



SPARC*
Europe

10 Key Interviews

INSIGHTS INTO THE SUSTAINABILITY OF
OPEN INFRASTRUCTURE SERVICES

01

An Invest in Open Infrastructure project
More info: www.sparceurope.org/ioiinterviews



ABOUT THE PROJECT

Gleaning Insights

Research and scholarship is underpinned by a variety of tools, technologies and services ranging from for-profit commercial solutions and offerings from vendors to community-owned, open technologies and infrastructure. We often hear about the challenges for open infrastructure tools and services to scale, maintain, and compete in the broader market.

The 10 interviews comprised in this project highlight some of the key decision-making points, funding mechanisms and models, and other learnings from a series of commonly used services and technologies used to support research and scholarship. These include both for-profit and not-for-profit services, highlighting perspectives on sustainability across the sector.

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WHO WAS INTERVIEWED?

Overview

arXiv

Code Ocean

Dryad

EDP Sciences

F1000 Research

Figshare

Our Research *Featured in this document.*

Mendeley

Redalyc

4TU.Research.Data

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Interview: Our Research, US and Canada

**"Financial sustainability
requires a healthy spread
of income sources, and
continuity of those"**

Heather Piwovar, Co-founder, Canada

OUR RESEARCH

Heather Piwowar, Co-founder,
Canada



At a Glance

Type of activities:

Data-intensive tools to accelerate open science

Life-cycle stage:

Founded in 2011, now scaling and expanding with new products

Current legal structure and funding model:

Independent 501c3 not-for-profit company (without shareholders), with a business model of charging customers for some of the services provided and sometimes grants

Technology:

Open source under an MIT license

Sustainability

'We have a sustainable business model now, we make enough money from earned revenue to run the organisation. We've received money in different ways in the past, including grants and subcontracting for open source feature improvements in our own projects.'

Piece of Advice

'We know other people and initiatives that went a different route (for-profit), and they are also doing good things for the community. So, it was not an easy decision for us.'

'There is not really a space for "we are a not-for-profit, we charge you money, but we are an ally."'

'Financial sustainability requires a healthy spread of income sources, and continuity of those.'

'You have to build something they really want, and not something that is just "open."'

'We feel we have quite a bit of experience in all of this and we'd like to be open about our experience and help other people by sharing that experience. If people have further questions, we encourage them to get in touch.'

OUR RESEARCH

Our Research is an independent 501c3 not-for-profit company, co-founded by Heather Piwowar and Jason Priem. It provides data-intensive tools to accelerate open science and is currently scaling and expanding with new products. It has a business model of charging customers for some of the services provided and sometimes grants, and is currently incorporated in the US and Canada.

Original vision

Co-founder Heather Piwowar tells us that she and co-founder Jason Priem were motivated to provide a platform for researchers to stimulate open science. 'We wanted to build an open science profile for researchers, so that they could be rewarded for their open science contributions, and to give them an incentive to do more of it. That was "Total Impact," the original project.'

The forerunner of Our Research was a side project at first – Piwowar and Priem incorporated as a non-profit when they obtained their first grant. 'Originally, it was a skunkworks project, something that we did on our weekends and evenings while we were a postdoc and a PhD student. It had no formal structure; it was just us working on some code that was on a Github repository. The project started at a hackathon at a "Beyond Impact" workshop (by Cameron Neylon) and we got a small grant from the Open Science Foundation.

We were subsequently part of Duke University for a while, and our first Sloan grant was through Duke University, awarded to me as a postdoc, as Principal Investigator. Getting the Sloan grant was on the condition that we were going to be a non-profit, which we weren't at the time. So we had to prepare and organise a few things there (like keeping a separate bank account).' 'What we didn't consider at the time was finding a fiscal sponsor, because that wasn't as common when we were getting started as it is now, and it wasn't particularly on offer. So we didn't really consider it very much.'

'Then, we incorporated as a (non-profit) business, and started the proceedings for a 501c3 status (tax exemptions for non-profit organisations). We had help from a lawyer through Duke University. Getting the 501c3 status required a lot of paperwork, which took a long time, and then it took about a year to be approved.

'By the end of all that, we were a stand-alone North Carolina incorporated company that was 501c3. Incorporating in North Carolina made sense for a variety of reasons, and that is where we were at the time!'

'Throughout, Jason and I really had to figure it all out ourselves, although there was support and advice from our board, and really early on from Duke University's accountant and legal team.'

Growth and sustainability challenges

Initially, Our Research primarily relied on grants for funding. The grant that made the company take off was the Sloan grant. 'We applied for it, as it was money we needed to keep going. Jason first did a personal pitch at a conference and the Program Director at Sloan liked it, and then we went from there. Then we got another Sloan grant, which was bigger and helped us to incorporate. It didn't feel like a fork in the road, like "should we apply for that or not?" But had we not gotten it, it would all

'YOU HAVE TO BUILD SOMETHING THEY REALLY WANT, AND NOT SOMETHING THAT IS JUST "OPEN."'

have been very different.'

