

Survey Instrument to Assess Research Data Management Practices and Perceptions of MRI Researchers

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About this study

We've structured this survey so that it loosely aligns with the progression of a typical neuroimaging project. We are interested in your methods, tools, and practices, starting when you collect data at the scanner and continuing all the way through to when you describe or share data as part of a scholarly publication or presentation. We hope the results of this assessment will serve to inform the neuroimaging community of current practices and also help in the development of community standards in the future.

Please be sure not to include anything within the responses that is both identifiable and private about yourself or others as there is the possibility of deductively identifying an individual.

Data Management Maturity

We are particularly interested to learn about your data management practices. In neuroimaging research, such practices include the methods you use to transfer data from the scanning center to your lab, how you name and organize your files once they're in the lab, and how you document your pre-processing and analysis workflows.

Several questions in this survey reference the concept of "data management maturity". By this we mean the extent to which your data management practices are clearly defined, implemented, and (if applicable) optimized.

Data management maturity can be thought of as existing along a continuum from "ad hoc" to "mature". In this context, "ad hoc" refers to a state where your data management practices are undocumented, not standardized, and inconsistently applied between projects or by different lab personnel. In contrast, "mature" refers to a state where your data management practices are not only documented and standardized, but also continually improved and optimized.

Our aim is not to judge researchers who may have different styles of data management or whose data management practices exhibit different levels of sophistication. Our aim is to be descriptive, not prescriptive. We recognize that the maturity of data management practices depends on a large number of factors and what may be a reasonable set of practices for researchers working in one context may not apply to those working elsewhere.

1. General Information

Before we ask about your specific methods, tools, and data management practices, we have some general questions about you, your lab, and your research. The information you provide in this section will help us contextualize your responses to our other survey questions.

1. What is your current professional title or role?
 - ☐ Professor
 - ☐ Associate Professor
 - ☐ Assistant Professor
 - ☐ Post-Doc
 - ☐ Graduate Student
 - ☐ Research Associate/Scientist
 - ☐ Staff Scientist
 - ☐ Research Technician
 - ☐ Research Assistant
 - ☐ Other: [please specify]_____
2. How long have you held your current professional title or role? _____
3. Where is your lab or research group located?
 - University or Institution: _____
 - Department or Program: _____
 - Country: _____
4. How big is your lab?
 - Research assistants: _____
 - Graduate students: _____
 - Post-docs: _____
 - Part time staff: _____
 - Full time staff: _____
5. What is your primary research area? [Please select just one]
 - ☐ Behavioral Neuroscience
 - ☐ Bio/Neuroinformatics
 - ☐ Cellular/Molecular Neuroscience
 - ☐ Clinical Neuroscience
 - ☐ Cognitive Neuroscience
 - ☐ Comparative Neuroscience
 - ☐ Computational Neuroscience
 - ☐ Developmental Neuroscience
 - ☐ Motor Systems Neuroscience
 - ☐ Neuroanatomy
 - ☐ Neuroendocrinology

- Neuroengineering
- Neuroethology
- Neuropharmacology
- Neuroscience of Aging
- Sensory Systems Neuroscience
- Social Neuroscience
- Other: [Please specify]: _____

6. Where do you do your scanning? [Click all that apply]

- A research-dedicated imaging facility located at my institution.
- A research-dedicated imaging facility located at another institution.
- A hospital or medical imaging facility associated with my institution.
- A hospital or medical imaging facility not associated with my institution.
- I make use of data from multiple scanner sites in different geographic locations.
- I primarily work with data collected by other researchers.
- Other: [Please describe] _____

7. Which of the following best describes how you analyze and store your data?

- I use my own machine(s) to analyze and store my data.
- I use my own machine(s) to analyze my data, but I store my data on a shared drive or server.
- I use a workstation that I share with other researchers to analyze and store my data.
- I log in to my lab's shared server or cluster to analyze and store my data.
- Other: [Please describe] _____

8. Who funds your research or work (e.g. NIH, NSF, DOD, etc)? _____

9. What is your role on these grants? [Click all that apply]

- Principal Investigator
- Co-Investigator
- Faculty Associate
- Consultant
- Post-Doc
- Graduate Student
- Undergrad Student
- Other: _____

10. Do you maintain documentation regarding how data is to be collected, organized, and secured over the course of a project?

