



Evidence Summary

Researchers' Attitudes and Behaviour to Data Archiving Policies and Practice is Typified by Low Awareness and Little Planning

A Review of:

Perry, Carol Marie. "Archiving of Publicly Funded Research Data: A Survey of Canadian Researchers." *Government Information Quarterly* 25 (2008): 133-48.

Reviewed by:

Gaby Haddow
Lecturer, School of Media, Culture & Creative Arts
Curtin University of Technology
Perth, Western Australia
E-mail: G.Haddow@curtin.edu.au

Received: 23 August 2008

Accepted: 25 September 2008

© 2008 Haddow. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/2.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Abstract

Objective – To assess researchers' attitudes and behaviours in relation to archiving research data and to determine researchers' views about policies relating to data archiving.

Design – Survey.

Setting – Canadian universities.

Subjects – Social sciences and humanities researchers from universities across Canada.

Methods – A questionnaire comprising 15 questions was mailed to 175 researchers

randomly sampled from a publicly available list of 5,821 individuals who had received grants and awards from the Social Sciences and Humanities Research Council of Canada (SSHRC). From this sample, 75 (43.4%) responded within the five week time-frame stipulated. The questionnaire was constructed using four existing surveys and asked researchers for information about: geographical location, years of research experience, research funding sources, current plans to archive research data, awareness of archiving policies, attitude to mandated research data archiving, effect of mandatory data archiving policies on grant-seeking, attitude to making archived research data accessible,

and use of research data collected by others. The questionnaire also included space for respondents to make comments.

Responses to each question were analyzed, followed by a series of cross-analyses to investigate associations between findings. These cross-analyses include: whether attitudes to making data accessible differed according to length of experience, support for a national archive initiative, or agreement with a mandatory policy; and whether plans to archive research data were associated with awareness of policy, agreement with mandatory policy, or funding from government agencies other than SSHRC. Some cross-analyses were conducted between responses to questions and the comments provided by respondents.

Most of the questionnaire responses were analyzed as percentages in two categories only. For example, length of service responses were presented as “up to 20 years” and “more than 20 years,” and for responses relating to agreement with mandatory archiving “no” and “undecided” responses were combined into one category and compared with “yes” responses.

Main Results

Plans to archive research data

Only 41.3% of the respondent sample had current plans to archive their research data; plans that included filing materials in their office and destroying materials. A small proportion of this group (18.7%) planned to archive their research data in an established repository. Respondents who planned to archive their research data were more likely to have received funding from other government agencies (64.7%) than respondents who had not received other government funding (23.5%). Examination of the comments made by respondents

indicated those who planned to archive their data were more likely to make comments on this issue.

Knowledge of data archiving policies

Respondents’ awareness of data archiving policies, particularly that of the SSHRC, an Organisation for Economic Co-operation and Development (OECD) declaration, and that of their own university, was low. Less than a third of the sample (28%) was aware of the SSHRC policy and less than 10% of the OECD declaration or their own university’s policy. A sizeable proportion of the sample (65.4%) stated they were “uncertain” whether their university had a data archiving policy. Of the respondents who planned to archive their data only 42.4% were aware of the SSHRC policy, and a high percentage of respondents with no plans to archive their data (83.3%) were also unaware of this policy.

When asked if they agreed with a mandatory policy of data archiving being linked to grant funding the sample group was almost evenly split into agree (33.3%), don’t agree (28%), and uncertain (36%). Only 46.9% of the sample who planned to archive their data agreed with the policy.

Support for data archives

There was strong support for a data archive at the home institution by respondents who agreed with mandatory archiving of research data (84%). However, when asked about allowing public access to this data the results were evenly divided across most of the sample group (66 respondents). Full open access to data was supported by 44% of this group and 44% thought access should be at the discretion of the depositing researcher. Agreement with open access to data was also associated with researchers who agreed with mandatory archiving policy (70.8%) and researchers with over 20

years experience (68%). The enforcement of a mandatory archiving policy would not alter most respondents' future grant-seeking behaviour (86.7%).

