Who's Fault is it Anyway?

The Modern State of 3D Printing Copyright Liability

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INTRODUCTION

When new technology arises, lawmakers struggle to keep up: how do I perform the balancing act of managing risk through regulation without stymying innovation. An ongoing struggle is the 3D printer and its copyright liability. 3D printers take a complicated manufacturing process and puts in our homes instead of a factory. The ease in which a person can create an object at home is an incredible feat, but it comes with consequences. Specifically, owners of copyrighted images are weary of their products being reproduced at home and sold in a secondary market. This article briefly describes the source of their concerns and reviews the copyright issues that arise in the world of 3D printing.

3D Printing Background

Additive manufacturing, better known as 3D printing, is a process of making three-dimensional solid objects from a digital file. [1] The process starts with making a virtual design of the object you want to create. [2] This virtual design is made in a Computer Aided Design (CAD) file using a 3D modeling program (for the creation of a totally new object) or with the use of a 3D scanner to copy an existing object. [3] A 3D scanner makes a 3D digital copy of an object. [4]

Recently, Microsoft enabled the Kinect, a motion sensing device used in connection with video games, to perform 3D scanning. [5] Future hand-held devices like smartphones are likely having integrated 3D scanners, which makes digitizing

real objects into 3D models as easy as taking a picture. [6] 3D printing is made even easier because prices of 3D scanners range from very expensive professional industrial devices to $30 devices anyone can make at home. [7] But the most problematic addition is the fact that retailers are now providing 3D printing services in-store. [8]

The in-store services provided by retailers implicate a host intellectual property issues. [9] Patent and copyright infringement is of the biggest concerns in this new 3D printing arena because of the ability to easily scan and copy exactly, the design of a product. [10] This ease may put copyright protected products in danger of being reproduced for commercial purposes. [11] For example, one fan of the hit show "Game of Thrones" created a replica of the famous throne using the design from the show with his 3D printer. [12] He reproduced the design as a phone case and posted it on his website for sale. [13] Once HBO found out about it, they immediately sent a "take down notice". [14]. The fan was unaware that he was infringing on any copyright laws but HBO felt otherwise. [15] As far as HBO is concerned, the reproduction of the throne became a problem once the man began to commercialize it online. [16] HBO also refused to issue a license to legally reproduce the image. [17]

Secondary Liability for Hardware Manufacturers

In the above example, the man who created the 3D design also reproduced it. [18] A more interesting and complex question would arise if he made the copyrighted items through the services of a commercial 3D printing shop because

little is known about potential repercussions for 3D printing in the IP world. [19] This begs the question of whose liability it is anyway? [20]

Makerbot Industries LLC ("Makerbot") is one of many commercial 3D printing providers that not only sells 3D printers but also allow consumers to go into a store, like Staples, and print any design that the consumer wants. [21] Makerbot also provides designs to users through "Thingverse," their design platform. [22] Thingiverse is a community sharing platform that allows users to upload and share designs that can be printed at home. [23] To protect against copyright infringement Thingiverse suggests using a Creative Common license so that the downloaded files can be printed at home. [24]Every Creative Common licensor retains copyright while allowing others to copy, distribute, and make some uses of their work so long as that use is non-commercial. [25] A Creative Common licenses function globally, last as long as a traditional copyright, and also ensures that licensors get the credit that they deserve. [26]

Thingiverse strongly suggests that its users properly credit copyright holders. In its terms of use, Thingiverse states, "Be advised: we may share your content with others, these 'others' are supposed to follow your usage restrictions and we'll tell them such. They may or may not listen. If they don't, that's between you and them; *please don't blame us*." [27] The Thingiverse plea warning highlights just how easy it is for users to infringe on IP rights because the self-enforcement suggestion of the site. [28]

The language of the above warning implicates all sorts of secondary copyright liability issues. [29] In the context of 3D printing, secondary copyright liability will be especially difficult to analyze because it is such a new technology and the case law has not yet caught up with the technology. [30] One of the most influential cases in in determining secondary liability in the context of new technologies was Shapiro, Bernsien & Co. v. H.L. Green. Co. [31] In Shapiro, the defendant was sued for selling unlicensed copies of music records, whose rights were held by the plaintiffs company. Jalen operated the phonograph record department as concessionaire in twenty-three stores of defendant H. L. Green Co., Inc., pursuant to written licenses from the Green Company. [32] The complaint alleged that Green was liable for copyrights infringement because it sold, or contributed to and participated actively in the sale of' the unlicensed records manufactured by Jalen and sold in the Green stores. [33] The court established that a party that receives direct financial benefit from an infringement and has the ability to supervise whether or not the infringement occurs could be vicariously liable. [34] This standard suggests that Thingiverse and platforms like it are in danger of being vicariously liable for copyright infringement if their users infringe on copyrighted works. [35] Although Thingiverse does not charge a fee for users to download their designs, they benefit by attracting users to the site, which generates advertisement revenue. [36] Furthermore, since Thingiverse is a platform under Makerbot, they benefit directly from their users if and when they purchase 3D printers and parts from Makerbot. [37]

