

# ARIADNE

Your navigator in science!

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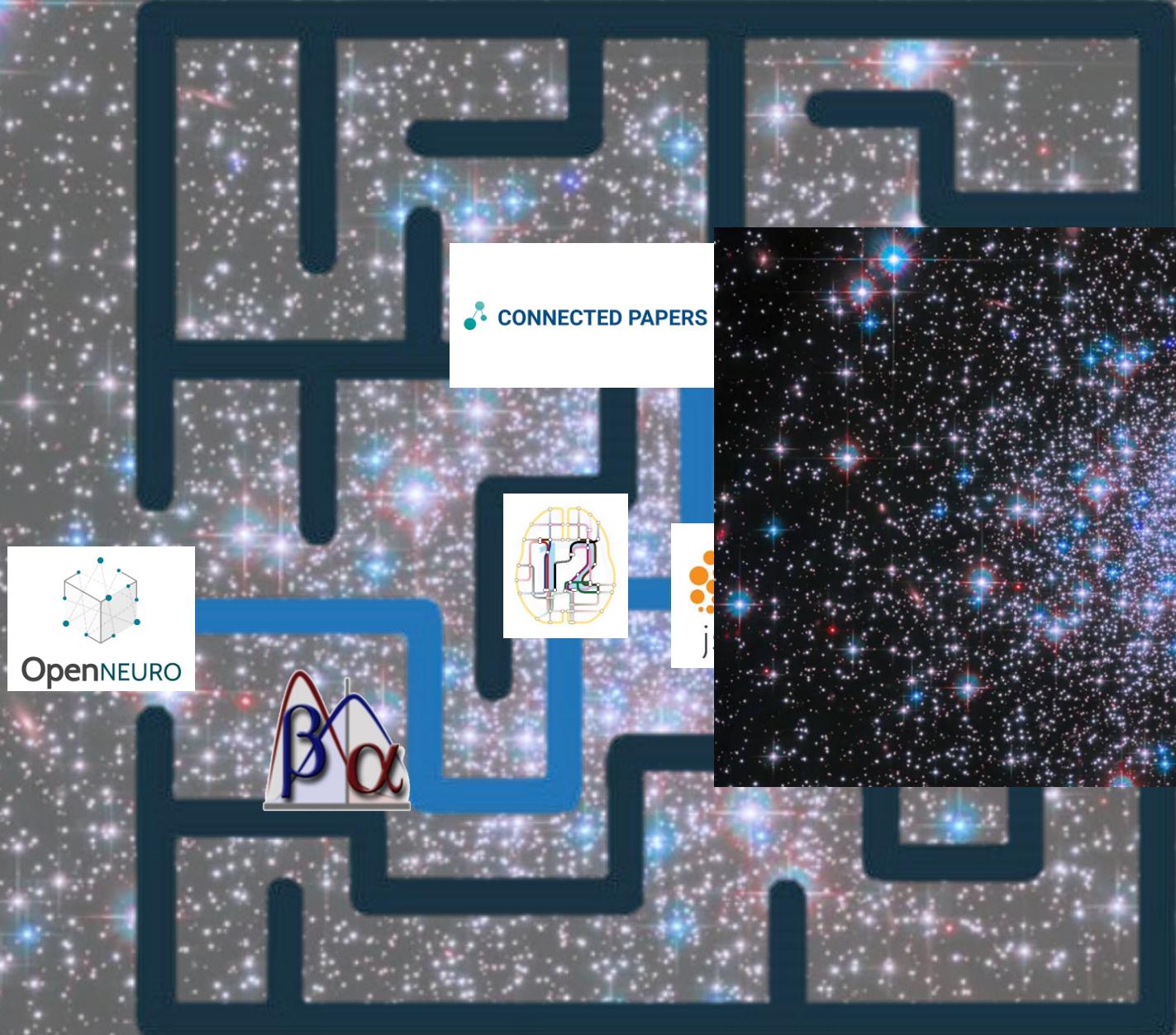




