

SCH: INT: TAILORED: Training for Independent Living through Observant Robots and Design

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Difficulties
with everyday
tasks

Confusion in
familiar
environments

Difficulty with
words and
numbers

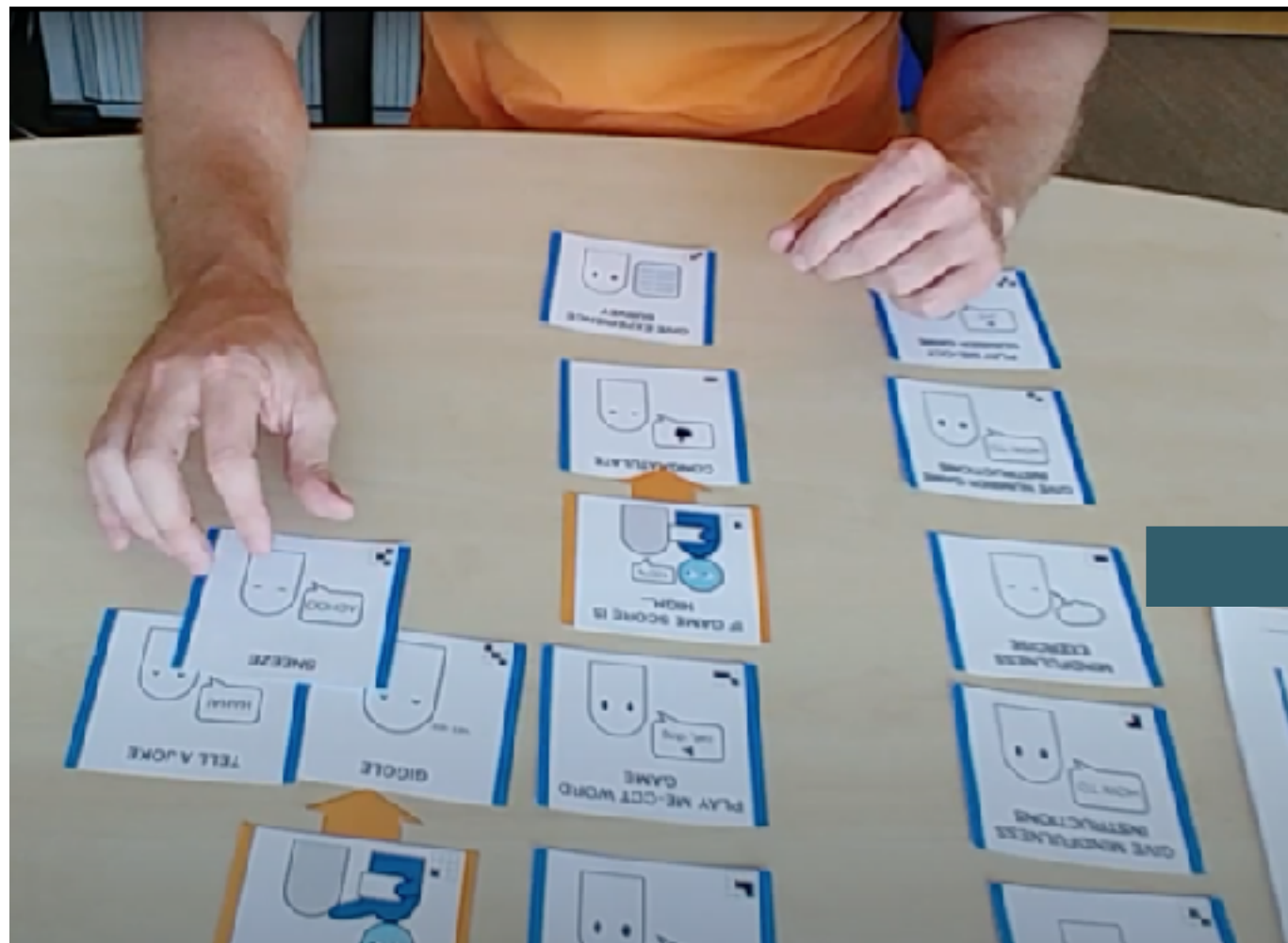
Memory
loss

Changes in
mood and
behaviour



JESSIE: Just Express Specifications, Synthesize, and Interact

Kubota, Peterson, Rajendren, Kress-Gazit, Riek. HRI 2020



$\neg \text{greetingComplete} \implies \neg \text{mindfulnessInstructions}'$
