Cottage Piracy, 3D Printing, and Secondary Trademark Liability: Counterfeit Luxury Trademarks and DIY

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Introduction

At the conceptual dawn of trademarks, when a merchant class emerged in society the goods themselves would literally be marked by the merchant. This served as an advertisement of the maker’s name, identification of who owned what merchandise, and, perhaps most importantly for the development of the trademark in the consumer market. It allowed the shopper to distinguish the high quality goods of Maker A from the similar-looking but inferior goods of Merchant B. Fast-forwarding that functionality to modern American trademark law, as embodied in the Lanham Act, a trademark continues to be a designation used to identify the source of a good and to distinguish it from other sources of similar goods.

The purpose of trademarks is two-fold: to prevent consumer confusion when searching for goods in the marketplace, and to protect and encourage property ownership and quality control by the maker of the goods to which the trademark is attached. Without trademarks connecting a good to a source, “[t]here could be no pride of work-
manship, no credit for good quality, [and] no responsibility for bad.”6 As Professor McCarthy explains in his well-known treaties, a trademark on goods answers the questions “Who made you?” and “Where have you come from?”7 A counterfeit trademark answers those questions falsely, to the detriment of the misled consumer and the genuine mark-owner. As defined by the Lanham Act, a counterfeit mark is a “spurious mark which is identical with, or substantially indistinguishable from, a registered mark.”8 If counterfeiting is not actively discouraged by the law, the incentive to develop and maintain distinct trademarks connected to quality goods decreases. The trademark counterfeiter “free rides” on the reputation and workmanship of the genuine mark-owner, entering the mark-owner’s market in order to pass-off to consumers goods that are usually inferior to those offered by the real mark-owner, and which are at least not “the real thing,” as far as the trademark is concerned, regardless of quality.9

Counterfeiting a famous trademark is especially attractive to free riders. When or if a registered trademark is famous is a factual question, determined by balancing several factors,10 including distinctiveness of the mark, the duration and extent of advertising using the mark, and geographical extent of trading area in which the mark is used. As the CEO of Gucci said in 2008, “That red and green stripe is some of the most iconic luxury branding ever created, and people want a piece of it.”11 These famous luxury goods marks are, however, iconic in part for their simplicity, and unfortunately a simple design is easier to counterfeit convincingly than a more complex or intricate one.

Counterfeit goods are typically made from cheaper materials than the authentic products and are often produced by child laborers in third-world countries.12 The most common source country, according to a 2012 report by the Department of Homeland Security

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7. 1 McCarthy, supra note 1, § 3:6.
9. 1 McCarthy, supra note 1, § 2:4.
("DHS"), is China, and the report lists handbags and wallets as the top commodity category for seizures. The total Manufacturer’s Suggested Retail Price ("MSRP") for these seized items accounted for 40% of the total value of counterfeit goods DHS seized in 2012. Additionally, CBP [Customs and Border Patrol] seized a commercial shipment of counterfeit watches and commingled watches used to facilitate their importation with a MSRP of $28.7 million and a shipment of 25,822 counterfeit purses worth more than $8.4 million. Apparel, however, accounted for the most number of 2012 seizures, at 29%. Luxury goods are estimated to be only a small percentage of the overall counterfeit market, but as the 2012 DHS report demonstrates, counterfeit luxury goods generate a sizable amount of revenue.

Apart from prosecuting sellers of counterfeit goods in physical locations in the US, the international and America’s focus on stopping counterfeiting activities is turned toward stopping importation of counterfeit goods. Under the US Tariff Act of 1930, “it shall be unlawful to import into the United States any [counterfeit merchandise].” This is logical, as demonstrated by the volume and array of counterfeit materials seized by US Customs and Border Patrol. As international sellers of counterfeit goods have become more sophisticated, and promoting and selling counterfeits becomes more simplified, they have moved their stores off of the streets and onto the Internet, the enforcement of intellectual property rights has had to follow suit. The ill-fated 2012 Stop Online Piracy Act and Protection of Intellectual Property Act bills, while primarily focused on preventing online copyright infringement by international actors, also con-
tained components designed to address online trademark infringement by international actors. The bills’ enforcement components focused on holding intermediaries responsible for infringement. This creation of responsibility is ultimately what led entities like Google to join in protests that spiked the bills.

However, this focus on combating counterfeits abroad fails to realize that the means and avenues of counterfeit production and sale are not intrinsically foreign. Foreign counterfeiters are still able to ship “blank” wares into the US to be finished state-side. The trademarks that make a $50 leather purse look like a $1,000 leather purse—hardware, embroidery and hangtags—are then attached state-side. Additionally foreign manufacturers of look-alike blanks are becoming increasingly skilled at producing the goods and have started using more authentic-feeling materials. The fight against counterfeit luxury goods must be Janus-faced, aware that the means of affixing luxury trademarks in order to sell to counterfeit goods is a crime that can happen in the US as well.

This Comment focuses on the problems inherent in the ability to sell counterfeit goods through online intermediary marketplaces, such as Etsy, which are designed to host unique, vintage, and hand-

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26. Nat’l Intellectual Prop. Rights Coordination Ctr., Intellectual Property Rights Violations: A Report on Threats to United States Interests at Home and Abroad 7 (2011), available at http://www.iprcenter.gov/reports/irp-center-reports/IPR%20Center%20Report%20and%20Survey.pdf; Dana Thomas, The Fight Against Fakes, Harper’s Bazaar (Jan. 9, 2009), http://www.harpersbazaar.com/culture/features/the-fight-against-fakes-0109 (“Investigators see an increase in ‘finishing’ in the U.S.—the practice of legally shipping in generic items, then having workers, many of them illegal immigrants, stamp, embroider, or attach the logo or other identifying details. ‘Anything that can be brought in blank is being brought in blank,’ says Heather McDonald, a partner in the intellectual-property group at the law firm of Baker Hostetler in New York. ‘They can attach a Prada tag or interlocking GG on demand. And they are very indiscriminate. It doesn’t matter if the design is from the brand or not. They put the logo on whatever they think will sell.’”).

27. See Thomas, supra note 26.

made goods, and the recently popularized ability to produce exact replicas of hardware bearing luxury trademarks through 3D printing.

Although not as considerable a threat to mark owners’ intellectual property rights as foreign counterfeiting, US-based sellers producing goods that bear luxury trademarks, sold as replicas, vintage, or new products, is an insidious trend made all the more threatening because of the wide spread, small-scale, domestic, and culturally legitimated nature of the infringement.29 Trademark owners must be aware of, and utilize, defenses available under state and federal statutes and case law to protect their marks from these so-called cottage pirates.30

“Cottage pirates” is a phrase coined for this Comment, and it is meant to indicate trademark counterfeiting perpetrated by domestic producers of otherwise handmade or quasi-handmade goods31 for sale to a domestic market basically out of sellers’ homes.32 The phrase in part comes out of Professor McCarthy’s comment that if consumers existed in a cottage industry market without trademarks, where quality would vary between each maker, then the consumer would have to examine every good purchased as a matter of course and not have the short-cut communication of source and attendant quality which a trademark provides.33 Trademarks exist to provide a shorthand for consumers in the modern marketplace of produced goods, where the means of mass-production make it almost impossible for the average consumer to know exactly where and by whom a good has been produced.34 Ironically, the draw to unique goods markets and ostensibly handmade goods may in part be fueled by a desire to return to an idealized pre-mass production market, where it was still possible to have a consumer’s-choice relationship with each batch of soup produced by each salesman-cook.

29. See infra Part II.A.
30. See infra Part III.
31. “Quasi-handmade” refers to goods that are assembled by hand, but the component parts that make up the goods may not have been made by the person assembling them.
32. These goods are popularly called “artisanal” in the re-emerging market of handmade and small-batch goods.
33. 1 McCarthy, supra note 1, § 2:5.
34. The NPR program Planet Money provides an anecdotal example of how consumers have become disconnected from the process by which goods are produced and sent into the market, with a recent journalism project tracing production of a discrete order of t-shirts from raw material to finished consumer good, showing a production process that spanned three continents. See How We Did this, NPR (Dec. 2, 2013), http://apps.npr.org/tshirt/#/about.
However, although the cottage pirates’ markets self-identify as places of handmade, artisanal, unique, or one-of-a-kind goods, the presence of luxury marks in these online markets indicates that they hold the same appeal in the unique goods market as they do in the designer shopping districts. This is for good reason: famous marks are widely known, carry their own goodwill and desirable attributions, and can be marketed to an existing segment of consumers who are familiar with and have a positive impression of the mark.

