

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

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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?

Survey A – Initial Authors

20 articles
per
discipline
(180 total)

Biochemistry
Chemistry
Computer Science
Earth Science
Engineering
Environmental Science
Materials Science
Medicine
Physics

48
= responses
(27%)

all citing
articles
(1698 total)

Survey B – Citing Authors

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
why not?*

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>

