Social considerations to make data FAIR-er: Understanding researchers' views on data "misuse" and credit

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Abstract:

While community infrastructure initiatives work to make it easier for researchers to manage and share their data, two cultural and social factors require our attention. Just 9% of researchers feel they get sufficient credit for data sharing, according to the 2018 State of Data survey. In the same survey, researcher's concern about "misuse" of their data was the leading reason given for not sharing data. The 2019 State of Open Data survey digs into both topics in more detail. Using this new data, this poster outlines researcher attitudes and concerns, exploring what researchers mean by "misuse", their views on credit, and how we can practically address them. Related:

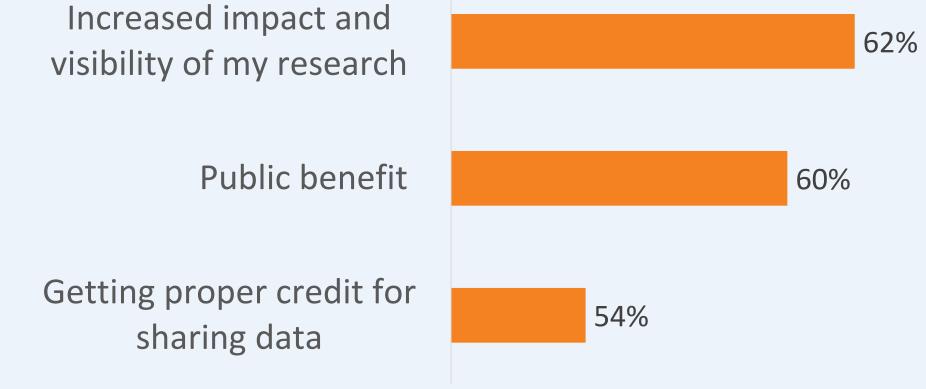
Full survey dataset (CC-BY 4.0): https://doi.org/10.6084/m9.figshare.10011788.v2; Report based on the results of this survey (CC-BY 4.0): https://doi.org/10.6084/m9.figshare.9980783.v2 Interactive visualization of all the data: https://knowledge.figshare.com/articles/item/state-of-opendata-2019

Researcher attitudes to sharing data

Top 3 motivations for sharing data

Researcher concerns about sharing data

Top 3 concerns about sharing datasets

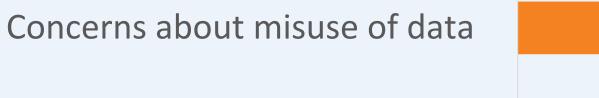


Credit is an increasingly important motivator for sharing data Now ranked 3rd vs 4th in 2018.

What are researchers' views on credit?

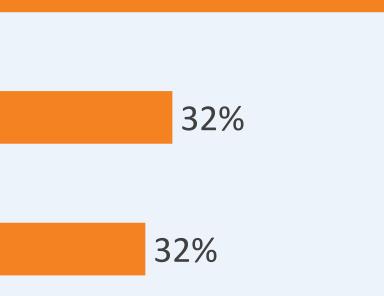
94% of respondents are motivated by data citations.

While credit is one of the top motivations for sharing data, only **12%** of respondents felt researchers receive sufficient credit for sharing data.



Unsure about copyright and licensing

Not receiving appropriate credit or acknowledgement



More than **2,000** respondents had concerns about misuse of data.

What are researchers' concerns about misuse?

Examples of answers to the question 'Is there any data you would not make available':

"Making the data freely available means that we can be scooped on our own planned project or misuse the data."

"The concern is that availability of such data generates competitors and one might get scooped and thus loses chances for external funding."

36%

"I'm hesitant at this time to make data available, both for confidentiality reasons as well as concern about the ability of requesters to analyze the data appropriately."

"[I would not share] Any kind of information that, in the wrong hands, can be used to exploit flaws in the domain it's being applied (e.g. exploit psychological weaknesses in consumers in an unhealthy manner)."