- Yes, and I revisit it throughout the lifecycle of a project.
- Yes, but I rarely revisit it during a project.
- I keep documentation on some of these things, but not all of them.
- Somebody maintains this kind of documentation for the lab, but I do not.

- I have a way of doing things, but it's not documented anywhere.
- I don't know.
- No

11. Where did you receive your training in collecting and analyzing neuroimaging data?

[Click all that apply]

- From a workshop or course at my institution
- From a workshop or course outside my institution
- From sources within my lab (e.g. other students, post-docs, etc)
- From individuals outside my lab (e.g. other people in my department)
- I am mostly self-taught (e.g. using online resources/documentation)
- Other: [Please describe] _____
- I have received no training on collecting/analyzing neuroimaging data.

12. Does your institution provide any assistance, training, or consulting services on topics related to research data management (e.g. data storage, organization, and security)?

- Yes, and I have taken advantage of it.
- Yes, but I have not taken advantage of it.
- No
- I'm not sure.

13. Does your institution provide assistance, training, or consulting services on topics related to scholarly publishing and/or data sharing (e.g. public access compliance, digital preservation, and data sharing mandates)?

- Yes, and I have taken advantage of it.
- Yes, but I have not taken advantage of it.
- No
- I'm not sure.

14. Does your institution provide any technical infrastructure to foster research data management and/or data sharing (e.g. tools for file sharing, storage, collaboration provided by the library/ITS)?

- Yes, and I have taken advantage of it.
- Yes, but I have not taken advantage of it.
- No
- I'm not sure.

2. Data Collection

The questions in this section concern activities and practices beginning with the collection of data at a scanning facility and ending before data is pre-processed (co-registered, motion corrected, etc) in the laboratory.

Reminder: References to “data management maturity” refer to the extent to which your data management practices are defined, implemented, and (if applicable) optimized rather than the sophistication of your data or analyses.

Examples of data management practices during the data collection stage include methods for transferring data from a scanning facility to a lab, organizing files once they are in the lab, and backing up MRI and behavioral data. Maturity is greater when these practices are more documented, standardized, and automated.

1. On a scale of 1-5, how would you rate the overall maturity of your data management practices during the data collection phase of a project.

Ad-Hoc 1 2 3 4 5 Mature

2. On a scale of 1-5, how would you rate the data management practices for the field of neuroimaging as a whole during the data collection phase of a project.

Ad-Hoc 1 2 3 4 5 Mature

3. What type(s) of MRI data do you collect? [Click all that apply]

- ☐ Anatomical data (e.g. T1, T2 scans)
- ☐ Task-related/functional imaging data
- ☐ Resting state data
- ☐ Diffusion data
- ☐ Fieldmap data
- ☐ Other [Please describe] _____

4. In addition to MRI data, what other information do you collect from your participants? [Click all that apply]

- ☐ Demographic data (e.g. age, gender)
- ☐ Clinical or Medical data (including mental health information)
- ☐ Behavioral data (e.g. response accuracy, reaction times)
- ☐ Questionnaire data
- ☐ Other neuroimaging data (e.g. EEG, NIRS)
- ☐ Physiological data (e.g. heart rate, blood pressure)
- ☐ Genetic/molecular data (e.g. blood samples, cheek swabs)
- ☐ Eye tracking/pupillometry data
- ☐ Other: [Please describe] _____

