Research Transparency, Data Access, and Data Citation: A Call to Action for Scholarly Publications

Produced by the “Data Citation and Research Transparency Standards for the Social Sciences” Meeting

Convened by the Inter-university Consortium for Political and Social Research (ICPSR)

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This collaborative statement calls upon the scholarly publishing community to take leadership in advancing knowledge through research transparency, data access, and data citation.

Background

Transparency has long been a core tenet of social science inquiry. We are now seeing a rapidly expanding movement to increase transparency across the social sciences through open access to data and data sharing. These efforts emerged from widespread belief that the merits of research cannot be fully assessed without access to supporting data and have been supported by institutions such as the National Research Council (Feinberg, Martin, & Straf [Eds], 1985). The need for transparency has been emphasized by recent political attacks on the credibility of scientific research, by government pressure for open access, and by the public response to high-profile cases of research fraud and misinterpretation. While sharing data and other research products has become easier as a result of technological innovation, the degree to which current research practice reflects standards for transparency still varies within and across domains.

In this context, on June 13–14, 2013, a cross-disciplinary group of journal editors and other stakeholders in academic publishing was convened by the Inter-university Consortium for Political and Social Research (ICPSR). This meeting, supported by the Alfred P. Sloan Foundation, addressed the value and practice of research transparency, with a particular focus on the role of academic journals in promoting data access and consistent data citation practices. Participants
represented journals and societies from a number of social science domains, including economics, education, political science, demography, psychology, and sociology.

Participants reached agreement on a set of shared principles related to research transparency, data access, and data citation. In addition, the group developed recommendations that set an ambitious standard for transparency and access in academic publishing, while taking into account the need to balance the principle of transparency with other requirements, such as confidentiality and respect for original scholarly achievements. This document summarizes the meeting’s emergent consensus and challenges scholarly journals and publishers to play a leadership role in this movement. At the same time, journals cannot do this work alone. Success will require the coordinated efforts of all stakeholders including professional associations, funding agencies, universities and their constituent academic departments, data repositories, researcher training programs, and researchers themselves.

**Statement of Shared Principles for Research Transparency**

Transparency is a shared value across scholarly communities. It is fundamental to the advancement of knowledge and undergirds the credibility and integrity of scholarly work. The social science community has shared this value throughout its history, but our scholarly practice has lagged behind our technology. To embrace transparency is to make visible both the empirical foundation and the logic of inquiry of a given piece of research.

- The principle of transparency demands that scholars provide access to the data on which their conclusions rely, and also provide in detail the analytic procedures that were used to arrive at their conclusions.
- When scholars base their claims on data created by others, they have an obligation to reference and cite those data as an intellectual product of value. Data users are also obligated to respect any agreements between data producers and research participants to protect confidential information.
- When scholars create their own data, they should describe how the data were produced, and share them to the greatest extent possible.
Recommendations for Scholarly Publications

Academic journals and other scholarly publications play a central role in upholding the principles of research transparency. If the decision-makers for such publications — e.g., editors, professional societies — raise the bar for data access and citation, the effects will ripple across the research enterprise. This will enhance the ability of the scholarly community to verify, replicate, and build upon prior research, as well as strengthen the integrity and credibility of the social sciences.

The following recommendations offer a set of practices that exemplify a commitment to research transparency. While there is no one-size-fits-all approach, these principles can serve as a standard towards which publications in all research domains should strive.

Core Recommendations

A scholarly publication that embodies a commitment to research transparency:

- Cites all evidence and methods upon which published claims rely;
- Makes available all evidence and methods upon which published claims rely, including numeric data, code, and all other materials necessary to replicate findings;
- Ensures that cited objects are available at the time of publication, subject to any ethical or legal limitations, through institutions with demonstrated capacity to provide long-term access;
- Recognizes that full access to data may not be possible when data are under external restriction (e.g., the data are classified, require confidentiality protections, or were obtained under a non-disclosure agreement);
- Upon request, provides data to editors and reviewers prior to publication for assessment only and under a strict assurance of confidentiality.

Technical Recommendations

A scholarly publication that is successful in carrying out the above recommendations:

- Maintains a consistent data citation policy that locates data citations with other references and provides authors, title, date, version, and a persistent identifier;
- Ensures that style guides, codes of ethics, publication manuals, and other forms of guidance are updated and expanded to include data citation and access recommendations; and
- When external restrictions limit access to data:
○ The editor is notified by the author at submission about restrictions on availability;
○ Limitations on data availability are explicitly acknowledged in the publication;
○ Other replication materials, such as code, are still shared; and
○ Instructions are provided on how the data can be obtained under the least restrictive terms.

References


Appendix A

Example Policies and Standards

The following list includes policies and standards for data access and data citation in alignment with the principles and recommendations outlined above.

Guidance on Data Citation

*General Guidance*

*Data Synthesis Group Data Citation Principles*

Data Preservation Alliance for the Social Sciences (Data-PASS)

Data Citation Standards

CODATA/ITSCI Task Force on Data Citation

*Out of cite, out of mind: The Current State of Practice, Policy and Technology for Data Citation.*
Data Science Journal 12: 1-75.

*Exemplars of Practice*

Institute for Quantitative Social Science (IQSS), Harvard University: Dataverse Network
Data Citation Standards

Inter-university Consortium for Political and Social Research

Data Citation Standards

Journal of Statistical Software

Data Citation and Access Policies

American Sociological Review

Data Citation Policy

Guidance on Research Transparency

Journal Research Data (JoRD) Policy Bank

Journal Policies Related to Research Data

First Opinion Series on Transparency in Social Science Research

Berkeley Initiative to Promote Transparency

Principles of Transparency and Best Practice in Scholarly Publishing

Committee on Publication Ethics

A Guide to Professional Ethics in Political Science, 2nd Edition

American Political Science Association (section 6, pages 9-10)