

Using the Open Science Framework

Enhancing Your Research Projects

Land acknowledgement:

I acknowledge that I live and work on Treaty 6 Territory and the Homeland of the Métis. I pay my respects to the First Nations and Métis ancestors of this place.

About me

Health Sciences Librarian at the University of Saskatchewan (USask)

Have been supporting open science, reproducibility, data management, and data sharing at NIH, NYU School of Medicine, and USask for >8 years

Chair of the Portage Network Data Discovery Expert Group



Kevin Read, MLIS, MAS

Today's plan

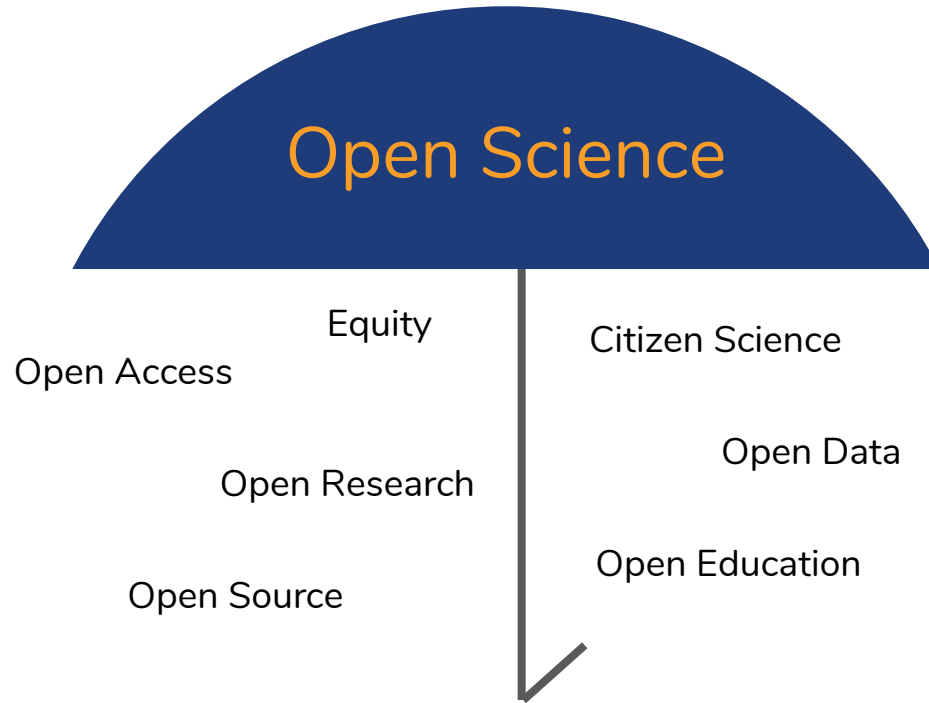
Examine the Open Science Framework (OSF) tool within the context of open science best practices

Explore the features of OSF and its capabilities

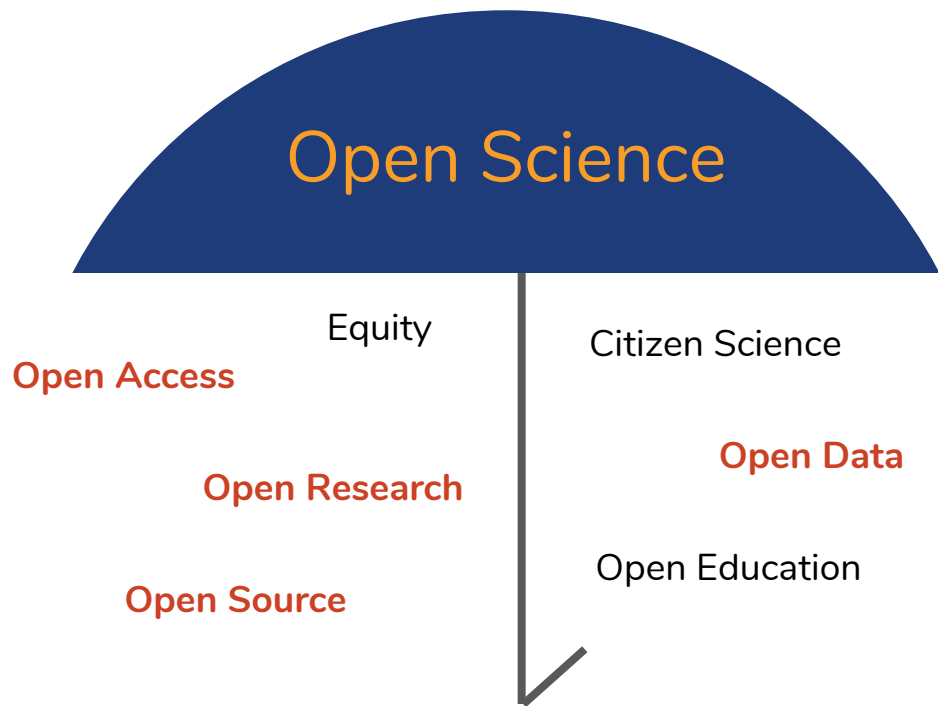
Use case studies to demonstrate how OSF can be used in practice

Highlight the advantages and disadvantages of using OSF

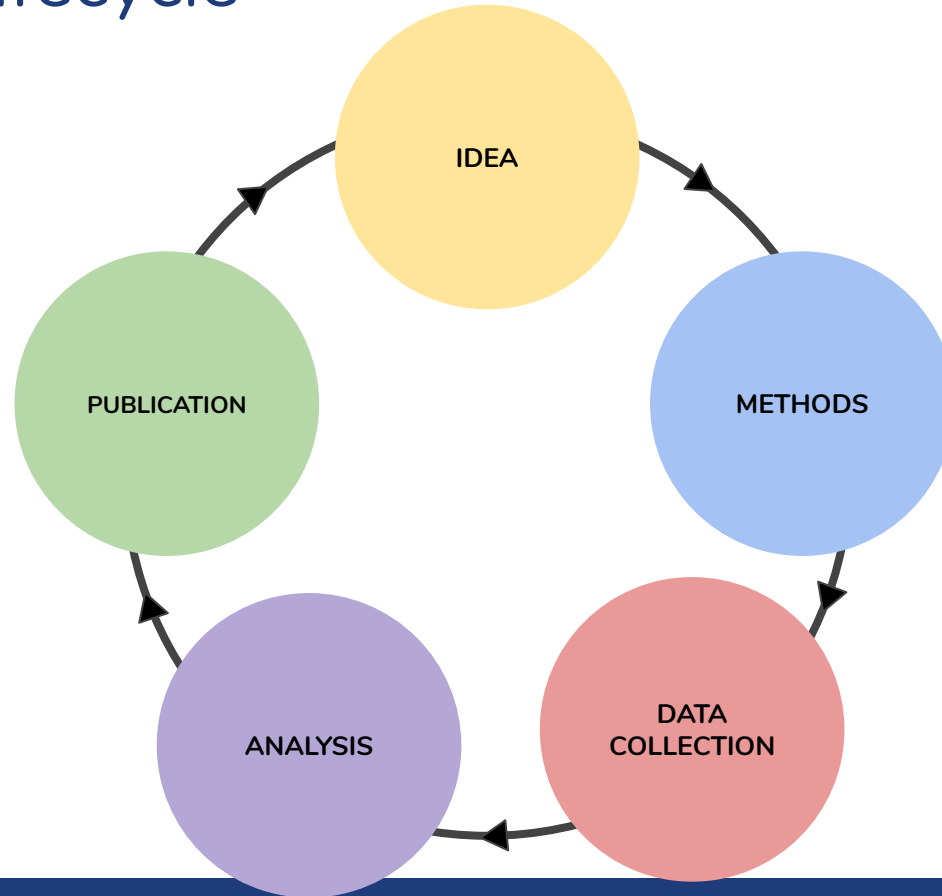
Open Science AKA...



