



**SOCIETY FOR THE  
IMPROVEMENT OF  
PSYCHOLOGICAL SCIENCE**

## SIPS2019 Preliminary Conference Program

Dear all,

We are delighted to announce the preliminary conference program for [SIPS 2019](#)! Below you will find a feast of workshops, unconferences, and hackathons ready to help you learn, debate, and build. And here's the best part - this conference program isn't even complete yet! Due to overwhelming demand this year, we recently increased the capacity of the conference and booked additional rooms. So we will be putting out a call for additional session proposals within the next couple of weeks - announcements will be made via Twitter ([#SIPS2019](#)) and e-mail. As in previous years, much of the conference program will remain open to be populated by ad-hoc session proposals made during the conference itself.

So without further ado, here's the preliminary program, and we look forward to welcoming you to Rotterdam in July.

Best wishes,

The SIPS 2019 Program Committee

# SIPS2019 Preliminary Conference Program

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For a list of session titles only (no abstracts), click [here](#).

## [WORKSHOPS]

[WORKSHOP]

### R for psychology research

**Session leads:** Nicholas Michalak

**Length:** 3 hours.

**Pre-requisites:** Ideally, attendees will have wiped R and R Studio from their computers and re-installed R and R Studio before the session starts (see <https://osf.io/xj7cq/wiki/home/>). This prevents us from spending too much time troubleshooting installation.

**Abstract:** Here's a common thought: "I want to use R in my research, but online courses and tutorials take too long to teach me what I need to know." We get that, so our goal for this 3-hour workshop is to teach folks enough R to be dangerous: They can use R in their research \*that same day\*. To do this, we have to skip standard introductions to "base R" and replace them with user-friendly tools from the tidyverse ([www.tidyverse.org](http://www.tidyverse.org)). By the end 3 hours, folks will know how to use R Studio (e.g., what are all these panels?); make beautiful plots (some reminiscent of O'Keeffe, <https://xkcd.com/1967/>); wrangle data (e.g., cleaning); describe data (e.g., I just want the Ms and SDs!), and model data (e.g., regression and some of its friends). They'll also leave with resources to learn more on their own.

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[WORKSHOP]

## Introducing meta-analytic methods for psychological scientists

**Session leads:** Sho Tsuji

**Length:** 3 hours.

**Pre-requisites:** None - for the practical part, basic knowledge of R is useful, and the part can't be followed without - however, this will only make up a small part of the session so you can absolutely attend without R knowledge.

**Abstract:** Meta-analysis is a powerful yet underused tool in psychology. It allows researchers to leverage entire bodies of literature to get a broad and quantitative overview of a particular phenomenon, thereby promoting theory development, and to make more precise estimates of effect sizes, which enables robust planning of prospective studies (e.g. through power analyses). In this tutorial, we will introduce meta-analysis as a tool with which to inform everyday research, and provide participants with the theoretical background and hands-on experience to conduct their own meta-analysis. Participants will learn about the steps of a meta-analysis, including conducting and documenting a systematic literature review, effect sizes and how to calculate them, meta-analytic regression models and how to interpret their results.

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[WORKSHOP]

## Bayesian Inference with JASP

**Session leads:** Eric-Jan Wagenmakers

**Length:** 3 hours.

**Pre-requisites:** No background knowledge is assumed. Please have the latest version of JASP installed

**Abstract:** This workshop will demonstrate several Bayesian analyses that are on offer in the free software program JASP. The focus is on concepts and procedures that are particularly relevant to a SIPS audience: the Bayesian re-analysis of published findings, Bayesian meta-analysis, model-averaging, sequential analysis, and more.

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[WORKSHOP]

Ethics: it's already hard enough without it! (but why it is important!)

**Session leads:** Sil Aarts

**Length:** 1.5 hours.

**Pre-requisites:** None.

**Abstract:** Meet researcher X: a person just doing a Phd. The researcher is interested in the experience of adolescents using a mental health app. Of course, the aim is also to generate scientific output regarding this app. But what about the ethics involved? Should the researcher use informed consent from all the app-users? What about contacting them for participation in a qualitative study? What about privacy? As a researcher you might often come across these types of questions. My workshop is not intended to provide answers to all ethical issues that exist, but to (let you) generate questions. My ultimate aim is to let researchers think for themselves and let them build and trust their own 'internal ethical compass'.