The popular emergence of 3D printing will only make counterfeiting marks easier. A 2013 federal report mentions 3D printing as an opportunity for innovation and prototyping but also an opportunity for abuse via counterfeiting and piracy. A person can now scan a legitimate mark—Chanel’s medallion of interlocking C’s for example—and reprint an exact replica, in almost any material that can be melted, extruded, and reset. The pirated mark can be reproduced more quickly and far more accurately than other forms of copying. Owners of famous luxury marks must become vigilant against cottage piracy, because unlike overseas mass counterfeiting, it has an air of legitimacy, cannot be regulated by the usual borders-and-ports customs controls, is more responsive to the cottage pirate’s domestic market, and is connected globally via the borderless internet.

When transferred to the virtual world of online markets, the ability to rely on the trademark becomes even more vital to protect the consumer’s interests, but is unfortunately even easier to frustrate.


36. 3 M CCARTHY, supra note 1, § 24:104.


39. See GRYNOL, supra note 38, at 1.

40. Michelle C. Leu, Authenticate this: Revamping Secondary Trademark Liability Standards to Address a Worldwide Web of Counterfeits, 26 BERKELEY TECH. L.J. 591, 593 (2011). eBay also offers seller-written articles on how to identify counterfeits. For an example of a company educating consumers on how to identify fake Tommy Bahama clothing, see buytommy, Fake TOMMY BAHAMA, EBAY (May 8, 2006), http://www.ebay.com/gds/Fake-TOMMY-
Whereas in the physical world, a buyer could examine a good for other indicia of quality in addition to the mark, online buyers are at the mercy of the seller’s integrity to label and display accurately the item. Additionally, in the physical world, a buyer can also judge the likelihood of authenticity and quality of goods by the context of the sale. The brick and mortar retail outlet, or the so-called knockoff alley of many major metropolitan centers, are locations and atmospheres the buyer is unavoidably aware of when making the purchase. The online market, however, carries no such readily apparent indicia of legitimacy or illegitimacy, especially if the seller is falsely trading on a valid trademark or brand name, or if the transaction is being carried out within the confines of otherwise-legitimate online marketplaces. As previously discussed, trademarks exist to answer the question
“Where did this good come from?” Ironically, it is because of the placelessness of the Internet that trademarks are both most needed to guide the consumer and more easily used to mislead. Because an online shopper cannot examine the good in person, the trademark becomes the strongest indicia for the buyer that they are ordering a genuine good. However, trademarks are easy to fake or lie about online, precisely because the online buyer can’t examine the goods in person.

Part 1 of this Comment gives an overview of US trademark law, focused on counterfeiting and secondary infringement liability. Part 2 discusses the history of DIY in America, including the current “Maker” movement. This Comment uses Etsy.com, an online unique goods market, and Shapeways, an online market as well as data storage site and producer of unique goods, as the prototypical examples of unique online goods intermediaries. Part 2 also presents an introduction to 3D printing. Given the advent and spread of low cost replication technology, Part 3 introduces legal and cultural options the parties involved—mark owners, intermediary hosts, and infringing makers—have available to address the issue of trademark piracy in the online unique goods market.

I. Current Trademark Law and Secondary Liability

A. Trademark Law

Trademark law in the United States is governed by the Lanham Act, embodied in 15 U.S.C. 1041 et seq A trademark is “any word, name, symbol, or device, or combination thereof [used in commerce] . . . to identify or distinguish [a producer’s] goods, including a unique product, from those manufactured or sold by others and to indicate the source of goods, even if that source is unknown.”44 “Brand name” is another word for “trademark,”45 and may be used interchangeably in this paper. If a color46 or packaging shape has acquired a secondary meaning that links it as an identifier of a particular source, those non-mark features can also count as trademarks,47 for example Gucci’s green and red stripes.

47. The Coca-Cola bottle is a well-known trade dress that links the object to a particular source. Because of its secondary meaning as a source identifier, the shape of the bottle is just as protected as the word mark “Coca-Cola.”
To prevail on a claim of direct trademark infringement, a plaintiff-owner must establish that: 1) it has a valid mark entitled to protection, 2) that the defendant used the same or a similar mark in commerce in connection with the sale or advertising of goods or services without the plaintiff’s consent, and 3) “that defendant’s use of the mark ‘is likely to cause confusion as to the affiliation, connection or association of [the] defendant with the plaintiff, or as to the origin, sponsorship, or approval of defendant’s goods, services or commercial activities by the plaintiff.’” Thus, (1) use, (2) in commerce, and (3) likelihood of confusion are three distinct elements necessary to establish a direct trademark infringement claim.

The remedies for infringement under the Lanham Act are statutory and most often consist of injunctive relief, although actual damages, lost profits, and costs are also recoverable, as well as punitive treble damages—the amount of actual damages times three—if the infringement was found to be willful or fraudulent. The Lanham Act also gives trademark owners the right to seize and destroy counterfeit marks and goods bearing counterfeit marks.

The Lanham Act defines what constitutes direct trademark infringement, and the remedies available to the mark owner, but does not define or give relief for secondary trademark infringement liability. The law that exists on secondary trademark infringement liability is a court-created doctrine based on common law tort doctrine: “One is subject to liability if he . . . permits [a third person] to act with his instrumentalities, knowing or having reason to know that the other is acting or will act tortuously . . . .”

**B. Secondary Liability Case Law**

Secondary trademark liability case law is rooted in the United States Supreme Court decision in *Inwood Laboratories, Inc. v. Ives Laboratories, Inc.* Trademark secondary liability doctrine is similar to copyright secondary liability doctrine, and the case law has sometimes intertwined the two, borrowing standards from copyright to apply to trademark when the legal waters became murky. This, despite secon-
dary copyright infringement liability being much easier to prove than trademark secondary liability.\textsuperscript{56} Secondary trademark infringement liability doctrine was altered by the Second Circuit’s 2010 \textit{Tiffany (NJ) Inc. v. eBay Inc.}\textsuperscript{57} decision.

In trademark, secondary or intermediary infringement liability comes in two flavors: vicarious infringement and contributory infringement, as established by the Supreme Court in \textit{Inwood}.\textsuperscript{58} Vicarious infringement arises when there is an agency relationship between the direct infringer and the intermediary, or when the parties jointly control the means of infringement.\textsuperscript{59} Vicarious liability places a defendant under liability for another’s directly infringing actions if the defendant had the right and ability to control the direct infringer’s actions, and if the defendant receives a direct financial benefit from the infringement.\textsuperscript{60} Knowledge, however, is not required.\textsuperscript{61} This makes vicarious liability easier to prove than contributory liability, as the plaintiff does not have to show knowledge.

The legal concept of contributory trademark infringement liability was established in \textit{Inwood}.\textsuperscript{62} The defendant must have either 1) intentionally induced the direct infringer to infringe, or 2) continued to supply product to an infringer with knowledge of the infringing activity.\textsuperscript{63} When the intermediary party supplies a service rather than a good, the court must “consider the extent of control exercised by the defendant over the third party’s means of infringement . . . [and] direct control and monitoring of the instrumentality used by the third party to infringe the plaintiff’s mark.”\textsuperscript{64} Factually, these two kinds of intermediary infringement can merge, and courts unfortunately use the words “contributory” and “vicarious” interchangeably, although intending separate standards of liability.

\textsuperscript{56} Mark Bartholomew & John Tehranian, \textit{The Secret Life of Legal Doctrine: The Divergent Evolution of Secondary Liability in Trademark and Copyright Law}, 21 BERKELEY TECH. L.J. 1363, 1360–70 (2006) (“Copyright plaintiffs have succeeded by merely alleging an ability to supervise the direct tortfeasor. For trademark plaintiffs, though, the courts demand evidence of a specific principal-agent relationship for vicarious trademark liability.”).
\textsuperscript{57} 600 F.3d 93 (2d Cir. 2010).
\textsuperscript{59} Perfect 10, Inc. v. Visa Int’l Serv. Ass’n, 494 F.3d 788, 803 (9th Cir. 2007).
\textsuperscript{61} Id.
\textsuperscript{62} Inwood Labs., Inc. v. Ives Labs., Inc., 456 U.S. 844, 854 (1982).
\textsuperscript{63} Id. at 855.
\textsuperscript{64} Lockheed Martin Corp. v. Network Solutions, Inc., 194 F.3d 980, 984 (9th Cir. 1999).
In *Inwood*, the defendant was a pharmaceutical manufacturer who continued to supply generic drugs to intermediary retail pharmacists who were repackaging the products with another manufacturer’s trademark. The Supreme Court held:

[L]iability for trademark infringement can extend beyond those who actually mislabel goods with the mark of another. Even if a manufacturer does not directly control others in the chain of distribution, it can be held responsible for their infringing activities under certain circumstances. Thus, if a manufacturer or distributor intentionally induces another to infringe a trademark, or if it continues to supply its product to one whom it knows or has reason to know is engaging in trademark infringement, the manufacturer or distributor is contributorily responsible for any harm done as a result of the deceit.