# Being an early career researcher in academia

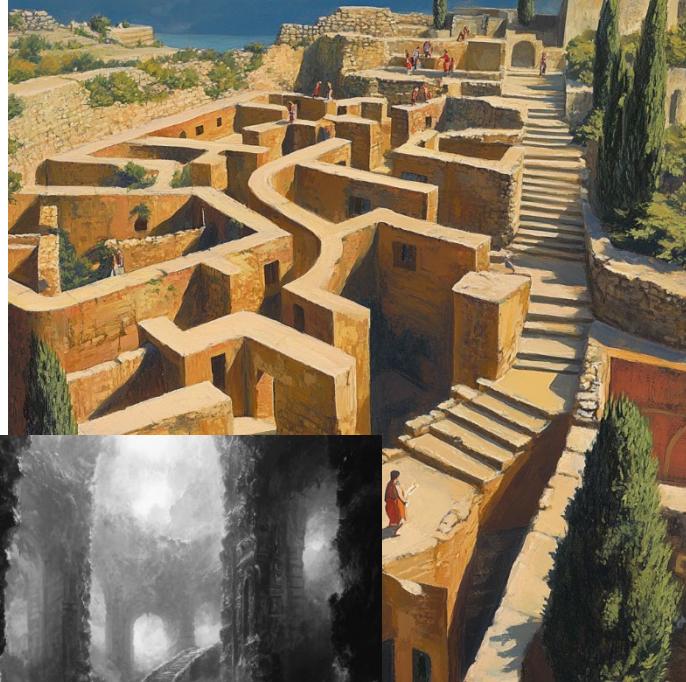
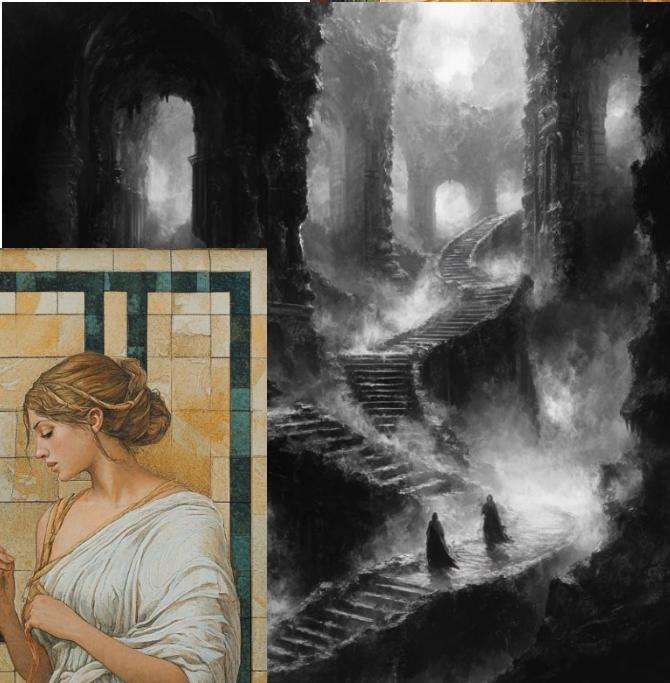
- If you're here with us today, it is most likely that you're also bewitched with the allure of asking more and more!
- What do we want/get out of this?
  - Glory, like the Age of Heroes?
  - Or getting burdened with the weight of knowing more and more!





# Lost in the labyrinth who's going to help the ECRs?

- And at this point, you need your Ariadne, who would guide you in the labyrinth!
  - This can be a colleague, your PI or someone you met at a conference!
  - But why trust human memory/notetaking abilities when you can have a tool for that?



# How did it start?

- PuG 22
  - Discussion w/ Helena regarding her „awesome-PhD“ repo
  - Idea of expanding this into a larger project and make it community driven!

**helenahartmann/  
awesome-PhD**



All the resources I wish I knew when starting my PhD. This repository is aimed to be a living, constantly...

6

Contributors

0

Issues

437

Stars

24

Forks



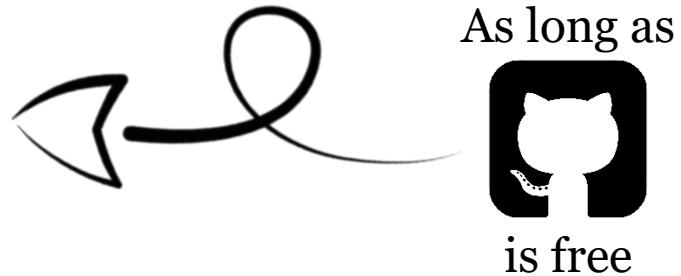
# What's so special about ARIADNE?

- It resonates the fire within the ECR:
  - Drive to create new knowledge
  - Drive to serve the growth of knowledge
- Community driven & decentralised
  - For the community,
  - Comes within the community,
  - Will live with the community



# Why should you use ARIADNE?

- Is free, will be free and developed/maintained by you!
- Aimed to become the ultimate tool for ECRs, who are looking not just to hoard information; but to share as well!
- For each resource, you will have curated short information; so you can determine usefulness without even using it



(looking at  
you  
Microsoft!)



Pavlovia is a place for the wide community of researchers in the behavioural sciences to run, share, and explore experiments online.

# How can you use ARIADNE?

- ARIADNE book
  - Companion book of the tool
  - Here you can have more information about 10 steps of the research cycle we have defined
- ARIADNE tool
  - Network of resources, populated within sub-networks of said 10 steps
  - Request addition of new resources by a GDoc / GitHub Issue



## IGOR-bioDGPs/ **ARIADNE**

The main repository for ARIADNE responsive book!