 $\neg \text{mindfulnessInstructionsComplete} \implies \neg \text{mindfulnessExercise}'$
 $\neg \text{mindfulnessExerciseComplete} \implies \neg \text{numberGameInstructions}'$
 $\neg \text{numberGameInstructionsComplete} \implies \neg \text{numberGame}'$
 $\neg \text{numberGameComplete} \implies \neg \text{wordGameInstructions}'$
 $\neg \text{wordGameInstructionsComplete} \implies \neg \text{wordGame}'$

 ROS



Clinician specifies
complex robot behaviors

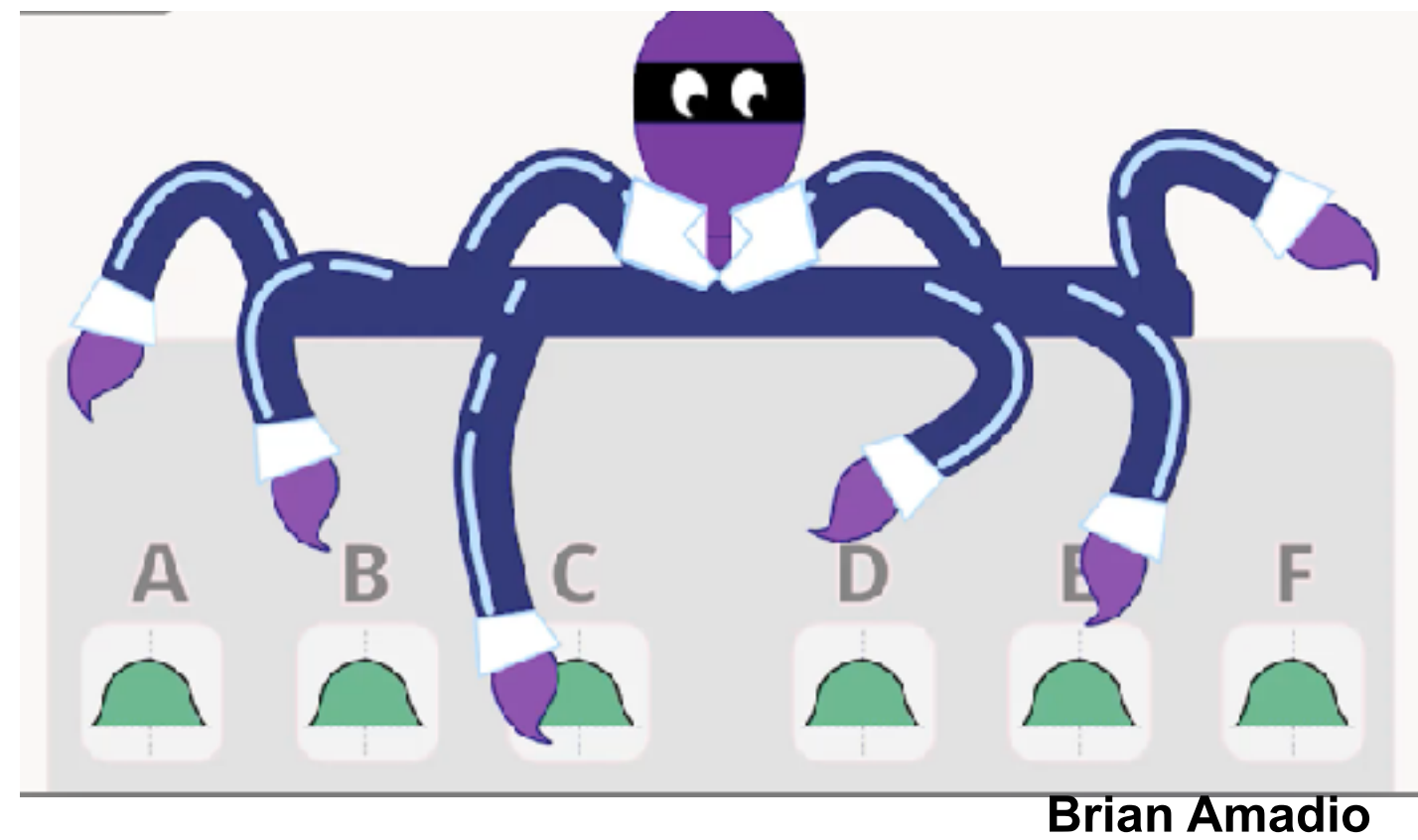
Robot controller
automatically synthesized