Courts have applied the *Inwood* secondary liability logic to find that operators of flea markets and swap meets can be held liable for copyright and trademark infringement perpetrated by individual vendors under a contributory liability theory. Both the Seventh and Ninth Circuits found the venue-owner had sufficient control over what was sold in the physical market through its ability to police its vendors, promote the vendors’ interests by promoting the market, and control vendors’ actions through rules and regulations.

1. *Tiffany v. eBay* Changes the Legal Landscape

The flea markets and swap meets of the physical world have their online incarnations, famously in eBay. And, just like in the physical markets, there is infringement of trademarks and copyrights within online markets. In 2004, Tiffany & Co., the famous jewelry company, sued eBay, the US-based online auction site, for contributory trademark infringement, using the legal concepts embodied in *Inwood*, *Hard Rock Cafe*, and *Fonovisa*. This case was one of first impression for the Second Circuit: contributory trademark infringement as ap-

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65. *Inwood*, 456 U.S. at 847.
66. Id. at 853–54.
67. *Hard Rock Cafe Licensing Corp. v. Concession Servs.*, Inc., 955 F.2d 1143 (7th Cir. 1992); *Fonovisa, Inc. v. Cherry Auction, Inc.*, 76 F.3d 259 (9th Cir. 1996).
68. *Fonovisa*, 76 F.3d at 263; *Hard Rock*, 955 F.2d at 1149.
69. *Tiffany (NJ), Inc. v. eBay, Inc.*, 600 F.3d 95 (2d Cir. 2010).
70. *Id.* at 101–02. Tiffany also brought a direct trademark infringement claim against eBay for its use of the Tiffany mark on its website. The court dismissed the claim, finding that the use was to describe the genuine Tiffany goods available for sale on the website, and not the counterfeits eBay had invested resources into removing or preventing. *Id.* at 102.
71. *Id.* at 104.
plied to an online marketplace.\(^{72}\) Since Tiffany’s exclusively sells new goods in its brick and mortar stores, through its catalogues, and on its website,\(^{73}\) any good on eBay was then either an unlicensed good or a counterfeit.\(^{74}\) Whether genuine but unlicensed or counterfeit, the goods infringed on Tiffany’s trademark rights, and caused consumer confusion as to source of the goods. In this case the direct infringement at issue was committed by eBay users who sold counterfeit Tiffany’s merchandise.\(^{75}\) Scanning for these infringing goods on the eBay website was as easy as searching for any “new” Tiffany’s product listings. The issue for the court became whether an online auction site bears some duty or responsibility for its seller-users’ infringing actions.\(^{76}\)

In a four-year period eBay earned $4.1 million in revenue from listings with “Tiffany’s” in the title.\(^{77}\) Because it is not illegal to resell genuine Tiffany’s products, it is unknown what percentage of this revenue came from sale of counterfeits.\(^{78}\) eBay had also bought sponsored links on search engines so that a search for “Tiffany’s” resulted in a sponsored link inviting the searcher to find Tiffany’s products on eBay, and advised its sellers in the Jewelry and Watch category, on its website, to take advantage of the demand for Tiffany’s merchandise.\(^{79}\) The court determined eBay did not fall under the first Inwood prong for contributory infringement, as there was little to no evidence that eBay induced sellers to traffic in counterfeit goods, and in fact eBay blocked seller sites that were reported and found to be infringing.\(^{80}\)

The Court, however, did find that eBay was supplying a venue for the sales, that it could exercise control over the sales by blocking certain sellers or goods by deactivating accounts or via the rules and regulations of the site, and that eBay was profiting from the sale of counterfeit Tiffany’s products.\(^{81}\) eBay’s control over its online market-

\(^{72}\) Id. at 105.
\(^{73}\) Id. at 100.
\(^{74}\) Id.
\(^{75}\) Id. at 96.
\(^{76}\) Id. at 103 (“The more difficult issue, and the one that the parties have properly focused our attention on, is whether eBay is liable for contributory trademark infringement—i.e., for culpably facilitating the infringing conduct of the counterfeiting vendors.”).
\(^{77}\) Id. at 98.
\(^{78}\) Id. at 99.
\(^{79}\) Id. at 101.
\(^{80}\) Id. at 110 (“Without more, however, this knowledge is insufficient to trigger liability.”).
\(^{81}\) See generally id. at 99. The district court found that eBay retained “significant control . . . over the transactions and listings facilitated by and conducted through its website.”
place, the revenues generated in part by counterfeiting activity, and promotion of the infringing, placed eBay factually within the scope of the standards set in *Hard Rock Cafe*, and *Fonovisa*, in which market owners were held liable for allowing infringement to occur through their marketplace, and encouraging the infringement by promoting the marketplace where the infringement occurred. The *Tiffany* Court, however, rejected Tiffany’s argument that eBay was liable for contributory trademark infringement.

Although eBay exercised control over its online auction website, and removed specific infringing listings Tiffany’s brought to its attention, “and took affirmative steps to identify and remove illegitimate Tiffany goods,” the Court held that eBay lacked the requisite knowledge about specific infringing conduct. The court rejected Tiffany’s reading of *Inwood* to allow for either direct or circumstantial evidence of infringement as the basis for the intermediary’s knew or should have known awareness of counterfeiting activity on its website. The court held that eBay’s generalized awareness of the infringement problem was insufficient to impose a duty on eBay to actively police for trademark infringement by its users, and was also insufficient knowledge to create secondary liability for the infringement. eBay was therefore not liable for contributory trademark infringement, despite ample examples of direct infringement on the website by their users. What seems to have saved eBay from the straights of being neither “knowledgeable” nor “willfully blind” enough to be contributorily liable under *Inwood* was: 1) its terms of service, 2) the notice-and-take-down VeRO (Verified Rights Owner) program, and 3) specific automatic warnings triggered by a seller listing merchandise.

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82. *Fonovisa, Inc. v. Cherry Auction, Inc.*, 76 F.3d 259, 264 (9th Cir. 1996) (“Indeed, it would be difficult for the infringing activity to take place in the massive quantities alleged without the support services provided by the swap meet. These services include, *inter alia*, the provision of space, utilities, parking, advertising, plumbing, and customers.”); *Hard Rock Cafe Licensing Corp. v. Concession Servs.*, Inc., 955 F.2d 1143, 1149 (7th Cir. 1992) (“[W]e believe that the *Inwood Labs.* test for contributory liability applies. CSI may be liable for trademark violations by Parvez if it knew or had reason to know of them. But the factual findings must support that conclusion.”).

83. *Tiffany*, 600 F.3d at 103.

84. *Id.* at 109 (“[W]e agree with the district court that Tiffany’s general allegations of counterfeiting failed to provide eBay with the knowledge required under *Inwood*.” (internal quotation marks omitted)).

85. *Id.* at 107–08.

86. *Id.*

87. *Id.*
under a “Tiffany’s” heading, and other filtering measures to “ferret[ ] out” illegal listings.88

The Court rejected Tiffany's argument that evidence of the infringing activity “taken as a whole” should provide a basis for sufficient knowledge on eBay's part, because Tiffany's argument for knowledge accruing to contributory liability relied not on knowledge of individual infringements, but on knowledge of a trend of infringement, the Court rejected it.89 The Court, in explanation, cited to the Supreme Court's discussion of contributory infringement standards in copyright versus trademark in Sony Corp. of America,90 which, citing Inwood, discussed the required knowledge of identified individuals engaging in infringing conduct.91 This neutralized Tiffany's argument that general knowledge—not individualized—constitutes sufficient knowledge for liability.92 The Tiffany Court also pointed to the language of the Inwood standards themselves: “defendant who 'continues to supply its products [or services] to one whom it knows or has reason to know is engaging in trademark infringement.'”93

As Hard Rock Cafe and Fonovisa held, and the Tiffany Court reaffirmed, the intermediary cannot be either willfully blind, or have actual or constructive knowledge of infringement without also having either a duty to act or else be liable for the seller's infringement.94 There is no duty created by the Lanham Act for the intermediary supplier of services or goods to ensure protection and respect of the mark against a generalized infringement trend. Since eBay removed the infringing listings Tiffany's brought to its attention through eBay's Verified Rights Owner Program,95 the court held it would take more to show that eBay was willfully blind to infringement not otherwise reported by Tiffany.96 “Some contemporary knowledge of which particular listings are infringing or will infringe in the future is necessary.”97 eBay’s defense against claims of willful blindness were aided by the

88. Id. at 98–99.
89. Id. at 107 (“We think that Tiffany reads Inwood too broadly.”).
91. Tiffany, 600 F.3d at 108.
92. Id.
93. Id. at 107.
94. Id. (“Accordingly, the district court concluded that for Tiffany to establish eBay’s contributory liability, Tiffany would have to show that eBay knew or had reason to know of specific instances of actual infringement beyond those that it addressed upon learning of them.” (internal quotation marks omitted)).
95. Id. at 99.
96. Id. at 110.
97. Id. at 107.
fact that eBay removed whatever infringement Tiffany’s reported.  

