3D-printed guns lead the open-source revolution

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When ECN last left [1] the 3D-printed gun debate [2], Cody Wilson – a 25-year-old University of Texas law student and first-amendment crusader – had succeeded in printing a plastic lower-receiver (the part which technically qualifies as a “gun”).

The ornery Texan’s stated goal was to “produce and publish a file for a completely printable gun- or as near to completely printable as actually possible with current technologies.”

It seems Wilson has succeeded ... and then some.

Back in May, Wilson unveiled “The Liberator [3],” the world’s first entirely 3D-printed gun – an innocuous-looking piece of ABS plastic that fires real bullets.

But like any viral movement that receives endorsements [4] from open-source legend Eric Raymond [5] and unites hackers, anarchists, and first-amendment enthusiasts, the 3D-printed gun movement could not be contained by a single organization (Wilson’s Defense Distributed [6]).

And now this – a YouTube user known only as “Matthew” has produced a 3D-printed rifle, dubbed “the Grizzly”, capable of firing up to 14 shots before breaking. This takes the debate from the theoretical to the practical.

“The Grizzly” had previously broken apart after one shot – and “Matthew” used a string to pull the trigger [7] from a safe distance. But in this latest demonstration, Matthew puts cheek to plastic, places flesh on trigger, and squeezes off a round (and 13 more). Remarkably, nothing explodes. And though the reloading process is reminiscent of a muzzleloader from the Civil War – i.e., not very practical – this presents a huge headache for proponents of gun control.

It also illustrates the neat intersection between gun enthusiasts and open-source advocates.

Hacker icon Stewart Brand famously declared that “information wants to be free." And while 3D-printed guns *can* be understood within a 2nd-ammendment framework, it goes much deeper than that. Cody Wilson – a self-described “crypto-libertarian” – and contemporaries seek to illustrate the innate futility of gun control – particularly in our modern information age, where the sum of humanity’s knowledge is accessible at a keystroke.

Like Cody Wilson with his “Liberator,” Matthew plans to make blueprints for “Grizzly” freely available on the internet. The Pirate Bay [8] and other P2P sites already host the “Liberator” and other DIY 3D-printed gun designs.

And though Matthew created the “Grizzly” using the pricey Stratasys Dimension 1200es 3D printer (about $30K [9]), early adopters *will* drive down the cost of such devices. They always do.

Which brings us back to the curious marriage between hackers and gun nuts (a term I use affectionately).

In “Click. Print. Gun [10]”, a documentary about the Wikiweapon movement, Cody Wilson lays out his manifesto succinctly: “Gun control, for us, is a fantasy ... I think it’s unrealistic to think you can ever control this technology...”

"There are people all over the world downloading our files, and we say good. You *should* have access to this," he says.

As a self-described crypto-anarchist, Wilson identifies closely with Tim May’s 1988 manifesto [11] of the same name.

“Guns want to be free: what happens when 3D printing and crypto-anarchy collide? [4]” describes the “Crypto Anarchist Manifesto [11]” as a “staple of the modern cypherpunk, envisioning a new age of individual liberty driven by free-flowing data and secured by the promise of robust encryption technology.”

“Back then crypto was the bread and butter of the growing cypherpunk movement, and to the faithful it represented a future of free information exchange — especially economic exchange — completely unhindered by governments.”

Today, gun enthusiasts are confronting a host of new legislative proposals aimed at curtailing the spread of 3D-printed guns via the Internet and Peer-to-Peer networks. One can almost hear the refrain that “information wants to be free.” It’s no wonder that anarchists and crypto-libertarians have found common ground.

Indeed, Cody Wilson makes reference to Bitcoins [12] – the modern cryptocurrency

– and other staples of the cyberpunk movement. And open-source icon Eric Raymond openly endorses Defense Distributed.

Of the Wikiweapons revolution – and Defense Distributed in particular – Raymond wrote the following on his blog:

“I approve of any development that makes it more difficult for governments and criminals to monopolize the use of force.”

...which is not to say that “Liberator” and “Grizzly” are ready for prime-time or could slip by metal detectors (the nightmare scenario for gun-control advocates).

Both DIY creations make us of coiled metal springs and utilize normal bullets. So they won’t be sneaking past any metal detectors (yet). And the aforementioned prohibitive cost of most 3D printers will probably keep these devices out of the general population – for now, anyway.

Moreover, it’s far easier and cheaper to obtain an unlicensed firearm off the back of someone’s truck than to bother printing one. But that’s immaterial to the crux of the debate, which is the very notion of attempting to regulate something that anyone could theoretically create (albeit, not very easily) based on freely-available blueprints.

To crypto-anarchists, 3D-printed guns are the precise exegesis of the open-source movement. They represent individual liberty and freedom from oppressive (and possibly apocryphal) police states. And I must say that I find this mentality appealing – to a point.

As a member of the publishing community, I don't believe that all information "wants to be free", nor should it. Professionalism is worth paying for (again, to a point), and I believe that artists deserve to be compensated for their work. But where the deliberate monopoly on the flow of information conflicts with individual liberty, I'm a staunch open-source advocate.

I previously noted that 3D-printed guns aren't inherently illegal. ATF regulations [13] allow unlicensed individuals to manufacture firearms for their own use but not sell or distribute them. But the Undetectable Firearms Act of 1988 [14] makes it illegal to "manufacture, import, sell, ship, deliver, possess, transfer, or receive any firearm which is not detectable by walk-through metal detectors." And that's where Cody Wilson, "Matthew," and their contemporaries could run afoul of the law.

While Cody Wilson now possesses a federal firearms license [15] – making him exempt from most of the aforementioned regulations – most of his prospective "clients" don't. To comply with the Undetectable Firearms Act, Defense Distributed added a six-ounce piece of steel to the Liberator's body. But will Cody's contemporaries follow suit?

Blueprints for 3D-printed guns are freely available on P2P networks, Defense Distributed's site, and other sources. Short of a complete federal seizure of the World Wide Web (which is probably impossible), the flow of information cannot be stopped.

Does this prove the ultimate futility of gun control? Does information truly want to be free?

(Check out Kasey Panetta's article: Ban open-source blueprints for guns, save the world, here ***[16])***

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