A course in programming and conducting economic experiments with oTree

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Description

The course provides participants with essential tools for setting up economic experiments on a web platform developed in the oTree environment. The experiments can be conducted both in a controlled laboratory environment and remotely via the Web.

The course provides an introduction to the oTree software for designing and conducting online experiments. Participants will be guided in the experiment's management, from the planning phase to the data collection and management phase.

The approach includes a short introduction to online experiment programming followed by the study of paradigmatic experimental situations.

Contents

The course consists of 6 interdependent modules, described below. In each module, practical examples will be provided, and participants will be asked to experience the experimental situations firsthand.

1) Programming and management of experiments in oTree

- Management of computerized economic experiments
- Software for programming and conducting experiments
2) Fundamental components of an experiment

- Design an experiment
  - Repetitions, matching, roles, values
- One-shot and repeated experiments in oTree
- Matching in oTree
- Roles and values

3) Questionnaires and individual decision making

- Different families of input
- User interface
  - Radio, button, slider, table ...
- Implementing a questionnaire
- Implementatin an individual decision-making scheme with monetary incentives

4) Strategic interaction

- Development of a strategic interaction scheme
  - Voluntary contribution game, repeated and one shot, with different forms of grouping
  - Development of controlled manipulation
- Use of Live pages for real-time interactions

5) Graphical elements and online implementation

- JavaScript elements for defining the user interface
- Presentation of the software for an online experiment
- Implementation of the experiment in live mode on Prolific
  - Illustration of the steps for conducting the experiment
- Data collection and data organization through R Markdown

6) Participants' projects
Implementation of the participants' projects
- The code will be shared with the teacher and uploaded to a private server
- Course participants will take part in the experiments of the other participants

**Objectives**

The aim of the course is to provide the tools to manage a simple experiment, from the design phase to the data collection and organization phase using the oTree software.

**Teaching methods**

The teaching will take place through online lectures and interactive simulations of experiments.

The lectures take place on the Cisco Webex Meetings platform.

Details about the course and teaching material can be found on the course's Moodle platform [https://elearning.unito.it/scuolacle/course/view.php?id=2095](https://elearning.unito.it/scuolacle/course/view.php?id=2095).

Teaching material will be made available before each lecture on the Moodle platform. Participants will be asked to develop the oTree code of an experimental project. Participants will be provided with support for the online implementation of their experimental project.

**Calendar**

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<tr>
<th>Lecture</th>
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<th>Time</th>
<th>Platform</th>
<th>Topic</th>
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<td>1</td>
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