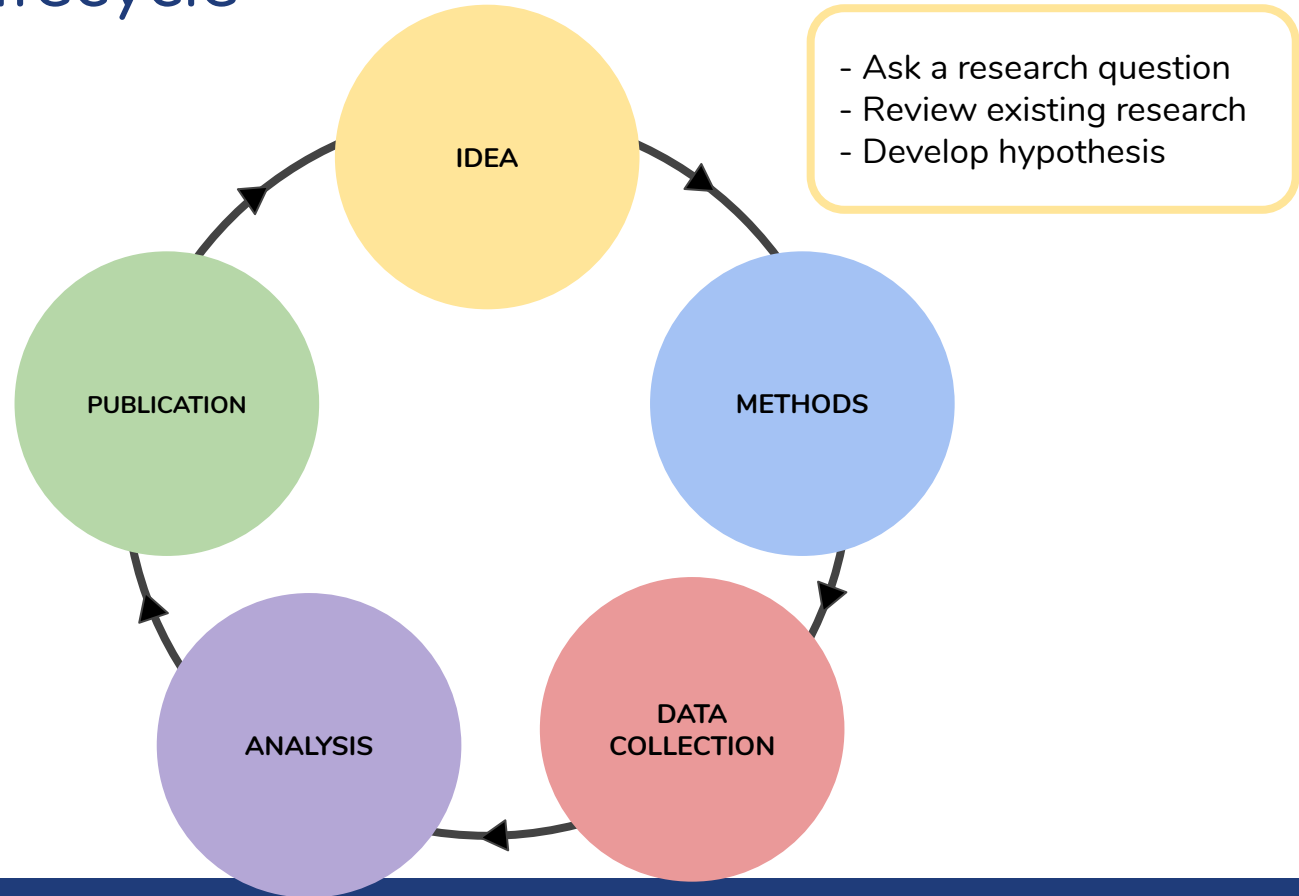
Open Science & OSF



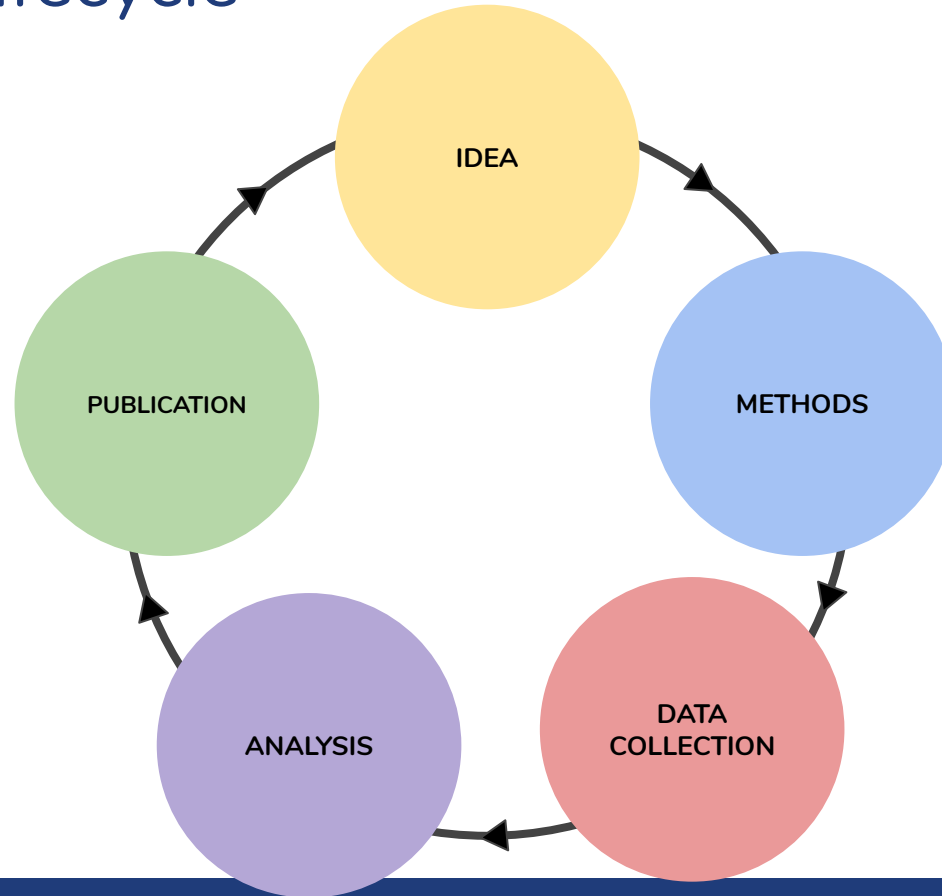
Research Lifecycle



Research Lifecycle

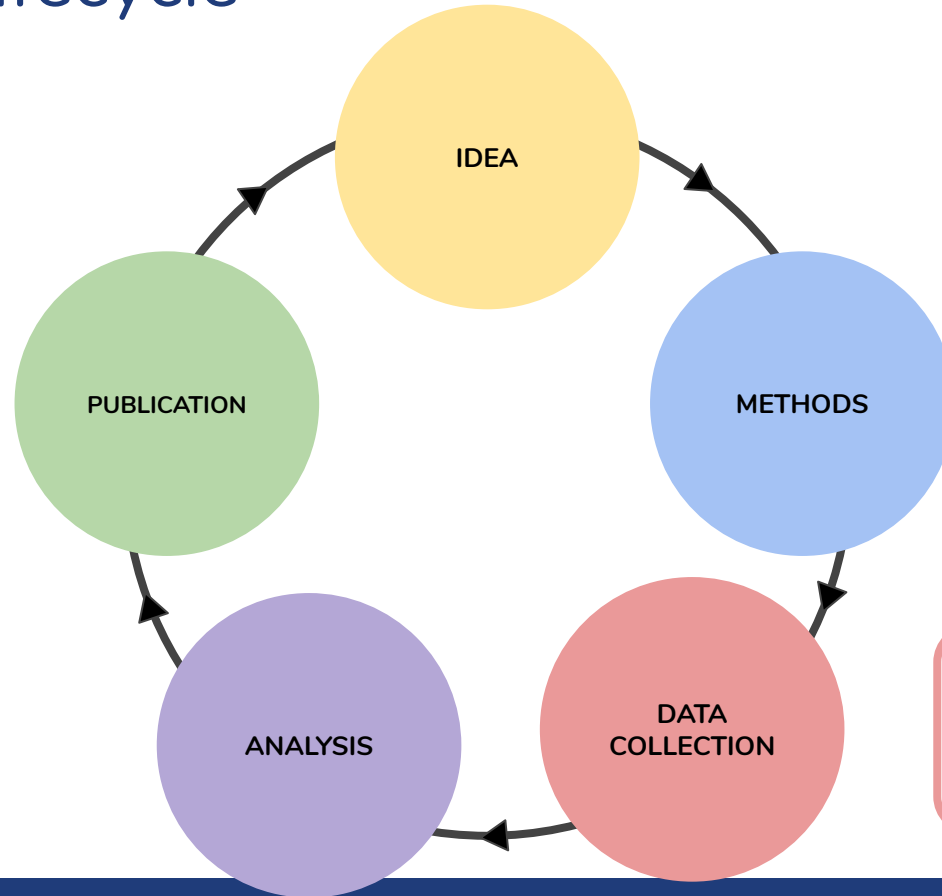


Research Lifecycle



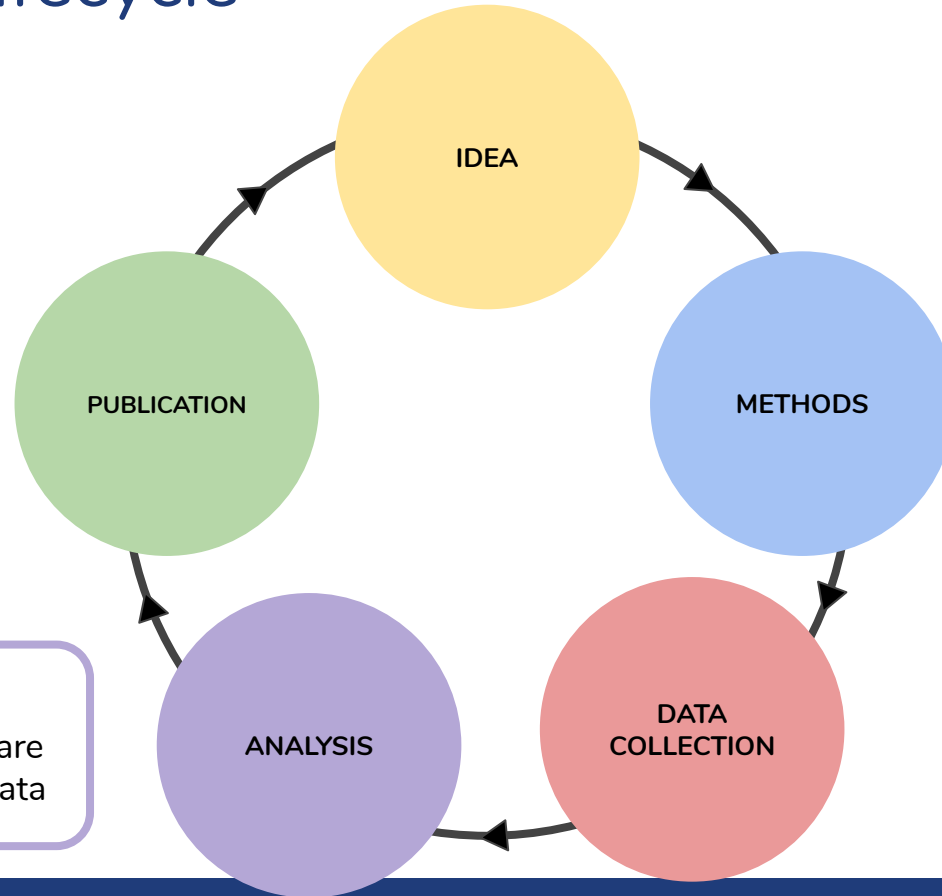
- Develop instruments
- Plan experiments
- Identify participants and/or subject(s)