5. What additional information do you need to preserve for an MRI project that is connected to the data collected from your participants? [Click all that apply]
- ☐ Data about the scan session (e.g. If the participant moved, fell asleep)
 - ☐ MRI acquisition parameters (e.g. TR, TE)
 - ☐ Task-related information (e.g. timing parameters)
 - ☐ Task-related stimuli (e.g. images, audio/visual files)
 - ☐ Code used for stimuli presentation
 - ☐ Code used for data collection
 - ☐ Other: [Please describe] _____
6. How do you transfer the data acquired during a scan session to your lab? [Including both MRI data and “non-MRI” data such as behavioral or physiology data] [Click all that apply]
- ☐ MRI data is uploaded to a server maintained by the imaging facility.
 - ☐ Non-MRI data is uploaded to a server maintained by the imaging facility.
 - ☐ Non-MRI data is burned to a CD/DVD at the imaging facility.
 - ☐ Behavioral/physiology data is burned to a CD/DVD at the imaging facility.
 - ☐ I load MRI data to a drive owned by me or my lab.
 - ☐ I load non-MRI data to a drive owned by me or my lab.
 - ☐ Other: [Please describe] _____
7. What system(s) do you use to keep your data organized once it is in the lab? [Click all that apply]
- ☐ I use a database maintained by the lab (eg XNAT, LORIS, SciTran, etc).
 - ☐ I use a common or standardized set of file naming conventions.
 - ☐ I use a common or standardized file folder/directory organizational scheme.
 - ☐ I maintain a lab notebook, data dictionary, or codebook.
 - ☐ I follow a set of general procedures, but they’re not standardized or described anywhere.
 - ☐ Other: [Please describe] _____
8. Does everyone in your lab or research group use the same system(s) for organizing their data?
- ☐ Yes
 - ☐ No
 - ☐ I’m not sure.

9. How do you backup your MRI data? [Click all that apply]

- ☐ Burning a CD/DVD containing my data
- ☐ Loading my data to a flash drive or external hard drive
- ☐ Manually backing up my local machine to an external/internal hard drive
- ☐ Automatically backing up my local machine (e.g. Time Machine)
- ☐ Using a lab-owned server (e.g. Network storage)
- ☐ Using a local server maintained by my department.
- ☐ Using a local server maintained by my institution (e.g. by IT)
- ☐ Upload it to the cloud (e.g. Box, Google Drive, Amazon S3)
- ☐ Depositing it in an institutional or discipline-specific repository
- ☐ Other: [Please describe] _____
- ☐ I do not backup my MRI data

10. Does your scanning facility also backup or archive MRI data?

- ☐ Yes
- ☐ No
- ☐ I don't know.

11. How do you backup your non-MRI data (behavioral data, physiology data, etc)?

[Click all that apply]

- ☐ Burning a CD/DVD containing my data
- ☐ Loading my data to a flash drive or external hard drive
- ☐ Manually backing up my local machine to an external/internal hard drive
- ☐ Automatically backing up my local machine (e.g. Time Machine)
- ☐ Using a lab-owned server (e.g. Network storage)
- ☐ Using a local server maintained by someone else (e.g. Department or research institute server)
- ☐ Uploading it to the cloud (e.g. Box, Google Drive, Amazon S3)
- ☐ Depositing it in an institutional or discipline-specific repository
- ☐ Other: [Please describe] _____
- ☐ I do not backup my non-MRI data

12. How many redundant backups do you keep of your data?

- ☐ I do not keep any redundant backups of my data.
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ More than 3

13. Does everyone in your lab or research group use the same system(s) for backing up their data?

- ☐ Yes
- ☐ No
- ☐ I'm not sure.

14. On a scale of 1 to 5, how would you rate the maturity of your lab's practices for each of the following:

Raw data is consistently saved, organized, and backed-up.

Ad-Hoc 1 2 3 4 5 Mature

The security of sensitive data (e.g. data subject to HIPAA) is maintained.

Ad-Hoc 1 2 3 4 5 Mature

Files are named using standardized conventions and organized using standardized file structure.

Ad-Hoc 1 2 3 4 5 Mature

There is a codebook, data dictionary, readme file, wiki, or notebook that describes how data is organized.

Ad-Hoc 1 2 3 4 5 Mature

Data that goes together is linked in an anonymous, secure, and coherent fashion.

