

**Opening Statement of the Honorable Michael C. Burgess  
Subcommittee on Commerce, Manufacturing, and Trade  
Hearing on “The Disrupter Series: 3D Printing”  
February 26, 2016**

Today we continue the Disrupter Series with additive manufacturing, or 3-D printing. Additive manufacturing has disrupted the industries it has impacted not just by challenging incumbents, but also by lowering costs and increasing efficiency. Harnessed properly this is another example of how innovation is creating jobs, opportunity and a revival in manufacturing in the U.S.

Additive manufacturing has been around since the 1980s, with the patent for stereolithography issued to Charles Hull—the founder of one the companies testifying today, 3D Systems.

About thirty years later, surveys show that about two-thirds of industrial manufacturers say they are implementing additive manufacturing, either by experimenting or using it to create prototypes or finished products. And the 3D printing industry is expected to continue growing from about \$6 billion today to about \$21 billion by 2020.

3-D printing has already woven its way into our manufactured products in subtle ways. For example, some of the commercial airliners we fly will soon use 3-D printed parts in their engines, as GE will testify. And many of the cars on the road have had their development sped up dramatically thanks to 3D printed prototypes.

Additive manufacturing has thus plugged itself into a growing proportion of manufacturing supply chains because the designs are flexible and are naturally a better solution for certain tasks.

But 3D printing is also making a splash in less subtle ways. People around the globe are benefiting from prosthetic limbs that were otherwise unaffordable. Surgeons can create accurate surgical guides, which reduce errors and as a result save lives.

Scientists have begun experimentally printing human cell structures using a person’s DNA—a result that is a logical use of life’s building blocks, but potentially revolutionary for patients in need of transplants.

In my district, 3D printing is enabling businesses to get the job done more efficiently. My constituent Adrian Murray’s auto supply company, Painless Performance, provides customers with custom wiring harnesses for classic cars. These parts no longer have an assembly line, but by using the 3D printing prototype service offered by the Specialty Equipment Manufacturers Association (or SEMA) Garage, Painless Performance is able to speed up the development process.

If you turn your attention to the monitors, you can see one of these products being made.

As the Subcommittee with jurisdiction over vehicle safety, we are especially interested in ways vehicle suppliers and manufacturers are using polymers and plastics to enhance safety. Carbon fiber reinforced plastics have 12 times the energy absorption capabilities while adding half of the weight of some comparable metal parts. Additive manufacturing is helping automakers and parts suppliers integrate these innovative materials into cars, which is making us safer while improving fuel efficiency.

Of course, as printers become more affordable, the universe of people able to 3D print objects on their own expands.

Many have raised the caution that this in turn could facilitate an end user to print firearms that circumvent federal law or to use for an illegal purpose. Policymakers rightly take these concerns seriously and they will continue to be debated in Congress and across the country.

The task at hand this morning is to introduce this subcommittee to the technologies behind additive manufacturing, its beneficial uses, what it means for innovation and job creation, and the friction it has encountered either from market forces or the government.

I thank the witnesses for educating us on this exciting technology and look forward to a thoughtful discussion.