The Court held that eBay, and any similarly situated intermediary auction site, was not obligated to do more.

2. **Tiffany Take-Aways for Online Intermediary Markets**

The take-away an intermediary might glean from this recent development in the *Inwood* lineage is simple: follow eBay’s model, both in venue-hosting and in policing. Intermediaries need only commit themselves to a reactive stance of removing the infringing material that is brought to its attention, under a notice and take down system. Under the Digital Millennium Copyright Act (DMCA), an online intermediary found to be hosting copyright-infringing material is served with a notice of infringement by the owner of the work, and given an opportunity to remove it, before further legal action is taken. eBay received its pass from the Court because “eBay promptly removed all listings that Tiffany challenged as counterfeit and took affirmative steps to identify and remove illegitimate Tiffany goods.”

Although arguably online auction sites are as much an intermediary provider of a sales venue as the owner of a physical flea market, the *Tiffany* court indicates an unwillingness to view direct control over the website and general knowledge of potential or actual infringement as analogous to the market owner who is able to physically patrol the market grounds for counterfeiting. The eBay-like online market intermediary, while not actually gaining knowledge or having to spend resources policing its site for specific instances of trademark infringement, remains beholden to act only when activated by the trademark owner’s identification of the illegal good.

C. **Trademark Whac-a-Mole**

As illustrated by the conversation between panelists from 20th Century Fox and Google at the 2013 McCarthy Trademark Symposium panel on intermediary liability for online infringement, IP owners feel maligned by intermediaries’ refusal to patrol for infringement.
occurring in their virtual territory. The lack of vigilance on the part of intermediaries is unsurprising since a percentage of their profits is derived from the very infringing activities IP owners want to stop. Trademark owners argue that since intermediaries control the architecture and content of the space, with that power comes equal legal responsibility. Intermediaries, on the other hand, decline to do trademark owners’ patrolling for them, arguing in part that resources spent on patrol and removal would sap resources better used for innovation.

Ultimately frustrated, IP owners are left to patrol for infringement on a case-by-case basis. This practice is colloquially referred to as “playing whac-a-mole”; likening enforcement of IP rights against individual online violations to the popular arcade game where the object is to hit a target (a mole) repeatedly in a multitude of locations. Often the IP owners are sending DMCA take down notices, a one-by-one process that the 20th Century Fox lawyer likened to “emptying the ocean with a teaspoon.” This individually-targeted system is akin to RIAA’s lawsuits during the Napster years: small groups of infringing users were caught and forced to bear the brunt of the overall problem. Napster, as an intermediary, was finally found responsible for its user’s activities once it was shown vicariously liable under copyright doctrine of actually and constructively knowing that its site was being used for the infringement.


105. For example, as discussed above, a percentage of sales of Tiffany’s goods on eBay were counterfeit goods. eBay took a percentage listing and sales fee on each sale, regardless of the legal status of the items sold. See supra Part I.B.1.

106. Trademark Symposium, supra note 104, at 1:02:40-1:03:50.

107. Id.

108. Id.


110. Trademark Symposium, supra note 104, at 1:01:45.


D. Search Function Shows the Infringement, But Not to the Online Intermediary

In light of Tiffany, an online intermediary may not be encouraged or even advised to be actively vigilant over the un-flagged activities of its users. Under the Inwood standards, as analyzed by the Second Circuit, passivity is currently the surest way to remain not liable for user-generated content hosted on the site. The plaintiff in Tiffany, attempting to show that eBay had the requisite knowledge of counterfeits being sold on the site, entered into evidence the search results showing obvious infringements.113 This, however, did little to persuade the court.

The Tiffany court’s holding—that showing search results clearly linked to counterfeit goods was not sufficient to show that the intermediary had the requisite knowledge to make inaction equal liability—was in harmony with the Second Circuit’s later opinion concerning online intermediaries’ liability for copyright infringement by users, in Viacom Int’l, Inc. v. YouTube, Inc.114 The issue turned on whether the service provider had the requisite “actual knowledge” or “aware[ness] of facts of circumstances from which infringing activity is apparent”115 to require take-down action under penalty of contributory infringement liability. Viacom, owner of the copyrighted materials YouTube users were uploading to the site, argued that YouTube would have to be willfully blind to the infringement. They argued that the infringement gave actionable red-flag knowledge,116 because the site’s search function would return Plaintiff’s copyrighted works in response to a user’s query for them.117 The court rejected this arguably common-sense argument, citing Tiffany and explaining in a footnote: “In Tiffany, we rejected a willful blindness challenge, holding that although eBay ‘knew as a general matter that counterfeit Tiffany products were listed and sold through its website,’ such knowledge ‘is insufficient to trigger liability.’ . . . Thus, the Tiffany holding counsels

113. Tiffany, 600 F.3d at 113.
114. 676 F.3d 19, 30 (2d Cir. 2012).
116. Viacom Int’l, Inc. v. YouTube, Inc., 676 F.3d 19, 31 (2d Cir. 2012) (“[T]he red flag provision turns on whether the provider was subjectively aware of facts that would have made the specific infringement ‘objectively’ obvious to a reasonable person.”).
117. Id. at 39 (“The playback process involves deliver[ing] copies of YouTube videos to a user’s browser cache in response to a user request. The District Court correctly found that to exclude these automated functions from the safe harbor would eviscerate the protection afforded to service providers by § 512(c).” (internal citations omitted) (internal quotation marks omitted)).
in favor of explicit fact-finding on the issue of willful blindness.” 118 Viacom was remanded to the District Court, which held that although users could locate infringing content on the site simply by using the search function YouTube had control over, “YouTube’s search technologies are an ‘automated system’ where ‘users alone choose’ to view infringing content, that YouTube does ‘not participate in those decisions,’ and that YouTube therefore does not control the infringing activity.” 119

This logic, if adopted beyond the Second Circuit, would effectively conflate the actual knowledge and willful blindness standards, and make evidence of search results of either moot. Turning toward 3D printing intermediaries, however, presents the issue of both the user’s ability to find infringing material on the website, as well as the pricklier and as-yet novel issue of an online intermediary physically handling and even creating the infringing goods uploaded by users.

II. Unique Goods Markets, 3D Printing, and Liability

A. DIY and Makers: Source of the Problem, Potential Source of the Solution

The Internet provides a means to form communities of common interest, and DIY is no exception. The term “do it yourself,” or DIY, rose to popular use in America in the 1950’s to describe home maintenance and decorating activities homeowners could undertake without professional help,120 aided by the introduction of home-repair tools like the cordless drill.121 DIY became more countercultural in the late 1960’s and 70’s,122 and was the driving ethos of emergent counter- and sub-cultures in the 1970’s, 80’s, and 90’s.123

118. Id. at 35 n.10.
121. Id. at 49.
122. See Andrew G. Kirk, Counterculture Green: The Whole Earth Catalog and Environmentalism (2007). The Whole Earth Catalog was originally published in 1968. Id. The text of its first publications’ “Purpose” section read: “We are as gods and might as well get used to it. So far, remotely done power and glory as via government, big business, formal education, church has succeeded to the point where gross obscure actual gains. In response to this dilemma and to these gains a realm of intimate, personal power is developing power of the individual to conduct his own education, find his own inspiration, shape his own environment, and share his adventure with whoever is interested. Tools that aid this process are sought and promoted by the WHOLE EARTH CATALOG.” Id. at 3.
123. See generally Fayethe Levine & Cortney Heimerl, Handmade Nation: The Rise of DIY, Art, Craft, and Design (2008) (reproducing interviews with regional American inde-
The term “Makers” was popularized by MAKE magazine, launched in 2005. Maker refers to the late-20th Century, technologically-infused wave of DIY: Internet-connected and savvy, these DIYers look at their community as one of social and political power, a hobby, and potentially as a business opportunity. Maker culture encourages the concept of the “professional amateur.” The prototypical Maker is traditionally educated, and yet is often self-taught in whatever skills or crafts she is pursuing, and has the ability to join meaningfully in the international cybermarket of ideas and to shape policy and acceptable behavior in both the physical and the cyber world.

