

Digital Science - A new model for innovation in scholarly communication

Digital Science was started in 2010 by founder and Managing Director, Timo Hannay. The impetus for the project stemmed from a series of discussions between Timo and then CEO of Macmillan Publishers, Annette Thomas. Timo and Annette realised that scientific publishing - and by extension scholarly communication as a whole - was potentially on the brink of significant and potentially highly disruptive change. Wide adoption of digital communication and the internet was already causing changes to business models, for example the emergence of both the site licence and author pays models. The mechanics of how publishers served researchers, however, had changed little except that the photocopied printed page, had now become a PDF downloaded from the internet.

Faced with the potential for disintermediation that the internet and digital technology provided, Timo and Annette decided that publishers must adapt to the new digital realities and find ways to provide support and value to researchers beyond the selling of licensed content.

The publisher's new job is to serve the researcher at all stages of the research cycle.

-Annete Thomas

After an initial series of high level discussions with Macmillan's parent company, Holtzbrinck Publishing Group, a small team was assembled to put together a strategy for what was then called project Babbage. The strategy involved a combination of in-house product development and strategic investment and drew from market trends such as open science and alternative metrics. A suite of interconnected digital tools was created that was designed to directly support researchers in everything from searching the literature more effectively, to managing their experiments, to publishing data and monitoring the impact of their work.

Over time, it became clear that a new infrastructure for scholarly communication was beginning to emerge that involved publishers, funders, libraries, research managers and the researchers themselves. Digital Science therefore needed to interact closely and understand the needs and perspectives of all of these stakeholders.

Many of the companies that Digital Science invested in had created technologies oriented towards serving researchers' scholarly communication needs. This was a deliberate strategy that placed the academics themselves at the heart of the innovation, but work had to be done to turn innovative technologies into products that serve the needs of all stakeholders. To that end, business development groups were set up for both publisher and institutional

solutions to conduct market analysis, thought leadership and sales operations, supported by a centralized marketing team. Combined with investment in research data company Uber Research and the creation of a consulting division, Digital Science was able to develop a uniquely multi-faceted understanding of the scholarly communication landscape that enabled it to build solutions for each stakeholder.

Along the way Digital Science learned an important if difficult lesson - product development was best left to the portfolio companies in which it invested. After several attempts to develop products centrally within Digital Science did not meet expectations, the business had to accept that the portfolio companies were better suited to deliver products, while the central Digital Science team should focus on providing commercial, legal and operational support to help those businesses scale.

Today, Digital Science's products help accelerate the flow of information throughout the research cycle.

We provide business intelligence to publishers through products like **Altmetric**, **ReadCube** and **Uber Research**, as well as help them innovate and compete in the fast moving data publishing market with **figshare**.

We help institutions manage and curate their research output with **Symplectic**, **Figshare** and **Altmetric**.

Our newest addition, **Overleaf**, is a workflow solution that helps publishers and institutions support and engage with researchers as a collaborative authorship tool.

Uber Research also enables funders to analyse the effectiveness of funding programs and benchmark them against others.

Lastly, and perhaps most importantly, we stay true to our original aim of helping researchers organize information, collaborate, communicate, and develop their professional reputations more easily and effectively than ever.

