

On the RepRap project, the origins of desktop 3D printing, and whether copyleft makes a difference

To readers unfamiliar with 3D printing: The RepRap project created the first open-source low-cost desktop 3D printers and kickstarted the 3D printing revolution.

I had never read the [original RepRap paper](#). I found it on the repprap wiki [about](#) page (this is the manuscript version, before the editors got rid of the fantastic figure 13). It reads like prose, almost poetry. It touched me deeply. I feel like I was reading something as important as those works from the postwar period from von Neumann or Shannon... I don't know why. Maybe the contemplative stance that they take. Adrian Bowyer is a philosopher and a genius (see: [Wealth Without Money](#) at the RepRap wiki).

The RepRap project was started all as GPL, so Makerbot and the british Makerbot (I didn't know it existed, but it was called [Bits from Bytes and was acquired by 3DS in 2010](#), probably the reason why Stratasys got jelly) had to be open source regardless of the founders principles.

I wonder whether the GPL licensing was a driving force behind keeping the ethos of 3D printing companies largely free and open? Imagine that repprap had been released as MIT license, would those initial commercial printers would have been less open? Because my understanding is that the Replicator 2 was open source, but it didn't have to be right, since it was a different design.

So the question is whether GPL and copy left *actually* played an important role in making the world a better place, or whether in a world where repprap was MIT licensed we'd have just about as much openness.

I have never ever seen anyone getting sued for not following GPL, so enforcement is actually an open question. The Prusa is also GPL as part of RepRap, the bulk of chinese clones are following the GPL terms, and nobody gets sued, just badmouthed. But I also know that some companies (American I guess) may stay away from GPL in some cases so maybe those who currently operate in the GPL space would play nice and open regardless, and in an alternate universe without GPL where everyone uses MIT the openness would be equal or greater than the current one.