{Sony}’s derivation of the test from patent law, where the focus is somewhat different. In patent law, the contributory infringement question traditionally turned on whether the accused product was within the scope of the patent.\textsuperscript{29} \textit{Sony} reaffirms the centrality of this question, observing that the problem with the court of appeals’ decision below is that it “would enlarge the scope of respondents’ statutory monopolies to encompass control over an article of commerce that is not the subject of copyright protection.”\textsuperscript{30}

Unfortunately, the question of whether a product is within the “scope” of a statutory monopoly is also notoriously vague. Congress clarified the test in 35 U.S.C. § 271(c):

\begin{quote}
Whoever offers to sell or sells within the United States or imports into the United States a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer.\textsuperscript{31}
\end{quote}

The scope issue appears here in the requirement that the infringing product be “a material part of the invention.”\textsuperscript{32} \textit{Sony}’s “substantial noninfringing use” test also appears in § 271(c), but the focus in patent law has not been so much on the “substantiality” of noninfringing uses, but on whether the allegedly infringing use was within the scope of the intellectual property owner’s monopoly.\textsuperscript{33}

\textsuperscript{28} Compare Grokster, 125 S. Ct. at 2786 (Ginsburg, J., concurring) (stating that the defendants’ software was “overwhelmingly used to infringe”), with \textit{id.} at 2788-91 (Breyer, J., concurring) (describing a variety of noninfringing files on Grokster’s network, referring to a “significant future market for noninfringing uses,” and stating that under the \textit{Sony} test “the law will not impose copyright liability upon the distributors of dual-use technologies . . . unless the product in question will be used \textit{almost exclusively} to infringe copyrights”).

\textsuperscript{29} See Mercoid Corp. v. Mid-Continent Inv. Co., 320 U.S. 661, 664-65 (1944). The test currently turns on the distinction between staple and non-staple products. \textit{See infra} text accompanying note 31. That test, however, can still be viewed as one turning on the scope of the invention, though it defines the scope more broadly than did cases like \textit{Mercoid}. \textit{Cf.} Dawson Chem. Co. v. Rohm & Haas Co., 448 U.S. 176, 214 (1980) (describing the non-staple, but unpatented product at issue as “the heart of respondent’s invention”).

\textsuperscript{30} \textit{Sony}, 464 U.S. at 421.

\textsuperscript{31} 35 U.S.C. § 271(c) (2000).

\textsuperscript{32} \textit{Id.}

\textsuperscript{33} In \textit{Dawson Chemical}, where the Court considered the relationship between § 271(c) and § 271(d), governing patent misuse, the Court described the issue as whether the patentee “is barred from seeking relief against contributory infringement of its patent rights, if it exploits the patent only in conjunction with the sale of an unpatented article that constitutes a material part of the invention and is not suited for commercial use outside the scope of the patent claims.” 448 U.S. at 179.
In fact, Professor Jane C. Ginsburg has argued that it is a similar approach—that is, a focus on the relationship between the product that allegedly contributes to infringement and the nature of the product infringed—that historically has driven the Supreme Court’s contributory infringement decisions in copyright law. The Court has focused, she says, on two categories of cases:

The first covers new technological modes of dissemination of works, when copyright owners seek not to obliterate the technology, but to be paid for the new means of exploitation, for example, radio broadcast of musical compositions. In these cases, the new means of exploitation often is also perceived as competing with the old. Here, copyright owners have generally prevailed. The second category comprehends new technological modes of dissemination of works, when copyright owners are perceived to be trying to prevent these new means from becoming available to the public. This is the class of cases in which copyright owners have consistently fared ill.\(^3\)

In the second category, Professor Ginsburg includes such technologies as piano rolls and cable retransmission of broadcast television.\(^4\) In discussing White-Smith Music Publishing Co. v. Apollo Co.,\(^5\) a case involving piano rolls, she argues that it was likely the copyright owners’ effort to control the piano roll technology, which was not within their copyright monopoly, that determined the result:

It is more likely that the White-Smith Court anticipated that copyright owner claims regarding unauthorized pianola rolls were an initial sally in the larger battle over music copyright owners’ exclusive reproduction rights—a battle whose outcome would determine control over the emerging new technology of phonograms. The Court may have suspected that the music publishers were endeavoring either to prevent the distribution of a new format that competed with sheet music, or, equally perniciously, to control the market for phonogram recording equipment and phonograph players.\(^6\)

Thus, both the Supreme Court’s patent-law-derived test in Sony, or at least its origin, and the Court’s historical pattern of decisions can be said to reflect the same fundamental question: whether the accused products are in what Sony called “substantially unrelated areas of commerce.”\(^7\) Or, to use more economic terms, the question is whether the accused product is in the same market as the intellectual property at issue, or is in a separate market.

