



Making Science Open by Drawing Science.

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1. *Draw Science*

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A little over a year ago, I started a website. This website took me on a journey I could have never imagined. It scored me my first press interview and got me on [Business Insider](#) and [Huffington Post](#). It crushed my lifelong dreams of being a doctor (and built new ones on their ruins). It introduced me to Nobel Laureates and millionaire entrepreneurs. It took me on flights to conferences around the nation and the world.

That website was [Draw Science](#). In high school, science fair was the stomping ground that took me from being an inquisitive student to a published scientist. The only thing I enjoyed more than the work that I did in lab was presenting it. As such, I spent hours designing poster boards filled with diagrams and virtually devoid of text—carefully illustrated with Adobe Creative Suite. At my final science fair appearance, I actually didn't speak to any of my judges; instead I caught the eye of a judge from a different category who spoke with me for three hours about science outreach and blogging. Fueled by unrealistic ambition and an eventless summer, my 16-year-old-self launched a shabbily-coded website the next week: [Draw Science](#). It started as a blog where I created infographics to explain dense—and frankly, boring—science articles.

With no website design experience and having never used Photoshop except to design the high school NHS t-shirt, I was creating infographics out of science papers every week. In the early days, I was pleased to have a small project to spend my free time on. Yet [Draw Science](#) became an unforeseen bend in the road of my career—out of the lab, and into publishing.

Back then, I used to be excited about days when I passed 100 views on a post. Never did I anticipate that just a year since that first post I'd be able to crowdfund money to start an open access publishing platform. Just a few day ago, the launch of the first publication got 500 retweets and the post gets over a thousand views a day. The idea has grown so big that I'm applying for investment to hire more designers.

The point I'm trying to make is that if a sixteen-year-old with a shabbily-coded static website can start something on this scale, then this is just the tip of the iceberg. The winding path of [Draw Science](#) has introduced me to some of the most radical innovators in science: people changing the face of how science is done (and communicated).

Thanks to a generous invitation from the [Lindau-Nobel Laureate Meetings](#) in Germany, I was able to travel across Western Europe to meet some people with the some of the most revolutionary ideas in science: Two Swiss PhD's started a BSL-2 lab in an old printing factory ([Hackuarium](#)). A startup operating dually out of Berlin and Boston created a research network of over 1 million articles ([ScienceOpen](#)). A definition-defying duo quit their postdocs in Belgium to start [Somersault 18:24](#)—an

illustration and outreach business with half-a-million followers on Facebook alone. A burgeoning motley crew of scientists and artists formed the sciart community lab, **BioArt Lab** in Eindhoven.

Looking at the people I met, I noticed one common, identifying factor behind all of their success: open methods. The revolution in science began with the open access movement. Since then, people have been pioneering new ways to make science more accessible and open: from citizen science initiatives like indie labs to science communicators making dense research understandable to the layperson (ie. Draw Science).

That being said, a lot of the time colleagues and friends would ask me in the early days of the blog's existence, "How much were you paid for that graphic?"—only to be astounded when I said, "Well, nothing." But the truth is that in being open, we are investing in the future; ideas grow faster and collaboration becomes easier when information is easily exchanged. For instance, I may not have been paid for the first 20 blog posts I made, but it definitely did pay off when I was able to start my own design agency and the publishing platform—both of which generate revenue.

From a broader standpoint, science communication today is broken—and fixing it is the key to changing a broken "publish or perish" model that stifles innovation. The only way for that to change is for rapid, contagious diffusion of new ideas to replace the old. With open methods, new ideas can spread faster and grow bigger. Let's change how science is done (and communicated), together.