Research Lifecycle



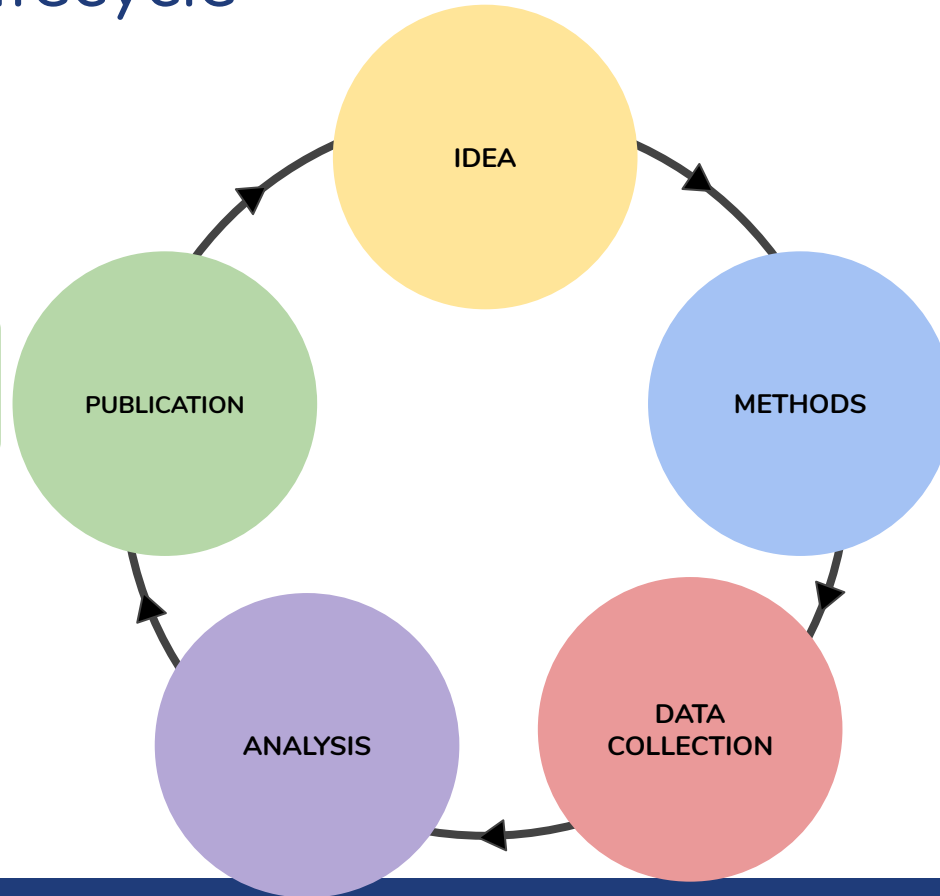
- Gather text, numbers, images, etc.
- Store data
- Describe data

Research Lifecycle



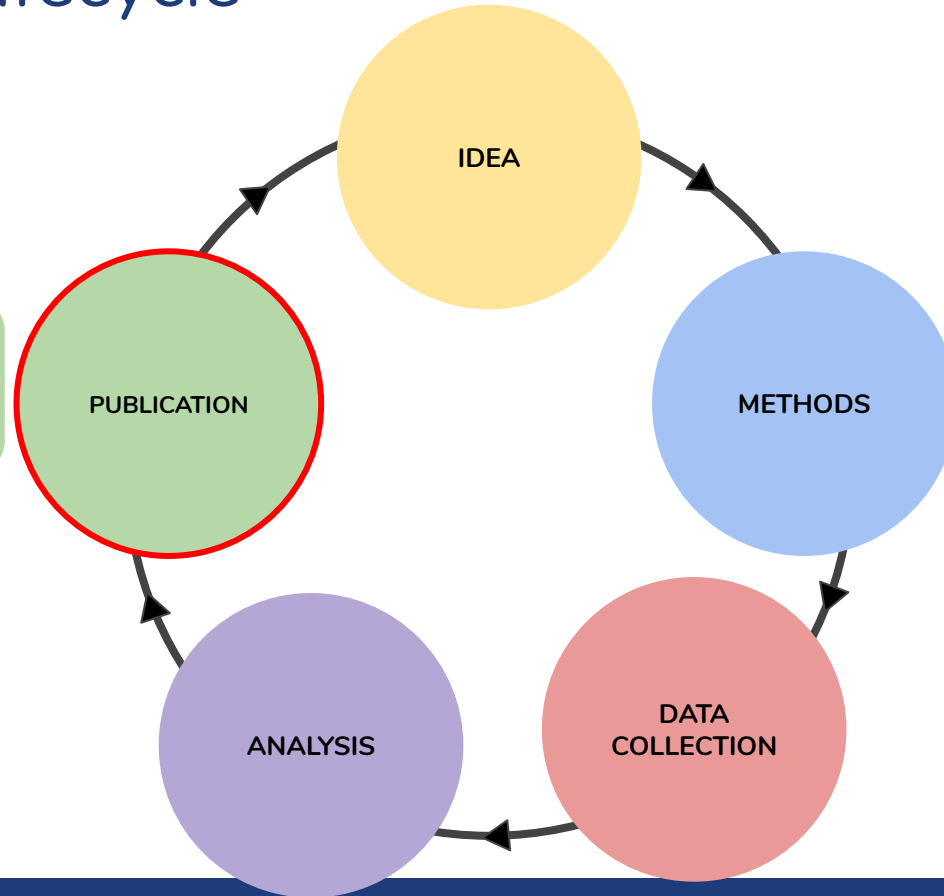
- Build analysis plan
- Use statistical software
- Analyze/transform data

