
Making a splash with ORCA: Cardiff University's Institutional Repository

Louise Harrington
I-WIRE Project Support Officer
Cardiff University
Tel: (02920) 875680
Email: HarringtonLE1@cf.ac.uk

Cardiff University's mission is to 'to pursue research, learning and teaching of international distinction and impact in a rich and varied research-led environment where all staff and students can achieve their full potential to the benefit of the wider community and society as a whole.'¹, and the future role of the university's institutional repository, ORCA (Online Research @ Cardiff, www.orca.cf.ac.uk), is becoming central to the university's management of research publication data. ORCA's role has been given added support with the decision in October 2008 by the university research committee to approve a mandate that will require all researchers to deposit publication data and full text articles (where copyright allows) into ORCA. This article will discuss the route taken in a) delivering a more suitable mode of deposit that will help researchers to promote their work and thereby enhance the research profile of Cardiff University and b) informing attitudes towards open access and institutional repositories and discussing the possible ways forward for the repository and the library service.

HISTORY AND BACKGROUND

Cardiff University's institutional repository ORCA was established in 2008 following the completion of a project to upgrade and re-launch the pilot repository, originally called Cardiff eprints. This pilot project was established in 2005, and during 2007 an advocacy campaign was launched to highlight the new service and its benefits to Cardiff research. During this initial period, the institutional repository landscape changed from the original emphasis on institutions' open access

commitment, towards maintaining a publications management database. While initially, it was thought that academic authors would be the main users of the repository, school managers soon began to express an interest in having their publications data imported into Cardiff eprints. This aspiration shaped the approach to the establishment of ORCA. ORCA then became a fully supported service in May 2008 with the beginnings of a comprehensive publications database containing, amongst others, all the university's 2007 RAE publication data. Following consideration of the university librarian's paper 'Research communications: current trends and opportunities', the mandate was approved 'subject to detailed consideration as to the means by which staff upload data to the repository'² in October 2008. While the research committee and the university library service (ULS) recognised the growing importance of the institutional repository, it was also clear that, as it stood, the deposit process was time-consuming and cumbersome, as the ORCA deposit interface was not particularly user-friendly. With ORCA therefore identified as a strategic priority within the university's research committee's action plan, Cardiff ULS applied for funding from JISC's Repository Enhancement Strand for a two-year project, the Integrated Workflow for Institutional Repository Enhancement (I-WIRE) project, a bid which proved successful and the project was established in April 2009.

THE I-WIRE PROJECT

The project's objective was to provide a simpler interface for ORCA which would allow users to deposit their research easily and quickly. With funding and the full project team in place, the project began in earnest in October 2009. From the start, the focus was on engaging with potential users of ORCA, the academic authors and school research managers. Initially, the project team, in partnership with the subject librarians responsible for each academic school, undertook a detailed review of how schools and authors currently managed their research publication data; we interviewed research administrators and authors, both individually and in group sessions, in order to understand what they needed from an institutional repository, and how the library service could enhance its support services for researchers. It became clear that there were several 'stumbling blocks' to authors self-depositing in ORCA, among which were:

- the complexity and uncertainty around the whole area of copyright policies and which version of articles can be deposited where
- the perception that target audiences will have access to relevant research articles through journal subscriptions anyway, so depositing to an institutional repository is an unnecessary step
- academics don't have time to deposit so anything beyond a single click is too time consuming.

The prevailing outcome of the requirements interviews was that, in order to encourage wider use of ORCA, what was needed was a quicker way to populate metadata. For example: through the use of DOIs, clearer copyright policies on deposit, and the ability to re-use publication data to feed websites, for funding applications and internal review procedures. Another key requirement for research administrators was the ability to link with other management systems.

The outcome of the project was the creation of a quick deposit tool for the ORCA database. It is called 'Manage My Publications' and is surfaced in the university's portal environment. 'Manage My Publications' offers the user a choice of deposit functions:

- a quick deposit screen that allows minimum metadata to be entered and is auto completed as much as possible
- a DOI deposit tab that with the deposit of a DOI pulls back the publication data with the use of the CrossRef database;
- a Web of Science tab that allows retrieval of a user's publication data from Web of Science
- a 'manage my publications' tab which can be used to populate web pages or other lists
- a search and browse facility.

The principle behind this enhanced service is that academics or research administrators submit the minimum data, which is then checked and enhanced by staff in the library cataloguing team to ensure the metadata is correct and consistent. Positive feedback was received during the initial testing phase, (sample quotations include: 'simple, nicely designed and easy to use', 'Quick and user-friendly and the tabs and explanatory information are clear and helpful' and 'I think this is a really good service and really simplifies the process of deposit'), and the service is now entering its second stage of testing, with rollout to all schools to be completed over the remainder of the 2010-11 academic year. Once depositing into

ORCA has been simplified, the aim is to increase the visibility and impact of research outputs from Cardiff university. In terms of the wider repository community, this is an innovative design that is useful for other institutions looking to redesign their institutional repositories.

