Research Data Management Survey

Dear colleagues,

Welcome to the survey on Research Data Management!

The purpose of this survey is to better understand what kinds of data are produced in the course of research at [university] and what happens to those data. The survey contains questions about attitudes and practices related to research data management, sharing and reuse among [university] researchers and about research data management in your day-to-day work routines.

We ask that you answer every question to your best possible knowledge. There are no right or wrong answers. The survey will take about 10 minutes to complete. Please note that participation is voluntary and the survey is in full compliance with the GDPR.

Thank you in advance for your help.

There are 104 questions in this survey.

Q1. Data Types

To begin with, we'd like to ask you to tell us about the kinds of data you usually work with. For the purposes of this study, we use the following broad definition of research data: data that are used as primary sources to support technical or scientific inquiry, research, scholarship, or artistic activity, and that are used as evidence in the research process, and/or are commonly accepted in the research community as necessary to validate research findings and results.

1. **What kinds of data and other research outputs do you/does your group primarily generate during the course of your research?**

Please choose **all** that apply:

- Binary Datasets
- Audio Files
- Computer Code or Scripts
- Computer-readable textual data
- Human-understandable textual files
- Images
- Movies
- Physical Objects (e.g. samples of any kind)
- Presentations (e.g. PowerPoint)
- Spreadsheets (e.g. Excel)

- Publications (articles, book chapters, etc.)
- Other:

2. **Which of the following do you or your group collect?**

Please choose **all** that apply:

- Data relevant only for internal use within my research team/organisation
- Data relevant for others to understand or reproduce our outputs
- Data potentially relevant for others to reuse for other purposes
- I/We do not collect any primary data
- Other:

3. **What kinds of data do you/does your group produce?**

Please choose **all** that apply:

- Observational Data
- Experimental Data
- Computational Data
- Simulated Data
- Measurement Data
- Other:

4. **What kinds of data formats do you/does your group typically use?**

Choose one of the following answers
Please choose **only one** of the following:

- Proprietary formats exclusively
- Predominantly proprietary formats
- Proprietary and open source formats
- Predominantly open source formats
- Open source formats exclusively
- Do not know/Cannot answer
- Other

5. **Do you/does your group generate/process data that could be considered sensitive (e.g. patient data, confidential data from industry projects)?**

Please choose **only one** of the following:

- Yes
- No

6. **If you process sensitive data, please tell us which!**

Only answer this question if the following conditions are met:
Answer was 'Yes' at question ' [DT04a]' (Do you/does your group generate/process data that could be considered sensitive (e.g. patient data, confidential data from industry projects)?)
Please write your answer here:

7. **Do you/does your group work with specimens of any kind?**

Please choose **only one** of the following:

- Yes
- No

8. **If yes, which?**

Only answer this question if the following conditions are met:
Answer was 'Yes' at question ' [DT05a]' (Do you/does your group work with specimens of any kind?)
Please write your answer here:

Q2. Data Quantity

1. **How big are the data sets you work with in a typical research project?**

Choose one of the following answers
Please choose **only one** of the following:

- < 1 MB
- Up to 99 MB
- 100 MB - 999 MB
- 1 GB - 9 GB
- 10 GB - 99 GB
- 100 GB - 499 GB
- > 500 GB

2. **How much data do you handle in the course of your research, on average, per year? This includes all data used as input to or output of your research.**

Choose one of the following answers
Please choose **only one** of the following:

- 0 - 99 GB
- 100 GB - 499 GB
- 500 GB - 900 GB
- 1 TB - 5 TB
- > 5 TB

3. **Sometimes, data need to be stored only for the duration of a project, sometimes data need to be kept longer. Of the data you generate annually, how much would you say requires ...**

Please choose the appropriate response for each item:

	< 10 GB	**10 GB - 99 GB**	**100 GB - 999 GB**	**1 TB - 10 TB**	**10 TB - 100 TB**	**> 100 TB**
... short-term storage (<3 years)						
... long-term storage (>3 years)						

4. **How many people are in your research group?**

Choose one of the following answers

Please choose **only one** of the following:

- Fewer than 5 people
- 5-9 people
- 10-19 people
- 20-29 people
- 30 or more people

Q3. Data Handling in Research Practice

The aim of the next section is to better understand the processes which are in place in your research group when it comes to data handling, storing, and sharing before, during, and after research activities.

1. **How many research proposals have you contributed to (including ones that you are working on at the moment)? "Research proposal" covers everything from industry projects to FWF and Horizon2020 projects.**

Choose one of the following answers
Please choose **only one** of the following:

- <1
- 1-5
- 6-10
- 11-20
- >20

2. **When you work on a proposal, how frequently do you...**

Only answer this question if the following conditions are met:
Answer was '1-5' *or* '6-10' *or* '11-20' *or* '>20' at question ' [DHRP01]' (How many research proposals have you contributed to (including ones that you are working on at the moment)? "Research proposal" covers everything from industry projects to FWF and Horizon2020 projects.)