Research Lifecycle



- Present at conference
- Publish in journal
- Share research data

Research Lifecycle

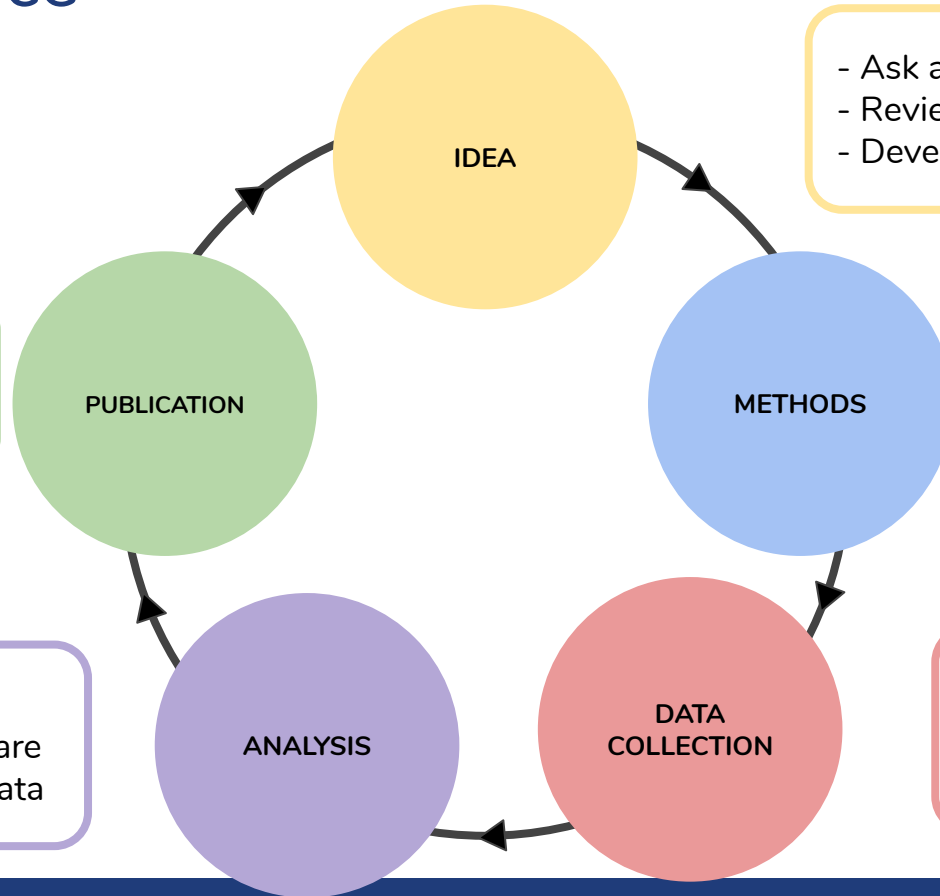


- Present at conference
- Publish in journal
- Share research data

Publication



Open Science



- Ask a research question
- Review existing research
- Develop hypothesis

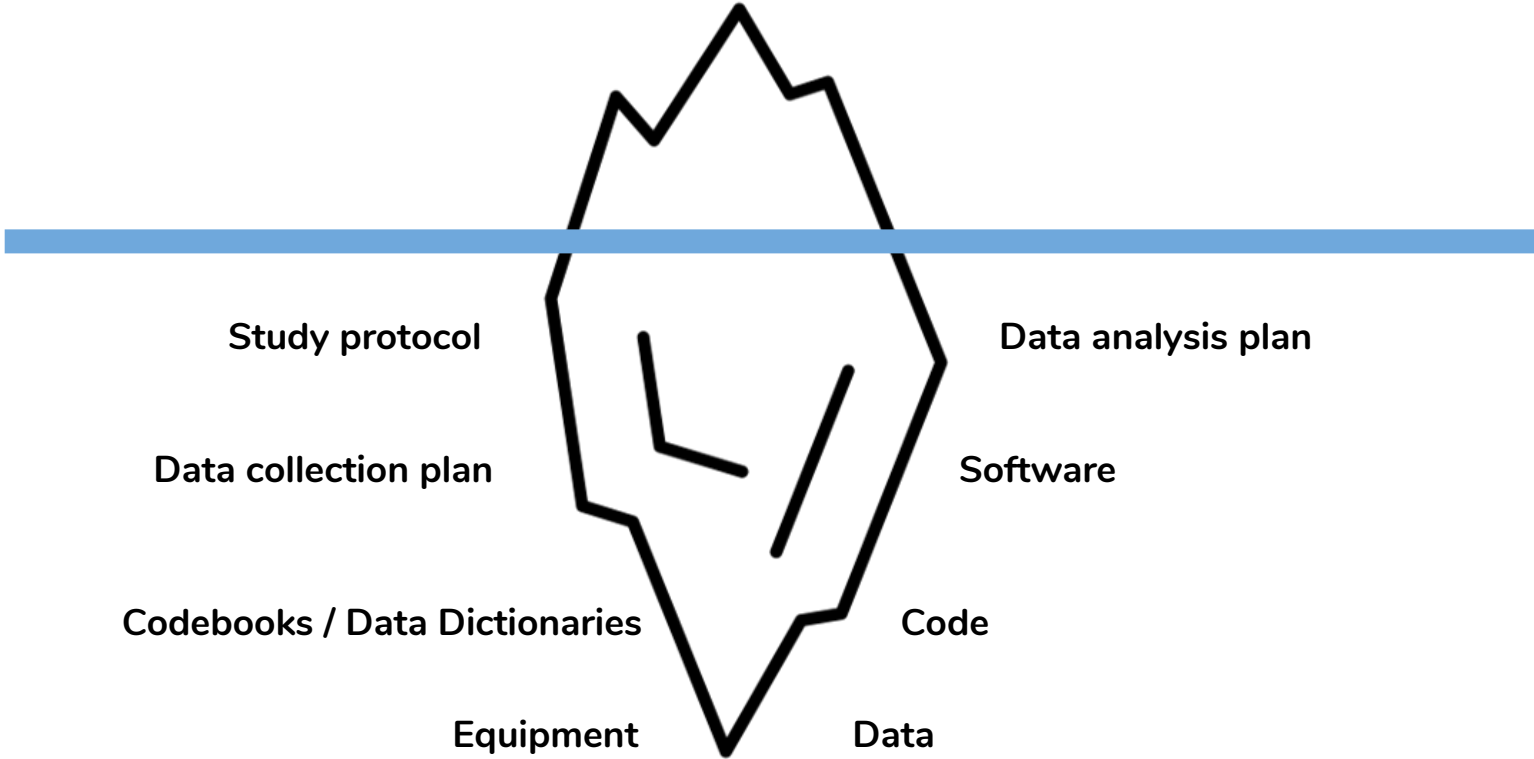
- Present at conference
- Publish in journal
- Share research data

- Develop instruments
- Create experiments
- Identify participants and/or subject(s)

- Build analysis plan
- Use statistical software
- Analyze/transform data

- Gather text, numbers, images, etc.
- Store data
- Describe data

Publication



Why does this matter?

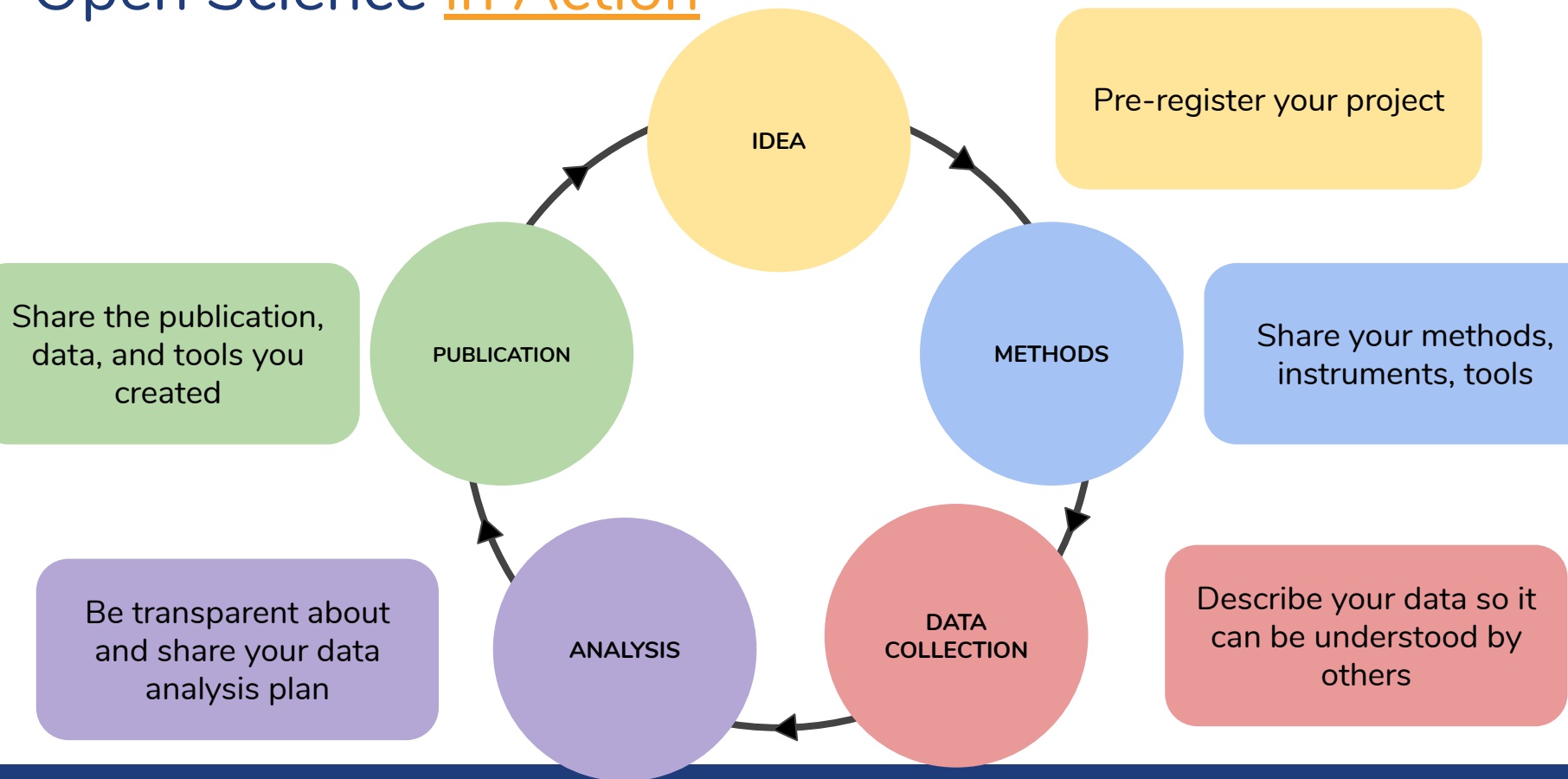
Improve transparency, reproducibility, and reuse of research

Avoid duplication of efforts

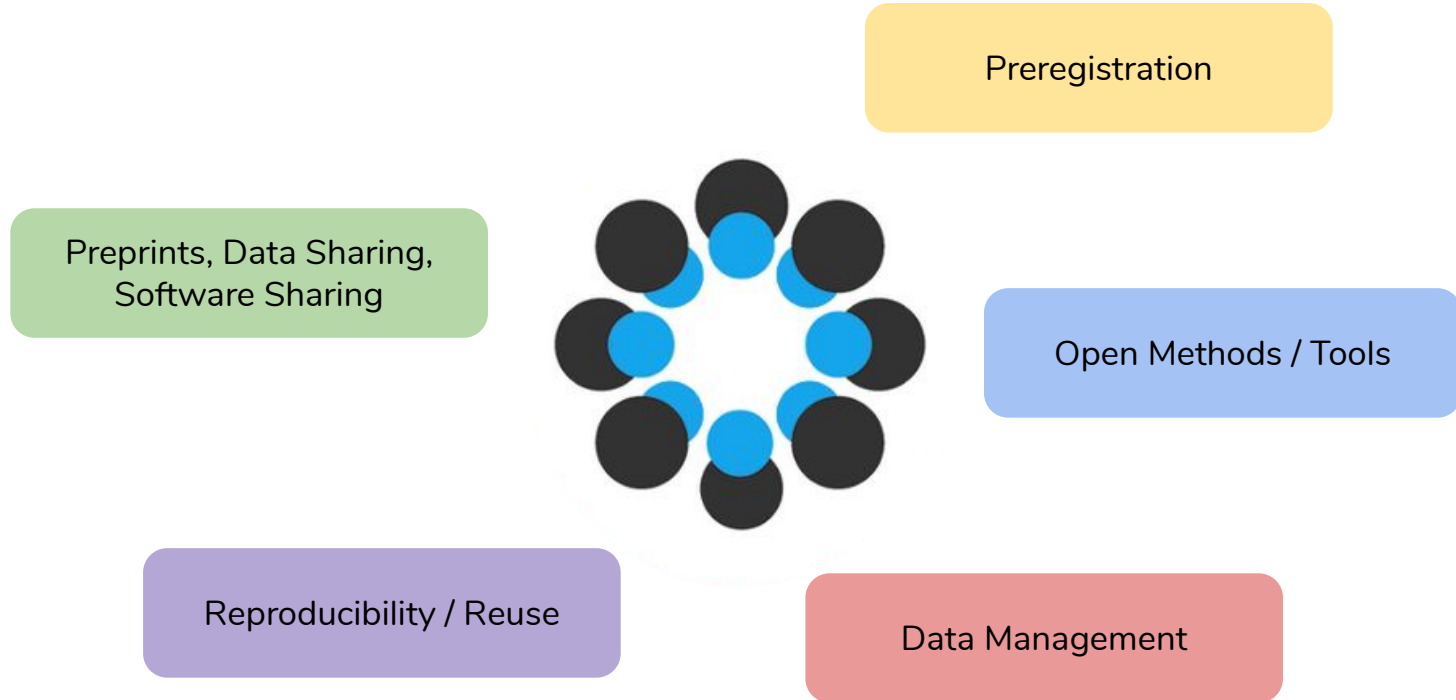
Increase the potential for collaboration

Make publicly-funded research products openly accessible

Open Science in Action



OSF: Open Science by Design



Poll:

Have you ever pre-registered a research project before you started working on it?

Poll:

Have you ever openly shared your methods, protocols, instruments, or tools before publication?

Poll:

Have you ever shared your research data before or after publication?

OSF Features

Open Science Framework



Register your work

Organize projects

Manage collaborators

Utilize version control

Connect to well-known tools

Share your work

But first! The basics.

