

Instruction

This file provides a brief instruction regarding how to run a simulation using the model. For the information about the model, see “A Model of Citizen as Motivated Reasoner: Modeling the 2000 Presidential Election” (Kim, Taber, and Lodge, 2010, Political Behavior) and “John Q. Public: A Model of Political Judgment and Agent-based Simulation of Candidate Evaluation” (Kim, 2011, JASSS).

1. Files and Directories

'jqp-cand-eval.zip' contains the following files and directories.

- jqp.cl: essential mechanisms of the model, John Q. Public (JQP).
- jqp-lib.cl: additional libraries and utilities to run a simulation, get output, and so forth
- setup.cl: basic setup for a simulation including the data used to build initial knowledge structure and campaign statements to be processed.
- jqp-voter-model.cl: it defines knowledge structure, parameters, and so forth.
- jqp-voting.dxl: a compiled executable that includes all necessary libraries to run JQP. It includes all libraries in ACT-R, 'jqp.cl', and 'jqp-lib.cl'.
- cand-eval-simulation.sh: a shell script to run a simulation.
- cand-eval-simulation-spec.cl: determines the number of simulations to be carried out and the parameter values used for them.
- csv-parser.cl: an open-source common lisp package for parsing.
- ACT-R: a directory that contains ACT-R (version 5)

'jasss-2011-results.zip' contains the simulation results reported in Kim (2011, JASSS).

2. Requirements

The model has been tested on Ubuntu Linux 10.04 LTS. It was written in Common Lisp using Allegro CL 8.0. Ubuntu Linux and Allegro CL 8.0 trial version are available free of charge.

3. Replication (Kim, 2011, JASSS).

- 1) Extract "jqc-cand-eval.zip" and "jasss-2011-results.zip" under a directory of your choice. It will create a directory named 'jqc' that contains all model files and a directory named 'results'.
- 2) Go to the directory 'jqc' and run the shell script, "cand-eval-simulation.sh".
 - The script will start lisp processes with 'jqc-voting.dxl' as an image and execute "cand-eval-simulation-spec.cl".
 - Make sure to put the correct path name to the Allegro CL executable, *alisp*, in the script. The executable is in Allegro CL home directory.
- 3) The script will initiate 5 lisp processes (i.e. 5 agents), one for each of the 5 ideological groups. As soon as the simulation is done, the output file should appear in the directory where you execute the shell script. This output should be the same as those in the 'results' directory: path-to-the-directory/results/motivated-reasoning/gamma_2'.
 - The number of agents, parameter values, and the number of simulations can be changed through "cand-eval-simulation.sh" and "cand-eval-simulation-spec.cl". For more information, consult the brief explanation included in "cand-eval-simulation-spec.cl".