Robot delivers
personalized intervention

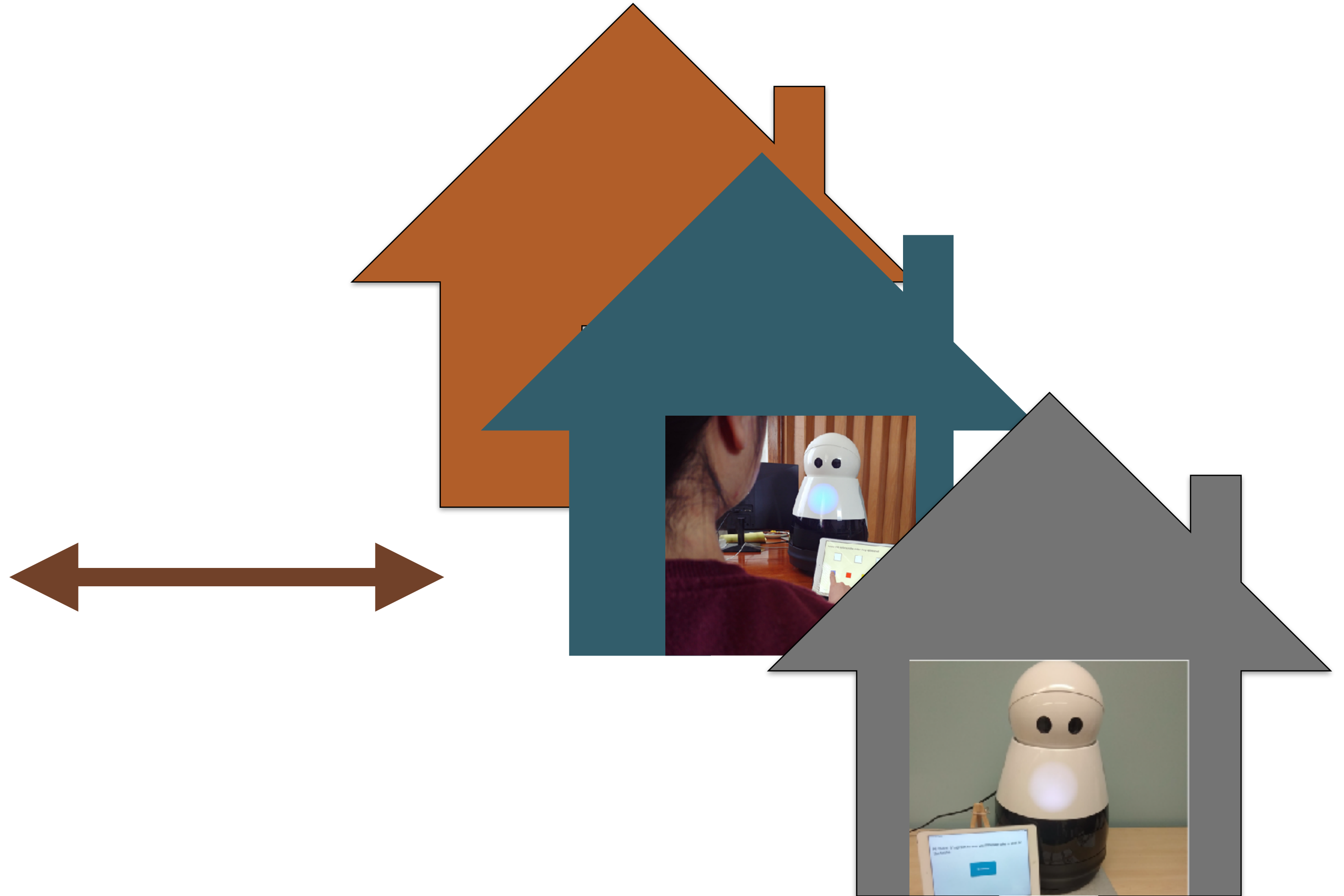
Open source, works on any ROS robot: <http://github.com/UCSD-RHC-Lab/JESSIE>