Support for a national data archive was solid across the sample group, with only 17.3% indicating they did not support an initiative of this type. Almost all respondents who agreed with public access to research data supported a national data archive (96.5%) and of the respondents who did not support a national archive 90.9% were undecided about data access or wanted restrictions in place. When asked about use of research data collected by others, 48% had used such data in the past and 49.3% had not analyzed research data collected by others.

Conclusion – While support for a national data archives strategy is strong, researchers' attitudes and behaviour towards data archiving is less supportive and their plans to archive research data would not, in most cases, meet standards of archiving practice. The notion of open access to research data has less support, with researchers noting barriers relating to confidentiality, ethics, effect on academic career, and cost of archiving. Funding of data archiving raises particular concerns and the author recommends that SSHRC policy is clarified in this regard. Further, the author notes that differences between institutional requirements and national policies relating to research data require attention so that archiving policy objectives are coordinated. The decisions made in moving towards a national data archiving policy will enable Canada to contribute to the wider international discussion of standards for research data archives.

Commentary

At a time of increased interest in research data archiving and the issues this topic

raises, this is a timely paper reporting on a study of Canadian researchers' attitudes, awareness and behaviour in relation to data archiving. Since the publication of this paper, a report commissioned by the Research Information Network in the UK and a survey of researchers in Australia (Henty et al.) has been released, each arriving at conclusions similar to those discussed here. It is clear from these and other sources, that policies and standards for data archiving are critical to ensure research data is not lost. Equally important is support for researchers engaged in data archiving activities and education programs to promote the long term benefits of archiving research data. Perry's findings exemplify why these issues must be addressed and the paper is a useful starting point for those unfamiliar with them. Further research to consider would be a study of science researchers' attitudes, awareness and behaviour in relation to data archiving which would facilitate comparisons across the social science/science spectrum.

The study's sample was randomly drawn from a list of researchers who had received grants from the Canadian Social Sciences and Humanities Research Council and the paper provides a clear description of how the sampling was carried out. Also clear are the tables used to present the study's findings. From these tables, it might be assumed that advanced statistical analyses were not carried out for the data, as most results are shown as percentages. However, the analysis of length of research experience and external funding sources refers to expected values and probability, and the analysis of receipt of corporate funding and support for a home institution repository notes there is no correlation between the questions. These differences instil some uncertainty about data analysis processes carried out across the study. It is also clear from the tables that not all respondents

answered all questions, but this is not discussed by the author. Most confusing though, is the status of the SSHRC policy on research data archiving. Early in the paper, Perry refers to a report recommending the implementation of policies that would require researchers to deposit research data on completion of their research, noting “[M]ovement on this recommendation appears to have stalled”, but later writes “archiving of research data is a mandatory component of its [SSHRC] granting program.” Of less significance, but vexing nevertheless, was the range of terminology used to describe granting agencies, which included “internal,” “external,” “internal grants from their institution,” “corporate,” “other government,” “other than SSHRC,” and “non-SSHRC.” Publication of the survey instrument as an appendix to the paper may have been useful in clarifying this aspect of the study.

While clarification of these points would assist readers, they are not critical to comprehending the results of the study and its value to those making future decision about research data archiving. What is evident from this paper, and the reports mentioned above, is the need for a coordinated and long term commitment to data archiving as well as sound policy and support mechanisms for researchers.

Library practitioners working in research institutions could play an important role in data archiving activities. In many cases, librarians have gained expertise in research archiving through responsibilities relating to institutional repositories. This experience indicates that librarians have a unique place in supporting researchers to meet institutional and national requirements through individual and group training, membership of research committees, and establishment of large information systems. Further, librarians’ expertise should not be viewed as a resource to draw on after policy

decisions have been made; rather, librarians’ knowledge and expertise should contribute to the making of research archiving policy and implementation decisions.

Works Cited

- Henty, Margaret, Belinda Weaver, Stephanie Bradbury, and Simon Porter. Investigating Data Management Practices in Australian Universities. Australian Partnership for Sustainable Repositories, 2008. <http://www.apsr.edu.au/orca/investigating_data_management.pdf>
- Research Information Network. To Share or not to Share: Publication and Quality Assurance of Research Data Outputs. 2008. <<http://www.rin.ac.uk/data-publication>>