5  
Contributors

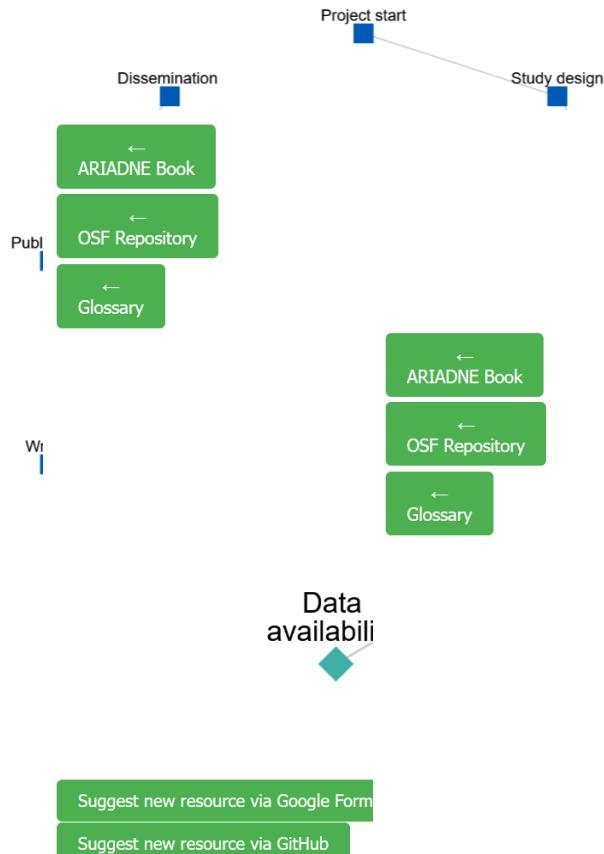
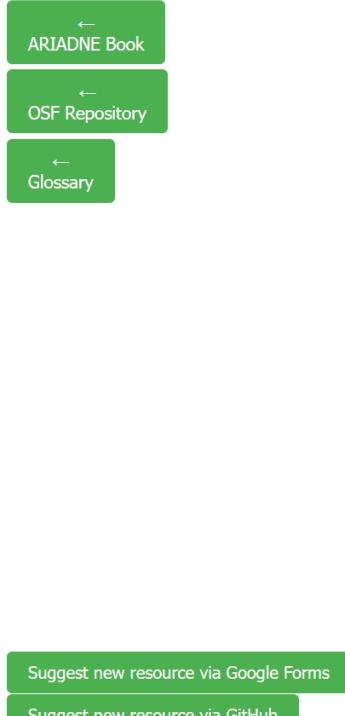
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Issues