The global rise of Maker culture coincided with—and was made possible by—the Internet and its technological growth, supporting high quality video and photos, cheap digital storage, and widespread access across geography. It is inevitable, then, that the memes and interests of the modern DIY community—in global movements, in marketing, in self-expression, information, and entertainment—combine, and potentially collide with existing systems of law and culture.
Law on the Internet is not “the law of the horse”\(^\text{131}\)—it is not simply another iteration or version of pre-existing technology or socio-legal construction. But it also cannot exist in its own Wild West, forging separate legal doctrines, or ignoring the laws of the countries in which it operates. In order to exist on the Internet, a market and a movement must shape itself to navigate both the online and offline code in order to grow and sustain itself and the external systems on which it builds. The Internet, and the markets that rely on it, may be everywhere and nowhere in particular, but its interactions with the physical, jurisdictional world and the laws therein, are and will continue to be interlinked with its existence.

If the Maker industries want to grow, they will need venture capital investments. Established centers for investment funds are less likely to take a long-term risk on companies supporting, attracting, or harboring counterfeiting activities than on companies that do not come with the attendant risk of government action or litigation against the company’s activity.\(^\text{132}\) As a representative from Union Square Ventures, an investor in Etsy, said regarding scaling Etsy to compete with Amazon and eBay, “It’s not the tech that’s the hard part, it’s the governance. It’s what are the rules in the system?”\(^\text{133}\) In order to protect the movement, Makers must be aware of the law as it is, and how it might be shaped going forward by Makers as well as IP owners.

B. Online Unique Goods Markets

An “online unique goods market” is an online intermediary hosted storefront, selling handmade, one-of-a-kind, small-batch, and vintage goods.\(^\text{134}\) As previously stated, Etsy is the prototypical online


\(^{132}\) This aversion to illegal activity would spring out of the risk management cost-benefit analysis any prudent investor would run when deciding whether to make an investment in a company—an assertion this author does not think is revolutionary. As an example of increased investor caution around businesses conducting illegal activities, one can turn to the U.S. Department of Justice’s recent guidelines regarding marijuana financial crimes, issued in response to certain states legalizing possession and sale of marijuana, and the obvious business and investment opportunities that have and will come from such legalization. Memorandum from James M. Cole, Deputy Attorney General, to All U.S. Attorneys 2 (Feb. 14, 2014), available at http://www.justice.gov/usao/waw/press/newsblog%20pdfs/DAG%20Memo%20-%20%20Guidance%20Regarding%20Marijuana%20Related%20Financial%20Crimes%20%2014%20%202014%20%2020.pdf.


unique goods market for this paper, but it is also far larger than any other online market of its kind.\footnote{135} It was launched in 2005, offering “handmade and vintage items, art, and supplies, as well as regular items such as clothing, housewares, paper goods, candles, bags and purses, music, and wood working items.”\footnote{136} At the time, other e-commerce sites, such as Amazon, were focused primarily on sales of new goods produced for mass consumption.\footnote{137} And online auction sites, such as eBay, were not focused solely on new, handmade or small batch goods, but catered to a hodgepodge of consumers and sellers.\footnote{138}

In a 2012 interview with Bloomberg Business, the company was estimated to be worth $600 million dollars, and viewed Amazon and eBay as its main competitors in the online market.\footnote{139} Changes to the site’s definition of “handmade” in 2013 allowed third-party manufacturers, to sell items beyond the initial vision of solely handcrafted artisanal goods.\footnote{140}

Although Etsy’s CEO may publically distinguish it from eBay,\footnote{141} they are essentially the same in their relationship to the users selling items on the website the company hosts. Etsy is not directly involved in the transaction between buyers and sellers.\footnote{142} As a result, Etsy has no control over the quality, safety, morality or legality of any aspect of the items listed, the truth or accuracy of the listings, the ability of sellers to

\begin{footnotes}
\footnote{137} Amazon.com, Inc., Annual Report (Form 10-K) at 3 (Feb. 16, 2006), available at http://www.sec.gov/Archives/edgar/data/1018724/000119312506034166/d10k.htm (“Amazon.com, Inc., a Fortune 500 company, opened its virtual doors on the World Wide Web in July 1995 and today offers Earth’s Biggest Selection. We seek to be Earth’s most customer-centric company, where customers can find and discover anything they might want to buy online, and endeavor to offer customers the lowest possible prices.”).
\footnote{140} Ina Steiner, \textit{The New Etsy: An Interview with CEO Chad Dickerson, Part 2}, \textit{eCommerce Bytes} (Oct. 4, 2013), http://www.ecommercebytes.com/cab/abn/y13/m10/104/s02.
\end{footnotes}
sell items, or the ability of buyers to pay for items. Furthermore, Etsy does not pre-screen users, their content, or the information provided by users. Like eBay, Etsy has no direct involvement with the actual sales, although it operates the virtual space of these online markets. These owner-operators could arguably patrol their virtual markets for infringing activity, as the market owners were found to be able to do in *Hard Rock Cafe*, and *Fonovisa*. However, under the logic of *Tiffany*, the online context changes the case law regarding intermediary owners of bazaar spaces.

1. **Etsy’s Terms of Service**

   Although arguably sheltered by the online intermediary case law, Etsy’s Terms of Service indemnify it against illegal activity by sellers: “You [the seller-user] are solely responsible for your conduct and activities on and regarding to Etsy and any and all data, text, information, usernames, graphics, images, photographs, profiles, audio, video, items, and links (together, ‘Content’) that you submit, post, and display on Etsy.” The third listed item on the Terms of Use “Prohibited, Questionable and Infringing Items and Activities” states that sellers shall not “Infringe upon any third-party’s copyright, patent, trademark, trade secret or other proprietary or intellectual property rights or rights of publicity or privacy.”

   However, beyond the DMCA-compliant notice and take down procedure listed under the Copyright and IP section, there is no other infringement-specific language contained in the Terms of Use.

2. **Etsy on Counterfeiting**

   Etsy explicitly retains its right to “remove listings that we determine are not within the spirit of Etsy,” and provides a list which includes counterfeits, among other items such as human remains (but

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144. *Guidelines*, supra note 142 (“Etsy is a marketplace where people around the world connect to buy and sell unique goods. . . . We reserve the right to remove listings that aren’t in the letter or spirit of Etsy’s guidelines.”).
146. *Id.*
147. *Id.*
148. *Id.*
150. *Terms of Use*, supra note 143 (showing the absence of such language).
not teeth or hair), real estate, and drugs. A review of the website’s community forums for discussions of legal terms and procedure yields many threads and comments from users exchanging dubious information regarding fair use, infringement, and advised reactions to Cease and Desist letters related to intellectual property infringement. There is a Help article explaining copyright, and to a limited extent trademark, directing the reader to copyright.gov and uspto.gov, as well as Etsy’s Copyright and Intellectual Property Policy. The Help page article also contains these paragraphs:

What is my liability if I sell counterfeit (knockoff) goods?

Etsy prohibits the selling of counterfeit goods. Please do not sell them. A seller may be held liable for selling counterfeit products if the seller knows or has reason to know that the products are counterfeit. If the seller fails to inquire about the authenticity of the products, for fear of what such inquiry may yield, this may constitute knowledge. Once knowledge has been established, a reseller of counterfeit products may be held liable for counterfeiting . . . . What’s the worst that could happen if I infringe?

Please don’t purposely infringe. Even if you do not have substantial assets, you may be forced to cease publication, shut down your website, or even to destroy all copies of art that include copyright infringement.

Curiously, the paragraph above from the Etsy Help article does not discuss the exposure the infringing user might place Etsy in, or steps Etsy might take against the infringer, and this information is not included in the Terms of Use. A willful infringer is unlikely to be dissuaded by Etsy’s “please” language, however, and an unwitting infringer is unlikely to know their actions are illegal. The presence of these paragraphs, written and posted by Etsy, arguably indicates that the company is aware of the potential if not the specific instances of infringement and sale of counterfeits on its site. New, short Q-and-A articles about what a seller should do when faced with an infringement charge have been added to the site’s help pages, indicating that sellers have faced cease and desist demands, though the Q-and-A


153. Copyright and Intellectual Property Policy, supra note 149.


material does not specify whether the infringement is copyright or trademark-related.

