

The 3D Printing Revolution: Prepare for the Risks, Leverage the Opportunities

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3D printing is not just for tchotchkes anymore. Technological advancement paired with decreasing costs to build and/or purchase 3D printers create the perfect storm for the next industrial revolution. 3D printing technology will virtually transform the way companies conduct business, affecting manufacturing processes, disrupting the supply chain, and transforming primary and logistics businesses. Just as importantly, 3D printing, once it takes hold, will have substantial implications on intellectual property (“IP”): patents, copyrights and trademarks.

Analysts at Gartner predict that “[b]y 2018, 3D printing will result in the loss of at least \$100 billion per year in intellectual property globally.” *Gartner Reveals Top Predictions for IT Organizations and Users for 2014 and Beyond*, October 8, 2013. It is easy to imagine why. For example, today there are a number of “online maker sites.” On Shapeways, users can upload digital design files of products, which Shapeways uses to 3D print products and ship back to the users. Shapeways also hosts online “shops” for users to sell their 3D printed products. Through Thingiverse, users can download other users’ design files to print products or “remix” products by modifying a file or merging multiple files.

Such sites foster consumer freedom and creativity. However, one can appreciate how a company’s IP in a product can quickly and cheaply be compromised by misuse. And online “maker sites” are just one of many avenues through which counterfeit design files and products can surface.

Conversely, 3D printing technology presents opportunities. Now is the time to implement strategies that address the risks and embrace the opportunities of 3D printing. Here are just a few strategies to consider:

Prepare For The Risks

- Monitor Online Maker Sites - In addition to the traditional methods of monitoring third-party use of your company’s IP, be sure to regularly monitor online “maker sites” to determine if a third party is infringing your company’s IP.
- Patent/Trademark Prosecution Strategies - To address the unique nature of 3D printing, you may want to consider new patent claim strategies: “Bouregard”-type claims, claims directed to a 3D model, and claims directed to a method of scanning an object to create a digital file. Design patents can also provide protection for certain products. Consider whether trademark applications should include additional classes that contemplate a digital ecosystem.

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Product Warranties - Ensure that your product warranties do not apply to copies of your products printed by third parties. However, your company can create new revenue streams by licensing the printing of your products to your existing customers and by providing a warranty when a third party prints to the company's specifications, i.e., using the company's file, specific materials, and specific printers.

Leverage The Opportunities

- Sell an "Official" Design File - Give consumers what they want by selling an "official" design file. Advertise your design file either on your own website or on online maker sites. Perhaps another "iTunes" model is on the horizon for design files.
- Negotiate Effective Licensing Agreements - Consider teaming up with "maker sites" or local 3D printing shops by licensing your company's IP (such as, for example, IP associated with a design file or the proprietary material needed to create the product). Strong licensing agreements ensure that your company will still have control over the quality and nature of the printed products.
- Apply for Copyrights Where Possible (where there is copyrightable subject matter) - Leverage copyright law and DMCA takedown notices if your company's files are being traded online without authorization. However, copyright law will not be much help to curb the trading of non-copyrightable useful parts in the digital ecosystem, particularly files that were created by digitally scanning a useful article (however, original CAD files (created by a human) are protectable, as are digital files of expressive/artistic works).
- Replacement Parts - If patent protection does not apply to parts, leverage trade dress protection if possible. If your business makes money by selling parts that are not protected by a patent or trade dress, pay attention. 3D technology will dramatically impact the after-market products industry, as your customers may soon print out your after-market parts instead of buying them from you. That is when you may consider selling an "official" design file (see above).

3D printing does pose significant risks for your company's IP. However, by putting the right tools in place and working proactively to leverage the technology, your company will thrive in the next industrial revolution.

For additional information, please contact an attorney in Benesch's [Additive Manufacturing-3D Printing Practice Group](#).

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