Ad-Hoc 1 2 3 4 5 Mature

15. What limits your ability to manage your data well at this stage? [Click all that apply]

- ☐ The amount of time it takes
- ☐ The financial cost
- ☐ Lack of knowledge/training
- ☐ Lack of discipline-specific best practices
- ☐ Lack of incentives or motivations to modify current practices
- ☐ Other: [Please describe] _____

16. What motivates your current data management practices at this stage? [Click all that apply]

- ☐ I want to ensure that everyone in my lab or research group can access my data.
- ☐ I want to prevent losing any data.
- ☐ I want to comply with mandates from a funder or publisher.
- ☐ I want to comply with the data retention policies of my institution (e.g. the IRB)
- ☐ My institution provides research tools or support services that are easy to use.
- ☐ I want to foster openness and reproducibility.
- ☐ Other: [Please describe] _____

3. Data Analysis

The questions in this section concern activities and practices starting with the pre-processing (co-registration, motion correction, etc) of MRI data, continuing through first and second level analyses, and ending before the data is shared or described in a presentation or scholarly publication.

Reminder: References to “data management maturity” refer to the extent to which your data management practices are defined, implemented, and (if applicable) optimized rather than the sophistication of your data or analyses.

Examples of data management practices during the data analysis stage include use of standardized data analysis tools and documentation of pre-processing and analysis-related decisions. Maturity is greater when these practices are more documented, standardized, and automated.

1. On a scale of 1-5, how would you rate the overall maturity of your data management practices during the data analysis phase of a project.

Ad-Hoc 1 2 3 4 5 Mature

2. On a scale of 1-5, how would you rate the data management practices for the field of neuroimaging as a whole during the data analysis phase of a project.

Ad-Hoc 1 2 3 4 5 Mature

3. What software tools do you use to pre-process and analyze your MRI data?

[Click all that apply]

- ☐ 3D Slicer
- ☐ AFNI
- ☐ BiImage
- ☐ BrainSuite
- ☐ BrainVISA
- ☐ BrainVoyager
- ☐ CamBA
- ☐ Caret
- ☐ CMTK
- ☐ CONN
- ☐ DTI-TK
- ☐ Freesurfer
- ☐ DSI Studio
- ☐ FSL
- ☐ Mango
- ☐ MRICro/MRICron
- ☐ MRTrix
- ☐ NeuroElf

- NIAK
 - SPM
 - OsiriX
 - Other: _____
4. Do you use the same version(s) of software or tools to pre-preprocess and analyze MRI data throughout the complete duration of a specific project? (e.g. maintaining legacy versions of software to use for an ongoing project rather than jumping to the newest versions midway)
- Yes, always
 - Sometimes, when possible
 - No
 - I'm not sure
5. Which of the following best describes how you typically pre-preprocess your MRI data? [Click all that apply]
- My pre-processing is scripted and I write the scripts myself.
 - My pre-processing is scripted and I adapt scripts written by others.
 - My pre-processing is scripted and I use scripts written by others without changing them.
 - I pre-process my data for each subject individually using a GUI.
 - Other: [Please describe] _____
6. Does everyone in the lab use the same software tools to preprocess and analyze their MRI data?
- Yes, and the same version(s).
 - Yes, but different versions.
 - No
 - I'm not sure.
7. Aside from MRI data analysis software, what additional software tools do you use to analyze your data (including non-MRI data)? [Click all that apply]
- Excel
 - JASP
 - Mathematica
 - Matlab
 - Python (scientific stack)
 - R
 - SAS/JMP
 - Stata
 - SPSS
 - Other [Please list] _____

8. Does everyone in the lab use the same data analysis software?
- ☐ Yes, and the same version(s).
 - ☐ Yes, but different versions.
 - ☐ No
 - ☐ I'm not sure.
9. Do you use custom code or scripts as part of the analysis process (e.g. to conduct first or second level analyses)?
- ☐ Yes. I create my own custom code or scripts. [Please indicate scripting language] _____
 - ☐ Yes. I reuse or adapt custom code or scripts developed by others. [Please indicate source and scripting language if possible] _____
 - ☐ No
 - ☐ I'm not sure.
10. If you create or adapt custom code or scripts while analyzing your data, do you use a version control system (e.g. Git)?
- ☐ Yes, always
 - ☐ Sometimes
 - ☐ No.
 - ☐ I'm not sure.
 - ☐ I do not create or adapt custom code or scripts.
11. Does everyone in your lab use a data analysis pipeline that involves the same software packages and scripting practices?
- ☐ Yes
 - ☐ No
 - ☐ I'm not sure.
12. How do you typically document your activities (including quality checks, pre-processing parameters, and the results of first/higher level analyses) during the data analysis phase of a project? [Click all that apply]
- ☐ I keep notes in a word processing or note-taking program (e.g. Evernote, Microsoft Word).
 - ☐ I use an electronic lab management system (e.g. LabGuru).
 - ☐ I use an electronic lab notebook (e.g. Jupyter).
 - ☐ I use an active data management plan (DMP).
 - ☐ I use a version control system (e.g. Git).
 - ☐ I keep notes on a lab wiki.
 - ☐ I keep notes in ReadMe files.
 - ☐ I do not document my activities in any systematic way.
 - ☐ Other: [Please describe] _____

