



# **INSTITUTE for REPLICATION**

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# Institute for Replication (I4R): Launch January 2022

## – Main objectives:

» Reproduce and replicate studies published in leading journals

- Multidisciplinary: Economics, finance, political sciences, and more disciplines later on

» Establish an open access website (<https://i4replication.org/>) to serve as a central repository containing all replications, answers from original authors and documentation

# Taking Stock

- **Replications in the social sciences:**
  - Very small number of (individual) replications published in leading journals
    - » About 20 publications per year in economics (ref. Replication Network)
    - » Focus on experimental studies (Open Science Framework and Camerer et al., 2016 and 2018)
- **Why such a small number of replications?**
  - Lack of incentives; Harmful for career?
- **Bad equilibrium and lack of norms/guidelines**
  - Only “negative” replications are disseminated

# Definitions

- **Conceptual reproducibility (same code/data):**
  - Ability to duplicate the results of a prior study using the same data and procedures as were used by the original investigator.
- **Robustness replicability (sensitivity analysis):**
  - Ability to duplicate the results of a prior study using the same data but different procedures as were used by the original investigator.
- **Recoding replicability (recoding):**
  - Ability to duplicate the results of a prior study through recoding the study using the raw or intermediate data.
- **Other types:**
  - **Direct (e.g., lab experiment)**
  - **Conceptual replication (new data and code)**

# I4R's Strategies for Generating Replications

- Identify studies to be replicated
  - » Empirical studies published in selected leading journals
  - » Check if data and codes available
  - » Check if data can be accessed and by whom
  - » Then reproduce the results (or done by data editor)
- (1) **Editorial board selects replicators**
  - » Invitation to replicators sent by email
    - Similar to requesting referee reports
  - » Choice of replicators is based on knowledge of the literature and data, but also data access in some cases

# I4R's Strategies for Generating Replications

## – (2) Replication Games

» First games in Oslo, Oct. 27<sup>th</sup>

- About 70 participants (25 virtually attending)

» Team of 3-5 researchers with similar interests

- At least one professor per team
- Assign study to replicate one month before Games
- Replication during/after Games: robustness or recoding

• List of upcoming events: <https://i4replication.org/games.html>

- Toronto (Feb 22), Nottingham (March), Ottawa (May 5th), Melbourne (June 2nd), Montreal (July), WEAI-San Diego (July), Norwich (July), etc.

# Replicators

- **Anonymous if wanted**
- **No incentives to show that the results do not replicate**
  - Positive and negative replications are disseminated
- **Conflict of interest**
  - Cannot be colleague, recent collaborator, friend, etc.
- **They choose “how” to replicate**
  - Different design / research question requires different specification check
    - » Identification of coding errors could lead to different checks
  - But general guidelines (with examples of specification checks) will be provided to the replicators
  - Pre-analysis plan required

# Role of the replicators

- **(1) Assessment of reproducibility**
  - Running the code and uncovering coding errors
- **(2) Sensitivity analysis and improvement to the analysis**
  - For instance, adding control variables or changing inference method
- **(3) More involved changes to the analysis**
  - For instance, adding to the sample
- **(4) Providing the institute with a short report**
  - Similar to a referee report (part A to be sent to original authors and part B to the institute)



# Which Studies Are replicated?

- **Start with journals that have a data editor:**
  - Selected top economics and political science journals
  - List here: <https://i4replication.org/reports.html>
- **Only going forward (studies published in 2022-23)**
- **Expand selection of journals**
  - Other general interest journals and other disciplines (e.g., Demography)
    - » Decision will be based on whether we can get enough help to reproduce studies in these journals

# Publishing Replications

- **Special issues dedicated to replications:**
  - Canadian Journal of Economics
  - Economic Inquiry
- **Journals with replication section**
  - Journal of Political Economy: Micro, World Development Perspectives, Spatial Economic Analysis, etc.
- **Survey of editors and more information:**
  - <https://i4replication.org/publishing.html>

Discipline	Journal	Editor	Q1 - Code	Q2 - Code	Long Answer
Economics	Journal of Economics	John Doe	Yes	No	In fact, this journal does not regularly publish commentary about prior publications... <a href="#">Read more</a>

## As of now...

- **About 1,000 reproductions internally or by data editors**
- **About 80 ongoing or completed replications**
  - Completed replications to be disseminated through our discussion paper series with response from original authors: <https://i4replication.org/reports.html>
- **Funding to attend some of the Replication Games**
  - Ottawa: hotel for students, flight/hotel for faculty working on environment/energy
  - Norwich: only in-person. Funding for hotel for 20 participants (first come first serve)
  - No need for funding to organize replication games. Contact us!

# How Can you Contribute?

- **This is your Institute! Help us make our discipline more open and credible!**
- **Editors:**
  - Contact us if you want to put together a special issue, section, or data and codes policy
- **Researchers:**
  - Contact us if you'd like to replicate a study
  - Or participate in Replication Games
  - Or if you have already replicated a study and want to disseminate it



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