

**3D PRINTING: TRADEMARK EFFECTS IN THE DIGITAL
WORLD**

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Introduction

A trademark is like a lighthouse—it attracts and seduces those looking for a safe harbor in which they can feel at home. Those who seek to drop anchor in the harbor look to the trademark to guide them to shore after having navigated troubled waters at sea. Any disturbance to the trademark's light will cause ships to drift away, lose their bearings, and, ultimately, even to be destroyed.³ Hence there should always be brand clarity otherwise the brands might suffer a lot of damage.

Trademark will probably be one of the mainly affected areas in the intellectual property law due to 3D printing. Traditionally, trademark holders battled infringement by suing centralized manufacturers who intentionally infringed by making large quantities of 'knock-off' goods. As with patents, however, 3D printing will disinter mediate and largely anonymize the manufacture of trademarked goods. Instead of going to a store to buy a name-brand item (the official store if they want the real thing or a flea market if they want a knock-off), consumers will have a third option: obtain a CAD file and print it at home. This article will explore the implications of 3D printing and the international agreements like TRIPS. The possible disruption or opportunities with this invent.

The first part of the paper deals with the challenges faced in the future and looming challenges brought about by 3D printing in the IP law.

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³ Gielen, Charles, "Trademark Dilution under European Law", *Trademark Rep.*104. 693 (2014).

3D Printing's Potential For Trademark Infringement

Imagine you want to get your child a new *Star Wars* action figure for an imminent birthday. However, you don't want to wait in lines at stores or even wait for new Sunday delivery from the Postal Service. Or (more sinisterly) imagine that you want a new non-metallic firearm to evade TSA security and your flight is leaving in the morning. Instead of heading to the nearest store, you just download a CAD (computer-aided design) file, turn on your 3D printer and go to sleep. In the morning the product is ready and waiting. Such scenarios, seemingly snatched straight from science fiction, are already a reality. Indeed, it is already possible to find online computer files enabling the printing of toys, appliance parts, jewelry, food, and—yes—guns. Similarly, but at the opposite end of the spectrum from the ridiculous to the sublime, 3D printers can generate new lung tissue, bone replacements, and other living structures. We may soon be able to print medicines at home. The falling prices of personal printers and other factors are making them increasingly accessible. Technical advances promise better printed products too.⁴ With these advances comes the role of the various rights involved.

Trademark and trade dress are forms of intellectual property that protect the goodwill generated from the public's identification of a product's source and standard of quality.⁵ For 3D printing, trademark and trade dress may thus provide fairly limited protection. If a trademark is a word or logo, simply removing the mark from a 3D-printed object could substantially obviate any legal obstacle to further distribution. To be sure, a physically distinctive object that satisfies the standards for trade dress protection would enjoy less easily circumvented protection. But many 3D-printed objects will not satisfy

⁴ Moskin, Jonathan. "Roll over Gutenberg, Tell Mr. Hull the News: Obstacles and Opportunities from 3D Printing." *Trademark Rep.* 104, 811 (2014)

⁵ *Kieselstein-Cord v. Accessories by Pearl, Inc.* 632 F.2d 989 (2d Cir. 1980)

those standards, and will thus fall outside the protection of trademark law altogether.⁶

Legal issues that potentially arise under trade dress law in the 3D printer realm may include a hobbyist who thinks that it would be fun to print a plastic water bottle that has a similar design and shape as a FIJI artesian water bottle. She may be able to use the bottle at home for her personal use. But, if she were to print these bottles with her 3D printer and then offer to sell them on eBay, she may face trade dress claim by FIJI Water Company, LLC. In the FIJI case, *Fiji Water Co., LLC v. Fiji Mineral Water USA, LLC*, the court found that FIJI had a viable trade dress claim against a competitor based on the competitor's use of a similar bottle shape, among other design features, as used by FIJI [29, 32]. Hence, our 3D hobbyist must be careful not to encroach on a product's trade dress.⁷

Generally it was the electronic producers that were targeted directly for the online infringement, the producers and distributors of the physical goods were left out of it. Since the advent of 3D printing, this does not seem that they are safe anymore.

As opposed to literature, music, film, and other types of copyrighted content, most physical objects cannot be rendered into a digital format without taking away their utilitarian features. For instance, the unauthorized pictorial rendition of a designer clock online presents potential copyright issues relating to copyright in the photo itself. Such copyright infringement, however, leaves unaffected (and may even promote) the demand for the

⁶ Perry J. Viscounty, Andrew M. Gass, and Kyle A. Virgien, 3D Printing: A New Technology Challenges the Existing Intellectual Property Framework, *Orange County Lawyer Magazine*, October 2014 p.16 at 18

⁷ Kinsley, Kimberley, Tim Owens, and Fredericksburg Washington. "International Legal and Ethical Challenges Related to the Use and Development of 3D Technology in the US And China." *J. KNOWLEDGE MGMT., ECON. & INFO. TECH.* 4, 1-4 (2014).

actual clock as a useful and/or aesthetic physical object.⁸ Enter 3D printing. This 3D will allow the masses to produce the exact replica of the clock and use it. Thereby it infringes the trademark right holders.