13. Does everyone in the lab use the same system for documenting their activities during the data analysis phase of a project?

- ☐ Yes
- ☐ No
- ☐ Not applicable

14. Could someone with a similar level of expertise recreate your pre-processing and analysis steps on your data from the documentation and notes you create as you are pre-processing and analyzing your data (without you being present)?

- ☐ Someone could recreate both my pre-processing and analysis steps.
- ☐ Someone could recreate my pre-processing but not analysis steps.
- ☐ Someone could recreate my analysis but not preprocessing steps.
- ☐ No. I would have to be present.
- ☐ I'm not sure.

15. On a scale of 1 to 5, how would you rate the maturity of your lab's practices for each of the following:

Analyzed data is consistently saved and backed-up.

Ad-Hoc 1 2 3 4 5 Mature

The decisions, parameters, and procedures involved in my analysis pipeline are well documented.

Ad-Hoc 1 2 3 4 5 Mature

Decisions, parameters, and procedures related to software, scripts, or code are well documented.

Ad-Hoc 1 2 3 4 5 Mature

The analysis workflow is consistent (with adjustments).

Ad-Hoc 1 2 3 4 5 Mature

Data that goes together is linked in an anonymous, secure, and coherent fashion.

Ad-Hoc 1 2 3 4 5 Mature

16. What limits your ability to manage your data well at this stage? [Click all that apply]

- ☐ The amount of time it takes
- ☐ The financial cost
- ☐ Lack of knowledge/training
- ☐ Lack of discipline-specific best practices
- ☐ Lack of incentives or motivations to modify current practices
- ☐ Other: [Please describe] _____

17. What motivates your current data management practices at this stage? [Click all that apply]

- ☐ I want to ensure that everyone in my lab or research group can access my data.
- ☐ I want to prevent losing any data.
- ☐ I want to comply with mandates from a funder or publisher.
- ☐ I want to comply with the data retention policies of my institution (e.g. the IRB)
- ☐ My institution provides research tools or support services that are easy to use.
- ☐ I want to foster openness and reproducibility.
- ☐ Other [Please describe] _____

4. Data Publishing/Sharing

The questions in this section concern activities and practices related to the communication or publication of your (collected and analyzed) data in a presentation or scholarly publication or the sharing of your data via a general or discipline-specific repository (e.g. Figshare, Dryad, Zenodo, NeuroVault, OpenfMRI).

Reminder: References to “data management maturity” refer to the extent to which your data management practices are defined, implemented, and (if applicable) optimized rather than the sophistication of your data or analyses.

During the data sharing/publishing stage, data management practices include those involving the dissemination of all of the data needed to ensure the validity and/or reproducibility of a given project. Maturity is greater when these practices are more documented, standardized, and automated.

