**Coding in Public : Workshop guide**

**9.30 – 10.00       Registration and tea/coffee/biscuits**

**10:00 – 12:00    *Session 1 – Introduction***

**What is reproducibility?**

What is the crisis in reproducibility, what might be causing it, and solutions?

**Why should I care about reproducibility?**

Impacts of the crisis on faith in researcher, on funding and publication, and on individual researcher reputations.

**Special focus on the challenges and benefits of reproducibility in social and data sciences**

How the crisis affects various disciplines and how they have responded, how the proposed solutions may/may not work well for all.

**Q&A Segment**

**Break out**

Introduce ourselves, share ideas on the topic, get comfortable in groups.

Create and/or share a github user name with others in the group.

**12:00 – 13:00    Lunch**

**13:00– 14:30     *Session 2 – Habits, communication, and documentation***

**Documenting your thinking and building habits around thinking**

Introduction GTD method, importance of scheduling, reviewing, continual testing.

Introduce urgent vs. important when prioritising/scheduling.

**Documenting your processes and communication**

Introduce formal communication plans, building habits around meetings and note taking, action items, email follow ups, etc. Specific attention paid to how this documentation helps in potential disputes later. Also introduce relevant tools.

**Dividing work and documenting contribution**

Introduce strengths and weaknesses for collaboration/apportioning tasks, being ok with not being perfect at everything, measuring and documenting contribution/effort, fair attribution.

**Q&A Segment**

**Break out**

Share about tools we’ve used or wanted to use and problems they might help with. Share about processes we use or have seen others use. Explore experiences with task distribution and communication, their experiences with attribution, working in teams or alone, and vulnerability.

Create a github repo and a new file in the repo. Invite the others in your group to join your repo.

**14:30 – 14:45          Tea/coffee (or 2.30 – 3.00)**

**14:45 – 16:15         *Session 3 – Tools, code, data, and sharing***

**Online tools and version control**

Introduce online repositories, collaborative work spaces, co-writing sites and more. Introduce version control and commenting.

**Command line and writing good code**

Introduction syntax/code and principles of writing good code, including comments, functions, variable names and more.

**Documenting and sharing data**

Introduce concepts of raw data, meta data, research-ready data, synthetic data, DOI and more. Also covers repositories, security and sharing.

**Deployment and sharing**

Introduction of jupyter notebooks and .Rmd deployments in online sites.

**Q&A Segment**

**Break out**

Participants edit one anothers’ github files, making good comment log messages. Can you get a conflict? How will you resolve it?

Open an interactive code document and work through it.

**Time permitting**

Create a DOI for your file.

Create an interactive document and save it to your repo.