As the foregoing discussion has highlighted, there are various enforcement issues trade mark owners must deal with as 3D print technology develops, and consequently, a number of approaches they might take. Firstly, brand owners may choose to respond by strictly and heavy-handedly enforcing their rights (or threatening to do so via cease and desist letters), in order to extend the reach of their monopolies beyond commercial uses and into the homes of 3D hobbyists. They may also seek to play down the significance of the use requirement in order to do so, although past precedent suggests the courts are unlikely to support such an argument, where use of a trade mark for embellishment purposes has been looked upon favorably and not considered to be use as a badge of origin.⁹

3D printing and trademark law

A company's trading names, brand names and logos can all be protected as registered trademarks (subject to certain registrability rules). Where not registered, they may be protected by the law of passing off (similar to the law of unfair competition in other jurisdictions). Registration confers a statutory monopoly in the use of that trade mark in relation to the goods or services for which it is registered and in relation to similar types of goods and services. Where trademarks appear on objects which are then copied, there is a risk that the copier infringes those trademarks. In certain circumstances, trademarks can also be registered for the shape of products although this form of protection is notoriously difficult to obtain.¹⁰

⁸ Depoorter, Ben. "Intellectual property infringements & 3d printing: Decentralized piracy." *Hastings LJ* 65 1483 (2013).

⁹ "Top" Heavy Pty Ltd v Killin (1996) 34 IPR 282.

¹⁰ Taylor Wessing, A 3D Printer's Guide to Intellectual Property Rights, April (2013)

A commercial 3D printing service would be using the trade mark in the course of trade when reproducing a rights holder's trade mark on a printed object. This is likely to amount to infringement. Intention and knowledge that actions amount to infringement are irrelevant. As for design law, for there to be an infringement, the trade mark must be used "in the course of trade"¹¹ Where a private individual prints an object which includes a registered trade mark, it is unlikely that they will be doing so "in the course of trade" unless they then go on to sell what they have printed.

In this technologically advanced world, there is a gap between the technology and the law frameworks. Same goes with the 3D printing and trademark law. There is a certain ambiguity with its application and repercussion. When someone removes the logo of the product and then prints it, the lawyers will have a hard time proving infringement. They have to first claim trade dress infringement by showing that it has acquired secondary meaning and then prove that their commercial use is causing damage to their clients. These are some of the ways in which the 3D printing will infringe on the trademark law in possible future.

Other than an honest mistake, consumers might buy a (Computer-aided design) CAD file from someone other than the trademark owner for at least two reasons. First, they simply may not be willing to pay the high price for the authentic good.

This consumer resembles one who buys tangible versions of obviously fake goods, but in the CAD file scenario, the trademark owner will have much more difficulty suing anyone to stop the infringement. Under current law, distribution of an unauthorized CAD file of a brand name item might not violate any trademark law (although novel legal issues exist here and should

https://unitedkingdom.taylorwessing.com/download/article_3d_printer_guide.

¹¹ Lucasfilm Ltd v Ainsworth [2011] UKSC 39.9

be explored in further work). And even if the distribution does constitute infringement, the CAD file might exist in multiple locations on the Internet, some of which are outside of the trademark holder's reach. Moreover, catching an individual infringer will be onerous for the same reasons as in patent law. Second, consumers might buy a CAD file from someone other than the trademark owner so that they can modify or personalize the physical item in some way to meet their own sense of fashion or identity. It is not difficult to imagine a huge demand for name- brand goods bearing the wearer's name, favorite slogan, favorite sports team logo, and so on. Brand owners will need to react quickly and creatively when this occurs. Music's digital history suggests that if a legitimate outlet is available, many are willing to pay a fair price for the file, but if not, consumers will 'steal' what they cannot legitimately obtain. Thus, brand owners will need to provide some ability to personalize goods while maintaining enough control to keep the brand strong and recognizable. We see examples of this phenomenon with customizable athletic shoes and similar goods. Finding the appropriate balance may prove difficult because brand owners will want to maintain control of their goods for branding purposes. But if they are too inflexible, the consumer will obtain the personalization through other, illegitimate ends.¹²

This development will open up a lot of parodies and creations. People can sum up two brands like Chanel and Gucci. By this they can create a cloth of a bag of their own choice. This will lead to a lot of free speech and freedom to create questions like the ones rose under the umbrella of Copyright law.

