

# OR2015 | 10th International Conference on Open Repositories

June 8-11, 2015, Indianapolis, Indiana, USA

## Title of Proposal

### Funding models for open access digital repositories

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## Session Type (select one)

- Panel
- Presentation

## Abstract

This presentation examines funding models for open access digital repositories. Whilst such repositories are free to access, they are not without significant cost to build and maintain. The lack of a direct funding stream through payment for use poses a considerable challenge to open access repositories and places their future and the digital collections they hold at risk. We document and critically review 14 different potential funding streams, grouped into six classes with a particular focus on funding academic research data repositories. There is no straightforward solution to funding open access digital repositories, with a number of general and specific challenges facing each repository and funding stream. We advocate the adoption of a blended approach that seeks to ameliorate cyclical effects across funding streams by generating income from a number of sources rather than overly relying on a single one. Creating open access repositories is a laudable ambition, however such repositories need to find sustainable and stable ways to fund their activities or they place the collections they hold at significant risk. Our review assesses and provides concrete advice with respect to potential funding streams in order to help repository owners address the financing conundrum they face.

## Conference Themes

Select the conference theme(s) your proposal best addresses:

- Supporting Open Scholarship, Open Science, and Cultural Heritage
- Managing Research (and Open) Data
- Integrating with External Systems
- Re-using Repository Content
- Exploring Metrics and Assessment
- Managing Rights
- Developing and Training Staff
- Building the Perfect Repository

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## Keywords

Sustainability; Funding; Open Access

## Audience

Repository managers; Policy makers; Funding agencies;

## Background

This proposal addresses two of the themes of OR2015 – supporting open scholarship and building the perfect repository. It outlines a number of strategies to provide long-term sustainable funding for open access repositories and suggests when each of them might be appropriate. By securing a strong financial base, the organization is then able to focus its efforts on enhancing services and engagement with both the user community and collection owners.

## Presentation content

The founding of the internet was a significant disruptive innovation with respect to the publishing and sharing of data, information and knowledge. Progressively, online publication and databases have undermined traditional barriers to distributing and accessing the fruits of academic labour (e.g., papers, books, data), and created new forms of scholarly communication (e.g., social media), by enabling thoughts and files to be easily disseminated and accessed through ICT networks. Until recently, however, traditional forms of publishing and academic practices have remained remarkably robust, with academics largely preferring to publish in well-established, for-profit, peer-review journals and with print presses, and to hoard rather than share data. In part this is inertia, but is also due to perceptions about quality, standards, the ways in which academic labour is assessed with regard to worth, and ingrained academic practices including career progression models built on traditional academic outputs. Current debates concerning open access publishing and the opening and sharing of data, and changes in the terms and conditions of research funding, are set to transform how and what academic outputs are disseminated.

Put simply, open access in its purest form is “digital, online, free of charge, and free of most copyright and licensing restrictions”. In other words, it seeks to remove both “price barriers (subscriptions, licensing fees, pay-per-view fees) and permission barriers (most copyright and licensing restrictions)” so that material is freely available “on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles [or databases], crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself”. Here, academic outputs are seen as public goods, having largely been paid for by public monies (through core state funding to universities and research funding through state agencies), and their sharing represents a public good. In the ensuing debate a range of different open access positions have emerged that take varying positions on

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issues such as permission barriers, timing, and who pays and how for production (given that open access is not cost free, involving significant labour, service and technology costs), including gratis OA (free of charge, but not free of copyright or licensing restrictions), libre OA (free of charge and expressly permits uses beyond fair use), delayed OA (paid access initially, becoming open after a set time period), green and gold OA (pay-for-production followed delayed publication in an open access repository or gratis OA), and so on.

Internationally there has been significant adoption of open access policies to research publications. For example, by October 2014, the ROARMAP project had documented over 90 policies, drawn from over 45 countries, in which funding agencies mandated open access to research publications. The European Commission expresses its vision on open access as follows:

“The vision underlying the Commission’s strategy on open data and knowledge circulation is that information already paid for by the public purse should not be paid for again each time it is accessed or used, and that it should benefit European companies and citizens to the full. This means making publicly-funded scientific information available online, at no extra cost, to European researchers and citizens via sustainable e-infrastructures, also ensuring long-term access to avoid losing scientific information of unique value”

In Horizon 2020 all funded projects will be mandated to provide open access to peer-reviewed publications.

