

Playing the game? How researchers communicate their findings

A new report by the RIN and the JISC, *Communicating knowledge: How and why researchers publish and disseminate their findings*, has been issued to coincide with HEFCE's consultation on the Research Excellence Framework (REF). The report focuses on how and why researchers publish, including the motivations that lead them to publish in different formats and the ways that collaboration and co-authorship are recorded. It also looks at how researchers decide what to cite and the influence of research assessment on behaviours and attitudes.

This important study investigates fundamental issues about the way that researchers interpret and conform to expectations about how they publish the results of their research. Researchers want to develop new knowledge and understanding of the world we live in and to communicate these findings to other researchers and other audiences. However, the many different criteria for success, and the lack of any consensus on how success should be assessed or measured, mean that researchers often find themselves in receipt of confused or conflicting messages about how and where they should publish. They are being pulled in different directions in deciding which channels of communication they should adopt.

So, how do researchers decide when, where and how to communicate their work? Based on evidence gathered from an extensive literature review, bibliometric analysis, focus groups, interviews and an online survey, the report presents



a comprehensive view of researchers' behaviour across a range of disciplines in the UK. Key findings include:

- Researchers need more consistent and effective guidance on the communication channels they use and particularly the value placed on these channels when it comes to their work being assessed.
- Attribution and listing of multiple authors in journal articles: the order in which authors are listed varies between disciplines and norms are changing as a result of the rise in interdisciplinary research. Those involved in assessing research need to be well informed about different listing conventions and their meaning.
- Citation behaviour and motivations are related to research discipline and researcher's age or experience: younger

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Life scientists' information use – one size does not fit all

A new report from the RIN and the British Library provides a unique insight into how information is being used by researchers across the life sciences. This concludes that 'one-size-fits-all' information and data sharing policies are not achieving scientifically productive and cost-effective use of information in the life sciences.

The report, *Patterns of information use and exchange: case studies of researchers in life sciences*, used an innovative approach to capture the day-to-day patterns of information use in seven research teams, ranging from

botany to clinical neuroscience. The study, undertaken over 11 months, concluded that there is a significant gap between how researchers behave in practice, and the policies and strategies of funders and service providers. Key findings from the report include:

- Researchers use informal and trusted sources of advice from colleagues, rather than institutional service teams, to help identify information sources and resources
- The use of social networking tools for research purposes is far more limited than expected

- Data and information sharing activities are mainly driven by needs and benefits perceived as most important by life scientists rather than 'top-down' policies and strategies
- There are marked differences in the patterns of information use and exchange between research groups in different areas of the life sciences, reinforcing the need to avoid standardised policy approaches

The report sets out a number of recommendations to funders, universities and information service providers on how policy and services can be more aligned with research

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The UK's share of world research outputs



Bibliometrics have come to play an increasing role in assessing the performance of researchers in the UK, as indeed in other parts of the world. But the complexities of both the data sources and the methods of analysis used are little understood by many of those who wish to make use of the results.

Even the relatively simple matter of measuring the UK's share of the global production of scientific publications is much more complex than appears at first sight, with traps for the unwary and huge differences in the published figures. The RIN's new report, *The UK's share of world research*

outputs: an investigation of different data sources and time trends highlights important issues both for those who produce bibliometric analyses of research performance, and for those who commission and make use of such work.

The figures given by different sources for the UK's percentage share in world science vary by as much as 40%: figures between 6.5% and 9.1% have been reported for a single year for example, and there is not even agreement about whether the UK's share has risen or fallen from year to year. With such major differences, it is difficult for policy-makers and others concerned with the health of the UK research base to get a clear picture of how well it is performing.

The report investigates the sources of data used by those supplying bibliometric analyses of research performance for key producers of reports, including the Wellcome Trust, the UK Government, the US National Science Foundation, the European Commission, the French Observatoire des Sciences et des Technologies (OST) and the Research Council of Norway (Forskningradet). It looks at the different methods used to calculate the data for these reports and the way the concept of a 'year' is defined, leading to large variations in the values reported.