A subsequent National Science Foundation (NSF) grant ensured the organisation's continuity when funds ran dry a few years later. 'We applied for an NSF grant for measuring the benefits of open source research software. An NSF grant is really administratively complicated to apply for. If the NSF agrees to fund you because it is a good proposal, then you still need to be certified as a good organisation to get money. And that is not actually a rubber stamp. We hit a fork in the road and asked: "Do we want to keep on doing this? What is the likelihood they'll say yes to us and give us the money? Should we keep investing in trying to get the money?" And we did, and they gave us the money. That didn't matter to us that much right away, but one-and-a-half years later, that money was really helpful, because we were running out of cash. There was a dry period, when the NSF money was the only money coming in, and that really helped.'

Running Our Research has not always been easy. 'There was one time that we really almost ran out of money and agreed to

reduce our salaries to 25,000 USD a year. But we never considered taking a loan from a bank, and we're non-profit, so what would an investment mean? What we did do though, was take on mission-advancing paid consultancy work to add features to our open source projects, as subcontractors, for a big commercial player and also for a larger non-profit organisation. That's not an investment, nor a grant. It helped us a lot though, financially.'

Currently, the company brings in enough to keep going. 'We feel we have a sustainable business model now, getting the money we need to run the organisation/operation. We've received money in different ways in the past, with some overlap, specifically with the grants, but we haven't gotten any grants recently. We may get money via grants in the future but it is comforting to be sustainable without grants and currently we are.'

This sustainability is ensured through two different products. The first product is "Unpaywall". As Piwowar explains: 'Almost all of Unpaywall is free (the browser extension and the API), but if you want access to a weekly

update (data feed), for instance to enhance your own product with data you keep up to date locally, or if you want a negotiated contract with certain guarantees, there is a fee. We have about 30 paying customers like that, which is not very many, but some of them are quite big. And this has been enough to fund the rest of our operations (around half a million USD in total last year).'

She mentions that they're working hard on not being too dependent on a few large customers. 'We need to be sure we're not too constrained and dependent on a few large customers, and have a healthy spread. We're working hard to ensure financial continuity, so we can continue to do what we want to do, even if our big customers walk away.'

The second product that brings in revenue is 'Unsub,' a tool that helps librarians analyse and optimize their journal subscriptions. 'Our initial goal is that it makes enough money to mitigate the risks of the Unpaywall's client base and distribution, especially because some of our current large Unpaywall customers are not inherently long-term allies of our open science mission. Unsub has been

around since November 2019 and has a more normal business model: if you want to use it, you pay us money (as in, universities taking a subscription to Unsub). People understand that and it has its benefits. The code is all open source and open data (limited only by the universities themselves), but we're not worried that people would clone it and do it themselves, as it is a hosted service which makes that more trouble than it is worth.'

Apart from these two products, Our Research obtained an 850,000 USD grant from Arcadia (a charitable fund of Lisbet Rausing and Peter Baldwin) two years ago for a public outreach tool called 'Get the Research.' 'We created that in the first year of the grant, and now we're maintaining it.'

Another product that Our Research experimented with was paid profiles for researchers, but it is currently on a holding pattern. 'There was one big decision point: we had these profiles of people that we wanted to make, and they were always free, and then we had to decide: "should we charge people for them?" And we decided: yes. We charged for about a year, a year and a half, and made about 30,000 USD in a year, which is not nothing, but it wasn't enough to keep it going. So then we decided to make the profiles free again. We hope to get another grant in the future to fund another go at Profiles. Open

science is more mature now, and there are open sources of altmetrics and citations — maybe we were just too early!'

Opportunities, considerations and choices

Piowar explains that becoming a non-profit was influenced by the first large grant they won. 'If no grantors had cared if you were a for-profit or a not-for-profit, we might have become a for-profit. It's possible. Between Jason and myself, we did have a lot of conversations about whether or not we should be a for-profit or a non-profit, but the conditions imposed by the Sloan grant definitely influenced our decision.'

That said, the choice to become a non-profit was not only a consequence of the Sloan grant's conditions but also another consideration: 'People in academia sometimes view non-profits differently than for-profits. Our primary motivation is that we want to make the world a better place. We really wanted a structure and communication that highlighted that. That's what it came down to, and that's the main reason we picked non-profit. Two other reasons were that it made some things easier in academia and that you could get grants in that way.'

'We know other people and initiatives that went a different route, and they are also doing

good things for the community. So, it was not an easy decision for us.'