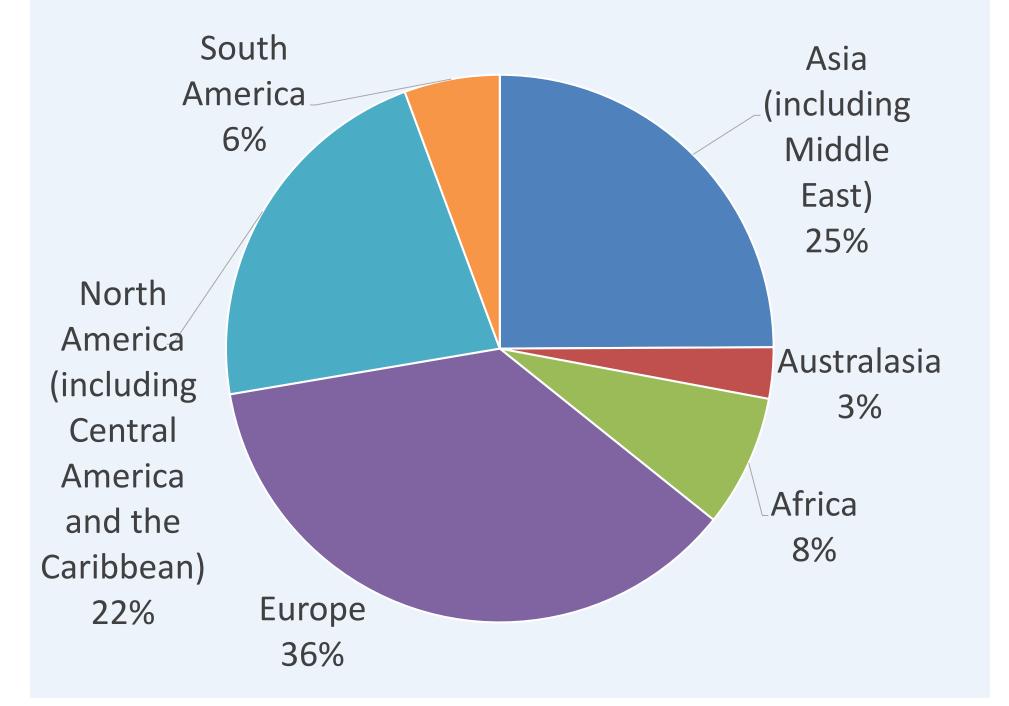
Survey respondents

8,000 participants...

Top 5 disciplines

- 1. Medicine 18.7%
- 2. Biology 15.8%
- 3. Engineering 12%
- 4. Social Sciences 11.3%
- Earth and Environmental Science
 8.5%

...in 190 countries



"There are researchers that want nothing but to exploit the work of others, maybe also damaging others, for their only benefits. And that's just sad and demotivating."

"I would not make available clinical patient data that involves people's mental or physical health because it can be easily exploited even if it is de-identified."

What can be done?

Credit will play a key role in encouraging data sharing.

What would encourage more researchers to share their data? Respondents ranked these mechanisms highly:

Full citation 61% **Consideration in job reviews and funding applications** 45%

Co-authorship on papers 42%

Misuse is researchers' top concern about sharing their data. Further discussion is needed to identify what misuse is, and how it can be addressed.

Collaboration is key

"We must act together. Engagement is needed from all stakeholders to drive forwards appropriate measures and credit to better support our research community, making it much easier for researchers to manage and share data, increasing their ability to take action and enabling sustainable and incentivised engagement with open data globally." – Grace Baynes, VP, Data, and New Product Development, Springer Nature

For more information about Research Data at Springer Nature visit **springernature.com/gp/authors/research-data** About:

The State of Open Data report examines attitudes and experiences of researchers working with open data. The 2019 report, produced by Figshare in association with Digital Science and partnered with Springer Nature, is the fourth in the series and includes survey results and a collection of articles from global industry experts.