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デジタルトランスフォーメーション(DX)時代のデータキュレーションと情報管理

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Self-Reported Data Reuse Associated with Highly Cited Journal Articles

Heidi J Imker (presenter) with Hoa Luong, Bill Mischo, Mary Schlembach, and Chris Wiley University of Illinois at Urbana-Champaign

Observations from the field

- University of Illinois at Urbana-Champaign
 - ~2800 faculty & 16,000 graduate students
 - \$637M (US) in research expenditures
 - Very strong STEM especially Engineering
- Research Data Management Professionals & STEM Librarians
- Researcher Reactions to Data Sharing
 - Highly variable
 - Give other reasons for not sharing or reusing data that have not been addressed in the survey literature to date
 - Concept of data sharing seems abstract
- Uneven adoption of data sharing principles and practices

Research Motivations

- We wanted to hear from researchers across the spectrum from enthusiastic to dismissive
- We wanted a frame data sharing in more concrete terms and ground it in something specific – highly cited articles

Research Questions

- (A) For the research presented in highly cited articles, did the authors reuse data themselves?
 - If not, why not?
- (A) Did these authors believe others reused their data?
 - If not, why not?
- (B) Did the authors who cited those articles, reuse data associated with the articles?
 - If not, why not?

20 articles per discipline (180 total) Biochemistry

Chemistry

Computer Science

Earth Science

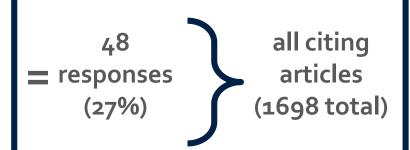
Engineering

Environmental Science

Materials Science

Medicine

Physics



Biochemistry

Chemistry

Computer Science

Earth Science

Engineering

Environmental Science

Materials Science

Medicine

Physics

240 = responses (14%)

Study Design

Survey A Initial Authors

48 total responses
39 articles had data (81%)
35 answered if reused data themselves
14 Yes (40%)
21 No (60%)

Number 1 reason
why not?

12 (40%) — could not address the research question

Survey A Initial Authors

39 answered if believed their data had been reused by others

13 Yes (33%)
26 No (66%)

Number 1 reason why not?

13 (31%) — could not address the research question

Survey B Citing Authors

240 total responses

240 answered if **reused initial article's data**35 Yes (15%)

205 No (85%)

Number 1 reason

116 (58%) — could not address the research question

Thought Provoking Comments

No, we did not reuse data.

• "Our contribution was a new study. Why would we have used their data?"

Thought Provoking Comments

Yes, we did reuse data.

• "We routinely digitize data points from published figures."

Concluding Remarks

- A surprising lack of mutual interest in the underlying data & a major rationale seems to be that those data are not useful
- A surprising presence of data sharing and reuse that do not "qualify" as such based on Open Science norms
- Preliminary not confirmational

More Info



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API Scripts

Mischo, William (2021): Scopus API Scripts for Data Reuse Project.
 University of Illinois at Urbana-Champaign.
 https://doi.org/10.13012/B2IDB-0988473_V1

Survey Data, Scripts, and Materials

Imker, Heidi J; Luong, Hoa; Mischo, William H; Schlembach, Mary C; Wiley, Chris (2021): Data for: An Examination of Data Reuse Practices within Highly Cited Articles of Faculty at a Research University. University of Illinois at Urbana-Champaign.
 https://doi.org/10.13012/B2IDB-2087785_V1

Article

• Imker, H.J., Luong, H., Mischo, W.H., Schlembach, M.C., Wiley, C.A. 2021 An "Examination of Data Reuse Practices within Highly Cited Articles of Faculty at a Research University" *Journal of Academic Librarianship* https://doi.org/10.1016/j.acalib.2021.102369