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Stars

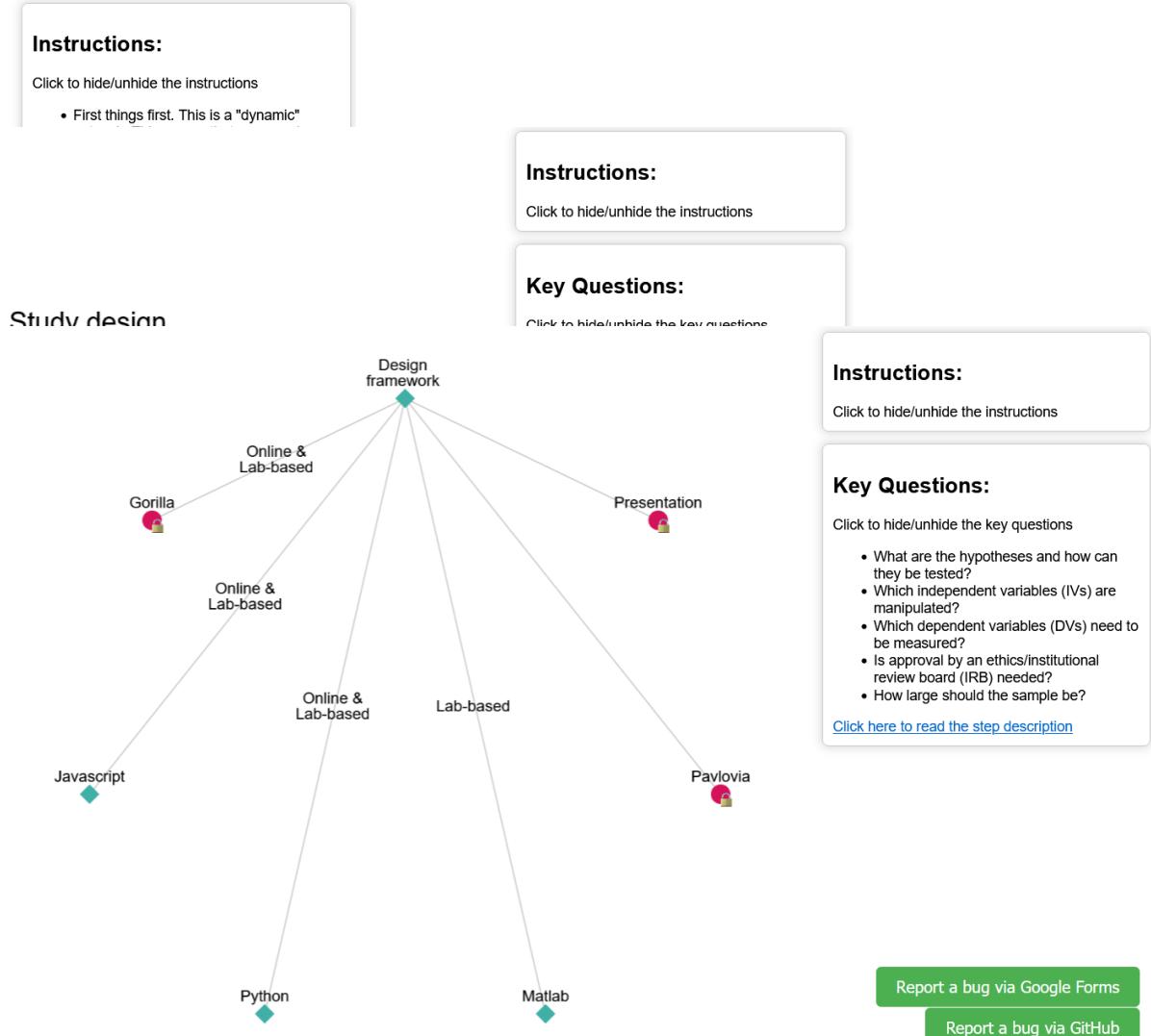
1  
Fork



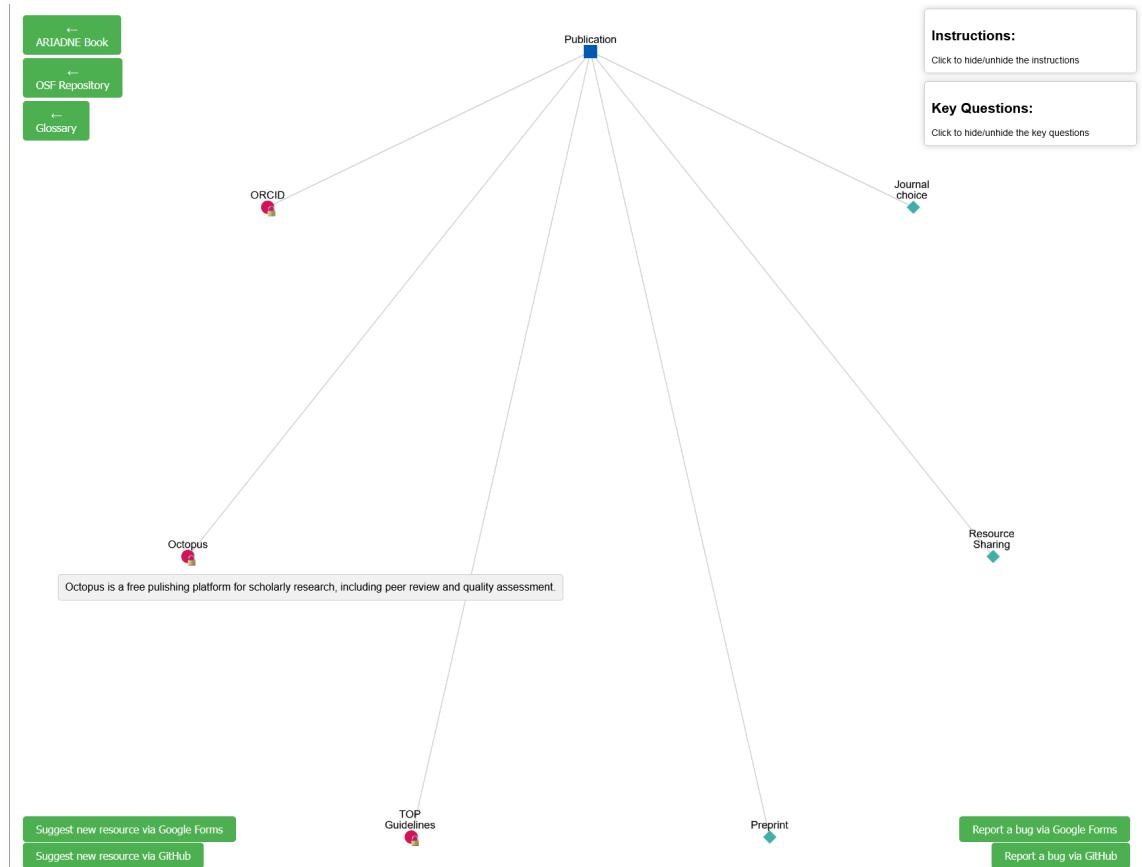
# How can you use ARIADNE?



Suggest new resource via Google Forms  
Suggest new resource via GitHub



# How can you use ARIADNE?



**Instructions:**  
Click to hide/unhide the instructions

**Key Questions:**  
Click to hide/unhide the key questions

## STEP 9: Publication

Welcome to ARIADNE

The road to success

- Abstract
- Introduction
- Glossary
- Go to Resource
- STEP 1: Project start
- STEP 2: Study design
- STEP 3: Study implementation
- STEP 4: Piloting
- STEP 5: Data collection
- STEP 6: Data validation
- STEP 7: Data analysis
- STEP 8: Writing the manuscript
- STEP 9: Publication
- STEP 10: Dissemination
- Discussion and outlook
- Bibliography

Supplementary information

- Testimonials
- Author contributions
- Acknowledgements
- Funding
- Competing interests
- MIT License

**Preprints.** Preprints facilitate early access to the manuscript, which helps researchers to document their scientific or academic work and may even be used to assert priority (e.g., → [MetaArXiv](#) → [BioArXiv](#) → [PsyArXiv](#), or → [PsychArchives](#); Bourne et al., 2017). Preprint publication often happens simultaneously with the submission to the target journal. Some have suggested that the accessibility and reception of a manuscript may make it easier to assess the quality of scientific work than bold claims about the novelty or impact of the work (e.g., in scholar-governed information infrastructures as opposed to legacy journals; Brembs, 2019). However, be aware that some journals still prohibit the upload of all or specific manuscript versions as preprints (→ [Shepera Romeo](#)).

**Journal submission.** Most journals ask researchers to submit the manuscript together with a cover letter (see glossary). The cover letter allows researchers to demonstrate the relevance and quality of their work. However, some journals also actively discourage the submission of a cover letter to let the manuscript "speak for itself".

**Peer review.** Once the manuscript is under peer review (see glossary), reviewers might raise more or less critical issues about the manuscript and inform the editor handling your paper (Suls & Martin, 2009). In this context, fellow researchers provide comments that may be useful for a critical re-evaluation of the manuscript. The editor then recommends either acceptance, minor revisions (both rarely happen on the first submission), major revisions, revise and resubmit (see glossary), or rejection. It is important to note that these terms and their meaning may vary from journal to journal (for example, *reject* might sometimes indicate an option to resubmit a revised version and sometimes not). Some journals (e.g., Collabra), include a page with the meaning of these different statuses. Addressing such issue raised by the reviewers in a well-crafted, point-by-point response rebuttal letter (Palmitieri, 2023; see glossary) allows researchers to demonstrate that criticized parts of the manuscript have been revised to an extent that warrants the acceptance of the manuscript (Noble, 2017) or to argue why suggested changes have not been implemented.

**Open code, data, and materials.** Following acceptance, researchers may think about publishing their data and code together with the manuscript in a way that allows easy access to and reuse of the work (Goodman et al., 2014). Ultimately, sharing open code, data, and materials with licenses, is highly favorable considering the rise in open science practices (Contaxis et al., 2022). However, server's privacy policies and the respective lawful basis (e.g., General Data Protection Regulation; Houtkoop et al., 2018; Peloquin et al., 2020) should be carefully considered when choosing a platform (→ [Open Science Framework](#), → [Zenodo](#), or → [PsychArchives](#)). Published products can be assigned their own Digital Object Identifier (DOI) and constitute important research outputs next to published manuscripts (e.g., in modular publishing using → [Octopus](#) or → [ResearchQuals](#)).

**Publication.** This process until seeing your paper published can take several months (in rare cases even years) and this time should be factored in Step 1, where a time plan of the project is first established. If your manuscript is rejected by your first journal choice, a submission to an alternative journal is usually warranted. An appeal (i.e., contesting the rejection) can only be considered in exceptional cases. Crucially, if you notice an error only after publication (e.g., a software bug or faulty code/input data), this should be discussed with the co-authors and corrected in the published article as soon as possible (Bruns et al., 2019).

### Key questions in this step

- Where to upload data, code, materials, and/or a preprint?\*

# How can you use ARIADNE?

The screenshot displays the ARIADNE website interface. At the top, there's a header with the ARIADNE logo and a search bar. Below the header, the main content area features several sections: "Welcome to ARIADNE", "Who are we?", "What is this about?", "Introduction", "The Resource", and "Glossary". Each section contains descriptive text and links to further resources. On the left side, a sidebar lists "The road to success" with numbered steps from 1 to 10, each with a brief description. Below this, there's a "Supplementary Information" section with links to "Testimonials", "Author contributions", "Acknowledgements", "Funding", "Competing interests", and "MIT License". At the bottom of the page, there's a footer with copyright information and a link to the IGOR Community.

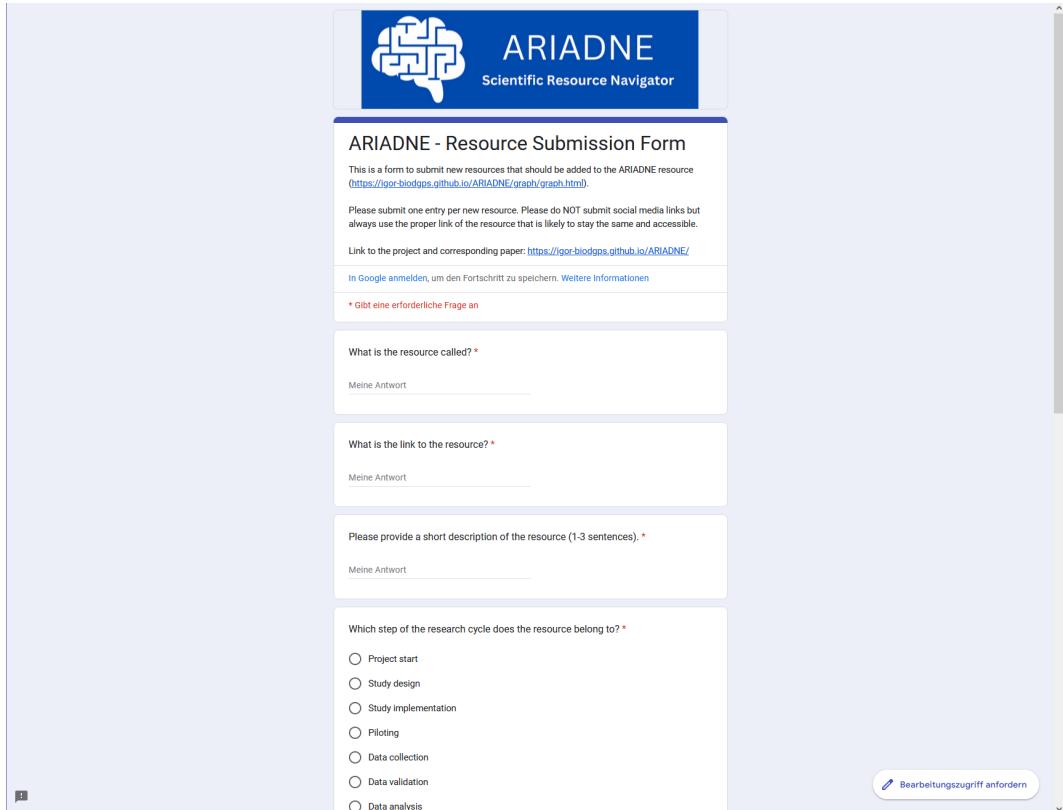
This screenshot shows the "Introduction" section of the ARIADNE website. It begins with a heading "Introduction" followed by a paragraph of text. Below the text, there are several links to other sections: "Abstract", "Introduction", "Glossary", "Go to Resource", "STEP 1: Project start", "STEP 2: Study design", "STEP 3: Study implementation", "STEP 4: Piloting", "STEP 5: Data collection", "STEP 6: Data validation", "STEP 7: Data analysis", "STEP 8: Writing the manuscript", "STEP 9: Publication", "STEP 10: Dissemination", "Discussion and outlook", and "Bibliography".

This screenshot shows the "The Resource" section of the ARIADNE website. It starts with a heading "The Resource" and a paragraph of text. Below the text, there are links to "STEP 1: Project start", "STEP 2: Study design", "STEP 3: Study implementation", "STEP 4: Piloting", "STEP 5: Data collection", "STEP 6: Data validation", "STEP 7: Data analysis", "STEP 8: Writing the manuscript", "STEP 9: Publication", "STEP 10: Dissemination", "Discussion and outlook", and "Bibliography".

This screenshot shows the "Glossary" section of the ARIADNE website. It includes a heading "Glossary" and a paragraph of text. To the right, there's a sidebar with the text: "This is a mini glossary of science-related terminology, sorted alphabetically. For a broader overview regarding open-science related terms, please refer to the FORRT glossary (Parsons et al., 2022)." Below the glossary text, there's a table with three columns: "Term", "Definition", and "References". The table lists various scientific terms with their definitions and references to academic papers.

