



EAGER: Cyberlearning with Co-Robotic Teachable Agents

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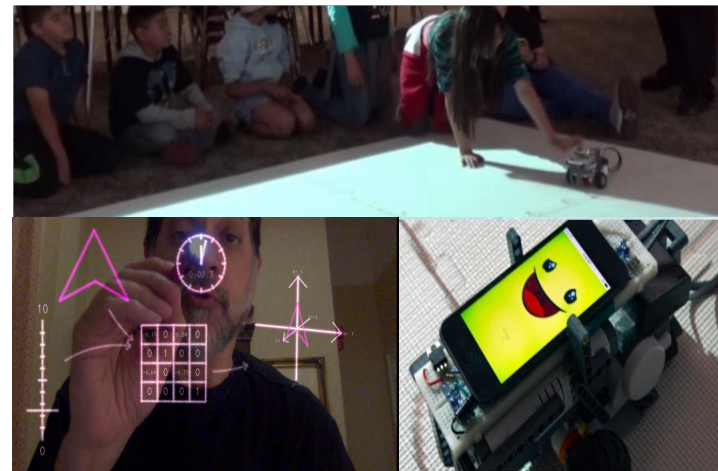
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Challenge

- Better understand how cognitive and social interactions between a student and a robotic teachable agent can improve learning outcomes, and integrate these findings into the design

Solution

- Integrates ChalkTalk and R-TAG to advance strategies for personalized affective, cognitive, and social support from co-robotic partners
- Use of Gesture based and embodied co-robot student interactions in MR environments



Figures: a) Children interacting with the robotic teachable agent in a cartesian plane b) Demonstration of ChalkTalk c) Quinn – robot sharing excitement with Learners

Scientific Impact

- We will investigate how human-robot teams engage with gesture-based interaction in MR environments, and how it can enhance personalized support to motivate student STEM problem-solving

Broader Impact

- Broaden participation in co-robotics and STEM cyberlearning through the development and evaluation of low-cost UCCRE
- Engage hundreds of minority and underserved middle school students in collaborative STEM cyberlearning activities