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[WORKSHOP]

Finding, using and making Open Educational Resources

**Session leads:** Rima-Maria Rahal

**Length:** 1.5 hours.

**Pre-requisites:** None.

**Abstract:** The way we do research is changing towards more open and transparent practices. The way we do teaching and facilitate learning needs to keep up. Open Educational Resources are useful tools to support up-to-date teaching, for instance by simplifying the process of updating contents as insight

progresses. In this workshop, we discuss ways of using Open Educational Resources, investigate places to find and share them, and introduce ways of making them.

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[WORKSHOP]

## Redesigning methods curricula for reproducibility

**Session leads:** Lisa DeBruine and the PsyTeachR team

**Length:** 3 hours.

**Pre-requisites:** None.

**Abstract:** At Glasgow we have successfully reformed methods teaching across all levels to focus on robust and reproducible methods. In this workshop we will share our experiences, insights, and teaching materials. Our curriculum now promotes independence by emphasising traditionally overlooked data skills, including coding (in R), data wrangling, visualisation, and dynamic reports. Students learn about probability and inference through simulation and by working with real datasets, building practical skills through regular coursework. We will discuss solutions to various implementation challenges, including staff training, building an inclusive community, rapid online support, and computer-assisted assessment of coursework. We welcome participation and input from any institutions interested in a curriculum centred on reproducibility, at any stage of the transition process.

[WORKSHOP]

## Open Sampling: Challenges in using MTurk and other crowdsourced samples?

**Session leads:** Gabriele Paolacci, Jesse Chandler, Itay Sisso

**Length:** 1.5 hours.

**Pre-requisites:** None

**Abstract:** A huge proportion of participants in psychological studies are sampled from online services such as MTurk and Prolific. These services have the potential

to accelerate the self-reforming process that is currently undergoing in psychology (e.g., by enabling larger sample sizes), but also pose new threats to data validity. This workshop has a twofold goal: First, it will provide insights for researchers to maximize the quality of the data collected from such samples. We will address issues such as the supposed prevalence of “bots”, participant nonnaiveté, and participant misrepresentation. Second, it aims at initiating a conversation about how to promote data collection practices that align with the short- and long-term interests of both the scientific community and research participants.

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[WORKSHOP]

## Doing open, transparent, and reproducible research with RMarkdown and Git

**Session leads:** Mark Andrews

**Length:** 3 hours.

**Pre-requisites:** Basic familiarity with R would be helpful.

**Abstract:** One important contributing factor to the replication crisis in psychology is that the raw data and the analysis pipeline that lead to the final reported results are usually completely opaque on the basis of the published manuscript alone. Recent software tools, such as RMarkdown, allow data, analysis code, and the text of the manuscript to be coupled from the earliest stages of data-analysis, and all of the results and figures reported in the manuscript are automatically generated by the analysis code and data. This workshop will provide a comprehensive introduction to using RMarkdown. It will also provide an introduction to Git and Github and describe how these tools can be used to share RMarkdown documents with collaborators and the public.

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[WORKSHOP]

## Twitter content analysis in R

**Session leads:** Arnout Boot

**Length:** 3 hours.

**Pre-requisites:** Attendees should be familiar with the basics of R, specifically how to install packages. Attendees should bring a laptop with RStudio installed to this session.

**Abstract:** Social media have become an integral part of our society. For example, on a daily basis, around 500 million tweets are created. This means there is a great opportunity for social and linguistic researchers to investigate online behavior and language usage. During this session you will use R to explore the basic steps for the data collection, pre-processing, and text analysis of tweets. This session is especially instructive if you are interested yet inexperienced in utilizing social-media data and text mining.

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[WORKSHOP]

## Improving psychological science by formalizing psychological theories: The value of computational modeling

**Session leads:** Donald Robinaugh, Eiko Fried

**Length:** 1.5 hours.

**Pre-requisites:** We will illustrate the process of generating a computational model in R using difference equations. Although prior knowledge in these areas is not necessary to understand the main points of the workshop, it would likely facilitate understanding for parts of the workshop. Importantly, this is not a workshop where we will work hands-on in R, so no laptops are required.

**Abstract:** Most psychological theories are “verbal models:” narrative explanations of a psychological phenomenon. Because of the vagaries of language, these theories are vulnerable to hidden assumptions and shortcomings. Moreover, they create fertile ground for questionable research practices. In this workshop, we

provide an introduction to theory development through computational modeling. First, we review the advantages of modeling and show how it fosters transparent and cumulative science. We then propose ideas for how to develop and evaluate formalized theories. We provide examples throughout, focusing especially on a computational model of Panic Disorder. Our hope is that participants leave with an appreciation of the importance of formalized psychological theories and ideas for how to develop and evaluate formalized theories in their own work.

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[WORKSHOP]

## Meeting of the Minds: a practical introduction to current philosophy of science

**Session leads:** Noah van Dongen, Felipe Romero, Jan Sprenger, Michal Sikorski

**Length:** 1.5 hours.

**Pre-requisites:** None.

**Abstract:** In periods of crisis, scientists turn increasingly to the philosophical foundations of their work. To this end, they consult the classics (e.g., Popper, Lakatos, Feyerabend, etc.), though they are usually unaware of current developments in philosophy of science. In this tutorial, we will introduce you to current work in philosophy of science (that could be) relevant for the improvement of psychological science. This includes topics such as scientific objectivity, foundations of statistical inference, and socio-epistemic models of scientific inquiry. In addition, we will provide practical information on how and where you can get more information on relevant philosophical work and events, how you can start interacting with the philosophical community, and how to stay up-to-date with current developments.

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[WORKSHOP]

## Introduction to version control using git

**Session leads:** Tobias Heycke

**Length:** 1.5 hours.

**Pre-requisites:** Anyone interested can join the workshop and no programming skills are necessary. To make the workshop more efficient it would be best if participants would install git (<https://git-scm.com/downloads>) and RStudio (not necessary, but I will show how to integrate RStudio with git), and create an account on github.com.

**Abstract:** Git is a tool to integrate version control into your workflow. Using Git will help you keep track of changes TO a document (and you will ideally get rid of having multiple files called xx\_final.R, xx\_final2.R, and xx\_final2\_2.R), help collaborating with others, and allow you to participate easily in the improvement of open source software (such as R packages). The goal of the workshop is to have a general understanding of Git and some first, hands-on, experience with Git. We will also look at the additional benefits of GitHub, how to integrate Git with RStudio, and how to use the RStudio Git GUI.

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[WORKSHOP]

Preparing code and data for computationally reproducible collaboration and publication: a hands-on workshop for researchers

**Session leads:** April Clyburne-Sherin.

**Length:** 3 hours.

**Pre-requisites:** None.

**Abstract:** Although journals and funders are calling for published research to include data and code, many researchers have not received training in best practices and tools for sharing. This workshop address this gap while also providing those who support researchers with curated best practices. In a practical, step-by-step design comprised of hands-on exercises, participants prepare research code and data for computationally reproducible collaboration and publication. Although the workshop starts with a brief introduction to

computational reproducibility, the bulk of the workshop is guided work with data and code. Participants move through organizing, documenting, automating, and submitting code and data for reuse. Tools to support reproducibility are introduced but all lessons will be platform agnostic.

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[WORKSHOP]

## Voicing values about statistical decisions

**Session leads:** Franca Agnoli, Fiona Fidler

**Length:** 1.5 hours.

**Pre-requisites:** None.

**Abstract:** Some early career researchers may have experienced ethically challenging situations, for example, an advisor who encourages p-hacking, or inappropriate sampling stopping procedures. Speaking out in these situations can be difficult. This workshop will discuss strategies for dealing with these problems, e.g., developing scripts, role playing difficult conversations, and developing support networks. We will also discuss how conflicts can be managed in different cultural situations.