Term	Definition	References
Article/author processing charges (APCs)	A fee charged to authors by a publisher in exchange for publishing and hosting an open access article.	Parsons et al., 2022
Big Team Science	A method that engages a considerable number of contributors, who may be situated in diverse research environments, including laboratories, academic institutions, and academic disciplines, as well as representing a range of cultural and geographical backgrounds.	Forscher et al., (2023)
Data management plan	A document describing how the data will be handled during a project and what happens with the data after the project ends.	Michener (2015)
Cover letter	A letter to the editor of a scientific journal that is submitted together with a manuscript. It outlines the importance of the study and summarizes key findings and contributions to the field. Some journals explicitly require such a letter, while others actively discourage it.	Palmiter (2023)
Corresponding author	The corresponding author is typically the researcher who takes primary responsibility for communication regarding the manuscript, during both pre-publication and post-publication phases. This usually includes communication with the publisher, the readers, and handling requests for data-sharing. Note that different journals may have different requirements for corresponding authors.	Pain, 2021
CRedit Statement	A taxonomy of 14 roles that can be assumed when being part of a research project. The statement can be included at the end of a manuscript to transparently report which author assumed which roles.	Brand et al. (2015); Tay (2021)
Digital Object Identifier (DOI)	A number and letter string to identify and protect intellectual property in a digital environment (e.g., <a href="https://doi.org/10.1109/0264047061069151">https://doi.org/10.1109/0264047061069151</a> ).	Chandrar (2006)
Data wrangling / munging	The process of transforming and mapping data from one "raw" data form into another format with the intent of making it more appropriate and valuable for a variety of downstream purposes such as analytics.	Endel & Springer (2015); Kandel et al. (2011)

# How can you use ARIADNE?



The screenshot shows the ARIADNE - Resource Submission Form. The header features the ARIADNE logo and the text "ARIADNE Scientific Resource Navigator". The form itself has a blue header bar with the title "ARIADNE - Resource Submission Form". Below this, there is a note: "This is a form to submit new resources that should be added to the ARIADNE resource (<https://igor-biologs.github.io/ARIADNE/graph/graph.html>). Please submit one entry per new resource. Please do NOT submit social media links but always use the proper link of the resource that is likely to stay the same and accessible." It also includes a link to the project and corresponding paper: "<https://igor-biologs.github.io/ARIADNE/>". There is a button "In Google anmelden, um den Fortschritt zu speichern. Weitere Informationen" and a red asterisk note "\* Gibt eine erforderliche Frage an". The main body of the form contains several input fields: "What is the resource called? \*", "Meine Antwort", "What is the link to the resource? \*", "Meine Antwort", "Please provide a short description of the resource (1-3 sentences). \*", "Meine Antwort", and "Which step of the research cycle does the resource belong to? \*". The options for the last question are: Project start, Study design, Study implementation, Piloting, Data collection, Data validation, and Data analysis. At the bottom right is a blue button with a pen icon and the text "Bearbeitungszugriff anfordern".



The screenshot shows the ARIADNE - Bug Report Form. The header features the ARIADNE logo and the text "ARIADNE Scientific Resource Navigator". The form has a blue header bar with the title "ARIADNE - Bug Report Form" and a note: "This is a form to submit new resources that should be added to the ARIADNE resource (<https://igor-biologs.github.io/ARIADNE/graph/graph.html>). Please submit one entry per bug. Link to the project and corresponding paper: <https://igor-biologs.github.io/ARIADNE/>. In Google anmelden, um den Fortschritt zu speichern. Weitere Informationen \* Gibt eine erforderliche Frage an". The main body of the form contains several input fields: "Describe the bug. \*", "Meine Antwort", "Expected behavior \*", "Meine Antwort", "Desktop information (please complete the following information): \*", "Meine Antwort", "Additional context", "Meine Antwort", and "Please provide your name (only in case we have follow-up questions, it will not be published) \*". At the bottom right is a blue button with a pen icon and the text "Bearbeitungszugriff anfordern".

# Under the hood

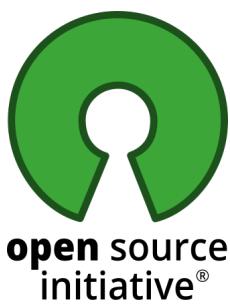
- Book built with: Jupyter Book
  - Publication quality online books!
- Tool built with: Cytoscape.js
  - Dynamic networks without much server-side magic!
- Why?
  - We can save the Cytoscape.js library instance and create a „container“ within our GitHub repo + host our Jupyter Book at the same repo!