3. Flagging IP Issues on Etsy

Etsy specifically asks its members not to flag intellectual property matters. In the Flagging section of the Site Policy, the user is directed to the Copyright and Intellectual Property page. Etsy has a Copyright and IP section within its 2013-updated Guidelines section. It states that Etsy will remove or disable access to infringing objects after receiving “proper notice.” This notice, however, much like eBay’s policy, hinges on the owner of the IP alerting Etsy’s assigned agent. As much as the community or the customers may be aware of the infringement by one of its members, the policy leaves the patrol and complaint to the IP owner, thereby continuing the whac-a-mole situation owners hate, and seem unable to counteract. In its own way, Etsy has created an eBay-like VeRO system, in which only the IP owners have standing to make a complaint about infringement.

Etsy’s invocation of the DMCA, without other direct-reporting mechanisms available, lobs the burden to pursue an infringing listing back to the actual owner of the IP. This effectively deactivates any citizen do-gooder from reporting infringing activity within Etsy’s guidelines. There is currently no DMCA-equivalent for trademarks, so Etsy coverage of IP infringement under a general umbrella of the DMCA notice and take down umbrella may not have been legally challenged yet, but it is an incomplete coverage of all the infringement qua counterfeiting possible on the sites.

D. 3D Printing and Scanning, and 3D CAD Files

“3D printing” is the popular name for additive manufacturing. Additive manufacturing is one of three main types of manufacturing, the other two being formative (casting), and subtractive (milling). Rather than relying on casting an existing object, making a mold to make a new object, or milling down to a finished object from a larger block of raw material, 3D printing is additive in that an object is cre-

157. Copyright and Intellectual Property Policy, supra note 149.
158. Guidelines, supra note 142.
159. Id.
160. See Grynol, supra note 38, at 1.
ated by building layer upon layer of material using Computer Numerical Control (CNC) technology.\textsuperscript{162} Currently, 3D printing allows for objects to be made in various kinds of plastics, resins, metals, and polymers.\textsuperscript{163} A rudimentary 3D printer, the pop-cultural Thing-O-Matic\textsuperscript{164} — is essentially a computer-directed glue gun. Many of these printers use Acrylonitrile butadiene styrene (ABS) plastic, a thermoplastic that softens when heated and rehardens as it cools.\textsuperscript{165} This plastic is then fed into the printer head, heated, and then extruded to build the 3D object, layer by layer.\textsuperscript{166} At this level of 3D printing, the material and the resolution are low quality, and are best for objects that do not require a high level of detail or finish.

3D printers are versions of rapid prototyping machines, which have been used in the automotive and aeronautical industries for decades.\textsuperscript{167} The ability to print in various materials makes 3D printing attractive as a prototyping process, as exact objects can be produced in physical form from digital 3D wire frame models, either created from scratch or scanned into CAD format by scanning already-existing objects.\textsuperscript{168} The medical industry has already embraced 3D printing and scanning in making personalized prosthetic devices for patients—Invisalign orthodontic braces and hearing aids are two common examples.\textsuperscript{169} There are also novelty 3D printers of edible objects, using foam, chocolate, and paste.\textsuperscript{170}

\textsuperscript{162} See Grinol, supra note 38, at 1.
\textsuperscript{163} See id.
\textsuperscript{169} See Nusca, supra note 161.
\textsuperscript{170} See EPSRC video, World’s First Chocolate Printer, YOUTUBE (July 4, 2011), https://www.youtube.com/watch?v=BF8hut3Vw.
In order to give the printer something to print, however, there must be a CAD file of an object for it to print from—the blueprints, so to speak, of the object.171 A CAD file can be created from scratch, much like a wire model for digital animation.172 Or a CAD file can be created by scanning an existing object using a 3D scanner, which creates a digital wireframe model of the object.173

Due to the limitations on printing material, the home-use of desktop 3D printers and scanners is currently more of a novelty than an industrial revolution.174 This is likely to remain the case for some time, although the range of printing materials will expand and the price to print in them will likely fall if and when consumer demand increases.175 Professional companies, as well as open source websites such as Thingiverse, and The Pirate Bay, the notorious bit torrent site and global bane of IP owners, serve as exchange points for existing 3D CAD files.176 These different file-sources serves as an example of how legitimate and illegal activities exist side by side within the 3D printing and DIY context.

The concern for owners of luxury trademarks is that as 3D scanning and printing capabilities advance, unlike current building-from-scratch counterfeiting techniques, a counterfeiter would need only one original authentic trademark-bearing object to scan, once, anywhere in the world creating a CAD file. The CAD file can then be uploaded, shared or transferred, and the counterfeit object can be printed in any material available from an intermediary printer, creating an almost exact replica.177 Unlike paper currency178 or digital

172. See id. at 3.
173. See id.
175. To see the variety of materials 3D printed objects can be made out of, see 3D Printing Materials, Shapeways, http://www.shapeways.com/materials (last visited Sept. 7, 2014).
177. This fear is not unreasonable: CAD files created through 3D scanning can be stored indefinitely and sent over the Internet to a printing company such as Shapeways. See How Shapeways 3D Printing Works, Shapeways, http://www.shapeways.com/about/how_does_it_work?li=navigation (last visited Oct. 2, 2014).
178. Speaking of currency, there is nothing physically inherent in coins as objects to stop 3D scanning—and printing—counterfeit coins.
copyrighted objects, there is little, if anything, about an original object that could foil an attempt to 3D scan it for counterfeiting purposes, unless the material cannot be printed or the shape lacks the requisite structural integrity for 3D printing. However, these printing limitations are shrinking as the industry evolves.\footnote{See 2013 \textit{Joint Strategic Plan}, supra note 37, at 6. Additionally, the variety of materials available is always increasing. The scope of available printing materials from Shapeways—this Comment’s prototypical 3D printer intermediary company—has and continues to expand. See \textit{How Shapeways 3D Printing Works}, supra note 177.} The limits posed by the price of the material will also decrease by the legitimate use of the process, but the physical marks and symbols that demarcate a luxury good, such as charms, buttons, or hardware— are typically not large and so would not be cost-prohibitive per unit to print, even with the more expensive materials.\footnote{For example, see Guido, \textit{What Does a 3D Printed Bunny Cost?}, SHAPEWAYS (May 17, 2012), http://www.shapeways.com/blog/archives/1354-what-does-a-3d-printed-bunny-cost.html.}

IP owners risk their goods being copied and sold illegitimately with any release of the goods into the market, a potential loss that is built into the cost of the good itself.\footnote{\textit{Merges et al.}, supra note 2, at 14 (“Intellectual property protection is necessary to encourage inventors, authors, and artists to invest in the process of creation. Without such protection, other could copy or otherwise imitate the intellectual work without incurring the costs and efforts of creation, thereby inhibiting the original creators from reaping a reasonable return on their investment.”).} However, 3D scanning and printing is to physical objects what the digitization of sound recordings was to the music industry, or high quality photocopiers to the publishing industry. If the CAD file of a scanned object was made available through a website or Peer to Peer network, a counterfeiter would not be required to access the authentic original item, a 3D scanner, or a printer. Instead, creating the counterfeit object could be jobbed out to a third party and the counterfeiter would be shipped the counterfeit replicas as if conducting legitimate business.