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[WORKSHOP]

## Developing your personal workflow for transparent & reproducible research

**Session leads:** Frederik Aust, Johannes Breuer

**Length:** 3 hours.

**Pre-requisites:** None.

**Abstract:** In response to the current crisis of confidence, psychologists have begun to push for greater transparency and intersubjective verifiability of their research. Researchers increasingly publish research materials, data and analysis

scripts, publicly preregister studies, and share and discuss preprints. However, setting up a transparent research workflow involves a plethora of decisions that can be quite demanding. Fortunately, transparent research practices can be adopted piecemeal---each incremental step adds value for individual researchers and the credibility of psychological research. This workshop helps participants to decide what, when, and how to share their research products. In the process, we will review the evolving ecosystem of open science tools and services. Participants will draft bespoke transparent, less error-prone, and more reproducible research workflows.

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## [UNCONFERENCES]

[UNCONFERENCE]

### Open science in time-limited student projects

**Session leads:** Clare Conry-Murray, Bianca Dietrich, Mariella Paul

**Length:** 1.5 hours.

**Pre-requisites:** None.

**Abstract:** Time-limited student research projects at both the undergraduate and graduate levels have unique challenges, as well as opportunities. While students often have limited time to complete their research projects, they also may have the support of mentors and classes that can provide them skills, guidelines and resources that support open science. Given the constraints and opportunities, how can these research projects be supported so that they can be conducted in ways that are consistent with the principles of open science? The goal of the session is to develop a list of suggestions and resources for using open science principles in time-limited projects. The session is intended for instructors, research mentors and students.

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[UNCONFERENCE]

## Measurement error in psychological science

**Session leads:** Koen Neijenhuijs, Sam Parsons

**Length:** 1.5 hours.

**Pre-requisites:** None.

**Abstract:** Measurement error is the systematic and random error added to the true value we aim to measure. Given the indirect ways we measure psychological constructs, measurement error is always present, regardless of whether you use self-reported, physical, or experimental measures. While measurement error is “part of the game”, our field tends to disregard its' presence while interpreting research results. In this unconference, we'll explore issues surrounding measurement error. Interesting questions we may explore: what is the effect of measurement error on our results? Is it feasible to investigate measurement error of our measurement tools? How does measurement error relate to the replication crisis? Should we have chosen to study physics where they provide grants to develop accurate measurement tools?

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[UNCONFERENCE]

## Supporting the teaching of open and reproducible research

**Session leads:** Sam Parsons, Flavio Azevedo, Mike Galang

**Length:** 1.5 hours.

**Pre-requisites:** None.

**Abstract:** The credibility revolution and the related methodological reforms have brought great progress to the reproducibility of research. Yet, the teaching of open and reproducible research practices has not received the same level of attention or widespread reform efforts. At SIPS 2018 we began the development of a Framework for Open and Reproducible Research Training (FORRT). We view this initiative as a resource to support instructors that already teach or are interested in developing their courses to incorporate openness and reproducibility in their teaching. We have worked the framework into a website

(<https://forrt.netlify.com/>) and will release a related preprint in early 2019. This unconference aims to gauge diverse feedback and encourage others to join the open contributorship of FORRT.

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[UNCONFERENCE]

## Open science for mid-career plus researchers

**Session leads:** Clare Conry-Murray, Benjamin Le

**Length:** 1.5 hours.

**Pre-requisites:** None.

**Abstract:** Mid-career plus researchers are editors and reviewers of journals and mentors to future researchers, and so they have substantial control over what research is conducted and published. While some may be entrenched in old ways of doing research, even mid-career plus researchers who want to learn about open science have multiple responsibilities that can make it a challenge to invest significant time in updating their knowledge. This unconference will brainstorm:

1. What knowledge and skills do mid-career researchers need to be able to review research, mentor researchers and conduct research?
2. What are ways of providing learning opportunities for mid-career plus researchers?
3. What are ways to communicate with researchers who are less open to the idea of open science?