It explains how these differences arise, and reflects on the implications for the measurement of UK scientific performance. It highlights that producers and publishers of bibliometric data must make much more transparent the choices they have made as to data sources and methodology, and the implications of those choices. Policy-makers and others interested in the health of the UK research base must also take greater care to interrogate the figures that they use and to present them accurately. Otherwise the risk is that policy and related decisions will be made on the basis of false assessments. The report can be downloaded from our website, or hard copies are available via catherine.gray@rin.ac.uk www.rin.ac.uk/uk_presence_research

FOI: what's in it for researchers?

The RIN held a second workshop aimed at raising awareness among researchers and others of the potential of freedom of information legislation as a tool for research. Following an initial event in London in September 2008, our second workshop took place in Glasgow in September 2009, and took account of the distinct FOI regime in Scotland. The audience of about 50 comprised researchers and students, as well as those with an interest in records management and training within academic institutions.

Following an introduction about the challenges in obtaining information relevant to recent political history, presentations looked at the work of the Scottish Information Commissioner and the National Archives of Scotland. Case studies looked at the experiences of three researchers using FOI, in the areas of: privileged access to archival records; housing policy and regeneration; and investigations into plagiarism in higher education.

The day also covered limitations

of FOI and the extent to which public agencies are coping with the rising demand for information. It highlighted the need for careful framing of requests for information to increase the chances of obtaining the information needed from public bodies.

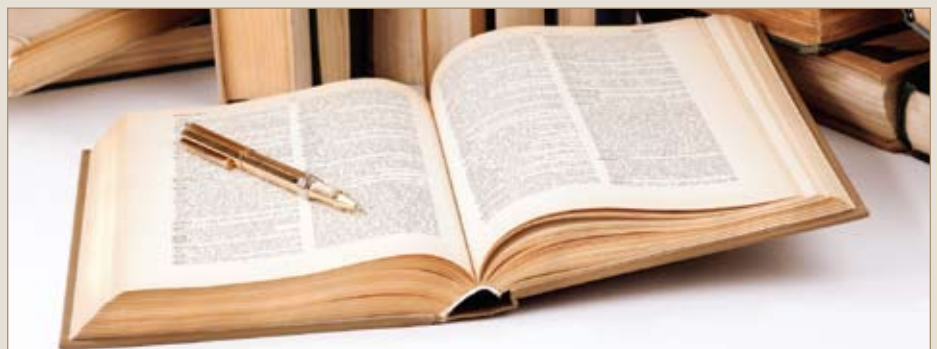
Training and awareness were raised as important issues in the effective use of FOI: the website of the Scottish Information Commissioner provides clear guidance, but doesn't have information geared towards academic researchers. Other relevant factors are the recent series of AHRC training courses for PhD students; a guide being produced as a follow-on from this; and guidance by JISC Legal, which responds to requests for advice about FOI, often from those with little awareness of the

legislation and their own institutional FOI policies.

Feedback from participants indicated that the workshop was a useful opportunity to broaden their understanding of the framework surrounding FOI relating to academic research. There were suggestions for further activity, such as more such workshops, and guidance and resources to help ensure researchers make good use of FOI where appropriate.

You can download the speaker presentations from our website and listen to a podcast of the first London workshop.

www.rin.ac.uk/news/events/freedom-information-whats-it-researchers
www.jisclegal.ac.uk
www.itspublicknowledge.info





Going digital: barriers and benefits

Researchers want to access a wide range of materials, from books and journals through to objects and artefacts, and sound and image files, as well as data produced by other researchers. Their strategies to access these materials include using libraries, laboratories, online resources and personal visits – but sometimes getting access to the materials they need is not as easy as they would hope or expect.

A new RIN report *Overcoming barriers: access to research information content* looks at five snapshots of the barriers researchers encounter when trying to access resources. Key issues investigated include: the extent to which researchers are being frustrated in accessing resources (whether in print or online) that are not available in their own library; researchers' perceptions on access to materials not provided by their own library; the support by libraries for access for non-members; and research pooling, focusing on the Scottish institutions as a case study for better access.