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35. Id. at 1622-23.
36. 209 U.S. 1 (1908).
37. Ginsburg, supra note 34, at 1622.
III. COMPLEMENTARY PRODUCTS

Economists distinguish between substitute goods and complementary goods. Two goods are substitutes when an increase in the price for one good, and thus a decrease in the quantities of that good purchased, causes an increase in the purchases of the other. Two goods are complementary when an increase in the purchases of one leads to an increase in demand for the other. A typical example of complementary goods is bread and butter: If more consumers purchase bread, more will demand butter. The same is true of, to take a more relevant example, recorded music and music distribution: If more consumers have recorded music, more will demand a means to transfer it, and vice versa. These market relationships can be represented in the following diagram:

![Diagram showing relationships between recorded music, traditional distribution, and peer-to-peer service.]

The basic idea here is that new avenues for distribution of recorded music to consumers will increase the demand for recorded music. This seems quite plausible for P2P services. To the extent that consumers find P2P services more desirable than traditional music distribution, they will acquire

40. Paul M. Johnson, Complementary Goods, http://www.auburn.edu/~johnspm/gloss/complementary_goods (last visited Sept. 12, 2005). Though the relationship is usually defined by reference to the effect of the demand for the second good on changes in the price of the first good, price actually causes this effect by changing the quantity of the first good purchased. See id.
more recorded music. This is complicated, of course, by the fact that they might not obtain the recorded music from the record companies that own the copyrights to that music. That issue is discussed below, but it does not alter the fact that the availability of new means of distribution generally increases the demand for the product distributed. That is, even if users of Napster or Grokster had to pay for the music they received, they would likely demand more music than they would have in the absence of those services. This is evidenced by the success of Apple’s iTunes service, whose users pay for music that they obtain online and gain access to a service similar in some respects to Napster and Grokster.

In contrast, consider Google’s AdWords, represented in Figure 2:

![Diagram of Trademarks, Traditional Uses, Google, AdWords Used by Seller Other than Trademark Owner, Consumer Looking for Trademark Owner’s Products, and Consumer Looking for Product Without Regard to Seller.]

Figure 2.

41. The greater desirability is likely to result from the ability of P2P services to deliver music at lower cost to some consumers, though it is also possible that the New Service could be, for example, more costly but more convenient. Cf. Wu, supra note 9, at 293 & n.42, 294.

42. See infra text accompanying notes 49-52.

43. See infra text accompanying notes 50-52.

44. See Apple—iTunes—Music, http://www.apple.com/itunes/music/ (last visited Sept. 19, 2005). It is possible that Apple has not increased the demand for recorded music, but has just replaced in-store purchases; given the volume of iTunes purchases, however, that seems unlikely. See id. (noting that iTunes users have purchased more than 500 million songs).
Consumers are split into two groups in this diagram because some users of AdWords put trademarks to a different use than do traditional users of trademarks. Specifically, some users of AdWords presumably use that service to direct them to sites that are similar to, but not the same as, the one of the owner of the trademark that they enter as a search term. (At least one hopes that some users want the service to work in that way, since that is in fact what it does.)

The key difference, though, between P2P services and AdWords lies in the fact that some users who use trademarks on Google to search for the trademark owners may be led by AdWords to sites of other sellers, even if they would prefer to go to the trademark owners’ sites. These users are represented in Figure 2 by the dotted line. For these users, the addition of AdWords may in fact make the use of the trademarks less desirable. Consequently, users may use trademarks as a search technique less often, in which case AdWords would not be a complement to trademarks.45

This difference between P2P services and AdWords arises because AdWords, as a New Service, does not deliver the Old Product in the same way as it was delivered previously. For at least some customers—those who are searching for the trademark owner’s site—the Old Product is delivered in an unsatisfactory way. The effect is similar to that which would be produced if P2P services delivered adulterated recordings to users.46 Indeed, this has been a concern regarding the use of digital rights management technologies with recordings.47 The introduction of a New Service that delivers Old Products in a less desirable way may serve not only to make the New Service undesirable, but also to make the Old Products themselves less desirable.48

45. It is possible that AdWords would not reduce the traditional uses of trademarks, because even consumers who found the AdWords use of trademarks undesirable might continue to use trademarks to search for sellers when they were not using Google or other search engines. But it seems plausible that AdWords has the potential for reducing the use of trademarks to search in Google, so in that sense AdWords and trademarks may not function as complements.