\section*{E. Shapeways as the Prototypical 3D Printing Online Intermediary Company}

For the purpose of this paper, Shapeways will serve as the prototypical 3D printing online intermediary company. This is because it is both a civilian-accessible 3D printing company that offers printing in a variety of materials, and because, like Etsy and eBay, it is also a community-centric online goods marketplace.\footnote{About Us, SHAPEWAYS, http://www.shapeways.com/about/ (last visited Oct. 2, 2014).} Founded in the Netherlands in 2006, Shapeways is a web-based service that uses 3D printing to allow anyone to create physical objects from their digital designs. Customers can upload their digital designs and have them printed on a 3D printer using a variety of materials, including metals, plastics, and ceramics. Once printed, the objects are shipped directly to the customer. Shapeways has over 300,000 registered users and has printed over 1 million objects to date. The company has received over $30 million in funding and is valued at over $500 million. Shapeways has been successful in part due to its focus on community engagement, allowing customers to share their designs and connect with other users. This has helped to foster a sense of community among users and has contributed to the company’s growth and success.
lands, but currently headquartered and producing in New York City, the company prints goods to-order, on demand from either designers who want a physical prototype from the 3D CAD file they have created, or for a consumer who has purchased a 3D printed good from one of the designer-user’s online Shapeways stores.183

Unlike Etsy or eBay, which are only a venue-provider and do not take possession of the products or physical shipping, Shapeways serves the functions of producer, shipper, and customer service representative for the designer-sellers that use the company’s printing and online market services.184 That difference, as yet untested, may make a world of legal difference. Shapeways is currently, although potentially unknowingly, hosting CAD files that infringe on intellectual property rights,185 and physically printing infringing objects off of those files at customers’ requests.186

Shapeways’s public attitude toward the user, as reflected in its FAQ section, is one of support and co-collaboration: “You as a designer retain all your intellectual property rights in your 3D design.”187 But the language quickly takes the same user-liability stance as Etsy’s: “By uploading your 3D design, you warrant that it is your original creation and not copied from any third party and/or entity. You warrant that your User Generated Content will not infringe the intellectual property rights of third parties.”188 Shapeways takes the user-responsibility language a step further than Etsy, and assigns legal


186. How Shapeways 3D Printing Works, supra note 177.


188. Id.
responsibility for any liability imputed to Shapeways as well: “Should your User Generated Content nevertheless be found to be infringing and/or in violation of any law, you will defend Shapeways against third party claims, and be held liable for all (direct and indirect) damages and costs incurred by Shapeways with respect to such claims.” The strength of this unilateral assignment of liability has yet to be tested in court.

Like Etsy, Shapeways’s list of prohibited products includes what infringes on intellectual property rights, and defines them as “copyright, patent, registered design, design right, trademark, trade secret or any other proprietary or industrial right.” Also like Etsy, there is no further explanation of what those terms mean legally, or any proof that a user has actually read this language before clicking “Agree” to the Terms of Service.

Shapeways, like Etsy, also disclaims any “obligation to review the User Generated Content and can in no way be held responsible for the content of the User Generated Content,” and like most internet intermediaries dealing with potentially copyright-infringing work, implements a Notice and Take Down Policy modeled on the DMCA. Interestingly, unlike Etsy, Shapeway’s Notice and Take Down policy invites the users to report infringing material: “In case you find content on the Shapeways website which you think is inappropriate, might infringe your intellectual property right or does not comply to our content policy, please notify us.” However, exactly like Etsy, Shapeways’s notification system follows the DMCA’s reporting steps exactly, and requires that the owner of the intellectual property being infringed sign or authorizes the notification. This leaves the would-be independent reporter with no direct means to alert the company to infringing items it is hosting on its site.

Shapeways is, however, in a unique position as an online intermediary because of the services it offers: it is a data storage location of user-uploaded 3D CAD files; it prints 3D models on demand from those files, using its facilities; and it ships orders directly to purchasers of the 3D print. Unlike Etsy, which does not handle the objects

190. Shapeways Terms and Conditions, supra note 187.
191. Id.
193. Id.
being sold, but only acts as the intermediary host of the website, Shapeways has total control over the objects’ creation and distribution to the consumer, in that Shapeways receives the order to print an object otherwise existing only in an intangible CAD file, prints the object, and ships it.\footnote{Id.} This physical relation to a potentially infringing object creates uneasy legal ground for Shapeways, should it ever have to defend its knowledge of trademark infringement. While Shapeways could argue that it does not actively police the contents of the CAD files uploaded to its site, and follows a similar eBay Notice and Take Down regime, because there is physical contact with the infringing objects Shapeways would have to prove that it somehow still lacked actual or constructive knowledge of infringement, and that it was not willfully blind to infringement occurring.

The company’s published Notice Take Down language addresses this in two ways: “Further, in case a 3D model which is found to be infringing, has already been turned into a printed model, we retain the right to destroy it, provided it is still in our possession.\footnote{Shapeways Content Policy and Notice Takedown Procedure, supra note 192.} And, with regard to non-published 3D design,\footnote{See Shapeways Terms and Conditions, supra note 187.} in order to protect third party intellectual property right owners who, in such case, may not be able to benefit from our Notice-Take-Down Procedure, we retain the right to review and refuse any order when it, in our own discretion, appears to infringe third party intellectual property rights, or, in our discretion the 3D model does not comply with this Content Policy.\footnote{Shapeways Content Policy and Notice Takedown Procedure, supra note 192.}

A company retaining the right in the Terms of Use to destroy infringing prints shows an ability to know about infringement at the point of control, arguably sufficient for the Tiffany secondary liability standard. The counter argument though is that a manual laborer dusting nylon scaffolding powder off of a finished piece cannot possibly be responsible, as an individual, for recognizing all trademarked or copyrighted objects. Nor could the intermediary be held responsible for cataloguing all current validly registered US trademarks to police for infringement. This is not, however, an airtight defense. Furthermore, Shapeways arguably falls outside of any protection it seeks under the DMCA, due to the physical in-person awareness it gains about each printed piece ordered through its service, as it prints, cleans and packages it. Under the DMCA, as shown in Tiffany and Viacom, discussed above, passivity grants immunity, but the inter-
mediary is sheltered under the DMCA if it acts only as a conduit of materials or information, as opposed to actively creating the infringing goods.

It has so far been untested whether Shapeways is liable for vicarious or contributory infringement, or whether its standard operating procedures actually reflect its policy-retained rights to act. It is interesting that the Shapeways assigns the right to patrol to third party owners. There is no public record that Shapeways has ever reported an infringing user to intellectual property owners, but this is not to say it has not happened. An online intermediary turning its infringing users over to the corporate legal departments, however, would likely have raised some kind of stir in the technical or legal communities, and the lack of such an uproar leads this author to believe it has not yet happened.

F. Self-Awareness in the 3D Marketplace

_Tiffany_ was a case about trademark infringement by users of an online auction site. There is so far no case law concerning a 3D printer’s intermediary liability. This has led to a duality in attitudes toward what is a good or advisable business practice in the 3D printing community. The first stance is one of unsurprising optimism and entrepreneurship, a full-speed-ahead sort of attitude toward challenges the emerging technology might face from established parts of the market or regulators. The other stance is expressed in Michael Weinberg’s _It Will Be Awesome If They Don’t Screw It Up_. Written in 2010, the white paper is from the perspective of a Maker, and is therefore supportive 3D printing and its future applications, but also cautions the Maker community. Weinberg explains to the 3D printer community that it is the difference between printing an object for per-

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199. See 17 USC § 512(b) (2012).
200. See _Tiffany (NJ), Inc. v. eBay, Inc_, 600 F.3d 93, 96–97 (2d Cir. 2010).
201. See Nusca, supra note 161 (presenting an optimistic view of the future for 3D printing); Daniel Terdiman, _The Future of 3D Printing Is Bright, Says SXSW Panel_, CNET News (Mar. 12, 2013), http://www.cnet.com/news/future-of-3d-printing-is-bright-says-sxsw-panel/ (“Summit agreed and suggested that any piracy risks faced by businesses built around 3D printing pale in comparison to what businesses relying on traditional manufacturing face. ‘The moment you take your [traditional] tooling off to Asia [to be manufactured],’ Summit said, ‘you relinquish your IP. When you’re 3D printing something . . . it’s a unique instantiation every time, and it’s really hard to rip off.’” (alterations in original)).
202. See Weinberg, supra note 171, at 1. Weinberg’s stance is summed up on the very first page: “One of the goals of this white paper is to prepare the 3D printing community, and the public at large, _before_ incumbents try to cripple 3D printing with restrictive intellectual property laws.” Id.
203. See id.
sonal use and printing for use in commerce that draws the line between the legal and illegal use of 3D printing. Weinberg admits that making exact trademark logo reproductions is likely to be infringement. He also warns Makers involved in 3D printing that trademark owners will attempt to expand liability for infringement to the 3D printing, scanning, and 3D CAD file ecosystem. While his warnings could motivate Makers to fight regulation regimes and requirements, he is correct to identify anti-open source watermark technology as a possible requirement for intermediary printers to avoid liability. Neither the industry nor the regulators have yet required such measures.

III. Solutions and Going Forward

A. Counterfeiting Law

Perhaps trademark owners can ultimately take comfort in already existing statutes and law enforcement activities dealing with counterfeiting. Using a trademark in commerce with the intent to pass an unauthorized copy off as authentic is not infringement. Rather it is counterfeiting or intellectual piracy, concepts that have a stronger negative connotation for consumers, law-makers, and potential investors than mere infringement.