The report outlines some key barriers for researchers:

- Not all content is yet available online
- Institutions have not purchased print copies or acquired a license for online access
- Discovery services are complex and sometimes not well integrated into library systems
- Licences for online content are complex, and sometimes restrict access for non-members of the institution
- Institutions lack technical or administrative capacity to make online resources available to non-members
- Organisations and individuals outside the HE sector place restrictions on content

Institutions are struggling to keep up with researchers' demands for an increasingly wide range of content. New technologies are bringing developments that may help alleviate some of these problems, such as increasing online content (for example, e-journals and e-books), and moves towards open access to content, but our studies found little evidence of these having a wide impact so far. Many researchers and librarians fear that in the short term - until licensing terms have been improved and technical problems resolved - the moves towards a digital environment may actually impose new barriers, as researchers face restrictions in accessing online content that once would have been available in print.

The report aims to provide advice and guidance for higher education institutions, librarians, publishers and funders, to ensure the development of good policy, strategy and practice in ensuring access to research information content. These issues must be addressed if the UK research community is to operate effectively and remain at the forefront of world research excellence.

As a follow-up to the report, RIN and other partners are currently developing a project on identifying gaps in access to research information content, and how they might be best filled.

The report with suggested recommendations is available from the link below. You may also be interested in reading our *Paying for open access publication charges guidance* (March 2009)

www.rin.ac.uk/barriers-access

www.rin.ac.uk/openaccess-payment-fees

Minding the skills gap: taking it forward

In conjunction with Research Councils UK, the RIN held an expert workshop in July 2009 to consider the issues raised in the *Mind the skills gap: information-handling training for researchers* report (July 2008) on the provision for researchers in the UK of training in information-handling and management.

This report found that training was uncoordinated and typically not based on any systematic assessment of needs. The purpose of the workshop was to bring together key stakeholders in this area, to discuss on a practical level what might be done to improve the situation and to promote good practice. Around 25 expert delegates representing the research councils, the higher education funding councils, Vitae and the library community were tasked with identifying practical courses of action, which those involved could commit to.

Following the workshop a new forum, the *Working group on information-handling*, set up by the RIN, held its first meeting in November 2009. Its main aims include:

- acting as a focal point for the discussion of issues relating to the effective development of information-handling training for researchers;
- raising the profile and highlighting the importance of such training in the broader context of professional development for researchers at all stages in their careers;
- advocating for and promoting the need for greater coordination and a more strategic approach across the UK with regard to the provision of such training for researchers;

Over the coming months, it will seek to encourage and initiate mapping exercises, audit work, consultations and other studies that would develop the evidence base and advance the development of policy and strategy at national level for such training.

If you are interested in finding out more about this initiative contact stephane.goldstein@rin.ac.uk

Mind the skills gap: information-handling training for researchers report: www.rin.ac.uk/training-research-info

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researchers are more likely to be influenced by the authority of, or familiarity with, an author, a journal's reputation and how easily they can access an article. Funders, and those assessing research, need to take these factors into account.

- The influence of research assessment is a major concern: researchers see the RAE and institutional policies as a disincentive to communicating their work through other channels than high-status journals. Timescales of impact for assessment are also a concern, particularly for the humanities, where impact may take longer to become apparent.

Our report aims to provide advice and guidance on the development of policy, strategy and practice, particularly with regard to the impact of the REF on researchers' behaviour and to changes in scholarly communication and research information services.

We will be responding to the HEFCE consultation on the REF, highlighting the issues raised by the report, and will continue to take these issues forward in the funding and institutional arenas.