OUTCOMES AND CHALLENGES

The project has been successful in its aim to provide a standard user-friendly workflow for self-deposit that can be used for all researchers and administrators, but the challenge remains to make ORCA an embedded and centralized service for Cardiff University. Currently, the repository holds a lot of metadata (5482 items³) but the aim is to improve the holdings of full text items. Having open access publications available in a repository, whether institutional or subject-based, increases the impact of publications for individual authors. Research has indicated that papers published in open access journals or in online journals that allow the post-print or publisher's version to be archived in a repository or on an individual webpage generally have higher citation rates and can establish an author as the first in a discipline to publish findings. As Alma Swan writes, 'citations tend to rise when an author starts making his or her work open access. Importantly, the citation advantage persists – and frequently increases – as time goes on.'⁴ If an institutional repository such as ORCA contains high quality full text research it provides the institution with a means of self-marketing – helping to attract potential students, researchers and funding. Additionally, many funding bodies such as the Wellcome Trust, Research Councils UK and JISC, require publication of research results in an open access repository as a condition of the grant, the argument being that if public money funds grants, the results of the research should be freely available to all, not hidden behind a subscription barrier.

One of the aims for ORCA is to have as many full text items accompanying the metadata as possible, but getting a copy of the article is difficult in the majority of cases due to the current subscription-based journal publishing model. While some journals allow a publisher's PDF to be archived in an institutional or subject repository, many have restrictions as to which version can be deposited, and often embargo the deposit for anything between six to twenty-four months. Another obstacle to the full text challenge is that many authors do not keep their pre- or post-print copies once the item has been published. Possibly the biggest barrier to open access publishing however

is confusion over copyright policies; while the SHERPA RoMEO website (<http://www.sherpa.ac.uk/romeo/>) provides a summary of copyright permissions for online journals, it is not practical to expect academic authors to search this website, and to determine whether the particular journal they publish in allows both pre and post print, post-print only or neither. Another obstacle is that many academics are wary of, do not understand, or do not support open access, and are concerned about quality and version control. A common misconception is that open access means bypassing the traditional peer-review system, but this is not the case; as the Research Information Network points out, research communities such as physics and economics, have for many years circulated pre-prints and working papers, and these are rigorously reviewed and checked before formal publication.⁵ During this project, these were some of the most prominent issues and barriers we faced when engaging with researchers, which was both expected and consistent with the previously reported experience both of the pilot project and of repository managers in other institutions.

Any negativity towards open access and institutional repositories needs to be carefully handled if the 'Manage My Publications' tool that the library service has developed, and ORCA itself, are to be integrated into the university's research fabric. Relying simply on a university mandate to deposit into the institutional repository may be problematic: firstly it could incur resentment as something extra added to already over-burdened academics, and secondly there is absolutely no guarantee that it won't be completely ignored! Consequently, the I-WIRE Project team, with the assistance of colleagues within Cardiff ULS, is concentrating, for the final stages of the project, on advocacy. We have established a Repository Working Group, which will look at ways to embed the repository within the university's day-to-day workings, and have established training sessions for all the subject librarians on how to use 'Manage My Publications' and ORCA, so that they can assist users in their schools. We also hope to embed the use of the repository within the academic school by visiting them individually and listening to their departmental needs, rather than relying on a 'top-down' mandate. All in all, there is still some work to be done in increasing awareness of ORCA, and we cannot rest on our laurels.

WHERE NEXT?

As well as our advocacy campaign, the ULS plans to widen the base of the repository to include

research-level theses as well as publications. The repository manager, Tracey Andrews, has been working with the university librarian on obtaining a mandate for electronic versions of research-level theses to be deposited into ORCA to replace the current system of bound print versions being submitted to the library; this is a better solution in terms of cost for the student and library storage, and will allow the student's work to be disseminated to the wider research community. If young researchers deposit their theses and can see the benefits of making their work easily accessible, hopefully they will be more likely to advocate the use of repositories, either institutional or subject-based, during their careers. There are also ambitions to establish a Learning and Teaching Repository to accompany ORCA that will concentrate on taught-course materials.

We are also keen to adopt other good practices from the institutional repository community. Looking forward, one aim is to integrate ORCA/'Manage My Publications' with other Current Research Information Systems (or CRIS), and we will look for opportunities to do so. Having 'Manage My Publications' in a portal environment may prove useful for future integration opportunities. We will also be examining the outcomes of other projects in our JISC strand, such as the Welsh Repository Network based at Aberystwyth university, Enlighten at Glasgow university and the Ready for REF project; the experiences and advice gleaned from other institutional repositories with regards to sustainability of solutions will be extremely valuable to us.

Finally, the repository is central to the university's preparations for the REF exercise as an infrastructure that captures and manages research outputs. ORCA's strength as a product is that it has the potential to be a publications database and central management system that the university has not had before. Of course, no matter how good the technical development (and we are confident that it is very good!) ORCA will not fully succeed and be embedded at the heart of the university's research processes without a comprehensive advocacy campaign – it is necessary to have both for an institutional repository to be used to its fullest capacity.

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