The Basics

The screenshot shows the OSFHOME interface for a project titled "Example OSF lab project". The page is organized into several sections:

- Header:** OSFHOME logo, navigation links (Files, Wiki, Analytics, Registrations), and user actions (Search, Support, Donate, Sign Up, Sign In).
- Project Info:** UBC logo, title "Example OSF lab project", contributors (Jason Pilther, Mathew Vis-Dunbar), affiliated institutions (University of British Columbia), creation and update dates, and category (Project).
- Wiki:** A section titled "Example lab OSF project page" with introductory text and a "Read More" link.
- Files:** A file browser showing a directory structure including "OSF Storage (Canada - Montréal)", "Lab resources", "Lab meeting materials", "Lab protocols", "Useful scripts", "Learning resources", "Student projects", "Manuscripts", and "Student_1 Manuscript".
- Citation:** A section for providing a citation for the project.
- Components:** A list of project components: "Lab resources", "Student projects", "Manuscripts", "Collaborations", and "Principle Investigator", each with a brief description.
- Recent Activity:** A log of recent actions, such as "Jason Pilther made Example OSF lab project public" and "Jason Pilther updated wiki page Home to version 1 of Example OSF lab project".

The Basics

Title and project information

The screenshot shows the OSFHOME interface for a project titled "Example OSF lab project". The page is divided into several sections:

- Header:** OSFHOME logo, navigation links (Search, Support, Donate, Sign Up, Sign In), and project-specific links (Files, Wiki, Analytics, Registrations).
- Project Title:** "Example OSF lab project" with a UBC logo icon.
- Contributors:** Jason Pither, Mathew Vis-Dunbar.
- Affiliated Institutions:** University of British Columbia.
- Date created:** 2020-03-27 01:21 PM | Last Updated: 2020-03-27 01:55 PM.
- Category:** Project.
- Description:** "This is one example how to set up an OSF project for a lab".
- Wiki:** A section titled "Example lab OSF project page" containing introductory text and a "Read More" link.
- Files:** A file browser showing a tree structure of project components such as "OSF Storage (Canada - Montréal)", "Lab resources", "Lab meeting materials", "Lab protocols", "Useful scripts", "Learning resources", "Student projects", "Manuscripts", and "Student_1 Manuscript".
- Citation:** A dropdown menu for citation information.
- Components:** A list of project components with brief descriptions:
 - Lab resources:** Pither & Vis-Dunbar. "This is where general resources are housed, such as protocols, useful scripts, meeting resources".
 - Student projects:** Pither & Vis-Dunbar. "This houses individual student projects".
 - Manuscripts:** Pither & Vis-Dunbar. "This is where projects for individual manuscripts by lab members are housed".
 - Collaborations:** Pither & Vis-Dunbar. "This houses materials and projects associated with collaborations outside the lab".
 - Principle Investigator:** Pither & Vis-Dunbar. "This is where the P.I. for the lab has their main project page".
- Recent Activity:** A log of recent actions:
 - Jason Pither made Example OSF lab project public (2020-03-27 01:55 PM)
 - Jason Pither updated wiki page Home to version 1 of Example OSF lab project (2020-03-27 01:54 PM)
 - Jason Pither changed the title from Example OSF lab project template to Example OSF lab project (2020-03-27 01:22 PM)
 - Jason Pither removed Sheryl Adam as contributor(s) from Example OSF lab project (2020-03-27 01:22 PM)
 - Jason Pither removed Sarah Parker as contributor(s) from Example OSF lab project (2020-03-27 01:22 PM)
 - Jason Pither removed Heather Berringer as contributor(s) from Example OSF lab project (2020-03-27 01:22 PM)

The Basics

Wiki

The screenshot shows the OSFHOME interface for a project titled "Example OSF lab project". The page includes a header with navigation links (Files, Wiki, Analytics, Registrations), a project description, and several sections: Wiki, Files, Components, and Recent Activity. The Wiki section is highlighted with a pink border and contains the following text:

Wiki

Example lab OSF project page

Here we are providing one example of how one could organize a lab OSF project page.

If you like the structure, you could fork this as a template.

Each component includes a description. Check them out!

Go to the "Student projects" component to see Jane Doe's example project, and how she has linked to a Manuscript project page.

She has also provided an example project te...

[Read More](#)

Files

Name	Modified
Example OSF lab project	
- OSF Storage (Canada - Montréal)	
- Lab resources	
- OSF Storage (Canada - Montréal)	
+ Lab meeting materials	
+ Lab protocols	
+ Useful scripts	
+ Learning resources	
- Student projects	
- OSF Storage (Canada - Montréal)	
+ Student_1 OSF project	
- Manuscripts	
- OSF Storage (Canada - Montréal)	
+ Student_1 Manuscript	

Components

- Lab resources**
Pitther & Vis-Dunbar
This is where general resources are housed, such as protocols, useful scripts, meeting resources
- Student projects**
Pitther & Vis-Dunbar
This houses individual student projects
- Manuscripts**
Pitther & Vis-Dunbar
This is where projects for individual manuscripts by lab members are housed
- Collaborations**
Pitther & Vis-Dunbar
This houses materials and projects associated with collaborations outside the lab
- Principle Investigator**
Pitther & Vis-Dunbar
This is where the P.I. for the lab has their main project page

Recent Activity

- Jason Pitther made Example OSF lab project public 2020-03-27 01:55 PM
- Jason Pitther updated wiki page Home to version 1 of Example OSF lab project 2020-03-27 01:54 PM
- Jason Pitther changed the title from Example OSF lab project template to Example OSF lab project 2020-03-27 01:22 PM
- Jason Pitther removed Sheryl Adam as contributor(s) from Example OSF lab project 2020-03-27 01:22 PM
- Jason Pitther removed Sarah Parker as contributor(s) from Example OSF lab project 2020-03-27 01:22 PM
- Jason Pitther removed Heather Berringer as contributor(s) from Example OSF lab project 2020-03-27 01:22 PM

The Basics

Files, linked tools, and storage directory

The screenshot shows the OSFHOME interface for a lab project. The top navigation bar includes 'Search', 'Support', 'Donate', 'Sign Up', and 'Sign In'. The project title is 'Example OSF lab project' with a UBC logo. Contributors listed are Jason Pilther and Mathew Vis-Dunbar. The page is categorized as a 'Project' and is public. A 'Wiki' section contains introductory text about the project structure. A 'Files' section, highlighted with a pink border, lists various sub-directories such as 'OSF Storage (Canada - Montréal)', 'Lab resources', 'Lab meeting materials', 'Lab protocols', 'Useful scripts', 'Learning resources', 'Student projects', 'Manuscripts', and 'Student_1 Manuscript'. On the right, a 'Citation' section is visible, followed by 'Components' which include 'Lab resources', 'Student projects', 'Manuscripts', 'Collaborations', and 'Principle Investigator'. A 'Recent Activity' section at the bottom lists recent actions like 'made Example OSF lab project public' and 'updated wiki page'.

The Basics

Activity log

The screenshot shows the OSFHOME interface for a project titled "Example OSF lab project". The page includes a header with navigation links (Search, Support, Donate, Sign Up, Sign In) and a sub-header with "Example OSF lab project" and navigation tabs (Files, Wiki, Analytics, Registrations). The main content area is divided into several sections:

- Wiki:** Contains the text "Example lab OSF project page" and a description of the project structure, including a list of components like Lab resources, Student projects, Manuscripts, Collaborations, and Principle Investigator.
- Files:** A list of files and folders, including "Example OSF lab project", "OSF Storage (Canada - Montréal)", "Lab resources", "Lab meeting materials", "Lab protocols", "Useful scripts", "Learning resources", "Student projects", "Student_1 OSF project", "Manuscripts", and "Student_1 Manuscript".
- Citation:** A section for providing a citation for the project.
- Components:** A list of components, each with a description and a link to the component page.
- Recent Activity:** A log of recent actions, including "Jason Pither made Example OSF lab project public", "Jason Pither updated wiki page Home to version 1 of Example OSF lab project", "Jason Pither changed the title from Example OSF lab project template to Example OSF lab project", "Jason Pither removed Sheryl Adam as contributor(s) from Example OSF lab project", "Jason Pither removed Sarah Parker as contributor(s) from Example OSF lab project", and "Jason Pither removed Heather Berringer as contributor(s) from Example OSF lab project".

The Basics

Project components

The screenshot displays the OSFHOME interface for a project titled "Example OSF lab project". The page includes a header with navigation options (Search, Support, Donate, Sign Up, Sign In) and a sub-header with "Files", "Wiki", "Analytics", and "Registrations". The main content area is divided into several sections:

- Contributors:** Jason Pilther, Mathew Vis-Dunbar
- Affiliated institutions:** University of British Columbia
- Date created:** 2020-03-27 01:21 PM | **Last updated:** 2020-03-27 01:55 PM
- Category:** Project
- Description:** This is one example how to set up an OSF project for a lab

The **Wiki** section contains the following text:

Example lab OSF project page

Here we are providing one example of how one could organize a lab OSF project page.

If you like the structure, you could fork this as a template.

Each component includes a description. Check them out!

Go to the "Student projects" component to see Jane Doe's example project, and how she has linked to a Manuscript project page.

She has also provided an example project te...

[Read More](#)

The **Files** section shows a list of files and folders:

Name	Modified
Example OSF lab project	
- OSF Storage (Canada - Montréal)	
- Lab resources	
- OSF Storage (Canada - Montréal)	
- Lab meeting materials	
+ Lab protocols	
+ Useful scripts	
+ Learning resources	
- Student projects	
- OSF Storage (Canada - Montréal)	
+ Student_1 OSF project	
- Manuscripts	
- OSF Storage (Canada - Montréal)	
+ Student_1 Manuscript	

The **Citation** section is currently empty.

The **Components** section, highlighted with a pink border, lists the following components:

- Lab resources**
Pilther & Vis-Dunbar
This is where general resources are housed, such as protocols, useful scripts, meeting resources
- Student projects**
Pilther & Vis-Dunbar
This houses individual student projects
- Manuscripts**
Pilther & Vis-Dunbar
This is where projects for individual manuscripts by lab members are housed
- Collaborations**
Pilther & Vis-Dunbar
This houses materials and projects associated with collaborations outside the lab
- Principle Investigator**
Pilther & Vis-Dunbar
This is where the P.I. for the lab has their main project page

The **Recent Activity** section shows a list of recent actions:

- Jason Pilther made Example OSF lab project public (2020-03-27 01:55 PM)
- Jason Pilther updated wiki page Home to version 1 of Example OSF lab project (2020-03-27 01:54 PM)
- Jason Pilther changed the title from Example OSF lab project template to Example OSF lab project (2020-03-27 01:22 PM)
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- Jason Pilther removed Heather Berringer as contributor(s) from Example OSF lab project (2020-03-27 01:22 PM)

The Basics

Citation information

The screenshot shows the OSFHOME interface for a project titled "Example OSF lab project". The page includes a header with navigation links (Search, Support, Donate, Sign Up, Sign In) and a sub-header with "Example OSF lab project" and navigation tabs (Files, Wiki, Analytics, Registrations). The main content area is divided into several sections:

- Wiki:** Contains the title "Example lab OSF project page" and introductory text: "Here we are providing one example of how one could organize a lab OSF project page. If you like the structure, you could fork this as a template. Each component includes a description. Check them out! Go to the 'Student projects' component to see Jane Doe's example project, and how she has linked to a Manuscript project page. She has also provided an example project te... Read More".
- Files:** A file browser showing a tree structure:
 - Example OSF lab project
 - OSF Storage (Canada - Montréal)
 - Lab resources
 - OSF Storage (Canada - Montréal)
 - Lab meeting materials
 - Lab protocols
 - Useful scripts
 - Learning resources
 - Student projects
 - OSF Storage (Canada - Montréal)
 - Student_1 OSF project
 - Manuscripts
 - OSF Storage (Canada - Montréal)
 - Student_1 Manuscript
- Citation:** A dropdown menu is highlighted with a pink border, currently showing "Citation".
- Components:** A list of project components:
 - Lab resources: Pitther & Vis-Dunbar. This is where general resources are housed, such as protocols, useful scripts, meeting resources.
 - Student projects: Pitther & Vis-Dunbar. This houses individual student projects.
 - Manuscripts: Pitther & Vis-Dunbar. This is where projects for individual manuscripts by lab members are housed.
 - Collaborations: Pitther & Vis-Dunbar. This houses materials and projects associated with collaborations outside the lab.
 - Principle Investigator: Pitther & Vis-Dunbar. This is where the P.I. for the lab has their main project page.
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 - Jason Pitther removed Heather Berringer as contributor(s) from Example OSF lab project (2020-03-27 01:22 PM)

The Basics

Menu bar

The screenshot shows the OSFHOME interface for a project titled "Example OSF lab project". At the top, there is a dark navigation bar with the OSFHOME logo, a search bar, and links for Support, Donate, Sign Up, and Sign In. Below this is a secondary menu bar with links for Files, Wiki, Analytics, and Registrations, which is highlighted with a pink box. The main content area features the project title, a UBC logo, and contributor information: Jason Pilther and Mathew Vis-Dunbar. It also lists affiliated institutions (University of British Columbia), creation and update dates, and a category of "Project". A description follows, explaining the project's purpose. The page is divided into several sections: "Wiki" (containing the project's introductory text), "Files" (a list of project components like "OSF Storage", "Lab resources", "Student projects", etc.), "Citation", "Components" (a list of sub-sections like "Lab resources", "Student projects", "Manuscripts", "Collaborations", "Principle Investigator"), and "Recent Activity" (a log of recent changes made by the project manager).

OSFHOME

Search Support Donate Sign Up Sign In

Example OSF lab project Files Wiki Analytics Registrations

Example OSF lab project

Contributors: Jason Pilther, Mathew Vis-Dunbar
Affiliated institutions: University of British Columbia
Date created: 2020-03-27 01:21 PM | Last Updated: 2020-03-27 01:55 PM
Category: Project
Description: This is one example how to set up an OSF project for a lab

Wiki

Example lab OSF project page

Here we are providing one example of how one could organize a lab OSF project page.
If you like the structure, you could fork this as a template.
Each component includes a description. Check them out!
Go to the "Student projects" component to see Jane Doe's example project, and how she has linked to a Manuscript project page.
She has also provided an example project te...
[Read More](#)

Files

Name	Modified
Example OSF lab project	
- OSF Storage (Canada - Montréal)	
- Lab resources	
- OSF Storage (Canada - Montréal)	
+ Lab meeting materials	
+ Lab protocols	
+ Useful scripts	
+ Learning resources	
- Student projects	
- OSF Storage (Canada - Montréal)	
+ Student_1 OSF project	
- Manuscripts	
- OSF Storage (Canada - Montréal)	
+ Student_1 Manuscript	

Citation

Components

- Lab resources**
Pilther & Vis-Dunbar
This is where general resources are housed, such as protocols, useful scripts, meeting resources
- Student projects**
Pilther & Vis-Dunbar
This houses individual student projects
- Manuscripts**
Pilther & Vis-Dunbar
This is where projects for individual manuscripts by lab members are housed
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Pilther & Vis-Dunbar
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Key OSF Features

Open Science Framework



Register your work

Organize projects

Manage collaborators

Utilize version control

Connect to well-known tools

Share your work

Register your work

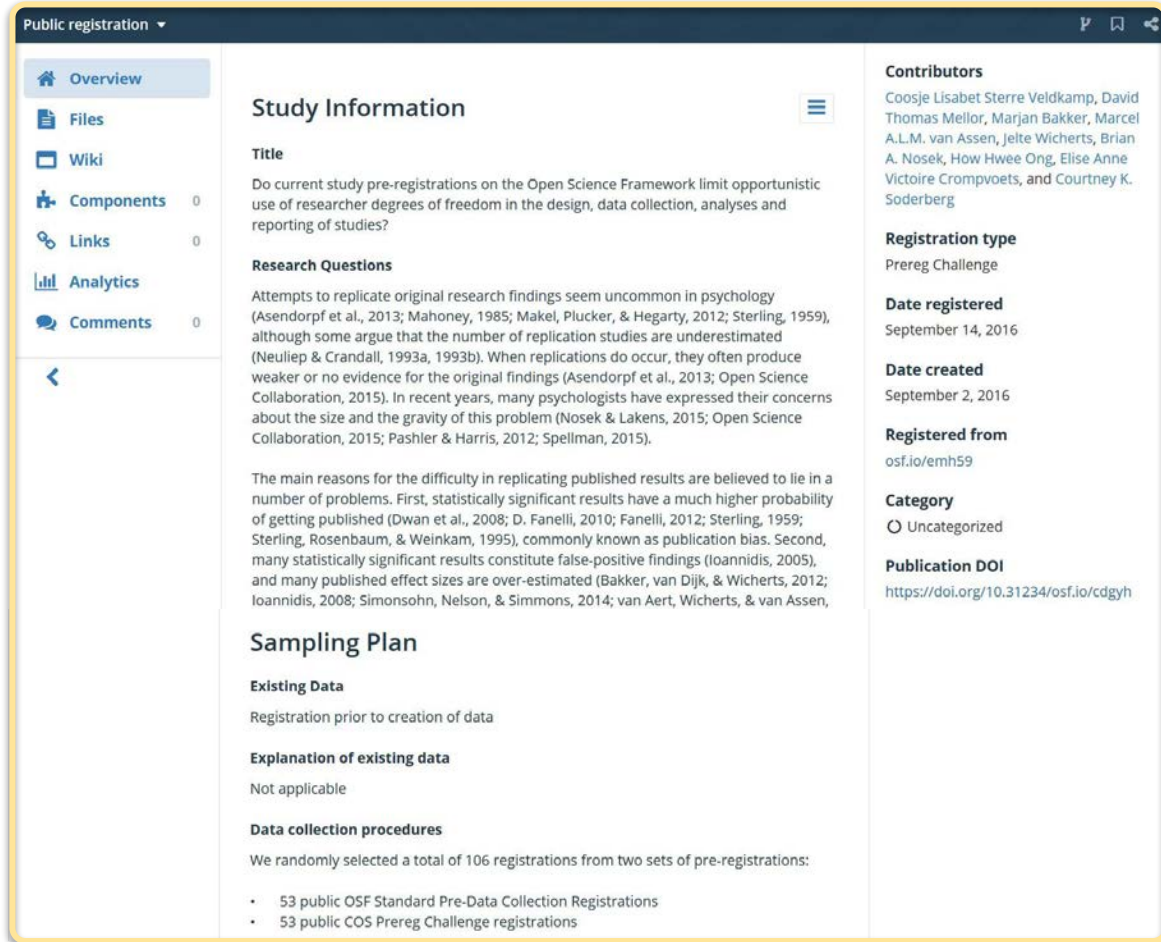
Preregistration:

Make your hypothesis, analysis plan, and/or your entire project public before peer review

Creates a timestamped immutable version of your project

Improves transparency, reproducibility, and discoverability of your research

Can develop brand registries for an entire research community (fee-based)



The screenshot shows a public registration page on the Open Science Framework (OSF) platform. The page is titled "Public registration" and features a navigation sidebar on the left with options: Overview (selected), Files, Wiki, Components (0), Links (0), Analytics, and Comments (0). The main content area is divided into several sections:

- Study Information:** Includes a title "Do current study pre-registrations on the Open Science Framework limit opportunistic use of researcher degrees of freedom in the design, data collection, analyses and reporting of studies?" and a "Research Questions" section discussing replication in psychology.
- Contributors:** Lists Coosje Lisabet Sterre Veldkamp, David Thomas Mellor, Marjan Bakker, Marcel A.L.M. van Assen, Jelte Wicherts, Brian A. Nosek, How Hwee Ong, Elise Anne Victoire Crompvoets, and Courtney K. Soderberg.
- Registration type:** Prereg Challenge
- Date registered:** September 14, 2016
- Date created:** September 2, 2016
- Registered from:** osf.io/emh59
- Category:** Uncategorized
- Publication DOI:** <https://doi.org/10.31234/osf.io/cdgyh>

The "Research Questions" section contains the following text: "Attempts to replicate original research findings seem uncommon in psychology (Asendorpf et al., 2013; Mahoney, 1985; Makel, Plucker, & Hegarty, 2012; Sterling, 1959), although some argue that the number of replication studies are underestimated (Neuliep & Crandall, 1993a, 1993b). When replications do occur, they often produce weaker or no evidence for the original findings (Asendorpf et al., 2013; Open Science Collaboration, 2015). In recent years, many psychologists have expressed their concerns about the size and the gravity of this problem (Nosek & Lakens, 2015; Open Science Collaboration, 2015; Pashler & Harris, 2012; Spellman, 2015)."