48. The distinction operating here is not, however, that between complements and substitutes. It is instead one between complements and, if you will, anti-complements. That is, it is not that consumers purchase the New Service instead of the Old Product, but that they purchase the Old Product through the New Service, and that doing so makes the Old Product less attractive.
It is important to note that the point here is not just that some New Services may make it more difficult for the provider of an Old Product to capture the value of its product, as with P2P services, but that the New Service can actually lessen the value of the Old Product, as with AdWords. That is, as a result of the introduction of the New Service, there can be less value to capture, even if the original provider of the Old Product were able to capture it all. As described in the next section, this consideration can be used to derive an approach to determining whether it is appropriate to impose secondary liability.

IV. A TEST FOR CONTRIBUTORY LIABILITY

An analytical difficulty in the context of services like Napster and AdWords is that the producer of the New Service does not just introduce the new service but also provides the Old Product, or allows another to do so. Thus, the role of P2P services is not fully captured by Figure 1 above, but is better represented by Figure 3:49

![Figure 3.](image)

In contrast to Figure 1, this figure makes clear that even if P2P services do in fact increase the demand for recorded music, the record companies may

49. This figure echoes one in Wu, supra note 9, at 287.
not receive any benefit from the increased demand, because the increased demand may be met by infringing distribution by others.

As described in the previous section, this cost to the record companies may be counterbalanced to some extent by a benefit in the recorded music market: The P2P services actually increase the demand for the product produced by the record companies. Surely some users are more inclined to obtain recorded music, and even to purchase it, because P2P services allow them to share it with others. Because the P2P services have this complementary effect, it is not obviously appropriate (though it may ultimately be so) to hold them secondarily liable for infringement by those operating in the recorded-music market, at least as long as the markets remain distinct.

As described above, it was the distinctness of markets that was the focus of the patent-law doctrines from which the Supreme Court in Sony derived its test for secondary liability, though the “substantial noninfringing use” test redirected that focus. The noninfringing use test, however, does not focus on the relationship between the market in which infringement occurs, the Old Product market, and the New Service market, but instead focuses on whether there exists some other market—the noninfringing-use market—at the level of the Old Product market that is also related to the New Service. That is, the liability of the producer of the New Service is determined not by its relationship with the infringers, but by whether it also has a relationship with others. This seems a less appropriate emphasis for a secondary liability test than does the original emphasis on whether the two markets at issue are distinct.

This Article therefore seeks to refocus the inquiry on the question of whether the New Service and Old Product markets are distinct. One difficulty in addressing this question arises because users typically do not obtain the New Service and the Old Product in separate market transactions. For example, a user may obtain a P2P program from a provider in a particular “transaction,” but the user does not pay for the program, and the users of P2P services do not obtain sound recordings through any market transaction. In the case of AdWords, Google and the keyword purchaser engage in a market transaction, but the “users” of AdWords (the Google searchers) do not necessarily enter into market transactions with either of the other two parties.


51. See infra text accompanying notes 79-82 (discussing the possibility of specific statutory remedies).

52. As Timothy Wu describes, this is an argument that has been made by many New Service providers in the past. See Wu, supra note 9, at 301 (relating to phonographs).

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It seems clear though that one element that tends to show that the markets are distinct is independence of the pricing of the New Service from particular instances of the Old Product. The existence of a pricing dependency would indicate that the seller of the New Service is being compensated not only for what it provides in the New Service market, but also for providing something in the Old Product market. As a result, the New Service would be serving at least in part as a substitute for the Old Product, and would not be entitled to the same legal treatment as a pure complement. As described below, this approach was echoed, though in a slightly different context, in the Court's recent Grokster decision.

Turning again specifically to P2P services, and applying this test, neither the price for Napster nor that for Grokster varied with the particular recordings or files that the programs are used to transfer. Moreover, the desirability of P2P programs to their users is not likely to differ with the availability of particular files. That is, the value of Napster, say, to one of its users is likely the same even if that user's favorite song is not available through Napster. The value of the services might be less, it is true, if the user's favorite musical genre were not available, but even that seems unlikely. Users value the P2P programs for the facility with which they enable transfers of content in general, not for their ability to enable copying of particular content.

