CRIS2018 extended abstract

Title:

Let's Talk Some More - Interoperability between University CRIS/IR and Researchfish – a follow up case study from the UK

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Abstract:

Background

Research funders and research organisations both require feedback on the progress, productivity and quality of the research they support. This information originates with researchers but may be captured in a variety of systems including University CRIS/IR and funder systems. In 2014 all 7 national Research Councils (collectively referred to as RCUK) implemented a harmonized approach to the collection of research output data, currently supported by Researchfish Ltd (referred to as the Researchfish® system). In 2018 Researchfish gathers information on behalf of over 100 research organisations in Europe, North America and Australasia, includes over 80,000 researchers, tracks more than £40billion of public and charity research investment and maintains a dataset of more than 2.5 million outputs.

Researchers, research managers and funders want to find ways to capture this data once and achieve wide re-use of the information. Working together University and Research Council officers, Researchfish Ltd. and Jisc have highlighted that it is important for the "interoperability" between research information systems to be improved.

In 2015 these organisations started a programme of work to improve the bi-directional flow of information between University and funder systems. Preliminary results from the pilot were presented at CRIS2016 in Clements, A., Viney, I., Reddick, G., McCutcheon, V. , Macandrew, H., Toon, J., McArdle, I., Collet, S. and Wastl, J. (2017) Let's talk - interoperability between University CRIS/IR and Researchfish: a case study from the UK. Procedia Computer Science, 106, pp. 220-231. (doi:10.1016/j.procs.2017.03.019) and focused on the creation of the project and the limited transfer of publication information from 6 pilot universities in the UK.

2016 – Present: Widening and Deepening Interoperability

This paper describes how the pilot was extended over the next two years and explains key lessons in four areas: 1. How communications and business processes have helped to increase the level of interoperability of publication data from a range of different CRIS systems. 2. How the third phase of the pilot looking at the feasibility of interoperability around non-publication outputs found that there was already a great deal of scope in this area and identified a series of key lessons to increase the scale of information exchange. 3. What happened when the ability to exchange publication information was expand beyond the 6 pilot universities to all research organisations using Researchfish. 4. How the lessons gained from the project can be implemented and what the next steps might be.

1. Communications and business processes
In 2016 the original pilot was concerned not only with the technical details of information exchange, but also how to identify business processes and a communication strategy to encourage behaviour conducive to that exchange. Universities worked together to identify and produce a "best practice" guide to help other universities interested in getting the most from interoperability. This paper shares the lessons learned by these institutions and explains how following them helped to ensure that researchers and institutions gained the maximum benefit from interoperability.

2. Deepening interoperability: Non-publication outputs
In 2017 as part of the deepening of interoperability between university systems and Researchfish, the original 6 institutions took part in a pilot exercise in sharing existing non-publication output information with Digital Object Identifiers. The British Library assisted in understanding the possibilities offered by Datacite, which include datasets, software and physical artefacts. The initial examination showed that the information held by these universities was already amenable to data exchange, but a small number of changes to the way that the information was managed would result in their data being substantially more interoperable. This paper shares the lessons learned and challenges encountered in this area, along with the opportunities currently available to all institutions in ensuring that their data is findable, accessible, interoperable and re-usable.

3. Widening Interoperability: Expansion beyond the pilot
In 2018 the ability to exchange publication information was expanded beyond the original 6 pilot institutions and opened up to all research organisations using Researchfish. This paper includes a statistical analysis of the results of the first year of this widening to show the benefits already realised, and also the challenges still remaining.

4. How the lessons gained from this project can be implemented elsewhere and what other steps can be taken

This paper identifies opportunities for improving interoperability and leveraging existing data infrastructures to make it easier to "report once, reuse many times" both in Researchfish and with university systems more generally. The interoperability project in the UK has been highly successful in achieving not only demonstrable results, but also ensuring that all stakeholders have remained invested in both the process and results. This project provides a model that could be adopted more widely to help advance the interoperability of research information in other countries.

Keywords: