

Research Assessment and a Diverse Role for Repositories

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In the decade since the development of the Open Archiving Initiative's OAI-PMH protocol, repositories have been used to support a growing number of agendas: open access, preservation, open data, open educational resources. In addition to these scholarly, scientific and information science objectives, the requirements of national government and institutional management for research assessment have also stimulated interest in repositories. In the UK, the RAE and REF¹ have motivated research managers and senior academics to consider the evidence of the excellence of their work, becoming a driver for almost every part of academic life.

In assisting with research assessment, repositories have found the following roles:

- Comprehending (via collecting and cataloguing) the range of outputs (and hence activities) of the institution, each department / research group, and ultimately, each individual
- Assessing and evaluating the quality of each output (via bibliometric factors or proxies thereof), and hence forming an aggregated metric for each individual or group
- Assisting with form-filling for the RAE/REF process
- Integrating with wider Research Information Systems systems that manage projects, personnel and financial details

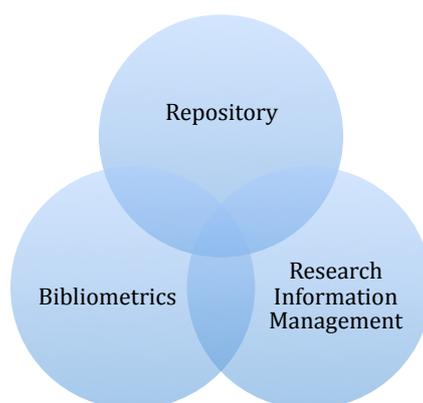


Figure 1: Repositories and other Research Information Environments

The experiences of repository managers who have been involved directly with the RAE (Carr, White *et al.* 2008a) highlights the need for practical repository solutions for identifying authors and tracking their internal affiliations, among other issues. The ultimate benefits of supporting the institution's RAE workflows are identified as high institutional profile for the repository management team and significant influence in developing institutional research strategy (Carr, White *et al.* 2008b).

The greater demands of the REF mean that institutions are upping their games in terms of the IT support for integrated management for research information. Instead of *ad hoc*, home grown systems that create information silos handling isolated aspects of the research business (separate and incompatible finance, project management, personnel databases *etc.*) integrated CRIS (current research information systems) are becoming

¹ The Research Assessment Exercise (of 1996, 2001 and 2008) run by the Higher Education Funding Council for England (HEFCE), has been replaced by the planned Research Excellence Framework (expected to complete in 2013).

popular. CERIF, a European standard for exchanging CRIS data, is being evaluated as a suitable REF standard by the JISC Readiness for REF project². In addition, the project is implementing the CERIF schema in two institutions' repositories, to allow them to hold information about people, projects and funders as well as research outputs and research data.

In the UK, specific attention has been focused on the role of large-scale bibliometrics as a mechanism to allow the REF to objectively evaluate individuals and institutions. One response has been the development of Symplectic's Publication Management System³ that bridges the gap between bibliometric services (*e.g.* Thomson ISI's Web of Science or Elsevier's Scopus) by providing an independent, personal space for individual researchers to claim their own papers from the citation services' listings, to build their own personal bibliography and to upload full texts of selected items to the institutional repository. This service is similar in aim to BibApp (Larson & Shreeves 2008), but keeps the repository very much in the background.

Another response to the REF has been a change in the licensing agreements for ISI's Web of Science data. Institutions are allowed to use ISI metadata within their repository, to backfill their catalogue of institutional outputs and to effect citation-based services such as sorting and ranking based on impact and h-factors.

However, in recent large-scale pilots of the REF methodology, attempts to demonstrate bibliometric-only analyses of UK research failed due to the inability to achieve sufficient discrimination between institutions. This failure of objective citation metrics as a universal criteria for research excellence has forced an examination of other measures of research impact: it is now considered necessary for a researcher to show how their work has positively affected the research community and (more importantly) society at large. HEFCE are proposing a draft set of thirty-six "impact indicators" in eight categories (from "delivering highly skilled people" to "attracting R&D investment from global business" and "better informed public policy-making or improved public services").

This means that the emphasis has moved from "objective (and automatic) bibliometric analysis" to "subjective story-telling", with particular demands on being able to synthesise a compelling narrative description, backed by appropriate evidence, not of a single piece of research, or a single project, but an entire research group's activities over a period of a decade. The JISC Open Impact project⁴ is investigating the role of repositories both for collecting evidence that can be subsequently used in an "impact narrative" and for assisting in the process of synthesizing the narrative itself. Bringing together researchers, research managers, communications/marketing staff and journalists, the project is attempting to help institutions explain and communicate effectively with a variety of stakeholders beyond the immediate demands of the REF (funders, business, public, potential students, potential donors).

² <http://www.jisc.ac.uk/whatwedo/programmes/inf11/sue2/r4r.aspx>

³ <http://www.symplectic.co.uk/products/publications.html>

⁴ <http://www.ecs.soton.ac.uk/research/projects/724>

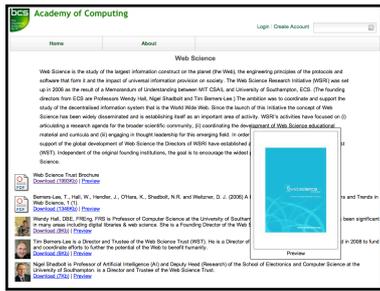


Figure 2: Open Impact Repository Entry and Timeline showing significant papers, projects, researchers and press releases

Far from being a niche application of repositories, responding to the research administration goals of a small number of nations (such as the UK and Australia), this is surely a major goal of repositories and institutions themselves (Schulenberger 2008): the job of the institutional repository is to tell the story of our institutional achievements to its faculty and its institution's funders and supporters.

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