

## **Announcement of 10 New Catalyst Training Grants**

January 18, 2018 - The BITSS Catalyst Program formalizes a network of scholars working to advance the teaching, practice, and funding of transparent and reproducible social science research. Since the program's inception in 2015, we've formally recognized over 100 graduate students, academic faculty, librarians, postdocs, and research managers who are committed to driving change in scientific norms toward transparency and reproducibility. These Catalysts work at over 75 different universities and research organizations in 29 countries (on 5 continents!) and represent over 20 sub-disciplines from across the social sciences.

We're excited to announce the selection of 10 new Catalyst grants in the last round of 2017! Over the next year, 17 Catalysts will lead short courses, seminars, workshops, a working group, and develop research transparency curriculum at graduate, undergraduate, high school, and professional levels. Their projects will take place all over the world - in Burkina Faso, Colombia, Democratic Republic of the Congo, Ecuador, Germany, Italy, Ivory Coast, Japan, Mexico, the Netherlands, the U.S., and South Africa.

Interested in becoming a BITSS Catalyst? Apply for the program here.

You can find synopses of each project below. We'll post more information about individual events as the projects move forward. Stay tuned!

### **Catalyst Training Projects**

#### PhD Toolkit on Transparent, Open, and Reproducible Research

Catalyst: Ada Gonzalez-Torres (European University Institute, UC Berkeley)

Location: European University Institute (EUI), Italy

This project will train PhD students in Economics, Political Science, and other empirical social sciences in methods for transparent, open and reproducible research. There is no course offering such training at the EUI currently and this project will provide an opportunity for PhD students to develop an essential toolkit on research transparency and reproducibility. Topics will include pre-registration and pre-analysis plans and, ethical issues regarding the protection of human subjects in experimental work, data de-identification, data mining, fishing, p-hacking, selective reporting outcomes and multiple inference correction, meta-analysis, and reproducible workflows.

### Policy Researcher Reproducibility and Transparency in Colombia

Catalysts: Aleksandr Michuda & Oscar Barriga Cabanillas (UC Davis)

Location: Bogotá and Cartagena, Colombia

Colombian law dictates that information or data gathered during public policy evaluations, after being anonymized, must be publicly available. However, this is usually not the case in practice. Methods exist to rectify this situation, but there is low adoption of these methods. This project involves two workshops in Bogotá and Cartagena targeted at policymakers, a consultancy firm that works with the government, and graduate students, focusing on methods and tools to make their work more transparent and easier to reproduce. The training will help them develop smoother workflows, as well as foster more transparency within their organizations and with their citizenry.

<sup>&</sup>lt;sup>1</sup> Proposals were reviewed by a Review Committee of research transparency experts from diverse fields, including two external reviewers and two internal BITSS reviewers with experience developing curricula and delivering training.

# A University Goes Open - An Interdisciplinary Open Science Curriculum for all Graduate Schools

Catalyst: Felix Schönbrodt (Ludwig-Maximilians University, Munich)

Location: Ludwig-Maximilians University, Munich, Germany

This project will create reusable course materials for open science and reproducibility topics in a modular structure. The basic material will be the same across disciplines. However, discipline-specific add-ons are planned with specific reading lists and homework assignments. A key part of the project is to use existing infrastructures at the host university, such as the LMU Graduate Center and the LMU Open Science Center, to disseminate and promote the material to over 3,000 PhD students and the program coordinators of more than 30 graduate programs at Germany's largest university.

### Transparency in Economic Research - An Opportunity for Ecuador

Catalyst: Jan Höffler (University of Göttingen)
Location: Universidad de Cuenca, Ecuador

The project will expose bachelors and masters students to open science, a topic that has not yet been included in curricula at Universidad de Cuenca. With small practical tasks, participants will be guided through a hands-on experience of how to make empirical research transparent, why it is so important, the frustration that accompanies engaging with non-transparent research, the challenges involved in making one's own research transparent, how manageable it can be when following established guidelines, and the rewards of conducting reproducible research. Course materials in Spanish as well as data from Latin America about the transparency of empirical literature will be made available to the general public through the Open Science Framework and the ReplicationWiki.

