

Thank you PLOS

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Starting next week I will work as the DataCite Technical Director, and I am excited about this new opportunity. But this is material for another post, here I want to reflect on the last three years working as Technical Lead for the PLOS Article-Level Metrics project.

It feels much longer than three years, but until May 2012 I worked as medical oncologist at Hannover Medical School, treating patient with cancer, attending interdisciplinary tumor boards and helping with clinical trials. It was a very brave move by PLOS to hire me at this point, especially since I worked remotely from Germany rather than in the San Francisco office. I will be forever thankful to PLOS for giving me this opportunity.

Two factors probably played a role in this decision: I have been blogging about how the internet is changing scholarly communication since 2007, and since September 2010 I had my blog on the PLOS Blogs Network. I had also visited the PLOS offices in San Francisco, and had met several PLOS people at conferences, including Pete Binfield, Rich Cave, Mark Patterson, Brian Mossop, Jennifer Lin and Liz Allen. I had interviewed Pete Binfield about PLOS ONE and the PLOS Article-Level Metrics project in August 2009, shortly after the project was launched.

The other factor was the hackathon at the 2011 Science Online London conference. We were a really small group of people (I remember Jason Hoyt, Victor Henning, Kristi Holmes and Cameron Neylon, Mendeley was hosting the event), but I had the idea to hack the open source PLOS Article-Level Metrics application. This hack turned into ScienceCard, a version of the PLOS Article-Level Metrics application focussing on people rather than articles, and the application was a finalist for the Mendeley/PLOS API Binary Battle. ScienceCard doesn't exist anymore, but the concept of organizing metrics around a person lives on in ImpactStory (see my profile here), facilitated by the launch of ORCID in October 2012. More importantly - without me knowing it - ScienceCard demonstrated that I could work with and extend the PLOS Article-Level Metrics code, and I think I was the first person outside of PLOS doing this. Which must have helped when PLOS was looking for a technical lead for the project a few months later.

In other words, blogging and hacking code can lead to great job opportunities.

While at PLOS I not only learned a ton of things about article-level metrics and all its challenges and opportunities, but also many basic skills needed in software development. Which is important, as my formal training is in clinical medicine and molecular biology, and doing software development in your free time (which I had done since the 1990s) only gets you so far. Some of the unexpected things I learned:

- **Visualizations:** while it was clear that I was expected to generate visualizations for the PLOS Article-Level Metrics data, I didn't expect this to go so deep, first with R and later with d3.js. Najko Jahn introduced me to using R to analyze the PLOS data, and I later worked closely with Scott Chamberlain from the rOpenSci project to help improve their alm package. The Javascript work with d3.js started with AlmViz at the 2012 ALM hackathon and later was done in close collaboration with Juan Alperin from the Public Knowledge Project.
- **DevOps:** the intersection of software development and system administration. I became a big fan and have spent endless hours learning how to automate the configuration and deployment of servers and other infrastructure.
- **Open source community building:** again something I was expected to do around the PLOS article-level metrics open source application, but I never expected this to be so challenging and time-consuming, but also rewarding.

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