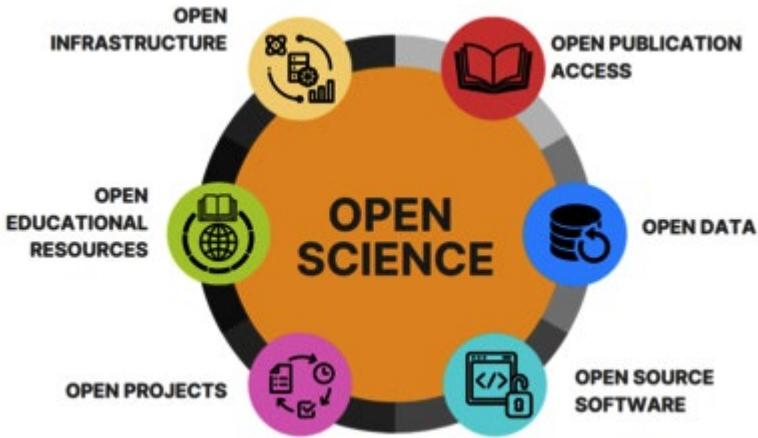
jupyter {book}



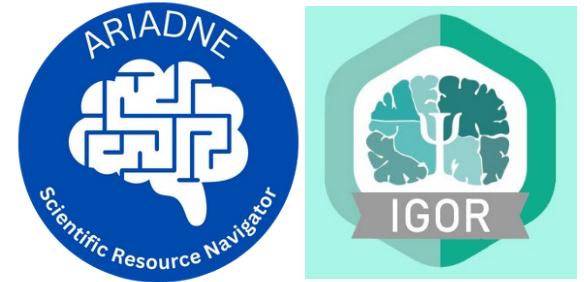
# Why should you help grow ARIADNE?



- Open Science and Open Source movement
- Against Gatekeeping!
- Enhancing the effectiveness of resource sharing in global science
  - The project is not only for German/European audience; it aims to become global!



# The future!



- More resources!
- Updates on the glossary
  - Search function
  - Show on the network function

# The team!



Alexandros Kastrinogiannis



Alexander Lischke



Helena Hartmann



Susanne Vogel



Gordon B. Feld



Marie Mueckstein



Alina Koppold

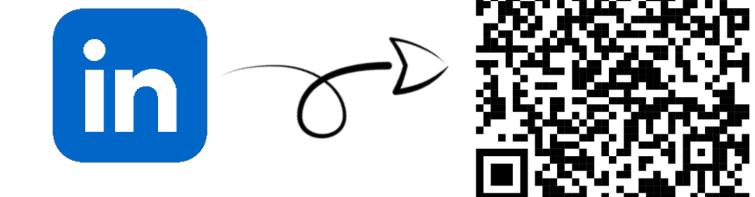
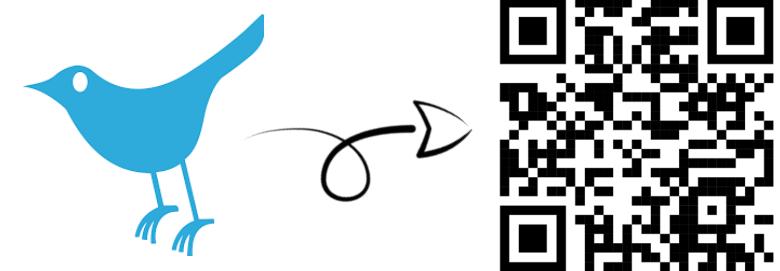
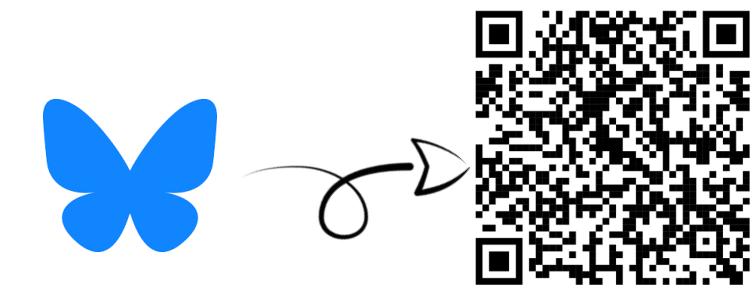
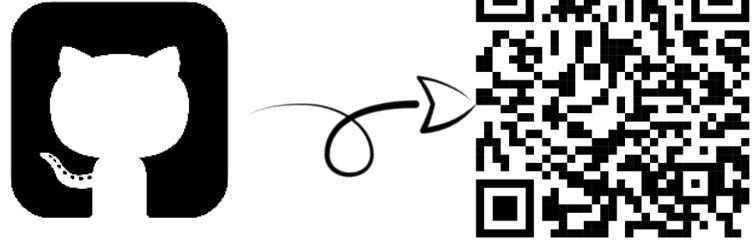


Matthias F. J. Sperl



# Find me on!

- GitHub: [@caggursoy](#)
- Bluesky: [@caggursoy.bsky.social](#)
- Twitter: [@caggursoy](#)
- LinkedIn:
  - [www.linkedin.com/in/cagatay-gursoy](https://www.linkedin.com/in/cagatay-gursoy)
- Email:  
[cagatay.guersoy@zi-mannheim.de](mailto:cagatay.guersoy@zi-mannheim.de)
- Or my webpage:  
<https://cagataygursoy.com/>





# Links

- Preprint
  - OSF: <https://osf.io/hjysu>
- ARIADNE
  - Book: <https://igor-biodgps.github.io/ARIADNE/>
  - Tool: <https://igor-biodgps.github.io/ARIADNE/graph/graph.html>
- This presentation:
  - [https://github.com/caggursoy/phdSideQuests/tree/master/presentations/marburg\\_ariadne](https://github.com/caggursoy/phdSideQuests/tree/master/presentations/marburg_ariadne)