With a 3D-printable file, the end product is the physical good, not the file itself. Selling (or giving away) blueprints or instructions for how to make a

¹²Lucas S. Osborn, 3D Printing and Intellectual Property, (May 19, 2015). <https://ssrn.com/abstract=2533673>

trademarked good would not constitute direct infringement, so why should the same be true of digital files that are analogous to blueprints? Again, the answer depends in large part on how one views the relationship between the digital and physical worlds in a 3D-printing era and on the policy objectives of a particular area of law. In addition, recent case law evidences an upheaval in how courts treat the content of the digital files, as opposed to the external description of the file. For example, suppose someone posts a 3Dprintable file of a BMW model car and labels it “BMW car.” The external description of the file might cause confusion as to the source or sponsorship of the file, although this is arguable and dependent on context. The file name might merely describe the file’s content. Suppose instead that the file description reads, “Unauthorized and unsponsored model of a BMW car.” At that point, there is clearly no point of sale confusion based on the description. Further, because the digital file is not carried around in public like a handbag or hat, there is arguably no post-sale confusion as to the file either.¹³

The uncertainty of the trademark law applications will only be answered in due time.

3D printing and trade dress

The less frequently used IP protections of trademark and trade dress can assist those seeking to protect the appearance of a 3D printed object. These concepts protect rights holders, and their brands, from consumer confusion created by an infringing product. Trade dress specifically refers to a products overall appearance and image. Moreover to receive trade dress protection the product has to inherently have distinctive character and primarily should have developed secondary meaning.

¹³ Lucas S. Osborn, *Doctrinal Quandaries with 3D Printing and IP*, (2016) <https://apps.americanbar.org/litigation/committees/intellectual/newsletter.html>

The Coke Bottle, which began its life as a design patent over a century ago, is an excellent example of how a physical item can achieve market distinctiveness so that the appearance of the product is associated with a brand (and achieve trade dress rights). If anyone decides to 3D print coke bottles and produce it to masses commercially, then they can be held liable for trade dress infringement. The coke bottle over years has achieved secondary meaning and is considered to be distinctive.

Trips Agreement

It is important to take note of the fact that the WTO TRIPS Agreement much like other WIPO administered treaties (e.g. the Paris Convention and the Berne convention), do, technically speaking, provide a legal basis for protecting IP rights that have been infringed by 3D printing.

Regarding 3D printings and TRIPS agreement there has been no special mention or studies being done. This might be so because there is always a huge gap between the advancement of technology and the legislation. Trade-Related Aspects of Intellectual Property Rights (TRIPS) in 1994 presaged the advent of a global evolution in trademark rights. The definition provided by Article 15 (1) of the TRIPS Agreement is broad with regard to the nature of signs that can constitute a trademark at first, because the definition provided is functional, based on the distinctiveness function of trademarks.¹⁴ In this sense, you cannot conclude that the TRIPs Agreement completely excludes non-visual trademarks from its definition per se. The point is that the fourth sentence of said Article 15.1 reads “Members may require, as a condition of registration, that signs be visually perceptible,” and leaves the decision of whether to limit the scope of trademarks only to visually perceptible types to

¹⁴ “Any sign, or any combination of signs, capable of distinguishing the goods or services of one undertaking from those of other undertakings, shall be capable of constituting a trademark”

the discretion of each member state. Therefore, each member state is not obliged under the TRIPs Agreement to protect non-visual trademarks, even though they are within the context of definition of trademarks proposed.

The non-traditional trademarks have come a long way and the TRIPS agreement does provide a wide scope for 3D printing to be registered and also it might fall under its ambit trade dress infringement caused by 3D printing. However, no attention has (thus far) been given within the international IP system to the fact that 3D Printing is not merely another industrial challenge to IP infringement, but that it also constitutes a paradigm shift.

Striking a balance in the post digital world

Together with other digital technologies, 3D printing can alter the fundamental cost and benefit calculations that underlie our current intellectual property system. When the costs to create, manufacture and distribute inventions and creative content are low enough, non-monetary motivations will provide sufficient incentives for such works. Even before that point is reached, however, policy makers should consider whether to rebalance IP laws.¹⁵

Conclusion

3D printing though an amazing technological advancement it creates an imbalance in IP laws. Once in the market there is scope for a whole lot of litigations for trademark infringement.

If trade mark owners do not think more pragmatically about these things, and if 3D printing does evolve to reach even a fraction of its potential, in time, there is a risk that the likelihood of consumer confusion may be totally eroded. In fact ‘there will be less, or perhaps no, reason for consumers to

¹⁵ Osborn, *supra* note 12, at 7.



think that any popular trade mark [or trade mark] observed outside of a store was made by the brand owner.’¹⁶ 3D printing has opened up a Pandora box of complex questions and possible infringements with the IP laws, which can be answered only down the road. The personal use of 3D printing will not be a major concern like the commercial use. The commercial uses of 3D printing will indeed open up a battleground for trademark infringement cases.

¹⁶Devan R Desai and Gerard N Magliocca, ‘Patents, Meet Napster: 3D Printing and the Digitization of Things’, 102 *the Georgetown Law Journal* 1691, 1709. (2013)