1. On a scale of 1-5, how would you rate the maturity of your data sharing activities?
Ad-Hoc (No sharing) 1 2 3 4 5 Mature
2. On a scale of 1-5, how would you rate the maturity of the field of neuroimaging as a whole in regards to data sharing?
Ad-Hoc (No sharing) 1 2 3 4 5 Mature
3. Is there any reason part or all of your data cannot be shared? [Check all that apply]
 - ☐ Yes, my data may contain additional findings that I wish to discover/publish.
 - ☐ Yes, my data contains confidential or sensitive information.
 - ☐ Yes, my data is in a format that makes it difficult to share with other researchers
 - ☐ Yes, my data is proprietary or subject to intellectual property concerns.
 - ☐ Yes, my supervisor does not wish to communicate the data.
 - ☐ Yes, it would take too much time for me to share my data.
 - ☐ Yes, I do not know how to share my data.
 - ☐ Yes. Other: [Please describe] _____
 - ☐ No, but I request authorship if others use my data
 - ☐ No, but I request citation or acknowledgement if others use my data.
4. What are the important parts of your data to preserve long term? [Check all that apply]
 - ☐ My raw MRI data
 - ☐ Analyzed MRI data (e.g. contrast maps)
 - ☐ Demographic data (e.g. age, gender)
 - ☐ Clinical or Medical data (Including mental health information)
 - ☐ Behavioral data (e.g. response accuracy, reaction times)
 - ☐ Questionnaire data
 - ☐ Other neuroimaging data (e.g. EEG, NIRS)
 - ☐ Physiological data (e.g. heart rate, blood pressure)
 - ☐ Genetic/molecular data (e.g. blood samples, cheek swabs)
 - ☐ Eye tracking/pupillometry data

- Data about the scan session (e.g. If the participant moved, fell asleep)
 - MRI acquisition parameters (e.g. TR, TE)
 - Task-related information (e.g. timing parameters)
 - Task-related stimuli (e.g. images, audio/visual files)
 - Code used for stimuli presentation
 - Code used for data collection
 - Other: [Please describe] _____
5. Have you ever deposited a dataset somewhere to make it publically available?
[Check all that apply]
- Yes, in my institutional repository.
 - Yes, in a third party repository (e.g. Figshare, Dryad, Zenodo, etc)
 - Yes, in a discipline-specific repository (e.g. NITRC, OpenfMRI, Neurovault, XNAT-central, etc)
 - Yes. Other [Please describe] _____
 - No.
6. If applicable, what is your motivation for sharing your data (such as through uploading some or all of it to a general or discipline-specific repository)? [Check all that apply]
- To communicate my results and/or add to the scholarly literature
 - To allow other researchers to assess the validity of my conclusions.
 - Professional incentives (e.g. authorship or citations)
 - To establish IP or patent claims.
 - It is mandated by a funder, publisher, or my institution.
 - To foster transparency and openness.
 - To foster re-use and reproducibility.
 - Not applicable, I do not share my data in this manner.
 - Other: [Please describe] _____
7. Have you ever deposited code somewhere so that it can be shared?
[Check all that apply]
- Yes, using a containerization platform (e.g. Docker).
 - Yes, using a software-specific repository (e.g. Github).
 - Yes, using a general purpose repository (e.g. Figshare, Dryad, Zenodo)
 - Yes. Other [Please describe] _____
 - No
8. Have you ever published in a journal that required you to share data or submit a data availability statement? [Check all that apply]
- Yes, I've been required to share data.
 - Yes, I've been required to submit a data availability statement.
 - No.
 - I'm not sure.
9. Have you ever requested data from another researcher?
- Yes, and I received the data.
 - Yes, but I did not receive the data.
 - No
 - I don't know

10. Have you ever received a request for your data?
- Yes, and I shared the data as requested.
 - Yes, but I was not able to share the data as requested.
 - No
 - I don't know
11. Could someone with a similar level of expertise recreate your pre-processing and analysis steps using your description of them in a publication or scholarly report (without you being present)?
- Someone could recreate both my pre-processing and analysis steps.
 - Someone could recreate my pre-processing but not analysis steps.
 - Someone could recreate my analysis but not preprocessing steps.
 - No. I would have to be present.
 - I'm not sure.
12. How long do you (or your lab) typically keep a dataset?
- Only until it is described in a publication, poster, or presentation.
 - 1-3 years after the conclusion of a project
 - 4-8 years after the conclusion of a project
 - 8+ years (and maintained so it's always accessible)
 - 8+ years (but in a formats that it may become obsolete/inaccessible)
 - Other: [Please describe] _____

13. On a scale of 1 to 5, how would you rate the maturity of your practices for each of the following:

The data collected by the lab is consistently shared with researchers outside the lab.
 Ad-Hoc (No sharing) 1 2 3 4 5 Mature