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[UNCONFERENCE]

## Working with editors to correct the literature

**Session leads:** Nick Brown, Harris Friedman

**Length:** 1.5 hours.

**Pre-requisites:** None.

**Abstract:** A frequent complaint from people who have attempted to get scientific errors corrected in the literature is that journal editors are unwilling to consider critical comments. In this session we will discuss some successes and failures, and

attempt to identify factors that lead to one or the other result. An ideal outcome would be a list of suggestions for best practice, but even if the only result is some degree of catharsis among participants the session will have been worthwhile.

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[UNCONFERENCE]

Going real-time! Utilizing continuous data deposition, sharing, analysis and reporting to facilitate openness and credibility.

**Session leads:** Zoltan Kekecs, Balazs Aczel, Marton Kovacs

**Length:** 1.5 hours.

**Pre-requisites:** None.

**Abstract:** The traditional data-management process in social sciences is sequential, where data, results, and interpretations are published at the end of the research life-cycle. This practice restricts transparency, and delays secondary data use. Technical advances now allow us to supersede sequential data management, and to continuously deposit, share, analyze, and interpret data as they flow in. Techniques such as Direct Data Deposition, Born-Open Data, and Real-Time Research Reports can improve transparency and credibility while also making dissemination and secondary data use more efficient. During this unconference we seek to facilitate a discussion about the advantages, disadvantages, incentives, and barriers concerning such practices. The event could set the grounds for a later hackathon where guidelines and practical solutions could be developed.

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[UNCONFERENCE]

Open science considerations for researchers working with qualitative data.

**Session leads:** Crystal N. Steltenpohl, Alyssa Counsell, Sophia Crüwell, Amie R. McKibban

**Length:** 1.5 hours.

**Pre-requisites:** None.

**Abstract:** Discussions around best practices in open science have focused largely on clarifying expectations and protocols for experimental designs and quantitative datasets. Qualitative research, on the other hand, often works within different research paradigms, and the nature of the data may lead qualitative researchers to ask about issues like the ethics of data sharing and the usefulness of preregistration. Join us to talk about the role of qualitative analyses in addressing replication issues and its positioning in open science practices more generally. We will discuss existing resources for researchers interested in qualitative data analysis, how the open science movement could influence practices in qualitative research, and what quantitative researchers might learn from qualitative researchers about openness.

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[UNCONFERENCE]

## Registered Reports & PLOS ONE

**Session leads:** Yann Benetreau (PLOS ONE) and TBD

**Length:** 1.5 hours.

**Pre-requisites:** None.

**Abstract:** Whether you have published Registered Reports or not, either as a researcher or an editor, what are your thoughts and experiences with this approach? What worked or didn't work? What are the barriers to a broader adoption? If you haven't tried that approach yet, would you consider it—why or why not? What should journals such as PLOS ONE or PLOS Biology know when considering Registered Reports as a publishing output? PLOS ONE has already launched a pilot project with the Children's Tumor Foundation and we are interested in hearing how to best serve your research community's needs with this format.

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[UNCONFERENCE]

## Ontologies for psychological science

**Session leads:** Simon Columbus, Daniel Balliet, Giuliana Spadaro

**Length:** 1.5 hours.

**Pre-requisites:** None.

**Abstract:** Research findings are typically 'trapped' in traditional papers, and synthesising them requires painstaking work to extract findings from papers. As a consequence, research synthesis and meta-research are often slow and inefficient. Knowledge representation methods developed in computer science promise to aid with these challenges. Ontologies formalise the representation, naming, and definition of constructs, their properties and the relations between concepts and data. An ontology also provides the basis for nanopublications - machine-readable assertions (e.g., an empirical result) that can be published and cited, but also easily synthesised. In this unconference, we hope to discuss how ontologies can be used in psychological science, and what design challenges this may pose.