The situation is different for AdWords, which is represented in this amended version of Figure 2:

54. There might be other ways to demonstrate that the two markets are not distinct. In Grokster, for example, the Supreme Court relied upon several types of evidence in reversing the summary judgment for defendants. See Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd., 125 S. Ct. 2764, 2781-82 (2005). Even if that showed that the New Service profited from the Old Product, though, it did not show that it profited from any particular Old Product. But see infra note 88.

55. It is worth clarifying here the limits on this point. They can be illustrated by considering that a product A in one market can be complementary to a product B in another even if the price of A depends on the particular product B with which A is used. For example, one might pay more for butter for use with very good bread than for use with more mediocre bread. But it is at least in part the fact that butter is purchased separately from bread that makes it reasonable to believe that despite the potential for different prices for butter with different breads, the buyer is still paying for butter. If one purchased butter and bread together, and the price was higher when better bread was purchased with the butter, we would be inclined to believe that the higher price reflected a payment for the bread.

56. See infra note 88.

57. But see infra text accompanying notes 83-88 (discussing the profitability of advertisements for the P2P services).
This figure emphasizes the parallel with P2P services. With P2P services, users are able to transfer files without the permission of the copyright owners; with AdWords, sellers are able to use keywords without the permission of the trademark owners.\textsuperscript{58}

The key point for present purposes lies in the pricing of AdWords. The price that a user pays for AdWords depends on the particular trademark or other keyword that the user purchases.\textsuperscript{59} Thus, AdWords is not just charging for its innovation in creating the AdWords service, but also is charging for the keywords that sellers purchase. In that respect, it is not operating solely in the AdWords market, but also in the trademark market. Consequently, it is appropriate to hold AdWords secondarily liable for the effects of infringement in that market.

This point is related to the fact that, as described above, AdWords may cause a decrease in the demand for the trademark. If AdWords were compensated solely in a purely complementary AdWords market, it would suffer from lessened demand for trademarks, because that would also mean

\textsuperscript{58} As discussed in note 89 \textit{infra}, there is nevertheless dispute over whether this qualifies as trademark infringement.

\textsuperscript{59} Although the AdWords pricing structure is not entirely transparent, ad placement depends on the maximum cost-per-click specified by advertisers, Google AdWords Help Center: How Are Ads Ranked?, https://adwords.google.com/support/bin/answer.py?answer=6111 (last visited Sept. 12, 2005). Because advertisers will care more about placement in search results for popular keywords, they will presumably bid more for those keywords.
less demand for AdWords. That is, Google would not, if its interests were purely in the AdWords market, engage in conduct that would lessen the value of trademarks. But if the conduct that decreases the value of trademarks also benefits AdWords, as the AdWords payments do, that benefit may outweigh the harm to Google in the AdWords market.  

Thus, the rule proposed here—that secondary liability turn on whether compensation to the provider of the New Service is dependent on particular Old Products provided by the New Service—is appropriate from two perspectives. First, such dependence makes it unclear whether the provider of the New Service is operating solely in the market for that New Service; it may instead be operating as well in the market for the Old Product, and thus reasonably be held liable for infringement in that market. Second, such dependence is evidence that the New Service need not be profitable solely as a complement to the Old Product, since the provider’s profits in the Old Product market could induce the introduction of the New Service.

V. THE PROPOSED RULE AND CURRENT DOCTRINE

The rule proposed above in fact echoes both the Supreme Court’s analysis in *Sony* and Professor Ginsburg’s discussion of the Court’s other contributory infringement decisions.  

As described above, in *Sony* the Supreme Court drew on patent law in its contributory infringement analysis.  

Although the Court ultimately stated its test in terms of whether there was a “substantial noninfringing use,” it also said, echoing patent law again, that “contributory infringement is confined to the knowing sale of a component especially made for use in connection with a particular patent.”

Pricing of a New Service that is dependent on particular Old Products would presumably meet the Court’s requirement, because the pricing would indicate that the service was especially adapted to those products. In contrast, a New Service that is priced independently of the Old Products might have an effect on the Old Product market generally, but that appears to be viewed by the Court as insufficient. The Court specifically addressed the fact that although VCRs did not facilitate the copying of particular movies, they did facilitate the copying of movies generally. The Court did not view that effect as justifying contributory infringement liability.  

In fact, it was quite adamant in rejecting such liability: It described as

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61. See *supra* text accompanying notes 25-38.


63. *Sony*, 464 U.S. at 440 (emphasis added).