Additionally, the printing and possession of medallions, hang tags, labels and other affixable items bearing trademarks was classified

204. See id. at 8.
205. I say “likely” because the courts have not officially come down with a ruling on the issue. There is arguably a Fair Use or Nominal Use defense when it comes to making things that either look confusingly like trademarks or that incorporate trademarks but do not use them as source identifiers. This is the realm where appropriation and parody artists reside.
206. Weinberg, supra note 171, at 9 (“Most exact logo reproductions . . . will likely be infringement.”).
207. See id. at 14 (“For example, rightsholders could insist that, in order to avoid liability, 3D printer manufacturers incorporate restrictive DRM that would prevent their printers from reproducing CAD designs with ‘do not copy’ watermarks.”).
208. Watermarks would be a technological solution to a legal problem (counterfeiting), not a legal solution to a technological problem (the ability to scan and counterfeit). Weinberg suggests that trademark owners are going to legally force intermediary printers to encrypt their CAD files to prevent unregulated sharing and printing. See id. at 14–15.
209. Analogous examples of digital locks and keys are the anti-piracy technologies on CDs and DVDs.
210. See Paul Carsten & Deepa Seetharaman, Alibaba Is Cracking Down on Counterfeit Items, BUSINESS INSIDER (May 13, 2014), http://www.businessinsider.com/r-fighting-fakes-ahead-of-us-ipo-alibaba-takes-a-tougher-line-2014-13; 2013 JOINT STRATEGIC PLAN, supra note 37, at 7 (“With respect to the online environment, the Administration believes that when Americans and people around the world are given real choices between legal and illegal options, the vast majority will want to choose the legal option.”).
as counterfeiting via the 2006 update to the Trademark Counterfeiting Act.\textsuperscript{211} Previously, the law did not cover these types of items. The labels were not themselves infringing items, and a defendant was not trafficking in counterfeits unless and until those mark-bearing items were attached to a good.\textsuperscript{212} The Act now provides that “[w]hoever intentionally traffics” or attempts to traffic “in goods or services . . . knowing that a counterfeit mark has been applied thereto, the use of which is likely to cause confusion, to cause mistake, or to deceive,”\textsuperscript{213} can be fined up to two million dollars, or imprisoned for up to ten years.\textsuperscript{214} A company can be fined up to five million dollars.\textsuperscript{215}

Though the counterfeiting laws still have the problems of proving knowledge or intentional action, the stiff penalties could provide a powerful deterrent effect, particularly if it is ever applied to intermediaries, such as Shapeways and Etsy, or to individual purchasers of the infringing printed goods.\textsuperscript{216} There is as yet no case law which applies the Act to unique online goods market intermediaries or sell-
ers, or any part of the 3D printing industry. However, trademark owners could take cases to court in an attempt to shape the law, and generate the market’s awareness of the law.

The Act already contains a plain meaning advantage for trademark owners: “[T]he term ‘traffic’ means to transport, transfer, or otherwise dispose of, to another, for purposes of commercial advantage or private financial gain, or to make, import, export, obtain control of, or possess, with intent to transport, transfer, or otherwise dispose of . . . .”217 While Etsy, as an intermediary that does not handle the goods (infringing or otherwise) might remain protected by its lack of control, Shapeways and other intermediaries dealing directly with infringing digital and physical goods would arguably fall squarely within the Act’s definition of “traffic.” This is perhaps why Shapeways may retain the right to destroy any infringing print or CAD file itself, in order to cut off any trafficking action.218

Additionally, applying the Act in the old Whac-a-Mole fashion, as Capitol Records did against a single illegal downloader of music,219 would be more effective due to the community oriented nature of the Maker phenomenon. Because the community it so tight-knit, targeting one cottage pirate’s activities would have a greater deterrent effect on other Makers. This deterrence and self-education effect ineffective in the music downloading circumstance because downloaders were not generally part of a self-identifying community, and did not have centralizing activities, publications, or industries to unite them, as the Makers do.220

An additional element of the Trademark Counterfeiting Act provides for the forfeiture and destruction of counterfeit property, property aiding in counterfeiting, or purchased with proceeds from counterfeiting.221 If a trademark owner can convince a court that the requirements of § 2320 have been met, then the forfeiture provision could potentially undo the entire consumer-accessible 3D printing industry, as the counterfeit would lead to the printer, the CAD system,

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218. See Shapeways Content Policy and Notice Takedown Procedure, supra note 192.
220. See supra Part II.A.
221. 18 U.S.C. § 2325(a)(1)(A)–(C) (2012) (“The following property is subject to forfeiture . . . : Any article . . . prohibited under section . . . 2320 . . . ; Any property used, or intended to be used, in any manner or part to commit or facilitate the commission of an offense referred to in [section 2320]; Any property constituting or derived from any proceeds obtained directly or indirectly as a result of the commission of an offense referred to in [section 2320].”).
and eventually the entire business model. If applied only to individual infringers, such as small Maker shops, the penalties would be ruinous. Most of these shops are small-scale unique goods producers, and any profits from counterfeit sales are arguably reinvested in the business, which may be otherwise legitimate, become infected by the illegal activity.

Additionally, trademark owners have the support of the International Anti-Counterfeiting Coalition (IACC) in the online fight against counterfeits of their goods and trademarks. The coalition, like Congress, is focused on counterfeits produced overseas and imported, as opposed to ones domestically produced. However, trademark owners could work with the IACC to turn policy and public education energies to address the cottage piracy threat as well.

B. Other Means of Addressing Intermediaries

Although Tiffany is an important trademark case, a Second Circuit holding is not the final say on the question of liability for online intermediaries. Other circuits and the Supreme Court have yet to weigh in on the question directly. The courthouse doors of have not been closed to trademark owners suing online intermediaries. And though the legal metaphor of the online auction being like the physical flea market has been foreclosed by Tiffany, other legal relationships can be likened to online counterfeiting and sales so as to bring about effective regulation of both sellers and intermediary markets.

For example, in 2011, the Ninth Circuit held in Louis Vuitton Mal-letier, S.A. v. Akanoc Solutions, Inc. that an intermediary website host was guilty of contributory trademark and copyright infringement for allowing allegedly infringing websites on the ISP’s servers. The court likened the relationship (hosting and leasing space on the web) to the leasing of real estate. It is not farfetched to argue that an

224. 658 F.3d 936 (9th Cir. 2011).
225. Id. at 940–41 (affirming the district court with respect to a jury finding of trademark and copyright infringement).
226. Id. at 942 (“To prevail on its claim of contributory trademark infringement, Louis Vuitton had to establish that Appellants continued to supply its services to one who it knew or had reason to know was engaging in trademark infringement. . . . As the district court held, Appellants ‘physically host websites on their servers and route internet traffic to and from those websites. This service is the Internet equivalent of leasing real estate.’” (internal citations omitted)).
intermediary online market—like Etsy, Shapeways, or even eBay—is analogous to an ISP, as all host virtual space and facilitate users’ online activities. This argument, however, has not been attempted in the online trademark infringement context.

Conclusion: Having Lost the eBay Battle, Can Trademark Owners Still Win the Intermediary Market Infringement Liability War?

Trademark owners understandably despaired at the Tiffany court’s holding. It pushes the burden of patrolling eBay, and sites like it, squarely onto the trademark owners “24 hours a day, and 365 days a year,”227 continuing the costly and micro-tuned Whac-a-Mole option trademark owners have called the direct infringer law suit system.228 Trademark owners could take the Tiffany holding literally, and assign the responsibility to the intermediaries through direct notification of trademark counterfeiting and infringement. For an intermediary smaller than eBay, like Etsy or Shapeways, a focused campaign of take down notices—a blitz on the intermediary market hosting infringing sellers—may compel the website into a proactive patrol. If dissuaded in their relative commercial infancy from allowing a culture of infringing sales, unique goods markets like Etsy and Shapeways, or other smaller online markets might eventually self-police out of habit or avoidance theory. Perhaps such a community culture of infringement awareness and self-protection might prove effective if it is implemented before the online marketplace grows to eBay-sized proportions, at which point community culture becomes harder to perpetuate, and infringement becomes harder to police.

Based on the Second Circuit’s holding, however, Etsy and its online brethren might go forward following in eBay’s footsteps, and let bigger companies, take the lead in deciding how to discourage illegal activity as well as lawsuits from IP owners. As long as an intermediary marketplace has no knowledge of infringement, and acts accordingly when it is given such knowledge by a property owner, the Tiffany decision would seem to shelter them. Whether Shapeways’s direct control and creation of works puts it outside of Tiffany and within secondary liability remains to be seen.

227. Tiffany (NJ), Inc. v. eBay Inc., 600 F.3d 93, 109 (2d Cir. 2010) (internal citation omitted).
228. See supra Part I.C.