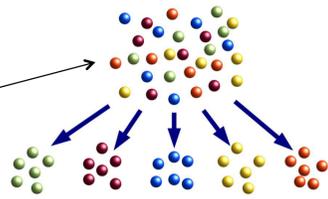
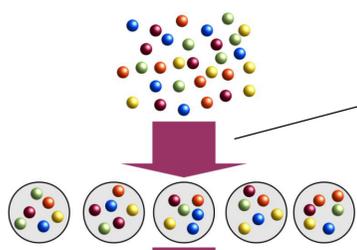


Pervasive Inference and Large-scale Impact of Social Sharing

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Crowd of Individuals

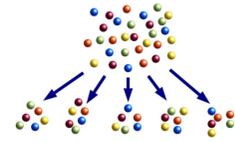


Pure Self-organization tends to create homogeneous teams

Limit self-organization conditions
To form diverse teams

Exploit Collective Intelligence

Influence data/emotional sharing



Challenge: What is the correlation between intelligence of individual teams and swarm of teams?

Exploit Swarm Intelligence

Swam of Teams

Note: The Seeker cannot enforce a structure for the team
Goes against self-organization

Innovation

- Investigation of a multi-agent self-organized system of sensing entities able to provide an accurate understanding about group dynamics (influence and consensus) based on theories that stem from social psychology.
- Go beyond individual similarities, to define intra and inter-group relations in computer science models
- Test effects of dissemination and expression of interests on individual representations of groups, dissemination of interests and promotion of social interaction.
- Study whether or not pervasive, non-intrusive technology application impacts the behavior of people (individual and crowds)

Motivation

- Self-organization interdisciplinary efforts in networking rely mostly on studies derived from biology
 - No human-centric perspective
- Emotions are key in decision making
- Common, interdisciplinary perspective on emotional/communal sharing can assist the development of truly self-organizing, human-centric models
 - Relevant to computer science, self-organization
 - Relevant to psychology, group formation

Status

- International group of interest under development
 - COPELABS as coordinator
 - Initial partner network:
 - Psychology: COPELABS, Oslo University, CIS-IUL.
 - Computer science: COPELABS, Lakeside Labs, Tecnalía, Democritus University, University of Cambridge, Universidad de Deusto.

Objectives

- To derive self-organization models from correlations between individual emotional processes, tracked via non-intrusive sensing.
- Contribute to a better understanding of representations of groups and actual group dynamics.
- To bring pervasive sensing technology to a new level, incorporating the capability to infer, via activity recognition, markers that define an emotional state (e.g. like/dislike).