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## [HACKATHONS]

[HACKATHON]

Replace journals' writing-based authorship guidelines with a contributorship model

**Session leads:** Alex Holcombe, Simine Vazire, Chris Chartier (attending remotely).

**Length:** 3 hours.

**Pre-requisites:** None.

**Abstract:** Let's work for policy changes so that one need not contribute to the actual writing of a paper to be named as a “co-author” or contributor (already done by some journals; background: [bit.ly/SIPSAuthorshipHackathon](http://bit.ly/SIPSAuthorshipHackathon)) Benefits: 1. Funders, others will see better who does what, so resource allocation can improve. 2. The rate of effective collaboration formation will increase. 3. Projects that depend on small but crucial contributions will be facilitated. 4. The creation and maintenance of scientific software will be facilitated. The hackathon's activities will include: working on arguments and identifying and addressing practical obstacles to change; refining contributorship agreement templates; identifying venues to publish an opinion piece; identifying societies to target to change their authorship criteria statements.

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[HACKATHON]

Less data cleaning, more data adventures with Psych-DS: What could we do if datasets lived in a common format?

**Session leads:** Melissa Kline

**Length:** 3 hours.

**Pre-requisites:** None.

**Abstract:** Psych-DS ([psych-ds.github.io](http://psych-ds.github.io)) is a specification for datasets, designed to help researchers build consensus around machine-readable standards that work for both shared and protected data, and integrate with all our favorite tools. But a specification is only as good as its applications: at this hackathon, we'll have a brief (20-30 min) introduction to Psych-DS and some existing tools, and then dream up (or prototype!) the applications you want to see. Zero coding experience needed, just bring your ideas!

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[HACKATHON]

Using replication as a teaching tool in the classroom

**Session leads:** Nicole Sorhagen, Meghan Caulfield

**Length:** 3 hours.

**Pre-requisites:** None.

**Abstract:** While a new emphasis on independent replication has emerged (Nosek & Bar-Anan, 2012; Open Science Collaboration, 2015), faculty often lack incentives to conduct replication research. A means to increase replication in psychology may be to involve students. Conducting a replication of a recent study may help undergraduate students develop expertise, improve mastery, and enhance student motivation (Frank and Saxe, 2012). This Hackathon will discuss hurdles in implementing replication studies with undergraduate students in a range of settings. Participants will brainstorm examples of recently published research readily adaptable to undergraduate research labs and work together to develop materials (i.e. syllabi, guidelines, assessments, learning goals) related to engaging undergraduate students in replication studies. The documents generated will be made available on OSF.

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[HACKATHON]

Developing a Lab Manual Template to facilitate more efficient, transparent, and reproducible research

**Session leads:** Balazs Aczel, Tom Hardwicke, Marton Kovacs

**Length:** 3 hours.

**Pre-requisites:** None.

**Abstract:** We propose the development of a Lab Manual Template which could help researchers incorporate more efficient, transparent, and reproducible practices into their daily work. During the hackathon, participants will help us identify important practices and guidelines to include in a lab manual template designed for social scientists. We will also develop a web infrastructure that enables the lab manual to be easily customized and updated according to the needs of individual labs.

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[HACKATHON]

## Meeting of the Minds: working towards sustainable interaction between science and philosophy

**Session leads:** Noah van Dongen, Felipe Romero, Jan Sprenger, Michal Sikorski

**Length:** 1.5 hours.

**Pre-requisites:** None.

**Abstract:** Scientists interested in philosophy usually stick to consulting the classics. Simultaneously, philosophers of science only observe scientific developments and crises indirectly, through literature. We expect that both science and philosophy could greatly benefit from close and lasting contact and collaboration. During this hackathon, we will work on finding solutions to build strong and lasting bridges between science and philosophy of science. We will work on solutions for getting scientists and philosophers into contact to forge sustainable collaborations for efficient real-time exchange of information. Many scientists and philosophers might be reluctant (at first) to interact. So, special attention will be paid to finding ways to ‘break the ice’ in such a way that is lasting and expanding.