64. *Id.* at 441 n.21.
“extraordinary” the view that “all copyright owners collectively” could control VCRs. 65

Suppose, in an analogy to the Napster and Grokster cases, 66 that a maker of chemical compounds produced a compound that was useful in the manufacture of nine patented drugs and one unpatented drug, but that the compound was not particularly suited for any specific drug. Although I am not aware of any such case, 67 liability in these circumstances seems unlikely, absent any other evidence. These facts do not seem to meet the requirement of § 271(c) that the allegedly infringing product be especially made for use in infringing any particular patent. If, on the other hand, the manufacturer of the compound sold it at a higher price to those who used it to manufacture drugs that infringed patents than to others, liability would be more likely. 68

Adopting an approach focused on the relationship between the New Service and particular Old Products would thus strengthen the parallel between copyright and patent doctrine. It might also help eliminate some confusing differences between the two areas of law. Under patent law, secondary liability includes liability both for inducing infringement under 35 U.S.C. § 271(b) and for contributory infringement under § 271(c), the section on which Sony based its test. In Grokster, though, the Supreme Court relied on an inducement theory, emphasizing evidence of actual intent, but described it as an aspect of contributory infringement. 69 At least part of the reason for the different labels in the two areas may be

65. Id. at 441.
66. In Grokster, the Court referred to evidence of a study commissioned by the plaintiffs that showed that “nearly 90%” of the files available were copyrighted. Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd., 125 S. Ct. 2764, 2772 (2005).
67. In patent cases, courts do not seem to focus on percentages of infringing and noninfringing use, despite the “substantial” requirement in § 271(c). 35 U.S.C. § 271(c) (2000). Instead, they focus, as is suggested in this Article, on whether the product is especially adapted to infringing use: [T]he proper test to determine if a device that can practice non-infringing methods, but allows practice of a patented method, is a staple, is that the practice of the patented method must be incidental and necessary due to technological limitations. If the practice of the patented method is incidental and necessary to the practice of the unpatented methods, the device is a staple and there can be no contributory infringement. If, on the other hand, the practice of the patented method is not necessary or incidental to the practice of the unpatented methods, a jury could find that the device as a whole is not staple and the seller could be liable for contributory infringement.
68. Although I am unaware of any case presenting these facts, Fromberg, Inc. v. Thornhill, 315 F.2d 407 (5th Cir. 1963), is somewhat similar. In Fromberg, the alleged contributory infringer sold a part that could be used with either a patented invention or a noninfringing product. Id. at 414. The cost of the defendant’s part was two to three times the cost of alternatives available for the noninfringing use, and the court found this significant in suggesting (though remanding for a determination by the trial court) that the part was a nonstaple good. Id. at 414 & n.19.
69. Grokster, 125 S. Ct. at 2776.
uncertainty regarding the role of contributory infringement in copyright, an uncertainty that could be lessened by tying it to the better-defined contributory infringement theory of patent law.70

Of course, it is not necessarily the case that a stronger parallel between copyright doctrine and patent doctrine is desirable. In one of the amicus briefs filed in the Grokster litigation, Professors Peter Menell, David Nimmer, Robert Merges, and Justin Hughes argue that it was inappropriate for Sony to derive its test from patent law.71 Patent law’s staple-article-of-commerce doctrine is intended to prevent leveraging from one technology to another, but they argue that this principle is inapplicable to copyright, where the initial innovation is authorship, not technology.72 They contend that a new technology can “threaten the very economic foundation of entire content industries (and even multiple industries).”73 But the reverse is true as well: Allowing content industries control over new technologies can threaten the very economic foundation of the development of those technologies.74

As described above, the Supreme Court has attempted to strike a balance between these two concerns, and the approach proposed here is consistent with the Court’s earlier contributory infringement cases in the copyright area. In the cases in which the Court has upheld such liability, the defendants, such as radio stations and hotels, can be viewed as profiting directly from the value of the specific content that they used. But in cases in which the Court has rejected liability, there was no such direct connection. In fact, in Teleprompter Corp. v. Columbia Broadcasting Systems, Inc., and Fortnightly Corp. v. United Artists Television, where the defendants were cable rebroadcasters of broadcast television, the Court relied specifically on this point.75 The rebroadcasters carried all of the content of the original broadcasters, without selecting particular programs, and the Court emphasized this point: “Broadcasters select the programs to be viewed; CATV systems simply carry, without editing, whatever programs they receive.”76 Furthermore, the Court pointed out that the rebroadcasters did not sell advertising in association with the copyrighted programs they retransmitted.77

70. Cf. id. at 2776 n.9 (acknowledging that “the lines between direct infringement, contributory infringement and vicarious liability are not clearly drawn” (internal quotations omitted)).


