Human Subject Study on the Dynamics of Interpersonal Social Influence in Groups

part of an interdisciplinary research effort exploring the network science of teams, funded by the Army Research Office.

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The Experiment

- One of our efforts to study the network science of teams
- Team members discuss judgemental topics and note how their opinions might influence others in the team
- All conversation and discussion takes place over the internet via POGS interface
- POGS captures conversations
- Goal is to generate a model based on the dynamics of
  - Individual Opinions
  - Social Influence
  - Teammate’s Appraisal
- Potential for Human + Computer AI teams
How the Experiment Works

1. Individual gives opinion on issue
2. Team discusses issue via chat
3. New Issue Introduced
4. Individual gives opinion again
5. Individual is asked how much their teammates influenced their opinion
6. Individual is asked to assess their teammates opinions
Data Collected

**Numeric input**
on opinions, influence and appraisal

**Text communications**
chat messages among teammates

What We Do With It

**Learn from it**
- Natural Language Processing
- Opinion Dynamic Models
- Deep Neural Networks

**Generate a new model**
based on **Structural Balance Theory**
Structural Balance Theory?

Chances are you already know what SBT is.

Simply put, groups of people move toward a **state of balance** according to three rules:

A friend of a friend is a friend.
This experiment has been in place since 2019.
Now, we need your help...
Data Collected

Numeric input
on opinions, influence and appraisal

Text communications
chat messages among teammates

What YOU Will Do With It

Learn from it
- Natural Language Processing
- Opinion Dynamic Models
- Deep Neural Networks

Generate a new model
based on Structural Balance Theory
High School Apprenticeships

- Dates: mid-June - mid-August 2021
- Receive hands-on experience with science funded by the Army Research Office
- Learn to collect, manipulate, and analyze actual data
- Prepare for college and beyond
- Network and find opportunities for long-term mentorship
- Attend seminars on professional skills development
- Participate and present poster in a research symposium
- $3,000 stipend

- Must be a U.S. citizen or permanent legal resident
- Current high school juniors and seniors are eligible
- Some experience with programming and statistics
- Interest in STEM
- Required: 3.5 GPA
- 1-page statement of interest
Online application opens January 15, 2021

Application: https://www.usaeop.com/
UCSB project: https://muriteams.cs.ucsb.edu
UCSB Contact: trobinson@ucsb.edu