

Wen Dong

Week 8

Review of "Affective Agents: Sustaining Motivation to Learn Through Failure and a State of 'Stuck' "

In this proposal, Rurleson noticed two strategies of working through the state of "stuck",

1. To expose difficulties gradually, step by step
2. "To use affective agents to help users develop meta-cognitive skills such as affective self awareness

For dealing with failure and frustration" (in abstract)

The authors realized that strategy 1 having its limitations and might not always work, and on the other hand, that strategy 2 was seldom emphasized. They listed 2 cases, Felix who is incrementalist (page 6, footnote), and Moira, who is trait based, and demonstrated how emotional computation improves the affective agents.

I like this approach. I also realized that "programming" the affective agents for specific tasks should involve a long period of fine tuning and interacting with kids. In "the tipping point", Macoln talked a lot about how a program of "Bule's clue" involves iterations of interacting with kids and adjusting according to kids' feed-back. Thus I guess making the system more foolproof and modularized such that the "programmers" do not need to cope with the raw signals directly might be greatly helpful.

Review of "The Design of Guided Learner-Adaptable Scaffolding in Interactive Learning Environments"

In this paper, Shari at el. brought forth the learner-adaptable scaffolding idea and incorporated it into the Model-It application (the new version is called [TheoryBuilder](#)?). It turned out to be very helpful. "Scaffolding" is defined as a support provided so that the learner can engage in activities that would otherwise be beyond their abilities (Introduction paragraph 1). "Guided learner-adaptable" means the functionalities are adjusted by the user and the decisions are made with the guidance of the software. "Adaptable" is in comparison of "adaptive". (Introduction, paragraph 3~4). There are 3 kinds of scaffolding implemented: supportive scaffolding, reflective scaffolding, and intrinsic scaffolding. Supportive scaffolding is like what we call as "context sensitive help" that pops up all the time. Reflective scaffolding is like a note book in which we write down our notes throughout different steps. "Intrinsic scaffolding" is like the novice/normal/advanced/genius modes when we play games --- user open more advance options when they get familiar with the software. The 2 user profiles are also very interesting in reflecting how scaffolding help people with different propensities.

Overall, I think this is a good example in software design.

Review of "Peer Interaction and Problem Solving"

In this paper, Margarita designed an experiment to reveal the controversial concerning whether preschoolers know learning from each other and how they learn from each other. It turned out that preschoolers do not know how to solve conflicts, but they do know how to learn from experts, and the knowledge learned is accrued in the following experiments.