Indeed, while incorporating as a non-profit made sense, it also presented some challenges in terms of growth, because many start-up services only work with for-profit companies. 'Being for-profit is the more normal way to be a start-up, and being a normal start-up has many benefits: you can be in accelerator programs (non-profits normally can't join that; they don't know what to do with them), you can follow general start-up advice, follow the metrics, and so on. So, that was certainly appealing. Both of us are also big believers in the idea that money shows what people value. And if they pay for something, they value it differently and also, you know just how much they value it. It's like doing it the standard way; all these capitalist things that people think, we think too. Also, we're not against making money, and being rich. We like that as much as the next person.' Hence, Our Research's choice to incorporate as a non-profit was motivated by a number of personal considerations and professional experiences.

The set-up has remained the same since then, except for the trading name and an additional incorporation in Canada. 'The name of the company when it was small was "Total Impact" and we became "Impactstory" at the time we incorporated. Our legal name is still

Impactstory, but within the last year we've been doing business as "Our Research" to reflect our expanded scope. And obviously, our board members have changed slightly over time.' We've also become extra-provincially registered in the province of British Columbia (Canada) since Jason and I both live here now but the legal structure and set-up since we became a 501c3 hasn't changed'.

Consequences of current funding model

While being a not-for-profit and a 501c3 prevented Our Research from selling equity and issuing shares, it offered other opportunities. 'We could get donations and we could get grants. We didn't get all the grants we applied for, but we did get most of them. And sometimes we actively pursued money, and sometimes people also came to us. There was never any money offered that we didn't take.

'Piwowar admits that Our Research sometimes struggles with its status as a non-profit service provider that charges for services. 'Being a non-profit was an obstacle because it made it harder to follow regular start-up advice. 'In some cases, being a not-for-profit hasn't helped as much as we thought it would. As soon as a business starts charging for something, it is designated as a "vendor." Library services and researchers, with their

researcher hat on, often ask: "Are you a company, or aren't you?" If something is a university project, it is not a company. And as long as something is free, it barely counts as a company. But as soon as you charge, you're a vendor. There is not really a space for "we charge you money, but we are an ally." That is probably also because the reality is that in our space, we have large not-for-profits who actually act like they are for-profit (for example CCC, OCLC, and even HighWire at one time). So, why would they get special treatment?"

'Our goal isn't to make money for our shareholders – as a non-profit, we don't have any shareholders. We may make a surplus in one given year which we reinvest for the future, although in reality we barely have over the years. It remains a public relations challenge to prove that our goal is to improve scholarly communications. I wonder if people should care about whether a company is for-profit or not-for-profit, especially if similar services are offered/doing the same good for society?'

Future vision for sustainability

Piwowar says, 'One of the advantages of being so small is that you can be nimble and react to the current situation. I don't know exactly where we'll be in five years, but somewhere bringing together scholarly communication data in ways that make a difference.

What is clear, however, is that Our Research is looking towards both grants and revenue to ensure future sustainability. 'In terms of funding, I hope we'll have earned revenue and I hope we have grants. It seems silly not to pursue both of those options. If we would bring more money in than we need for our operations in a given year, we would use that to invest in a new product, and you can then do that before you need a new grant. Also, most of us don't have six months of operating cost in the bank, and we should. So the first thing you do in case of surplus is get these six months of operating costs in the bank and don't touch it. If there is money left over, we will use that to pursue our mission. Whether that means hiring more people, or investing in the new product ideas, we'll see!

"These are all really pragmatic things: you don't want people to re-invent the wheel or waste focus and energy on them.'

Advice for peers

Piwowar points to the value of meetings with peers to share best practices for growing and sustaining open science infrastructure. 'One thing that was amazing was Joint Roadmap for Open Science Tools (2018 JROST Meeting in California). It was great to have everyone together and to think about things in a nuts-and-bolts perspective, e.g.: How many people are on your board? Do your directors have

insurance? Do you have a sales person? Does it work to contract out sales, etc.? Just sharing all those experiences was extremely useful, and we just touched the surface. Having this periodically with whomever the current crop is, and then keep on going is huge for emotional validation and also for practical help (like, here's a contract where we've already vetted which parts universities always want to negotiate, etc.). It is about having access to each other, being able to share best practices, pick somebody's brain, and have that facilitated and funded.'

'One more pragmatic thing that could help: selling to libraries and all of these purchasing systems we need to be in is a real burden for a

start-up, and it can be a real barrier. So, if there were a middleman that is already in all these vendor purchasing systems, it would really open up the opportunity to sell to libraries in a whole new way.'

Piowar ends with the following advice: 'You have to build something in high demand, and not something that is just "open." We feel we have quite a bit of experience in all of this and we'd like to be open about our experience and help other people by sharing that experience. I'm glad to participate in this project, and if people have further questions, we encourage them to get in touch. We're happy to be very specific and very open.'