72. See id. at 11-12.

73. Id. at 12.

74. See generally Ginsburg, supra note 34; Wu, supra note 9.


76. Teleprompter, 415 U.S. at 403 (quoting Fortnightly, 392 U.S. at 400).

77. Id. at 405 & n.10. This is now a statutory requirement. 17 U.S.C. § 111(c)(3) (2000).
VI. STATUTORY REMEDIES

The discussion above of current doctrine, and of the proposed interpretation of it, is not intended to suggest that changes would not be appropriate. Indeed, Congress has responded with legislation in similar circumstances, when other new technologies have arisen with implications for copyright protection. In their Grokster brief, Professor Menell et al. argue that these past congressional responses to "dual-use" technologies indicate that Congress is not of the view that such technologies should necessarily be free from copyright liability. But not every dual-use technology is the same, and past congressional responses would indicate a need for change only if current doctrine produced a result different from the approach that Congress has preferred.

In fact, the statutes adopted by Congress have been consistent with the approach advocated here. That is, they have generally reflected a focus on whether the producers of the technology at issue would profit from specific content. In some instances, such as rentals of sound recordings and software, the statutes address circumstances in which sellers would profit from specific content, and they ban such rentals.

More telling is Congress's response to digital audio recording devices in the Audio Home Recording Act of 1992 ("AHRA"). The AHRA was a response to the introduction of digital audio recorders that make perfect copies of music recordings. That technology is thus similar to that underlying Napster and Grokster, in that it would allow users easily to make copies of copyrighted works. It is also similar to Napster and Grokster in that the seller of a digital audio recording device would not charge different prices based on the content that a user might record. Consequently, under the test proposed here, the sellers of the recording devices would not be secondarily liable for users' infringing activities.

Nevertheless, Congress might reasonably have been concerned about the widespread infringement that could result from the introduction of the products, and it responded through the AHRA. Interestingly, the AHRA can be viewed as reflecting exactly the focus advocated here. It imposes non-content-specific fees on the sellers of digital audio recorders, and it distributes the revenue by value of content. In that respect, it reflects the problem of collective copyright enforcement recognized by Sony, and it effectively performs the collective-to-particular translation required to respond to that problem. Secondary infringement liability in the courts

78. See supra Part II.
81. Id. §§ 1001-1010.
cannot easily respond in that way, and is thus a less satisfactory means of dealing with these issues.

VII. APPLICATION OF PROPOSED APPROACH

The approach proposed here suggests that Google should be liable for contributory infringement for its AdWords program but that P2P services should not generally be liable. It is worth considering, in addition, whether there should be liability for other entities involved with AdWords and P2P services. For example, a focus of the *Grokster* decision was advertisements on the Grokster website. Should sellers that advertise there be liable? The Court did not suggest that the advertisers paid different rates based on specific content, and it is not clear, given the structure of Grokster, that they could have done so. Consequently, under the test proposed here, neither Grokster nor the advertisers would be liable.

In this respect, Napster could have been different. One could imagine that advertisers on the Napster site, where users went to locate specific content, could have paid different rates based on the content requested. In that case, Napster itself would have been liable under the test proposed here. Should the advertisers themselves also have been liable, for paying for advertising related to specific content? The emphasis of the test, after all, is on whether the party receives payment based on specific content, not on whether it makes such payments. But the advertisers presumably also would have profited from the advertising, and profited more from advertising based on some content than on other. Consequently, they too should have been liable under those circumstances.

It is not entirely clear whether these results would be consistent with the *Grokster* decision. The Court in *Grokster*, using an approach different from the one described here, concluded that there was substantial evidence that the P2P services intended to induce infringement, and the Court relied on the advertising on the defendants' sites in reaching that conclusion. But because the Court relied on what it viewed as evidence of actual intent rather than imputed intent, the decision was not inconsistent with the approach described here, which is directed at a contributory infringement theory. In any event, the Court noted that the advertising evidence on which it relied "alone would not justify an inference of unlawful intent." 83

