The Importance of Standards

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A recent experience I had trying to use an Apple computer to print a Google docs spreadsheet to a remote Windows printer reminded me of the importance of interoperability, even between competing companies. As some may remember, printers, drivers, and publishing software didn't always speak the same language. Once upon a time, every printer had its own unique set of drivers, and not every software was compatible with every printer. Not every printer worked with every operating system, and word processors couldn't always take advantage of each printer's best capabilities. Users suffered, and the industry was held back. Then came postscript, PDF, and standard drivers—and we never looked back.

We are at a similar turning point in additive manufacturing (AM). Today, old communication protocols such as STL are giving way to new universal file formats. Uncertain performance specifications of proprietary materials are giving way to standards defined by ASTM, ISO, and NIST. Equipment performance specifications are being subjected to standard benchmarking.

Only two segments of the industry can live without performance standards. The first segments are those who use AM just for prototyping and for fabrication of noncritical parts. The second segment are large companies that have sufficient internal resources and skill to subject their printed parts to exhaustive performance testing and validation. The rest of us require standards.

Performance standards help engineers design reliable products, level the playing field among vendors, and help customers trust the industry. These standardization trends signify a maturing of the industry and a beginning of even broader adoption. We hope to be able to contribute to the growing body of knowledge in AM to accelerate this trend.

As the editor-in-chief, I hope that you enjoy this issue and join us as an active participant in this new journal and resource. Look out for our next issue of the Journal, publishing in late 2014.

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