The "Sampling Plan" section includes "Existing Data" (Registration prior to creation of data) and "Explanation of existing data" (Not applicable). The "Data collection procedures" section states: "We randomly selected a total of 106 registrations from two sets of pre-registrations:"

- 53 public OSF Standard Pre-Data Collection Registrations
- 53 public COS Prereg Challenge registrations

Organize projects

Can group files and content into specific sections called “Components”

Components serve as sub-categories within a hierarchical project structure

Components become their own independent projects

Each Component can have specific collaborators

The screenshot shows the OSF HOME interface for a project titled "Thinking Scientifically- The effect of Mediterranean Diet on blood lipid profiles". The page includes a navigation bar with "OSF HOME", "Search", "Support", "Donate", "Sign Up", and "Sign In". Below the navigation bar, there are tabs for "Files", "Wiki", "Analytics", and "Registrations". The main content area displays the project title, contributors (Divya Venkatesan), creation date (2020-09-07 09:30 PM), last updated date (2020-10-02 06:52 AM), DOI (10.17605/OSF.J0/AS4R9), and category (Project). A description follows, stating it is a one-year observational cohort study. The license is CC-BY Attribution 4.0 International. Below the description, there are sections for "Wiki", "Files", and "Components". The "Components" section is highlighted with a pink border and lists four sub-projects: "Background information and readings", "Hypothesis and Theories", "Methodology", and "Results Analysis". Each component entry includes the name of the component, the collaborator (Venkatesan), and a brief description of the component's content.

OSF HOME

Thinking Scientifically- The effect of Me... Files Wiki Analytics Registrations

Thinking Scientifically- The effect of Mediterranean Diet on blood lipid profiles

Contributors: Divya Venkatesan
Date created: 2020-09-07 09:30 PM | Last Updated: 2020-10-02 06:52 AM
Identifier: DOI 10.17605/OSF.J0/AS4R9
Category: Project

Description: A one year observational cohort study evaluating the effect of Mediterranean Diets on blood lipid profile and thus predisposition to Cardiovascular Diseases. Included are several public components indicating of methodology, reproducible scripts, compiled results, results analysis, conclusions and findings.
License: CC-BY Attribution 4.0 International

Wiki

The Mediterranean Diet (MD) is considered to be one of the healthiest diets in the world. Main food items include fresh fruits, vegetables and legumes. There is a specific focus on olive oil and also includes limited intake of red meats. MD has perceived health benefits which are connected to a decrease in cardiovascular disease risks and improvement in blood lipid profiles. In this observational ...
[Read More](#)

Files

Name	Modified
Thinking Scientifically- The effect of Mediterranean Diet on blood li...	
- OSF Storage (Australia - Sydney)	
Overview of cohort study.csv	2020-09-13 06:28 AM
- Background information and readings	
- OSF Storage (Australia - Sydney)	
Collated past studies.csv	2020-09-13 06:17 AM
Compiled list of academic websites.csv	2020-09-13 06:17 AM
List of readings associated with MD.csv	2020-09-13 06:17 AM
- Hypothesis and Theories	

Citation

Components

- Background information and readings**
Venkatesan
Readings about Mediterranean diets, links to past cohort studies and other background information
- Hypothesis and Theories**
Venkatesan
Includes hypothesis of expected outcomes of the observational study and theories linking the effects of mediterranean diets, specifically their compon...
- Methodology**
Venkatesan
Methodology of how cohort study was conducted for the 52 week period including controls used as well as information regarding data collection process
- Results**
Venkatesan
All collected data, including raw data and statistically corrected data. Also includes graphs and charts
- Results Analysis**
Venkatesan
Analysis of adjusted and raw data including graphs. Includes reasoning of analysis methods used and their effects

Manage collaborators

Assign different permission levels for contributors to a project

All contributors must have an OSF account

Can decide whether or not to include collaborators as “Bibliographic Contributors”

The screenshot shows the OSFHOME interface for managing project collaborators. The top navigation bar includes 'OSFHOME', 'My Quick Files', 'My Projects', 'Search', 'Support', 'Donate', and the user 'Rebecca Rosenblatt'. The project title is 'The Influence of Reaction Co...'. The 'Contributors' tab is selected and highlighted in pink. Below the navigation, there is a 'Filter by name' input field and a '+ Add' button. The main content area is titled 'Contributors' and includes a '+ Add' button and the instruction 'Drag and drop contributors to change listing order.' On the left, there are two dropdown menus: 'Permissions' with options 'Administrator', 'Read + Write', and 'Read'; and 'Bibliographic Contributor' with options 'Bibliographic' and 'Non-Bibliographic'. The main table lists contributors with columns for 'Name', 'Permissions', and 'Bibliographic Contributor'. Each row includes a menu icon, a profile picture, the contributor's name, a permissions dropdown, a checkbox for 'Bibliographic Contributor', and a delete icon.

Name	Permissions	Bibliographic Contributor
Rebecca Rosenblatt	Administrator	<input checked="" type="checkbox"/>
Sara Bowman	Read + Write	<input checked="" type="checkbox"/>
David Mellor	Read + Write	<input checked="" type="checkbox"/>
Nicole Pfeiffer	Read + Write	<input checked="" type="checkbox"/>

At the bottom, there is a 'View-only Links' section with a '+ Add' button and the text: 'Create a link to share this project so those who have the link can view—but not edit—the project.'

Utilize version control

OSF Storage:

- 5 GB for private projects
- 50 GB for public projects

Track all versions of files that utilize OSF-specific storage

Must upload files with the **same name** and within the **same folder** on OSF

Activity log tracks every change made to an OSF project

OSF HOME | My Quick Files | My Projects | Search | Support | Donate | Rebecca Rosenblatt

Analysis Scripts | Files | Wiki | Analytics | Registrations | Contributors | Add-ons | Settings

analysis_script.R (Version: 4) [Delete] [Check out] [Download] [Toggle view: View] [Edit] [Revisions]

```
datafilename <- file.choose()
data.ex1=read.csv(datafilename,header=T) #read the data into a table
data.ex1
aov.ex1 = aov(taste ~ sugar, data=data.ex1) #do the analysis of variance
summary(aov.ex1) #show the summary table
result <- aov.ex1 #store ANOVA results into a variable for post hoc testing
print(model.tables(aov.ex1,"means"),digits=3) #report the means and the number of subjects/cell
boxplot(taste-sugar,data=data.ex1) #graphical summary of ANOVA
bartlett.test(taste-sugar, data=data.ex1) #bartlett test to determine if group variances are equal
kruskal.test(taste-sugar, data=data.ex1) #Kruskal-Wallis test if data failly Bartlett test (p<=.05)
TukeyHSD(result,, ordered = FALSE, conf.level = 0.95) #Tukey HSD posthoc analysis
```



OSF HOME | My Quick Files | My Projects | Search | Support | Donate | Rebecca Rosenblatt

Analysis Scripts | Files | Wiki | Analytics | Registrations | Contributors | Add-ons | Settings

analysis_script.R (Version: 4) [Delete] [Check out] [Download] [Toggle view: View] [Edit] [Revisions]

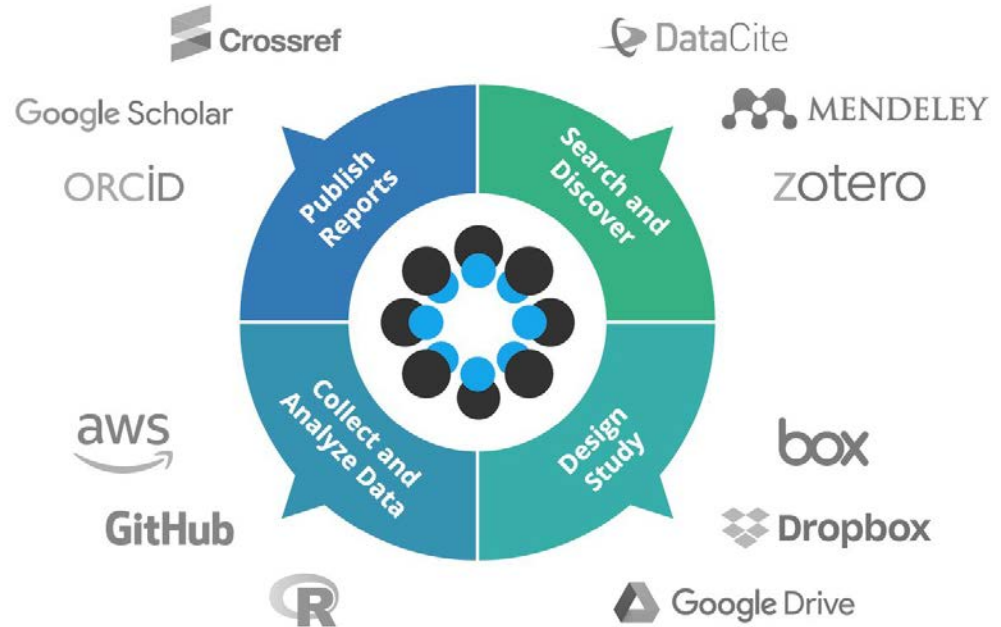
Version ID	Date	User	Download	MD5	SHA2
4	2017-06-29 01:46 PM	Sara Bowman	[Download]	4e029a85f5304fc14a9f	60598d363af6dc301bt
3	2017-06-29 01:46 PM	Sara Bowman	[Download]	c0a1300b7c73e7a405	bf2a20fb61b37da1671
2	2017-06-29 01:46 PM	Sara Bowman	[Download]	4e029a85f5304fc14a9f	60598d363af6dc301bt
1	2016-03-31 01:39 PM	David Mellor	[Download]	a2f4fdb29dfb1215c43c	58870acb85bd2628d5e