84. *See id.* at 2781.
85. *See id.* at 2778-80.
86. Actually, the Court in *Grokster* described its actual intent theory as an aspect of contributory infringement, in contrast to vicarious liability, which the Court suggested requires neither actual nor imputed intent, but is based on profit. *See id.* at 2776. In this Article, the term contributory infringement is used more narrowly, as it is in patent law and it was in *Sony*, to refer to liability based on distribution of a product that facilitates infringement by others. *Cf. id.* at 2776-79 (discussing *Sony*).
87. *Id.* at 2782.
reflecting its focus on the more direct evidence of actual intent, where different principles may be appropriate. 88

The principles applied above to P2P services apply also to the AdWords advertisers who pay for placement in the results of searches of trademarks. But although this Article has treated Google as the secondary infringer, it actually is not entirely clear whether the advertisers or Google should be viewed as the direct infringer of the trademarks (or indeed if either should 89). The assumption here has been that the advertisers should be viewed as infringing the trademarks by "advertising" with those marks; in that case, Google would be the secondary infringer. But perhaps Google is the direct infringer, since it is the entity that (mis)directs users seeking the trademark; in that case, the secondary liability question would be asked of the advertisers, not of Google. In fact, plaintiffs in the Google cases allege both theories, and the courts do not always clearly distinguish between them.

To some extent, the advertisers who purchase the keywords seem to be analogous to the Napster advertisers discussed above. The AdWords advertisers, too, presumably expect to profit from their purchases, and therefore liability may seem appropriate. A critical difference, though, is that the Napster advertisers' profits would be based simply on the numbers of users delivered to them. The AdWords purchasers would presumably profit only if users found their products more attractive than those of the seller whose trademark they purchased through AdWords. That is, the AdWords purchasers are presumably competing directly with the trademark owners, whereas the Napster advertisers operate in different markets. As such, it is more appropriate to assess the AdWords advertisers as possible direct infringers, rather than as possible secondary infringers. 90

88. It nevertheless seems questionable, for the reasons discussed here, to rely on the sort of advertising discussed by the Court even to support inducement liability. Although it is true, as the Court said, that the advertising showed that Grokster profited in some sense from the infringement, as, presumably, did the advertisers, in both cases the profit was only from infringement in general, not from any specific infringements. See id. at 2781. That seemed not to be a concern of the Court, though, since the same was true of the other evidence of actual intent relied upon by the Court. See id. Interestingly, though, some of the intent evidence described by the Court appears to have been focused on particular copyrighted works: "Morpheus [i.e., Streamcast, Grokster's codefendant] in fact allowed users to search specifically for "Top 40" songs, which were inevitably copyrighted. Similarly, Grokster sent users a newsletter promoting its ability to provide particular, popular copyrighted materials." Id. at 2774 (citation omitted); see also id. at 2781 ("And both companies communicated a clear message by responding affirmatively to requests for help in locating and playing copyrighted materials.").

89. Whether the use of trademarks in AdWords and similar programs is a "use" for purposes of the Lanham Act is an issue disputed in these cases. See 1-800 Contacts, Inc. v. WhenU.com, Inc., 414 F.3d 401, 409-13 (2d Cir. 2005); Google, Inc. v. Am. Blind & Wallpaper Factory, Inc., No. C 03-05340, 2005 U.S. Dist. LEXIS 6228, at *17-31 (N.D. Cal. Mar. 30, 2005); Gov't Employees Ins. Co. v. Google, Inc., 330 F. Supp. 2d 700, 702-04 (E.D. Va. 2004). Regardless, other theories, such as unfair competition, might also be applicable.

90. See, e.g., Gov't Employees, 330 F. Supp. 2d at 700.
COMPLEMENTARY INTERNET MARKETS

The same is true, to take another example, of web sellers that are accused of trademark infringement for including trademarks as metatags in their web pages. The metatags are read by search engines, which then include those web pages in their search results for the marks used as metatags. The web sites that include the trademarks obviously benefit more from certain specific trademarks than others—as do those who purchase trademarks as AdWords keywords—but they benefit only to the extent that they can persuade visitors to purchase their product rather than the trademark owner’s—again, as with AdWords. Hence the metatag cases have analyzed the metatag users as possible direct infringers. One might ask, then, whether the search engines could be viewed as secondary infringers in these cases. Under the test proposed here, they would not be, because they do not derive any more profit from delivering searchers to the sites with the metatags than to any other sites. In that respect, the metatag cases are very different from AdWords, where Google’s involvement is much greater.