Preference Learning Across Agents

Wang., Zhang, Singh, Riek, and Chaudhuri, AISTATS 2021

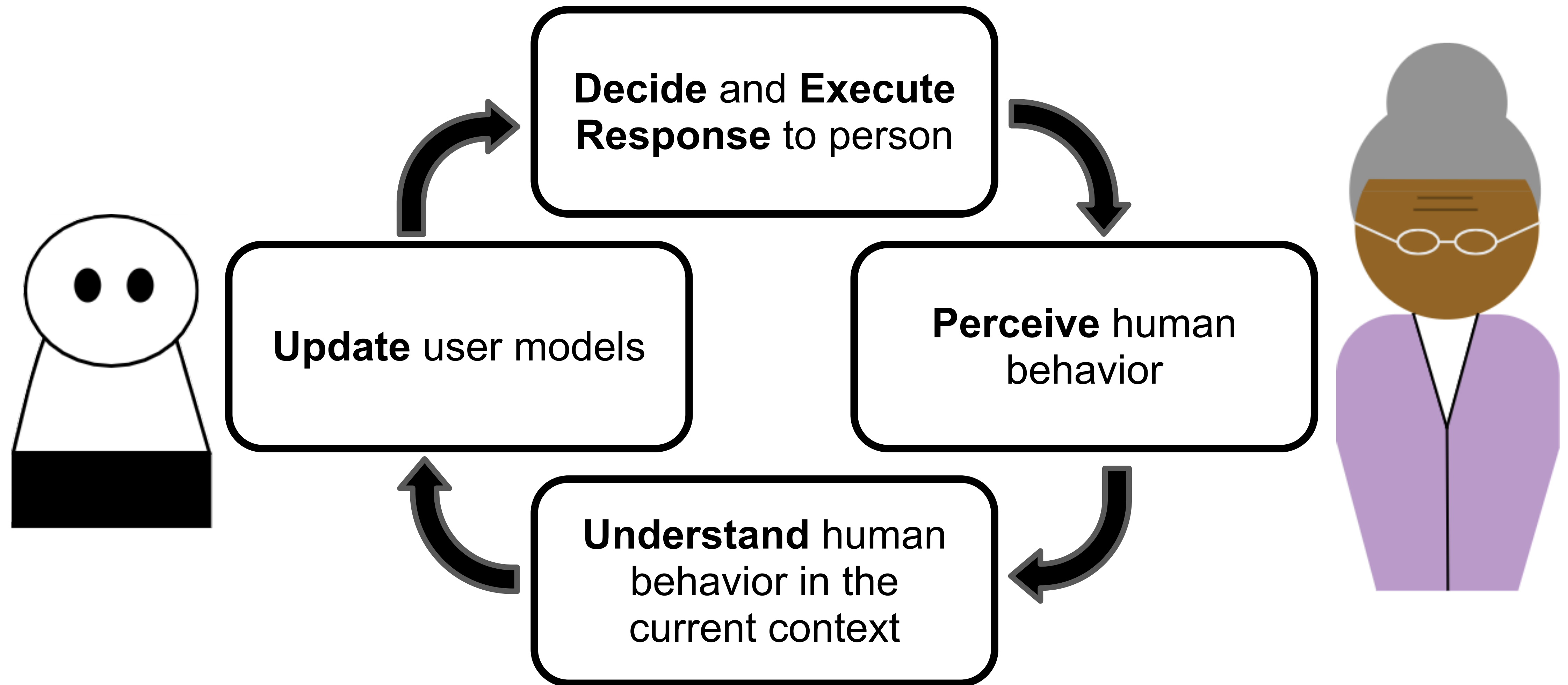


Brian Amadio



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Future Work



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