On a (cultural) journey towards FAIR data
What (according to researchers) are the key barriers to FAIR and Open Science?

Go to www.menti.com

Use the code: 18 20 85
Similar question asked to 600 active researchers in psychology

Invited Forum: Challenges in Making Data Available
Empirical Article

Data Sharing in Psychology: A Survey on Barriers and Preconditions

Bobby Lee Houtkoop¹, Chris Chambers², Malcolm Macleod³, Dorothy V. M. Bishop⁴, Thomas E. Nichols⁵,⁶,⁷, and Eric-Jan Wagenmakers¹

¹Psychological Methods Programme Group, University of Amsterdam; ²Brain Research Imaging Centre (CUBRIC), School of Psychology, Cardiff University; ³Centre for Clinical Brain Sciences, University of Edinburgh; ⁴Department of Experimental Psychology, University of Oxford; ⁵Oxford Big Data Institute, Li Ka Shing Centre for Health Information and Discovery, Nuffield Department of Population Health, University of Oxford; ⁶Wellcome Centre for Integrative Neuroimaging, FMRIB, Nuffield Department of Clinical Neurosciences, University of Oxford; and ⁷Department of Statistics, University of Warwick

https://doi.org/10.1177/2515245917751886
To what extent do you agree with the following statements about barriers related to data sharing?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Neutral</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Sharing data is not a common practice in my field”</td>
<td>18%</td>
<td>26%</td>
<td>33%</td>
<td>35%</td>
<td>58%</td>
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<tr>
<td>“I prefer to share data upon request”</td>
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<td>“Preparing data is too time-consuming”</td>
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<tr>
<td>“I wish not to answer questions from secondary researchers”</td>
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<td>“No proper recognition for sharing (citation)”</td>
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<td>“It is unfair for other researchers to profit from my work”</td>
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<td>“No proper recognition for sharing (coauthorship)”</td>
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<tr>
<td>“I never thought about sharing data online”</td>
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<td>“No proper recognition for sharing (footnote)”</td>
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<td>“My data set is too complex”</td>
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<td>“My data set is not important enough”</td>
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<td>“My data set is too big”</td>
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<tr>
<td>“There is no suitable repository to share my data”</td>
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<tr>
<td>“I plan to commercialize my data or technology”</td>
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- "I never learned to share data online"
- "I wish not to answer questions from secondary researchers"
- "No proper recognition for sharing (citation)"
- "It is unfair for other researchers to profit from my work"
- "No proper recognition for sharing (coauthorship)"
- "I never thought about sharing data online"
- "No proper recognition for sharing (footnote)"
- "My data set is too complex"
- "My data set is not important enough"
- "My data set is too big"
- "There is no suitable repository to share my data"
- "I plan to commercialize my data or technology"

Only two reasons close to the bottom are technological.
Similar findings in other reports (from other disciplines), e.g.

- Life sciences, social sciences and humanities:
  - Van den Eynden et al. (2016)
    - https://doi.org/10.6084/m9.figshare.4055448.v1

- All disciplines:
  - Johnson et al. (2016)
Conclusion:

• The main obstacles to Open Science and FAIR Data are cultural, not technological
How to achieve cultural change?
Case study from Delft
Good data management is a necessary prerequisite to FAIR Data

Central funding to kick-start Data Stewardship at TU Delft

• 3 years: start of 2018 - end of 2020
Key principles behind the project

• Research is central
• Data stewards are consultants, not police!
  – Objective: improve culture (not compliance)
Research is central: importance of disciplinary support

Subject-specific Data Steward at every Faculty

Training in data management provided:
What do the Data Stewards do?

- First contact points for any data questions
- Advocacy and training
Are we achieving cultural change?

Are you aware of funders’ expectations for Findable, Accessible, Interoperable and Reusable (FAIR) data?

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<tr>
<td><strong>Yes</strong></td>
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<td><strong>Not sure</strong></td>
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<td><strong>No</strong></td>
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Some final reflections...

- The main obstacles to Open Science and FAIR Data are **cultural, not technological** - should be reflected in EOSC Rules of Participation

Some final reflections...

- The main obstacles to Open Science and FAIR Data are **cultural, not technological**
- Need for a close collaboration between EOSC and research institutions: institutions need to be clear about EOSC to convince researchers about it
- These should be reflected in all strategic documents and priorities
Contact

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Slides available at:
https://doi.org/10.5281/zenodo.1422232