After Shapiro, the Supreme Court gave platforms like Thingiverse some hope as to how to avoid liability in a different way. In Sony Corp. of America v. Universal Studios, Inc. (the so-called "Betamax" case), [38] SCOTUS examined the secondary liability issue more precisely. In Betamax, owners of the copyrights to various television programs brought a copyright infringement action against manufacturers of home videotape recorders. [39] Sony came out with a new product that allowed users to record television programs to Betamax tapes and view them later (so called "time shifting"). [40]. The court held, among other things, that the Betamax was capable of substantial non-infringing uses so the sale of such equipment did not constitute contributory infringement of copyrights. [41]. Under this additional element of whether a product has substantial non-infringing uses, Makerbot and Thingiverse appear to walk the line. [42]

Makerbot can argue that 3D printers have many uses and are capable of advancing social good. For example, 3D printers have been touted for its capabilities in medical research, engineering, and innovation. Specifically, cosmetics company L'Oréal announced a partnership with a bio-printing company to print human skin. [43] 3D printing of human skin then not only benefits the beauty industry, it could benefit burn victims and those suffering from skin conditions. [44] Makerbot would have a stronger argument for non-infringing use as the seller of the 3D printers because it could cite to many more uses than simply coping and reproducing infringing material. [45] In this way, Makerbot is very similar to Sony in the

Betamax and would unlikely to be held contributorily liable for copyright infringement by merely making the hardware. [46]

Alternatively, Thingiverse would have a more difficult time showing non-infringing uses because the purpose of the site is to upload and share designs, many of which are based off of copyrighted products. Thingiverse would have to show that the vast majority of shared designs are used in non-infringing ways. Proving that to a court would likely be difficult, costly and time consuming.

Digital Millennium Copyright Act Protections

Congress has since passed the Digital Millennium Copyright Act (DMCA) that provides, among other things, protections for information sharing hosts. Under the DMCA, websites that host sites for sharing designs, including 3D files, must act as an impartial messenger between those who upload material and those who potentially hold a copyright in that material. When the rights holder sees content on the website it believes to be infringing, they can send a DMCA takedown notice to the site, objecting to the use and requesting that the file be taken down. [47] Upon receiving this notification, the website takes down the content and notifies the uploader of the claim of infringement. [48] By doing this, the site qualifies for a safe harbor from infringement claims provided by the DMCA. [49] The uploader can either accept the takedown or notify the site that there is no infringement and repost the content. [50] The rights holder then either accepts the reposting or sues for copyright infringement. [51]

"The DMCA's safe harbor provision limits the liability of a service provider if (1) [it] does not have actual knowledge that the material or an activity using the material on the system or network is infringing; (2) in the absence of knowledge, is not aware of facts or circumstances from which infringing activity is apparent; or (3) upon obtaining such knowledge or awareness, acts expeditiously to remove, or disable access to, the material." [52] The DMCA also provides for notice requirements. [53] Under the notice-and-takedown provision, service providers are exempt from liability for the good faith removal of allegedly infringing material. [54] Once the service provider receives notice from the copyright holder and takes down the allegedly infringing material, they must then notify the user who originally posted the material that the material was removed or disabled. [55] The user then has the ability to send a counter-notice to the service provider, claiming that the removed material was not an infringement. [56] The service provider must then inform the copyright holder about receipt of the counter-notice and re-enable the removed material within 10 to 14 days after receipt of the counter-notice. [57]The service provider receives tremendous protection, as they are able to continue to provide their services to users without fear of secondary infringement liability. [58]

3D Printing's Uncertain Fate Under The DMCA

Prior to the DMCA, case law would require providers, like Makerbot and Thingiverse, to prove on a case-by-case basis that they were not involved in the infringement of a copyright. [59] With the enactment of the DMCA, 3D service providers may avoid liability and litigation by complying with takedown notices.

[60] The burden of proving that the service provider had no knowledge and did not economically benefit is too high for a copyright holder to prove. It would be impossible for a copyright holder to know how their product was used and for how long before it was brought to their attention. There needs to be a review of the DMCA in light of the services that 3D printing services or the force of a copyright can be rendered meaningless.

SOURCES

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[32] Shapiro, 316 F.2d at 306.

[33] *Id.*

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[35] *See id.*

[36] *See* Marketbot, Thingiverse, *supra* note xxi to xxiv

[37] *See* Marketbot, Thingiverse, *supra* note xxi to xxiv

[38] 464 U.S. 417 (1984).

[39] *Id.*

[40] *Id.* at 443.

[41] *Id.* at 456.

[42] *See id.*

[43] Barclay Ballard, *The benefits of 3D printing in healthcare* (May 19, 2015), http://betanews.com/2015/05/29/the-benefits-of-3d-printing-in-healthcare/.

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[45] *See* Marketbot, Thingiverse, *supra* note xxi to xxiv

[46] *See* Sony, 464 U.S. at 443.

[47] *Id.*

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[49] *Id.*

[50] *Id.*

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[60] *See Thomas Mahlum and Melissa Goodman, Salvatore D'Elia supra* note li to lxii