

and accessible. They mandated that researchers and academic institutions better manage and disseminate their research outputs. Institutions looking to comply with this new mandate became interested in Figshare. Figshare once again diversified its business model, adding services for institutions.

Figshare now offers a range of fee-based services to institutions, including their own minibrand Figshare space (called Figshare for Institutions) that securely hosts research data of institutions in the cloud. Services include not just hosting but data metrics, data dissemination, and user-group administration. Figshare's workflow, and the services they offer for institutions, take into account the needs of librarians and administrators, as well as of the researchers.

As with researchers and publishers, Figshare encouraged institutions to share their research with CC BY (Attribution) and their data with CC0 (into the public domain). Funders who require researchers and institutions to use open licensing believe in the social responsibilities and benefits of making research accessible to all. Publishing research in this open way has come to be called open access. But not all funders specify CC BY; some institutions want to offer their researchers a choice, including less permissive licenses like CC BY-NC (Attribution-NonCommercial), CC BY-SA (Attribution-ShareAlike), or CC BY-ND (Attribution-NoDerivs).

For Mark this created a conflict. On the one hand, the principles and benefits of open science are at the heart of Figshare, and Mark believes CC BY is the best license for this. On the other hand, institutions were saying they wouldn't use Figshare unless it offered a choice in licenses. He initially refused to offer anything beyond CC0 and CC BY, but after seeing an open-source CERN project offer all Creative Commons licenses without any negative repercussions, he decided to follow suit.

Mark is thinking of doing a Figshare study that tracks research dissemination according to Creative Commons license, and gathering metrics on views, citations, and downloads.

You could see which license generates the biggest impact. If the data showed that CC BY is more impactful, Mark believes more and more researchers and institutions will make it their license of choice.

Figshare has an Application Programming Interface (API) that makes it possible for data to be pulled from Figshare and used in other applications. As an example, Mark shared a Figshare data set showing the journal subscriptions that higher-education institutions in the United Kingdom paid to ten major publishers.¹ Figshare's API enables that data to be pulled into an app developed by a completely different researcher that converts the data into a visually interesting graph, which any viewer can alter by changing any of the variables.²

The free version of Figshare has built a community of academics, who through word of mouth and presentations have promoted and spread awareness of Figshare. To amplify and reward the community, Figshare established an Advisor program, providing those who promoted Figshare with hoodies and T-shirts, early access to new features, and travel expenses when they gave presentations outside of their area. These Advisors also helped Mark on what license to use for software code and whether to offer universities an option of using Creative Commons licenses.

Mark says his success is partly about being in the right place at the right time. He also believes that the diversification of Figshare's model over time has been key to success. Figshare now offers a comprehensive set of services to researchers, publishers, and institutions.³ If he had relied solely on revenue from premium subscriptions, he believes Figshare would have struggled. In Figshare's early days, their primary users were early-career and late-career academics. It has only been because funders mandated open licensing that Figshare is now being used by the mainstream.
