Abstract
Reproducibility and replicability are at heart of science, yet increasing evidence from recent years suggests that many of the findings in psychological science are irreproducible and non-replicable in what some termed as a “replication/reproducibility crisis” and a new “credibility revolution” calling for significant changes in the way we do science, to embrace open-science practices.

Even if we adopt these changes, it would take us decades to address the crisis. I will argue that to successfully address the situation we must mass mobilize undergraduate students and leverage our courses to implement collaborative open science with real impact.

I have been trying to implement such a change in my taught social-psychology courses at the University of Hong Kong (HKU). We have concluded the 3rd semester of running a mass replication effort of impactful Judgment and Decision Making (JDM) literature classics (summary: http://mgto.org/pre-registered-replications/). Last year we completed 45 pre-registered replications (examples: https://tinyurl.com/hkureplicationexamples), and this year we pushed things further with 22 teams conducting replications of 11 new target studies, with 2 extensions for each article (https://tinyurl.com/extensionsguide). We implemented a Registered Reports format (https://tinyurl.com/RRmanuscripttemplate, and https://tinyurl.com/RRsupplementarytemplate), with pre-registrations of code analyzing simulated datasets, advanced templates for all outputs, comprehensive updated guides, Slack open communications, and open peer-review (https://tinyurl.com/peerreviewtemplate) with external reviewers from around the world (https://airtable.com/shrPPCl68LbhHrN8X), in collaboration with large-scale paid prediction markets (https://predict.replicationmarkets.com/).

This semester, we also went beyond replications and extensions, to try out new directions: 1) Students conducted open-science assessments of impactful Registered Replication Reports articles and our students’ projects from previous years (https://tinyurl.com/RRRassessment), testing, coding, and learning from others’ pre-registrations, open-science code/data sharing, and reports, 2) Students collaboratively wrote a book detailing the development of the credibility revolution (https://tinyurl.com/replicationcrisissummary2019), 3) Students designed and ran in-class experiment activities on their class-mates to gain hands-on experience with adjustment and implementation of classics for engagement in real-life.

I will briefly present the process, findings, main insights, and my own take-aways, and will review open resources we developed such as course materials, collaborative guides, and tools that can be used by all in their research labs.

~All are Welcome~