The parameters, and procedures associated with the data are shared with researchers outside the lab.
 Ad-Hoc (No sharing) 1 2 3 4 5 Mature

Ancillary materials (e.g. computer code) are shared with researchers outside the lab.
 Ad-Hoc (No sharing) 1 2 3 4 5 Mature

Data and ancillary material is made available in a form that enables other researchers to judge the integrity, validity, or reproducibility of conclusions drawn from it.
 Ad-Hoc (No sharing) 1 2 3 4 5 Mature

Data and ancillary material that goes together (e.g. all the materials associated with a specific journal article) is identified and linked in a coherent fashion.
 Ad-Hoc (No sharing) 1 2 3 4 5 Mature

14. What limits your ability to manage your data well at this stage? [Click all that apply]

- ☐ The amount of time it takes
- ☐ The financial cost
- ☐ Lack of knowledge/training
- ☐ Lack of discipline-specific best practices
- ☐ Lack of incentives or motivations to modify current practices
- ☐ Other: [Please describe] _____

15. What motivates your current data management practices at this stage? [Click all that apply]

- ☐ I want to ensure that everyone in my lab or research group can access my data.
- ☐ I want to prevent losing any data.
- ☐ I want to comply with mandates from a funder or publisher.
- ☐ I want to comply with the data retention policies of my institution (e.g. the IRB)
- ☐ My institution provides research tools or support services that are easy to use.
- ☐ I want to foster openness and reproducibility.
- ☐ Other: [Please describe] _____

5. Developing Publication Practices

The questions in this section concern activities, practices, and plans related to new (or newly visible) ways of communicating, disseminating, or sharing material related to your research.

1. Are you limited in addressing your research questions by a lack of access to research data collected by others (i.e. Have you often wished for access to data that were not available?)?
 - ☐ Yes
 - ☐ No
 - ☐ I don't know
2. Do you consider your data to be a "first class" research product (a product that is assessed, valued, and considered as part of application/promotion decisions in the same way as a journal article)?
 - ☐ Yes
 - ☐ No
 - ☐ I don't know
3. Have you ever published a "non-traditional" research product (e.g. code, datasets, grant proposals, a data management plan)?
 - ☐ Yes [Please describe] _____
 - ☐ No
 - ☐ I don't know
4. Do you plan to in the future?
 - ☐ Yes
 - ☐ No
 - ☐ I don't know
5. What is your motivation for publishing a scholarly article that describes conclusions drawn from your data (such as a peer-reviewed journal article)? [Click all that apply]
 - ☐ To communicate my results and/or add to the scholarly literature
 - ☐ To allow other researchers to assess the validity of my conclusions.
 - ☐ Professional incentives (e.g. authorship or citations)
 - ☐ To establish IP or patent claims.
 - ☐ It is expected by a funder.
 - ☐ Other: [Please describe] _____
6. Have you ever published in an Open Access Journal?
 - ☐ Yes
 - ☐ No
 - ☐ I don't know

7. Do you plan to in the future?

- ☐ Yes
- ☐ No
- ☐ I don't know

8. Have you ever pre-registered a study or submitted a registered report?

- ☐ Yes
- ☐ No
- ☐ I don't know

9. Do you plan to in the future?

- ☐ Yes
- ☐ No
- ☐ I don't know

10. Have you ever published a pre-print?

- ☐ Yes
- ☐ No
- ☐ I don't know

11. Do you plan to in the future?

- ☐ Yes
- ☐ No
- ☐ I don't know

12. Have you ever published a direct replication of a previously published study (possibly as part of another study)?

- ☐ Yes
- ☐ No
- ☐ I don't know

13. Do you plan to in the future?

- ☐ Yes
- ☐ No
- ☐ I don't know

14. [Optional] Please use this space to record any further thoughts you might have about the collection, organization, publication or sharing of neuroimaging data.

This concludes our survey. Thank you for your participation!

If you have any questions about this work or would like to know the aggregated results of this work please contact the PI, Ana Van Gulick, at anavangulick@cmu.edu