

# E-journals: their use, value and impact

Research Information Network briefing

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A large rainbow flag is shown flying in the sky against a blue background with white clouds. The flag is partially obscured by a white diagonal line that runs from the top right corner towards the bottom right.

How researchers in the UK use electronic journals, the value they bring to universities and research institutions, and the contribution they make to research productivity.

**E-journals: their use, value and impact takes an in-depth look at how researchers in the UK use electronic journals, the value they bring to universities and research institutions and the contribution they make to research productivity, quality and outcomes.**

Our report examines how researchers interact with journal websites and whether enhanced access to journal articles has led to greater productivity, research quality and other outcomes. It finds that researchers are savvy when it comes to using e-journals, finding the information they need quickly and efficiently, and that higher spending on e-journals is linked to higher usage and also better research outcomes.

Based on an analysis of log files from journal websites and data from libraries in ten universities and research institutions, our report

starts to build a clear picture of how e-journals are shaping the information landscape - a picture that we'll add to as our research in this area continues.

Journal publishers began to provide online access to full-text scholarly articles in the late 1990s, triggering a revolution in the scholarly communications process. A very high proportion of journal articles are now available online - 96 per cent of journal titles in science, technology and medicine, and 86 per cent of titles in the arts, humanities and social sciences.

E-journals have given researchers an unprecedented level and convenience of access to knowledge in scholarly articles, but what effect have they had on how researchers seek information? Do they provide good value for money to higher education libraries and what are the wider benefits for universities and research institutions?

The full report is available at [www.rin.ac.uk/use-ejournals](http://www.rin.ac.uk/use-ejournals). A summary of the key findings are overleaf.

## Key findings .....

### 1. E-journals are a big deal

- UK research institutions rely on e-journals. Over four months, users at ten UK research institutions visited nearly 1,400 ScienceDirect journals half a million times. In one year, users at the same ten institutions visited 61 Oxford Journals online publications a quarter of a million times.

### 2. Information seeking is fast and direct

- Many users look for publications using search engines such as Google and Google Scholar, or gateway sites such as PubMed. They then stay on the journal site for just long enough to pick up the full article that they have already identified.
- Most users visit ScienceDirect for only a few minutes and view no more than a couple of pages.
- Once users enter a journal site they tend to browse rather than use the site's own search facility. Advanced search functions are rarely used at all.
- 24-hour access to e-journals is important to researchers. Almost a quarter of ScienceDirect use occurs outside the traditional 9-5 working day, while weekends account for around 15 per cent of use.

### 3. Researchers use e-journals in different ways

- Users in research-intensive universities show the highest use of e-journals and spend the least amount of time on each visit – they're most likely to have already identified the information they need on a gateway site.
- How researchers use e-journal sites also varies according to subject area. Historians search for and use e-journals in very different ways from scientists. Compared, for example, with life scientists, historians are more likely to access e-journals via Google and to use menus and search facilities once they're on the journal website.

### 4. Higher spending on e-journals is linked to more use and better research outcomes

- Universities and colleges spent £79.8 million on licenses for e-journals in 2006/07. Researchers and students in higher education downloaded 102 million full-text articles in that year, at an average cost of £0.80 per download.
- There is a strong positive correlation between universities' expenditure on e-journals and number of articles downloaded.
- There is a clear correlation between levels of use of e-journals and research outcomes, with more usage linked to the number of papers published, number of PhD awards and income from research grants and contracts. This link is independent of institution size.

Even when we control for the size of institutions, there are strong correlations between e-journals use and research outcomes

#### Your feedback

This report presents the findings of the first phase of our research project on the use of e-journals and raises questions which we will study further in phase two. We welcome feedback and input from any interested organisations. Please contact Sarah Gentleman by email on [sarah.gentleman@rin.ac.uk](mailto:sarah.gentleman@rin.ac.uk) or telephone **020 7412 7241**. You can find further information about our current research projects at [www.rin.ac.uk](http://www.rin.ac.uk)