### Incorporating Reproducibility and Transparency in an Undergraduate Economics Course

Catalyst: Jeffrey Naecker (Wesleyan University)

Location: Wesleyan University, United States

This project will develop lectures and hands-on materials to teach key reproducibility, replication, and transparency concepts for an undergraduate economics audience. The goal is to translate existing BITSS materials for students who have no research experience, setting the stage for them to develop good research habits as early as possible. The output will include 4.5 hours of lecture materials and three problem sets/lab activities. Materials will be field-tested in the Catalyst's experimental economics course and made available online.

# Introducing Transparency, Reproducibility and Open Science Research in South Africa, Ivory Coast and Burkina Faso

Catalysts: Nochi Faha Dief Reagen (University of Yaoundé II Soa, University of Rennes), Idrissa Ouedraogo (Pan African University-African Union), & Tafadzwa Maramura (North-West University) Locations: Félix Houphouët-Boigny University, Ivory Coast; University of Ouaga II, Burkina Faso;

North-West University, South Africa

This training aims to contribute to empowering the next generation of African researchers with the appropriate tools to conduct transparent research. The Catalysts will introduce the concepts of transparency, reproducibility, and Open science at three universities in Sub-Saharan Africa. Topics will include pre-registration and pre-analysis plans, data sharing, code sharing, replication, and dynamic documents. The audience will consists of graduate students, faculty, and researchers in Economics, Political Science, and Public Policy.

# Improving Reproducibility and Transparency Practices in Public Health Research in Mexico: A Working Group and Short Course

Catalysts: Sergio Bautista, <u>Nerissa Nance</u>, Gina La Hera Fuentes, & Lily Alexander (Instituto Nacional de Salud Pública (INSP))

Location: Instituto Nacional de Salud Pública (INSP), Mexico

The Catalysts will develop and improve institutional infrastructure and support for transparency and reproducibility in research at the National Institute of Public Health (INSP) in Mexico. They will refine a Standard Operating Procedures document, develop modular coursework for MSc students, develop a website for materials that will allow further dissemination throughout INSP, and conduct an introductory two-day training for all interested INSP staff.

# AP Psychology Workshop: Embedding Transparent Practices in Psychological Research for High School Students

Catalyst: <a href="Shane McCarty">Shane McCarty</a> (Cor Foundation)

Location: Cor Foundation, Yorktown High School, United States

As non-traditional researchers, high school students represent a potential Trojan horse for changing scientific practices and norms. This 4-week project-based learning course aims to complement the existing Advanced Placement (AP) psychology curriculum for high school students, which does not currently include openness or transparency in research. The Catalyst will collaborate with an AP Psychology teacher or PhD student to train over 125 Yorktown High School students to conduct their own psychological experiments using transparent, open, and reproducible research practices, applying the scientific method to answer research questions regarding student character development and school climate, using the OSF for pre-registration, collaboration, and data sharing.

#### Practical Tools for an Open Science Project, from Literature Review to Accessible Publication

Catalysts: <u>Sho Tsuji</u> (University of Pennsylvania) & <u>Christina Bergmann</u> (Max Planck Institutes)

Location: Japan, Germany, Netherlands

This project will develop a modularized, intensive workshop that takes undergraduate and graduate students in cognitive science, experimental psychology, and linguistics through a full research cycle (from literature search and hypothesis generation to publication) with a focus on reproducibility. The 4-day workshop will be spread over three thematic blocks: (1) Literature review and meta-analysis; (2) Experimental planning and pre-registration; and (3) Data management and accessible publication. There will also be practical sessions wherein participants will work through tailored examples. The content will be organized into 8 half-day modules, which makes the length and scope easy to adapt to shorter or more focused formats.

#### Research Transparency Workshop, Round 3

Catalyst: Zacharie Tsala Dimbuene (University of Kinshasa)

**Location:** University of Kinshasa, Université Protestante du Congo, Democratic Republic of the Congo

This workshop will familiarize social science researchers with research transparency in both teaching practices and research. Workshop activities will include (1) organizing file structures, (2) creating understandable variable labels and value codes, as well as connecting variables to survey instruments through consistent labels and codebook creation, (3) version control of code and data, and (4) creating and maintaining documentation files about surveys and data, as well as data cleaning steps. An Open Discussion will also be organized, bringing together researchers from various disciplines. Topics to be addressed include, pre-registration, pre-analysis plans, reporting guidelines, sharing data and code, and other practices (e.g., Open Science Framework) that enable reproducible research.