The report can be downloaded at the link below, and hard copies of the report and a short briefing are also available to order, email catherine.gray@rin.ac.uk

www.rin.ac.uk/communicating-knowledge

www.hefce.ac.uk/Research/ref/



■ **New implementation guide to using the Data Audit/Asset Framework**

The Data Audit Framework (DAF) provides organisations with the means to identify, locate, describe and assess how they are managing their research data assets. DAF combines a set of methods with an online tool to enable data auditors to gather this information. DAF will help ensure that research data produced in UK Higher Education Institutions is preserved and remains accessible in the long term. www.dcc.ac.uk/tools/daf

■ **Vitae consultation on new professional development framework**

Vitae's researcher development framework is a tool for planning, promoting and supporting the personal, professional and career development of researchers in higher education. It describes the knowledge, skills, behaviours and personal qualities of researchers and encourages researchers to aspire to excellence through achieving higher levels of development and aims to be of value to anyone conducting research in higher education, whether this is their main role or part of a wider remit. All individuals and organisations with an interest in the personal, professional and career development of researchers are invited to respond to this consultation, open until Friday 11 December 2009. www.vitae.ac.uk/rdfconsultation

■ **Provision of usage data and manuscript deposit procedures for publishers and repository managers**

The PEER project have published this report as the result of ongoing negotiations between publishers and the library/repository community, to establish best practice in deposit procedures that are least disruptive of existing publication workflows, while minimising additional effort in repository ingest activities. www.peerproject.eu/fileadmin/media/reports/PEER__D2_2_20091028_v5.pdf

■ **Higher education framework**

Higher Ambitions – The future of universities in a knowledge economy, a report by the Department for Business, Innovation and Skills, looks at the framework of how higher education plays a vital part in economy and society. www.bis.gov.uk/mandelson-outlines-future-of-higher-education

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practice to help UK life scientists sustain their position at the forefront of world-class research.

Professor Sir Kenneth Calman, Chair of the National Cancer Research Institute formally launched the report at the British Library on 17 November 2009. You can contribute to the discussion at our Nature Networks forum (see below). The full report and annex can be accessed from the link below. www.rin.ac.uk/case-studies
http://network.nature.com/groups/casestudies_lifesciences/forum/topics

RIN: in brief

■ **Research support services:**

What services do researchers need and use?

The RIN and OCLC Research are undertaking a comparative study to investigate information-related support services for researchers in the UK and the US. This collaborative research project will identify and examine information-related support services throughout the lifecycle of the research process in a small sample of universities in the UK and the US. The project runs from September 2009 to March 2010; the Centre for Information Behaviour and Evaluation in Research (CIBER), at UCL, has been commissioned to undertake the UK sample, and Kroll Research Associates the US sample.

www.rin.ac.uk/our-work/using-and-accessing-information-resources/research-support-services-what-services-do-research

■ **Disciplinary case studies in the humanities**

The RIN is funding a second series of case studies to provide a detailed analysis of how humanities researchers discover, use, create and manage their information resources. This project will focus on the behaviours and needs of researchers working in a number of subject or disciplinary areas in the humanities. They follow the first round of case studies in the life sciences (see earlier article in this newsletter). The studies will look in-depth at how humanities researchers discover, access, analyse, manage, create, refine and disseminate information resources and identify barriers to resources, and how these might be overcome. A contractor for the project will be appointed by December 2009 and the project will run until September 2010.

www.rin.ac.uk/our-work/using-and-accessing-information-resources/disciplinary-case-studies-humanities

■ **Open science case studies**

RIN and the National Endowment for Science, Technology and the Arts (NESTA) are co-funding a new study on the use of open data by researchers. The study will examine what motivates researchers to work (or want to work) in an open manner with regard to their data, results and protocols, and whether advantages are delivered by working in this way. It will also examine the disincentives and barriers to such 'open science' methods. The project will run until February 2010.

<http://www.rin.ac.uk/our-work/data-management-and-curation/open-science-case-studies>

■ **The changing face of learned and professional societies libraries**

The RIN and the Royal Society held an event in July 2009 aimed at library and information services professionals working within learned and professional societies. The day addressed the current issues facing learned and professional society libraries, providing ideas, experiences and examples of good practice and aimed to provide a networking opportunity for this community. Information about the event and a short podcast with interviews from the key speakers is available at

www.rin.ac.uk/news/events/changing-face-learned-and-professional-societies-libraries