



Stanford eCorner

Stuck in the 'Chasm'

Joseph DeSimone, *Carbon3D, Inc.*

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Video URL: <http://ecorner.stanford.edu/videos/4620/Stuck-in-the-Chasm>

Joseph DeSimone, co-founder of Carbon 3D, Inc., talks about how 3D printing has yet to cross the “chasm” between early adoption and mainstream success, citing the work of bestselling author Geoffrey Moore. Besides the structural flaws inherent in most 3D printed objects, DeSimone says the standard technology isn't yet an economically viable option for most consumers and companies.



Transcript

- Everyone's familiar with 3D printing. Everyone's familiar with 3D printing. President Obama's talking about 3D printing. And I think it's a clear to say that 3D has not emerged to be a significant industrial sector yet. In fact, you just look at the dollars, it's only a four or five billion dollar industry. To put that into context, the U.S. polymer industry is a \$400 billion dollar industry. Okay? And the four to five billion includes metals. And the primary reasons why 3D printing has not emerged to be manufacturing, it's a terrific prototyping technology, but the prints take forever. They're not a speed that's economical viable.

The layers give rise to anisotropic properties and it has a real problem in designing proper material properties for complex devices, and the material choices that are available are pretty limited. And so, when you think about other great books to read, Jeffrey Moore, *Crossing the Chasm*, or *Inside the Tornado*. And those of you doing entrepreneurship those are classic books. Jeffrey would say that 3D printing has fallen into the chasm. And a chasm is in this technology adoption curve, where in the beginning of all new technology introductions, the techies drive adoption. Techies love products, in fact, they love products that are not complete. They like to cobble together a partial solution and that's part of what they love to do. But, to really get to the early majority or the large volume of revenue, you need an economically viable solution. People don't care about technology on the other side of the chasm. They want a solution that's economically viable.

And a technology that falls into the chasm has some significant shortcomings and a lot us believe that 3D printing has done that.