

3-D printing creates product liability issues, scholar says

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While 3-D printing technology empowers people to create amazing objects once unimagined, it also raises red flags on the legal concept of strict product liability, according to a Stanford law professor.

Nora Freeman Engstrom, an associate professor, published her research in the University of Pennsylvania Law Review, exploring how 3-D printing is poised to challenge the American litigation landscape.

3-D printers can produce elaborate three-dimensional products of almost any shape, working from designs on a computer screen. The technology has become affordable for individuals, allowing them in effect to become "manufacturers" of any number of objects, from plastic vases to bionic ears, and from high heels to handguns.

What does this mean for consumer protection? That's the crux of Engstrom's legal question.

"Following any significant technological breakthrough," she wrote, "legal scholars, practitioners and policymakers must consider how the innovation meshes with – or poses challenges to – our existing laws and system of governance. Will it fit? What must change? Where are the pitfalls and opportunities? 3-D printing is no exception."

Winning a lawsuit

Under current "strict liability" product law, a person who is injured by a defective product can win a lawsuit without necessarily showing that the maker or distributor of the product was negligent.

"This means," she said, "if you fall ill from eating tainted peanut butter you purchased at, say, Wal-Mart, you can sue Wal-Mart for your injuries – and you can prevail in that lawsuit even if Wal-Mart used all possible care in the peanut butter's selection, storage and sale."

On the other hand, Engstrom said, a person injured by a home-printed product would likely only be left with a negligence-based lawsuit. Negligence focuses on proving that the manufacturer, distributor or seller of the product was careless – a higher hurdle.

Why is the legal treatment different for home-printed products? She said that part of the answer is due to the "commercial-casual divide" in product liability doctrine. "This divide refers to the fact that product liability law only applies to 'commercial' sellers – defined as those engaged in the business of selling or otherwise distributing products."

Casual sellers, such as a housewife who makes and sells jam or a child who makes and sells lemonade, fall outside the scope of product liability laws. Engstrom said that hobbyist 3-D inventors, who print products in their garages and on their kitchen countertops, are arguably casual, rather than commercial sellers – so strict product liability laws likely won't apply.

As a result, she said, if home 3-D printing "really does take off, product liability litigation as we know it may, in large measure, dry up." At the least, she said, it will erode some of the protections under the current doctrine.

Manufacturers embrace technology

If 3-D printing does become hugely popular, however, it does not automatically mean that injury victims will be left without any consumer protections. One wrinkle is that manufacturers are increasingly using 3-D printers and commercial distributors are making those products available to the public. Engstrom's analysis addressed only the legal claim a person would have if he or she were hurt by a product made by a home 3-D printer.

"The various obstacles I identify in the path of a plaintiff injured by a home-3-D-printed object don't necessarily stand in the way of a plaintiff injured by a commercially-printed object," she said.

She also pointed out that the line between negligence and certain product liability claims is "awfully thin." This means some plaintiffs injured by home-printed objects might actually prevail in "old-fashioned negligence" lawsuits, despite the additional burden of proving carelessness by the manufacturer, distributor or seller.

Moreover, Engstrom cautioned, it's still not clear what 3-D printers are capable of producing – or how fully the American public will embrace the new technology. "Is this technology a flash in the pan? Or will home 3-D printers really, as some claim, fundamentally alter the goods we buy, the products we use, and the world we inhabit?"

Provided by Stanford University

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