The natural progression from opening publications to wider access to opening up other academic outputs such as research data and research infrastructures is also underway. Over the past two decades the research agencies of national governments and supranational bodies such as the European Union, along with philanthropic organisations, have invested extensively in funding a wide variety of data infrastructures. For example in Europe there are large-scale programmes such as European Strategy Forum on Research Infrastructures (ESFRI) and e-Infrastructures Reflection Group (e-IRG), and thematic large-scale European Research Infrastructure Consortia (ERICs) relating to supporting access to research data in the humanities and social sciences, such as DARIAH (Digital Research Infrastructure for the Arts and Humanities), CLARIN (Common Language Resources and Technology Infrastructure), and CESSDA (Council of European Social Science Data Archives), as well as many others related to the sciences. Further, the EU Commission is also currently developing a Charter for Access to Research Infrastructures – a voluntary code of practice for transparent access to publicly funded repositories. Other initiatives which enable open data sharing and preservation include the global Research Data Alliance (RDA) and the Digital Preservation Coalition (DPC). In 2012 the EU Commission re-iterated their commitment to open access, broadening its focus to research data, noting that:

“Open access to scientific research data enhances data quality, reduces the need for duplication of research, speeds up scientific progress and helps to combat scientific fraud.

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... [T]he High Level Expert Group on Scientific Data emphasised the critical importance of sharing and preserving reliable data produced during the scientific process. Policy action on access to data is therefore urgent and should be recommended to Member States”

This move towards open access research data has been accompanied by a broader focused open data movement that has developed in tandem with the right to information (RTI) movement (freedom of information) and open government. The movement is built on three principles: openness, participation and collaboration; that through transparency, sharing and working together the value of data for society can be realised. In particular, attention has been focused on opening data that has been produced by state agencies (often termed public sector information/PSI) for re-use. Since the late 2000s the movement has gained traction with dozens of countries and international organisations (e.g., EU, UNDP), making thousands of previously restricted datasets open in nature for non-commercial and commercial use. Such a shift in position has been facilitated by influential international and national lobby groups such as the Open Knowledge Foundation and the Sunlight Foundation, accompanied by the lobbying of knowledge economy industry groups and companies, and local citizen groups seeking to leverage municipal data.

In this presentation, we focus our attention on open access research data repositories and in particular how they are funded. We start by outlining the logic, work and benefits of digital data repositories. We note that while the arguments in favour of open access data repositories are compelling, most initiatives are funded precariously. This is followed by a critical examination of 14 different funding models, grouped into six classes (institutional, philanthropy, research, audience, service, volunteer), that might be used to provide revenue streams to support their work. We note examples where these models have been used by repositories and archives.

We next discuss the challenges that delimit what models might be pursued and the risks of failing to find sustainable funding models, drawing on our own experience of seeking continuation funding for the Digital Repository of Ireland an initiative funded for four years by the Irish Higher Education Authority through its Programme for Research in Third Level Institutions, Cycle 5. The DRI is a national research infrastructure for the humanities and social sciences that also serves as a trusted digital repository for the Irish GLAM sector (Galleries, Libraries, Archives, and Museums). It is an open digital repository using open source software and open metadata CC-BY licence, and advocates for open access, however the content owners can set the rights and access conditions, with some data under copyright and access to sensitive social science data restricted for legal reasons.

We conclude that while much critical attention has focused on the relative merits of open access initiatives, much less consideration has been paid to how such initiatives are to be sustained in the absence of payment to access. Whilst open digital repositories are free to access, they are not without significant cost to build and maintain, and unstable and cyclical funding poses considerable risks to their futures and the digital collections they hold. It is therefore vital to

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develop sustainable funding models to support their long term future and ensure their benefits are realised.

## Conclusion

There is no single model of funding that works for all repositories. Depending on circumstances different approaches must be taken. Diversification of funding streams is key to ensuring long term sustainability for open access repositories.

## References

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