DEVELOPING COLLABORATIVE GAMES

Nowadays the use of games that involve online collaboration is widespread not only for leisure but also to acquire skills and take decisions in work settings. Consequently research on collaboration and decision making in such environments is getting more important.

The game Colored Trails (CT) is a testbed for this type of research CT allows the modeling of all phenomena around collaboration and allows research on decision-making in homogeneous groups comprising only people and in heterogeneous groups consisting of people and computer systems. For more information about CT you can go to: (http://viki.eecs.harvard.edu/confluence/display/coloredtrailshome/Colored+Trails+Homepage).

Briefly, CT has a board display with squares. Figure 1 shows a version of the game but more complex versions in which board size, number and type of players (e.g. people versus agents) are possible. Each player is given a starting position and a goal position on the board. The main role of the players is to move packages (big or small) from their initial position to the Goal (in the example this is the G in the center of the board). Players may negotiate with their peers to move big packages and restrictions for moving and communicating can be manipulated.

Figure 1. Example of Board Display.

This setup allows the manipulation of numerous variables and investigation of the effects of different strategies for collaboration and decision-making mechanisms.
Our current research interest is to investigate the role of similarity in online collaboration. Research on social psychology indicates that groups formed by people that share traits such as beliefs, preferences and values tend to perform better when collaboration is required (e.g. Liviatan, Trope & Liberman, 2008). In order to explore this issue we want to play the game with four players where some players get cues that they are similar and others don’t. The goals of this project are twofold.

1. Adapt the game environment for the experimental requirements
2. Performing experiments using CT to test the hypothesis

Requirements:

1. Java programming since CT runs in a Java Environment
2. Interest in experimental research

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Duration of the Project:

TO BE DISCUSSED SINCE IT DEPENDS IF IT IS BACHELOR/MASTER

Reference: