

JISC

Opening up Access to Research Results Questions and Answers



The logo for JISC, consisting of the letters 'JISC' in a bold, orange, sans-serif font.The logo for Research Councils UK, featuring a stylized blue bird-like icon above the text 'RESEARCH COUNCILS UK' in a blue, sans-serif font.The logo for CCLRC, featuring a stylized circular icon with multiple colored lines (pink, purple, blue) above the text 'CCLRC' in a grey, sans-serif font.The logo for RLN, consisting of the letters 'RLN' in a bold, orange, sans-serif font.

Our four organisations* believe that, as a matter of principle, the outputs of publicly funded research should be made available as widely and rapidly as possible. Hence we are taking steps to encourage free online access to research results. This document briefly describes what is meant by Open Access and repositories and attempts to answer some common questions that researchers pose.

The World Wide Web and new internet technologies are enabling researchers to communicate their results more widely and rapidly than ever before. The day is approaching when anybody, anywhere with a computer and internet connection will be able to access research data or scholarly journal articles, free of charge, as soon as they are placed online. In future, researchers whose institutions cannot afford journal subscriptions will nonetheless be able to access articles describing the results of publicly funded research.

Open Access occurs when full-text journal articles, plus other research information such as data, conference proceedings and theses, are made freely available online. One approach to achieving Open Access relies on researchers depositing their papers or data in a digital repository from which they can be freely accessed. The opportunities for enhancing and even transforming the traditional system of scholarly communication, built up over centuries with the printed journal at its core, are far reaching. Full transformation, however, will take time and no one can be sure exactly how the system will evolve.

To stimulate these changes, we are encouraging researchers to place their papers in digital repositories. We are backing up our action with our own research and development programmes to address the key issues as they arise. Here we provide brief answers to some FAQs and pointers to further information.

*Joint Information Systems Committee (JISC) www.jisc.ac.uk, Research Councils UK (RCUK) www.rcuk.ac.uk, Council for the Central Laboratory for the Research Councils www.cclrc.ac.uk, Research Libraries Network www.rln.ac.uk

Q1. What is a digital repository and how do I find a repository in which to place my research?

A. A digital repository differs from other digital collections in that the creator of the content (or someone on their behalf) deposits it in the repository, which then manages how it is kept and accessed. Typically, they are subject- or institution-based. (For an example of each, see under further information at the end of this document.) Your institution may already have a repository to house the research output of its staff. Alternatively, a suitable subject-based repository may be available. At the end of March 2005, there were more than 50 Open Access repositories in the UK. For a full list, go to the eprints.org site at Southampton University.

<http://archives.eprints.org/index.php?action=browse>

Q2. Can I place my paper in a repository and still publish it in the journal of my choice?

A. Most journal publishers now allow authors to deposit their papers in repositories. However, they differ over whether they allow this before (pre-print) or after (post-print) the paper's publication. Some have an embargo period between publication and deposit in a repository. Some will also stipulate how post-prints should be formatted. The SHERPA project website at Nottingham University gives details of publisher's current policies on self-archiving and copyright.

www.sherpa.ac.uk/romeo.php

Q3. How easy is it to place my paper in a repository?

A. You need to enter descriptive data (metadata) about your paper, such as the title, authors and other bibliographic data, typically by filling in a web-based form. This creates a record of the paper in a standard format recognised by search engines. Improved software tools to automate this process are under development. In the meantime, it should take no more than 20 minutes to do manually. Many repositories have staff to assist you, or even do the depositing for you.

Q4. Can I publish in a repository without going through a journal?

A. Yes, but your paper will not be peer-reviewed in the same way as a journal article. One preliminary idea is to organise the peer-review of such pre-prints via learned societies, but no scheme is yet in place. Even without peer-review, pre-prints can be a useful means of disseminating research results and informing scholarly debate quickly and of claiming prior intellectual property rights. In some communities, such as physics, the circulation of pre-prints is an accepted practice.

Q5. How can I be sure that placing my paper in a repository will actually make it more widely available? Users of other repositories need to be able to access my paper and I need to access theirs.

A. Internationally agreed standards for repositories ensure that they are interoperable. Metadata in a format compliant with the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH) can be collected into databases of worldwide research which users can then search. Under its latest digital repositories programme, JISC is funding research into ways of making repositories holding different types of material interoperable, for example, those containing published papers with those containing research data. Similar work is supported under the Research Councils' e-Science programme.

Q6. How can I protect myself from plagiarism, or from someone altering my paper and using it in a way I disapprove of?

A. It is easier to detect simple plagiarism with electronic than with printed text by using search engines or other services to find identical texts. For more subtle forms of misuse, the difficulties of detection are no greater than with traditional journal articles. Indeed, metadata tagging, including new ways of tracking the provenance of electronic data and text, promise to make it easier.

Q7. If anyone can place a paper in a repository, how do I know whether it has been peer-reviewed or published in a *bona fide* journal?

