

Data description

The data is described in the published paper. It has been formatted for the software MPnet (Wang et al 2009), which is publicly available at <http://www.melnet.org.au/pnet> along with manuals and descriptions of the data format.

For the analyses, MPnet was however not used. Instead, a script for the programming environment for statistical analyses 'R' was developed (R Core Team 2021). The script is added as a separate file ("CodeForPublication.txt"). The published paper contains detailed information about the conducted analyses as well as the used data.

The data files include the following:

MPNetA.txt

This is the social network. A rather strict definition of collaboration based on strong reciprocal ties where two respondents nominated each other by indicating a high level ("much") of collaboration with each other was used to define a tie.

MPNetB.txt

This is the network of interconnected tasks, see published paper for further details.

MPNetX.txt

This captures the ties between actors and tasks. A link is defined when an actor indicate he/she has worked "much" with the task. This network data is used to count the number of times actors participate in the network configurations at focus for this study (Table 1 in the published paper).

MPNet_Cat_Exp/Work.txt

Here the nodal attributes EXP and WORK are included (Previous experiences and level of Professionalism). They range from 1-3 (0 indicate no response).

MPNet_Bin_EffPerProblem_All_Attr.txt

Here the weighted ties between actors and tasks are outlined (for all tasks the actors responded to in the survey regardless of how much/little the actor worked with the tasks, nor if the task was later removed from the analyses). These values were only used to summarize the average effectiveness per actor and the task effect (i.e. configurations AP and TP in Table 1). -1 indicates no response.

MPNet_Bin_EffPerProblem_Attr.txt

Here the weighted ties between actors and tasks are outlined (only for tasks the actors worked with "much", as in MPNetX.txt). This file is thus capturing the dependent variable. -1 indicate no response.

Reference

Peng Wang, Garry Robins, Philippa Pattison (2009) PNet: program for the simulation and estimation of exponential random graph models. Melbourne School of Psychological Sciences, The University of Melbourne.

R Core Team (2021). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL <https://www.R-project.org/>.