Finally, consider another Google search example: Google Print. With this new program, Google is putting books into a digital format and providing the ability to search the books’ contents. Because this involves copying the books, publishers have expressed concern about what they view as a program of copyright infringement. This aspect of the program would involve only Google as a possible infringer, so if it were infringing, it would be doing so directly. The program is also intended to display portions of the books, though, and one can see a number of pages from some books. If the amount that Google allowed a user to see were sufficient to prompt a copyright challenge, it is possible that both could be viewed as direct infringers.

A more interesting scenario is to consider that Google’s copying of the books and provision of the search facility might be viewed as fair use. Consider then the analysis if users downloaded many pages from the books that they searched. In this case, Google would be much like Napster: It would provide users with the capacity to search for copyrighted files, and it would perhaps fail to use the ability to prevent users from violating the

91. See, e.g., Horphag Research Ltd. v. Pellegrini, 337 F.3d 1036 (9th Cir. 2003); Brookfield Commc’ns, Inc. v. W. Coast Entm’t Corp., 174 F.3d 1036 (9th Cir. 1999); Playboy Enters., Inc. v. Calvin Designer Label, 985 F. Supp. 1218 (N.D. Cal. 1997).
94. Google Print will show only a “limited amount” of copyrighted books, and “a set of pages in every in-copyright book will be unavailable to all users.” Google Print Help, http://print.google.com/googleprint/help.html (last visited Sept. 12, 2005). But significant portions of some books are available.
95. Google argues that its Print program serves to increase, rather than decrease, demand for the books. For codification of the fair use doctrine, see 17 U.S.C. § 107 (2000).
copyrights on those files. But it would also be like Napster in that it would not profit more from particular copyright violations, so it too should be viewed as in a separate market for purposes of contributory infringement and thus not liable.

These points can be summarized in the following table:

<table>
<thead>
<tr>
<th>Profit Derived in Related Market</th>
<th>Profit Also Requires Direct Competition with Content Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit Derived from Specific Content</td>
<td>Contributory liability appropriate (Google with AdWords)</td>
</tr>
<tr>
<td>Profit Derived from Content in General</td>
<td>Contributory liability not appropriate, at least without inducement (Grokster, maybe Napster, Google Print with respect to user copying)</td>
</tr>
</tbody>
</table>

As this table illustrates, contributory infringement liability is appropriate only in certain circumstances. Specifically, it is appropriate where the activity of the alleged contributory infringer is, on the one hand, sufficiently closely related to that of the direct infringement but, on the other, not so closely related as to constitute competition with the intellectual property owner. A sufficiently close relationship is not established by sale of a product in a complementary market that has no connection to specific products in the market where the direct infringement occurs. In that respect, P2P services escape liability (in the absence of statute), but Google’s AdWords may not. On the other hand, where there is a connection to specific infringed products, but the nature of that connection requires competition with those products, it is direct infringement that is at

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96. It may be that Google’s current precautions, see supra note 94, would be sufficient to prevent copyright violations, but given the amount that it currently (as of August 20, 2005) allows one to view, that seems questionable.

97. One might take the view that because copyright violations are more likely when users look at multiple pages of copyrighted works, then if Google sold ads for each page viewed, it would profit more from infringements. This would be similar to the argument made by the Supreme Court in Grokster regarding advertising. See supra text accompanying notes 83-88. The argument has the same weaknesses here regarding contributory infringement.
issue. It is only between these two poles—where a seller profits from the infringement of specific intellectual property without competing with that property—that contributory infringement liability is appropriate.

CONCLUSION

The law regarding contributory liability in the copyright arena is uncertain. Sony's "substantial noninfringing use" test, which the Supreme Court adopted for so-called "dual-use" products that do not themselves infringe but enable both infringing and noninfringing conduct by others, is subject to a variety of interpretations. This Article proposes an interpretation of the test that returns to its patent-law roots by focusing on the relationship between the market for the dual-use product and the adjacent market for the intellectual property at issue. Specifically, the test proposed here asks whether the seller of the dual-use product profits from infringement of particular intellectual property in the adjacent market. Only if it does so is liability for contributory infringement appropriate.

This Article discusses this test in the context of two paradigmatic types of cases: those involving P2P services like Napster and Grokster, and those involving Google's AdWords, a program that allows advertisers to purchase placement in the results of searches for others' trademarks. This Article concludes that P2P services should generally not be liable for contributory infringement (which of course would not preclude a statutory imposition of liability), but that Google should. More importantly than these specific conclusions, though, is that this test takes at least a step toward reconciling contributory infringement law in the patent, copyright, and trademark contexts.