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[HACKATHON]

## Formalizing verbal models

**Session leads:** Kimberly Quinn, Leonid Tiokhin

**Length:** 3 hours.

**Pre-requisites:** None.

**Abstract:** Strong theory underpins strong design, yet most psychological theories are verbal theories, vaguely articulated and lacking transparency. Formal models improve transparency by revealing assumptions and boundary conditions, enabling evaluation of logical coherence. In this hackathon, we will develop training materials for taking underspecified verbal models and translating them into formal ones. As a starting point, we will take a verbal model and formalize it

using visual mapping and computational modeling, and evaluate the extent to which each approach increases theoretical transparency. We will work to curate a list of readings and freely available online resources to support model formalization. Our goal is to create a resource for psychological scientists that makes learning about formal modeling less intimidating and maybe even....fun?

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[HACKATHON]

## Creating a pre-registration tool for human neuroimaging studies (M/EEG, fMRI)

**Session leads:** Johannes Algermissen, David Mehler, Stephan Heunis, Remi Gau

**Length:** 3 hours.

**Pre-requisites:** Experience with either fMRI, M/EEG, and/or pre-registration of projects more generally is of advantage. Enthusiasm is the most important feature to bring!

**Abstract:** This hackathon focuses on preregistration for studies with neuroimaging data, such as EEG, MEG, and/or fMRI. We will start with a brief guided discussion of what the neuroimaging community needs for effective preregistration (tools, templates, guidelines, understanding). We will then create one or several outcomes (potentially in subgroups). This can for example be a pre-registration template such as the ones available at OSF, or a more concentrated checklist that focuses on particular pitfalls that can occur in pre-registration for neuroimaging studies (i.e., insufficiently constrained researcher degrees of freedom). We welcome participants with various backgrounds and levels of expertise, and look forward to stimulating input!

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[HACKATHON]

## Teaching research methods, statistics, and open science to high school and undergraduate students through video games

**Session leads:** Crystal N. Steltenpohl, Katie Daniels

**Length:** 3 hours.

**Pre-requisites:** None

**Abstract:** Help us design a video game! An interdisciplinary team is designing an open access video game to teach high school and undergraduate students about research methods, statistics, and open science. Our ultimate goals are to create a game and evaluates student learning in line with guidelines created by the American Psychological Association (for high school and undergraduate curricula) and the Society for Community Research and Action (specifically around foundational principles and research). Participants will play a 10-15 minute demo of the game and provide feedback on what has been created so far, and are invited to review the guidelines and discuss other areas that will be important to cover.

[HACKATHON]

## Making open psychological datasets more accessible and useful for research and teaching

**Session leads:** Cameron Brick

**Length:** 1.5 hours.

**Pre-requisites:** Laptops recommend.

**Abstract:** Secondary analysis of large, open datasets can improve replicability and reproducibility over small new studies, e.g., through accessibility, high power, generalizability, and validated measures. Between-subjects moderation designs particularly lack power. However, these resources are underused in research and education. Student research often has low inference quality, and educators may lack access to use these tools for pedagogy. I present an index of 80 datasets and some meta-data (constructs, years, location, etc.). Attendees will improve the

index and its accessibility. Groups may: develop a metadata structure; create metadata; build handouts to help teachers integrate activities and assessments; develop resources to help students at all levels do primary exploratory or confirmatory research; plan strategies to share the resources; or make other contributions. [tinyurl.com/sips2019brick](https://tinyurl.com/sips2019brick) <https://osf.io/dh25g/>

#### [HACKATHON]

## Building an open science knowledge base

**Session leads:** Felix Henninger, Luisa Horsten

**Length:** 3 hours.

**Pre-requisites:** None

**Abstract:** Adopting more open and transparent scientific practices can be challenging, and while the community has developed numerous excellent resources to educate and empower researchers, these are not always as well known as they deserve to be. In this hackathon, we would like to increase the visibility and accessibility of open science knowledge by collecting and curating existing materials on <https://how-to-open.science>, an open, community-driven, annotated collection of FAQs and practical resources. We invite all participants, regardless of their level of expertise, to contribute questions and pointers around the difficulties they have encountered and the resources they have found helpful themselves. Together, we hope to reduce common hurdles and make the transition into open science easier for everyone.

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