Connect to well-known tools

OSF syncs with many other tools that are used to find, store, and analyze data

Can import data from any of the tools shown

Changes made in those tools will be reflected on OSF



Share your work

Can share any type of research output

OSF provides the ability to assign digital object identifiers (DOIs) to projects

Can apply a license to projects to dictate terms of use

All projects are citable in any format

A pre-print server is available to publish research before peer review

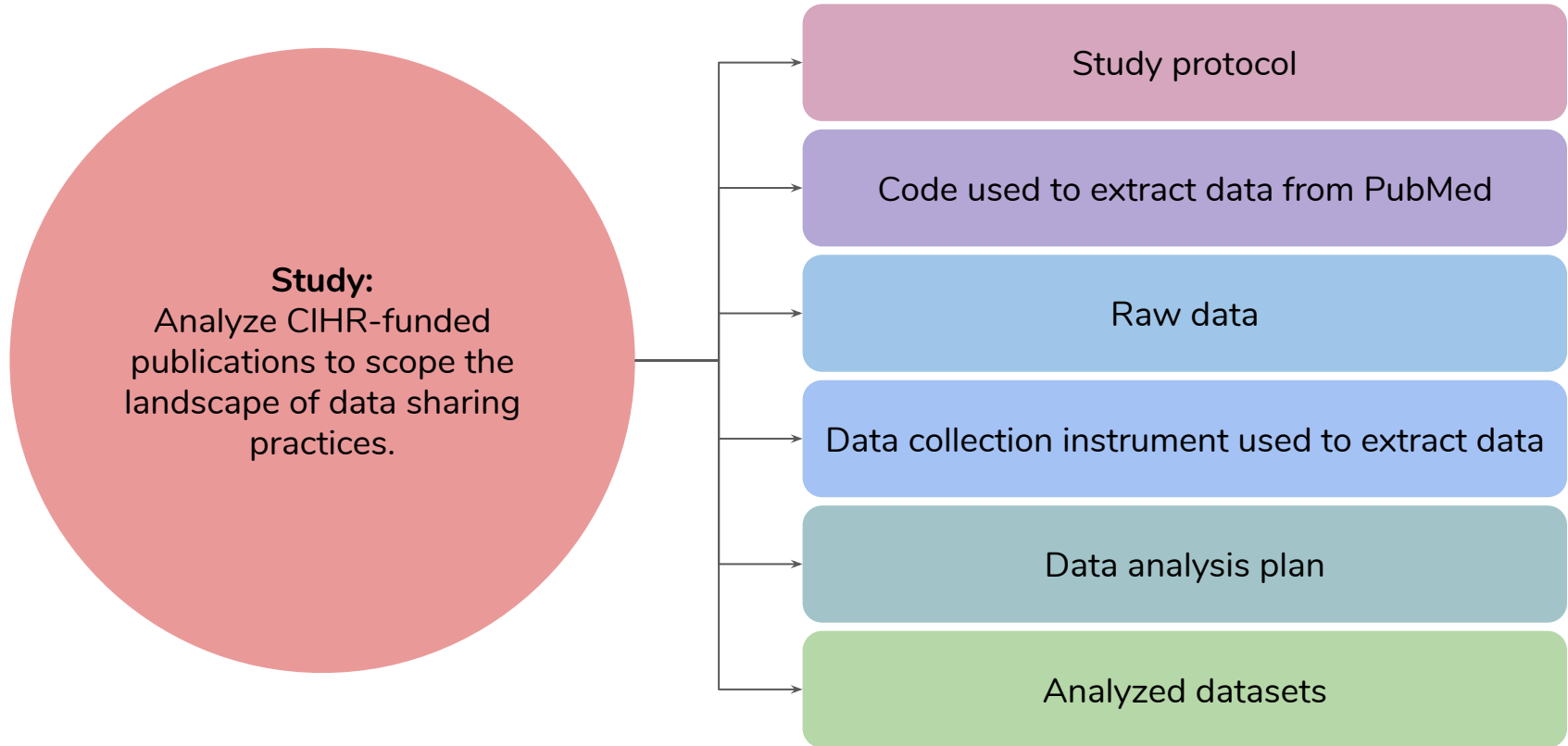
The screenshot shows the OSF interface for a project titled "The Influence of Reaction Conditions on HMF Oxidation Rate". The page includes a header with navigation links like "Files", "Wiki", and "Analytics". Below the title, it lists contributors (Rebecca Rosenblatt, Sara Bowman) and the date created (2017-05-18 02:43 PM). A pink box highlights the "Identifiers" section, showing the DOI: 10.5072/FK2OSF.IO/BGY9X. Another pink box highlights the "License" section, which says "Add a license". The page also features sections for "Wiki", "Files", and "Citation".

The screenshot shows the OSF interface for a project titled "Influence of Gene Mutations on Fruit Fly Lifespan". The page includes a header with navigation links like "Files", "Wiki", and "Analytics". Below the title, it lists contributors (Rebecca Rosenblatt, Jolene Esposito, Sara Bowman) and the date created (2017-05-18 04:47 PM). The "Files" section shows a list of files, including "Influence of Gene Mutations on Fru...". A pink arrow points to the "Citation" section, which displays citation information in APA, MLA, and Chicago formats. Below the citation information, there is a "Get more citations" section with a dropdown menu for selecting a citation style (e.g., "APA").

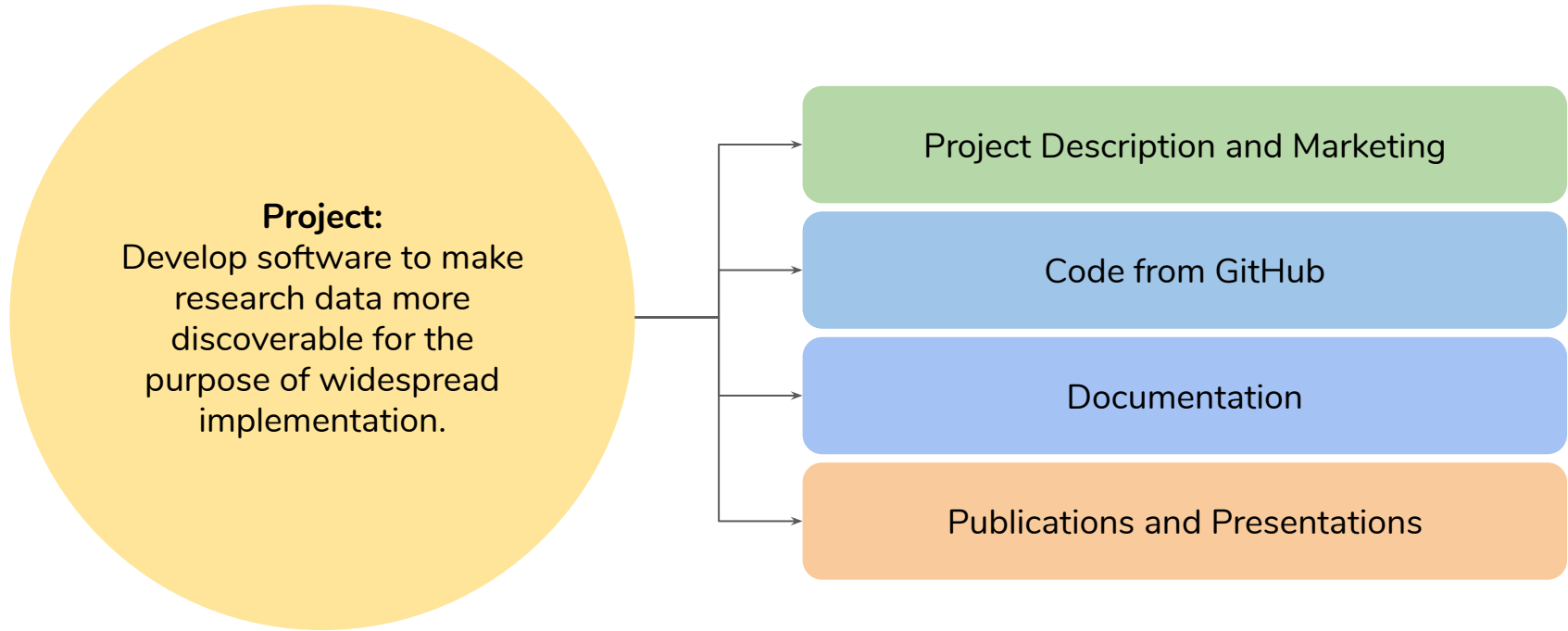
OSF Demo

Case Studies

Case Study 1: My Research



Case Study 2: Software Project



Wrap-up

Pros & Cons of OSF

PROS

- A one-stop-shop for making your project open
- Intuitive, flexible, and easy to use
- Ability to apply DOIs and licenses to projects
- Easily manage collaborators and project components
- Version control and free storage capacity a big plus

CONS

- Requires adaptation from most research workflows
- Analytics are poor
- Working with add-ons make versioning unstable
- Discoverability of projects not as good as it could be

OSF Summary

OSF is one of the only tools that enables open science practices at every stage of the research process

Useful as a sharing or project management tool

Ideal if you want to make research products open, control terms of use, and have your work cited

Before using OSF, seriously consider your research needs and workflows

Poll:

Would the Open Science Framework suit your research needs?

Resources

Open Science Framework Guides: <https://help.osf.io/hc/en-us>

OSF 101: <https://youtu.be/dLEIhJESIQa>

Nosek BA. Improving my lab, my science with the open science framework. APS Observer. 2014 Feb 28;27(3).

Sullivan I, DeHaven A, Mellor D. Open and reproducible research on open science framework. Current Protocols Essential Laboratory Techniques. 2019 Jun;18(1):e32.

Tackett JL, Brandes CM, Reardon KW. Leveraging the Open Science Framework in clinical psychological assessment research. Psychological assessment. 2019 Dec;31(12):1386.

Questions?

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