Pre-Project checklist

- have GitHub account and ensure Git installed on local computer
- have ORCID account
- have OSF account
- "R" is installed
- "RStudio" is installed
- have Zotero account
- Zotero desktop app installed
- Zotero browser connector installed

PROJECT SETUP

RStudio/ GitHub

- create GitHub repository for the project (can optionally be private for now)
- [OPTIONAL] can use "workflow" package to facilitate following 3 steps
- create new RStudio project, enabling version control by connecting to GitHub repo
  - enable 'renv' option to facilitate package management
- set up appropriate directory structure (can automate this with R script)
- intialize a _README.md file for root- and each sub-directory (can be fleshed out later)

OSF

- create new OSF project (or component on existing project) for managing this project, materials and for serving as a central "hub" for all project components (e.g. github, google drive etc...)
- bookmark the project website in your browser
- include all collaborators as contributors, order names appropriately, tailor their permissions
- provide useful keywords/tags to enhance discoverability
- edit the "metadata" entries appropriately
- include an informative project description on home Wiki page
- use another Wiki page to provide estimated project timeline
- this OSF project can be linked to pre-registration when it is submitted (see below)
- [OPTIONAL] create component for any administrative materials (restricted permissions)
- [OPTIONAL] connect GitHub repo to OSF project using "add-on" option on OSF

Zotero

- create a Zotero library (or shared group library if collaborating)
  - ** store attachments (PDFs) on LOCAL or OneDrive (not on Zotero cloud)

- initiate a Data Management Plan (see https://assistant.portagenetwork.ca)

PREREGISTRATION

Part I: Preparation

- lots of reading to formulate rough ideas / questions / hypotheses
- devise preliminary study / experimental design (see next step)

Part II: Analysis to inform pre-registration [OPTIONAL]

- create annoated R Markdown script that walks through the process of generating simulated data for the purpose of working out the study design and analysis plan
- can use data from previous research to inform data generation
- prospective power analysis to inform study design
- finalized analysis plan, with example code for simulated data, can be linked in pre-registration (either through GitHub, or via HTML or PDF file)

Part III: Submission

- complete & submit OSF pre-registration & optionally link to OSF project
  - optionally include knitted document showing power analysis etc...
- the pre-registration can be kept private for a time period, and this is recommended if you wish to retain anonymity during review process; you can create an anonymized link to the pre-registration for use during review process
- bookmark the registration in your browser (it will have a DOI)

- finalize data management plan and store in OSF project

ANALYSIS / WRITING

RStudio/ GitHub

- regular versioning (push/pull) of coding work to GitHub
- ensure that only non-sensitive data and those with acceptable license get stored on GitHub
- any sensitive data only store locally, backed up on private OSF component
- beware of storage limitations on GitHub & OSF
- keep the "renv" lock file up to date for package management

[OPTIONAL]

- R Markdown + "trackdown" package for collaborative writing via google docs
  - using citation tools within RStudio (e.g. Zotero within Visual editing mode)
  - versioning via push/pull to GitHub

OSF

- regular backup / versioning of binary files (e.g. Word docs)
- use Wiki pages to provide progress updates (referring to timeline Wiki)
- use other Wiki pages for any other relevant details
- use as location for backup storage of data*
- [OPTIONAL] use "check-out"/"check-in" feature for collaborating on documents
- [OPTIONAL] keep all admin materials up to date

Zotero

- keep Zotero library up to date and clean regularly

- regularly check project reproducibility (can ask lab-mate to help)

* Follow best practices for sensitive data

PROJECT DISSEMINATION

RStudio/ GitHub

- knit the manuscript to PDF (journal may have direct markdown submission option)
- ensure it rendered correctly, including symbols, figures, formatting, citations etc..
- create _DATA-DICTIONARY.md file for both rawdata and outdata directories and ensure _README.md files in root and rawdata directories correct

OSF

- create new OSF private project that will eventually serve as the project archive
- add all the relevant information as described in "Project Setup"
  - metadata, wiki pages, etc... (but don't put info in wiki pages that could be used to identify authors)
- copy all directories and files (excluding any sensitive data) from local RStudio project folder (repo) into a SINGLE folder on the main OSF project storage (this makes it easier for someone to download materials)
- in settings, create a "view only" link, and select option to anonymize
  - this link is what you'll provide with manuscript submission to journal and in preprint
- use different browser to double-check anonymity of OSF project

- double-check project reproducibility from OSF materials (can ask lab-mate to help)

Submission

- be sure to state that the study was pre-registered, and provide anonymized link
- explain any deviations from pre-registered plans

[OPTIONAL] submit PREPRINT to a preprint server like EcoEvoRxiv or OSF Preprints
NOTE: this will preclude anonymity during review process

- submit manuscript preferably to OPEN ACCESS journal (but if not, simply ensure the journal you submit to allows posting of a non-copy edited version)

Revisions

- complete revisions using versioning as usual
- update all project materials accordingly

PAPER ACCEPTED!

- include the DOI for the OSF archive (next step) in the final submission!

PROJECT ARCHIVING

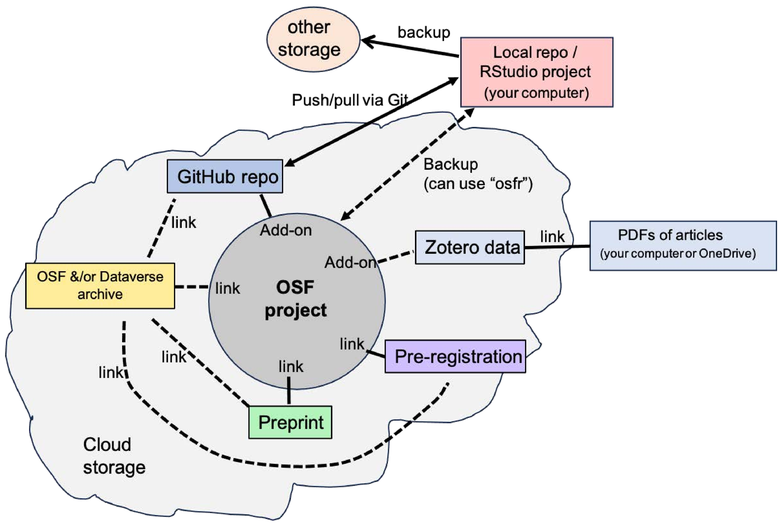
OSF

- make the OSF archive project public
- note it will create a permanent DOI for this archive
- choose appropriate copyright license
- ensure contributor (author) order on the archive is appropriate for the work done on the archived materials, e.g. scripts / data (not the main manuscript itself)
- include a clear statement illustrating how the archive should be cited
  NOTE: this archive should have its own unique citation (separate from main paper)
- ensure all the metadata are complete
- explain any sensitive data issues
- include link to published paper
- include link to GitHub repo
- ensure all components are view/read only
- maximize discoverability with useful tags
- can use home Wiki page as the landing page, and enrich the content (e.g. link to video abstract, photos, etc...)
- can use OSF analytics to track site visits and downloads
- can "link" this archive to the original OSF project
- optionally link the Zotero library to the archive
- provide a link to the public Zotero library associated with paper
- bookmark this archive in your browser

Borealis Dataverse [OPTIONAL]

- additionally create a dataverse archive through your institution
- alternatively, rather than archiving the project materials, simply enter the metadata and then link to the OSF archive

CLEANUP

OSF

- remove any unnecessary files/components from your OSF projects
- make sure all URL links are working
- in the home Wiki page of the hub project, put a clear statement of project status near top (e.g. indicating the project has wrapped up, with date)
- sign out of OSF and double check that only those files/components that should be publicly visible are