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# 3D Printing: Good Reads/What Executives Should Be Thinking About

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With our successful, filled-to-capacity "Thinking in 3D" April 21, 2016 conference still very much in the rear-review mirror, here are some articles worth reading.

First, on the day of the conference, the Patent Office published Disney Research's patent application for a method of 3D printing using photo-curing liquids. The patent application states that such a method generates 3D objects in "several minutes or less rather than several hours." The process uses high-intensity light to harden photo-sensitive resin in a single process, removing the need for layer-by-layer printing. Here is a link to the published application.

Two days before our seminar, Harvard Business Review published an excellent (and concise) article entitled "The Questions Executives Should Ask About 3D Printing." Channing Flynn, the author and a tax partner at Ernst & Young, acknowledges that, while in some industries 3D printing will reach the "mainstream" in three to 10 years, now is the time for executive teams to assess their own respective industries' and companies' timelines as to when the "evolution" will impact them. Indeed, for the last year, our team has been counseling and urging clients in an annual strategic planning meeting to contemplate the advent of 3D printing (that is a certainty), when it may hit for them (it depends), and what it may mean to them. There will be opportunities (e.g., moving production closer to markets, cultivating new markets with customers based on customization, looking hard at licensing models). There will be threats, including, of course, intellectual property threats. Gartner analysts maintain that there will be at least $100 billion per year in annual IP losses from 3D printing by 2018.

Channing Flynn comes at 3D printing from a tax perspective, but the tax aspects touch on more areas of 3D printing than you might imagine. For example, as 3D printing matures the value of a product's underlying intellectual property may supersede its production value. Tax departments and CFOs will need to pay attention just as IP lawyers pay attention to intellectual property piracy. A myriad of tax issues will arise as the whole supply chain morphs and some products are inevitably sold, purchased, and licensed differently than they are today. What sorts of taxes might arise if consumers really begin to print purchased "goods" on their home 3D printers? Channing Flynn ultimately counsels that "it is certainly not too early to start defining the questions and planning for public scenarios." He closes with sample questions to help an executive team conduct a 3D printing-style SWOT analysis. Read the entire article here.

In other news, Youngstown's own America Makes (featured prominently at Benesch's 3D printing conference) teamed up with the American National Standards Organization to create 3D

Printing/Additive Manufacturing Standards. According to a press release, the goal of the collaboration is “to maintain a consistent, harmonized, and non-contradictory set of additive manufacturing standards.”

GE Power opened additive manufacturing centers in Pittsburgh and in South Carolina. At least 80 engineering and manufacturing jobs are being created with the opening of GE Power’s Advanced Manufacturing Works in Greenville, South Carolina.

Finally, just over a week ago the New York Times published the latest in a litany of articles on fashion and 3D printing, but this one really provokes and points to what the future of manufacturing could look like. The article is called “Brooklyn’s Wearable Revolution.” Click here to read.

At first blush, the article is about fashion, but it is really about more: a high technology incubator cluster (leveraging 3D printing) has emerged along the East River. Former factories, once vacant, have been retooled for technology and additive manufacturing. “Forget Silicon Valley and Silicon Beach. Welcome to the land of the Silicon Schmatte.”

Fashion designers along the East River in Brooklyn now use new tools like algorithms and 3D printers. The goal is to create a new type of company “that will have the instincts and design skills of fashion and the backend of research and IP.” I was reminded of a vigorous panel discussion at our conference in Cleveland: Northeast Ohio has a complex of abandoned buildings originally built for “old” manufacturing - in some cases they could be retooled for additive. Northeast Ohio has a manufacturing legacy second to none and now also boasts a state-of-the-art technology core. MAGNET, the Youngstown Business Incubator, and Team NEO are collaborating on their own “cluster” study in a collective effort to grow additive manufacturing in Northeast Ohio. If you missed it, we produced a short film. Watch this film about growing additive in Northeast Ohio and learn what some of the top players in the region are not only thinking about, but are actually doing.

Almost every business engaged in long-term planning should be thinking about 3D printing and the impact it will have on its business. Our 3D Printing Industry Group is here to help, and is happy to participate in planning sessions.

**3D Printing will impact the way we make almost everything. Because the technology will change our clients’ businesses, Benesch has formed a 3D Printing Industry Group, a multidisciplinary team led by core members of the firm’s Innovations, Information Technology & Intellectual (3iP) Property Group.**

**For more general information and to learn more (including by viewing more than 20 Benesch-produced videos on 3D printing), click here.**

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