A. Your repository will have a policy on who is allowed to deposit and how papers should be tagged to reflect their status, eg whether they are pre-prints, authors' versions of peer-reviewed post-prints or the final version published in the journal. The distinction between peer-reviewed and non peer-reviewed material should be absolutely clear. JISC is funding research into developing improved, standardised methods for tagging text and data to reflect its status.

Q8. I put my published papers on my own/departmental website, so why should I deposit them in a repository?

A. First, your paper will be much easier for others to find if it is in a repository using general search engines, such as Google, and academic search engines, such as Google Scholar and Oaister. Second, the repository will offer services you might otherwise find difficult or time-consuming to access. For example, it is likely to have better schemes for archiving and curation (digital preservation) than personal or departmental web pages. It will also adhere to agreed standards for indicating whether a research paper is pre- or post-print and whether it has been peer-reviewed. It will also be able to implement quickly the outcome of research funded by JISC and others into issues such as digital rights management, establishing the provenance of text or data and the long-term preservation of digital information. Third, the information held in a repository can be mined for a variety of purposes, for example, for statistics to feed into the Research Assessment Exercise. Finally, there is a small but growing body of evidence for enhanced citation rates for Open Access research papers, see: www.dlib.org/dlib/june04/harnad/06harnad.html
Information about Oaister can be found at: <http://oaister.umdl.umich.edu>

Q9. Some journals are called Open Access. What are these and what are the advantages of publishing in them?

A. Open Access journals differ from subscription-based journals in that they are free to the reader. Some Open Access journals are subsidised, but most charge the author to have a paper published. In practice, the research funder

usually pays the author's charges. Evidence is accumulating that papers published in Open Access journals are more widely read and cited than papers published in equivalent traditional journals (see Q8). Open Access journals are often referred to as the gold route to Open Access. The green route involves depositing in a repository in parallel with publishing in a conventional or Open Access journal. An up-to-date list of Open Access journals is available.

www.doaj.org

Q10. If I decide to publish in an Open Access, author-pays journal, who will pay the fee?

A. From September 2005, all eight UK Research Councils propose to pay for grant holders to publish in appropriate Open Access journals. Biomedcentral.com lists grant-awarding bodies in the biomedical sciences that will pay the publication charge. A funding agency not listed may nonetheless be willing to pay and it is always worth asking. Some institutions may also be willing to pay.

www.biomedcentral.com/info/about/apcfaq#grants

Q11. Do Open Access and repositories mean the demise of the scholarly journal as we know it?

A. No. Journals perform peer-review, which will still form the backbone of the scholarly communication system, along with other services such as editorial, layout and marketing. Journals are also entities in themselves. Each has its own character, represents a community and develops its own hallmark of quality which reveals the leading edge in a field. So it is unlikely that the scholarly journal will disappear. However, the way in which they are published and used is changing. Publishers are experimenting with new economic models of journal publishing, for example the author-pays model, or hybrid models in which authors can choose whether or not to pay for their papers to be Open Access. Some journals may fall by the wayside, but others will adapt. Already, many are adapting by allowing articles to be made available in a repository at the time they are published. The evidence from libraries and publishers shows that journal subscriptions or viability have not been affected.

Q12. How much does it cost to set up an institutional repository and what are the advantages?

A. Initial start-up costs of around £80k might be expected, followed by an annual cost of about £40k to cover recurrent costs such as staff (including overheads), equipment and software. The advantage of hosting an institutional repository is that it contains all the intellectual property and research output of the organisation, which can be used for a variety of purposes (see answer to Q8). Institutional repositories can also provide an enriched body of information for researchers by connecting primary datasets and software to the publications in the repository.

Further information

Further answers to these and other related questions can be found at:

www.eprints.org/self-faq

JISC has produced a general background briefing document on Open Access which is available at:

www.jisc.ac.uk/index.cfm?name=pub_openaccess

The results from JISC's previous digital repositories programme, FAIR, can be found at:

www.jisc.ac.uk/index.cfm?name=programme_fair

The outline for the current digital repositories programme is at:

www.jisc.ac.uk/index.cfm?name=programme_digital_repositories

An example of an institutional repository is ePubs at CCLRC. It contains 21,000 records going back 40 years, of which 300–400 give free access to full text. It is indexed by search engines such as Google and Google Scholar. ePubs was developed in-house using standard software components, including Oracle and Apache Cocoon, and is managed by the Library and Information Service.

www.clrc.ac.uk/Activity/LIS;SECTION=7725

<http://epubs.cclrc.ac.uk>

An example of a subject-based repository is <http://cogprints.org/> for the cognitive sciences. It uses eprints.org open archive software, which is freely available from www.eprints.org. It contains 2,180 articles mainly in psychology, neuroscience, linguistics, and many areas of computer science. Most are recent, but some go back to 1950. It is indexed by Scirus, Citebase, Google and Google Scholar and has 5,531 registered users (May 2005).

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