	Always, or almost always	Most of the time	Sometimes	Rarely	Never, or almost never	Do not know/cannot answer
...create a data management plan at the proposal stage, at least in draft/outline form						
...establish processes for dealing with sensitive/personal data						
...share a data management plan with research peers						

	Always, or almost always	Most of the time	Sometimes	Rarely	Never, or almost never	Do not know/cannot answer
...allocate a separate budget and or human resources to data management/sharing						

3. **Do you share data or other research outputs (e.g. code) with anyone beyond the research team?**

Comment only when you choose an answer.
Please choose all that apply and provide a comment:

- Yes, but only on request
- Do not know/cannot answer
- Yes, and most/all of the data produced is shared and made openly accessible
- Yes, but for certain data access is managed, i.e. to authorised users and with restrictions on potential reuse
- Yes, but only with collaborators within the project
- No, no data is shared with anyone beyond the research team
- Other:

4. **When thinking about your discipline, would you say that...**

Please choose the appropriate response for each item:

	Completely agree	Tend to agree	Tend to disagree	Completely disagree	Don't know/Cannot answer
...sharing research data enables better research					
...sharing research data is not a priority					
...sharing research data with peers is encouraged					
...sharing research data is mandatory for most important journals					

5. **How frequently do you/does your group...**

Please choose the appropriate response for each item:

	Always, or almost always	**Most of the time**	**Sometimes**	**Rarely**	**Never, or almost never**	**Do not know/cannot answer**
...share data to an institutional repository or data center (provided by [university])						
...share data as a supplement or appendix to a publication						
...share data to a non-institutional repository or data center (e.g. arXiv, GitHub)						
...share data through a stand-alone data publication						

6. **Please name up to three non-institutional repositories you have used to store your data!**

Only answer this question if the following conditions are met:
Answer was 'Always, or almost always' *or* 'Most of the time' *or* 'Sometimes' *or* 'Rarely' at question ' [DHRP05]' (How frequently do you/does your group... (...share data to a non-institutional repository or data center (e.g. arXiv, GitHub)))

Please choose all that apply and provide a comment:

Service/Platform 1

Service/Platform 2

Service/Platform 3

7. During a project, how frequently do you/does your group...

Please choose the appropriate response for each item:

	Always, or almost always	Most of the time	Sometimes	Rarely	Never, or almost never	Do not know/cannot answer
...reuse data from third parties						
...update a data management plan to reflect changes in the project						
...provide training to team members on Research Data Management, Sharing and Reuse						

8. When re-using third-party data, these are usually obtained through...

Only answer this question if the following conditions are met:
Answer was 'Always, or almost always' *or* 'Most of the time' *or* 'Sometimes' *or* 'Rarely' at question ' [DHRP03b]' (During a project, how frequently do you/does your group... (...reuse data from third parties))
Please choose the appropriate response for each item:

	Always, or almost always	Most of the time	Sometimes	Rarely	Never, or almost never	Do not know/cannot answer
...direct contact with data producers						
...supplementary files linked to publications						
...data repositories or similar platforms						

Please choose the appropriate response for each item:

9. **The next question concerns standard processes in place for storing research data in the short term (for the duration of a project, <3 years). How frequently do you/does your group...**

Please choose the appropriate response for each item:

	Always, or almost always	Most of the time	Sometimes	Rarely	Never, or almost never	Do not know/cannot answer
...store data on a local hard-drive during a project						
...store data in institutional servers during a project						
...store data on cloud services provided by [university] during a project						
...store data on cloud services provided by a third party during a project						

Q4. Obstacles to Research Data Management and Sharing

Research Data Management may be subject to various obstacles in the course of day-to-day research, e.g. institutional, practical, or organisational. The following questions deal with your experience of these obstacles.

1. **To what extent do you agree with the following statement: I have already experienced obstacles limiting my own or my team's abilities to manage and share the data generated in our research?**

Choose one of the following answers
Please choose **only one** of the following:

- To a very large extent
- To a large extent
- To little or no extent at all
- To some extent
- Do not know/cannot answer

2. **To what extent do you see the following as obstacles to research data management and sharing?**

Please choose the appropriate response for each item:

	To a very large extent	To a large extent	To some extent	To little or no extent at all	Do not know/cannot answer
Data security/information security					
Dealing with data protection for personal data					
Risk of falsification of data					
Dealing with data confidentiality for commercially-sensitive data					
Dealing with security issues relating to data from sensitive research (e.g. terrorism, policing, defence industry)					
Legal restrictions (e.g. copyright law, patents, trademarks)					
Financial costs of research data management and sharing (e.g. buying additional storage space)					
Lack of skills to manage and share data					

	To a very large extent	To a large extent	To some extent	To little or no extent at all	Do not know/cannot answer
Increased time and effort required					
Lack of recognition given to research data management and sharing activities in my organisation					
Sharing data does not increase the visibility and impact of my research					
Risk of misinterpretation of data					
Economic competitiveness/undesired commercial use					
Lack of institutional guidelines for research data management and sharing					
Missing data standards and established processes					
Lack of knowledge about data repositories or data centers where data could be stored					

3. **Please specify any other obstacles to Research Data Management and sharing that you might experience!**

Q5. Demographics

1. **Please indicate your highest completed degree!**

Choose one of the following answers
Please choose **only one** of the following:

- Doctorate/PhD
- Master's Degree (MSc., MA, Dipl. Ing., Mag.)
- Bachelor's Degree
- Other

2. **Please indicate your faculty!**

Choose one of the following answers
Please choose **only one** of the following:

- Architecture
- Civil Engineering Sciences
- Mechanical Engineering and Economic Sciences
- Electrical and Information Engineering
- Mathematics, Physics, and Geodesy
- Technical Chemistry, Chemical and Process Engineering, Biotechnology
- Computer Science and Biomedical Engineering

3. **Please indicate your role in your research group/at your department!**

Check all that apply
Please choose **all** that apply:

- Assistant Professor
- Full Professor
- Associate Professor
- Lecturer
- PostDoc
- Researcher
- PhD-Candidate
- Student
- Other:

Thank you for taking part in our survey on Research Data Management in your daily practice! Your participation will provide meaningful insights as a foundation for effective and targeted improvements.

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Submit your survey.
Thank you for completing this survey.