

3D Printing's Role in Shaping the Future of Education

Additive manufacturing was introduced more than 25 years ago. However, only recently has broad industrial and consumer interest in 3D printing ignited, creating new fabrication opportunities and disrupting traditional supply chains. The opportunities for 3D printing are enormous and become even greater when focus is placed on training the next generation of scientists, engineers, designers, artists and inventors on design for 3D printing.

Every student has an idea of something they want to create, but they're often constrained, feeling they don't have all of the necessary tools at their disposal. In many cases, students don't even envision their own path to higher education. However, once they see they have the ability to make something, simply knowing they can create those designs, gives them confidence. This is why teaching inventors at a young age becomes paramount.

Already proven to play a critical role in STEAM (Science, Technology, Engineering, Arts and Mathematics), 3D printing is transforming how students learn by offering a hands-on experience that inspires students to pay attention to details, get more creative and see the physical realization of their work. Simply talking about the way a student should do something only goes so far. Getting students to truly create something makes it real and can ultimately inspire them to take the incremental steps that often lead to being the one to invent the "next big thing", since they are challenged to think differently.



Each student we have seen working with a 3D printer is excited, asking questions and demonstrating genuine interest in engineering. This is because they are no longer constrained and have every ability to create things and bring their own ideas to life.

Unfortunately, broad adoption is often stifled due to 3D printers being too difficult to use and costly – an issue being addressed by a growing community of educators and thought leaders determined to get students everywhere exposed to 3D printing. This effort includes "teaching the teachers" about 3D printing and how they can help students put 3D printing into practice by incorporating 3D printing into their own curricula. By giving students application-specific (and real-world) experiences, they are able to not only able to thrive in the classroom, but are inspired to challenge the status quo in ways never before thought possible.

Bottom line: 3D printing is coming out of the lab and going into schools across the United States and around the world. It's the beginning of a brave new era of creation, collaboration, invention and innovation, where the next great idea can be dreamed—and then built—by anyone, anywhere.

Placing a focus on making 3D printing accessible to every student, regardless of background, will result in a radical shift in the innovation cycle and we should all try to be a catalyst in this area.



By AJ Perez On Tue, July 14, 2015

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