Potentially Bigger Data

ACT-R Workshop 2017 London
Beyond Experimental Data

• Three presentations
  • Me - Three Game related projects
  • Matthew - Text to knowledge
  • David - Language
• Discussion
Using Apps and Games to Evaluate Cognitive Architectures

R. West, K. Dudzik, N. Nagy, F. Karimi
Apps for ACT-R

- Games designed for testing ACT-R
- Start with models of micro strategies
- Make simple games with corresponding models
- Distribute and test
- Large groups and experts
MIT AI2
Human and Model Results

- Unknown mid ut
- Known mid ut
- Unknown pu-o start
- Known pu-o mid
- Known pu-s mid
- Known first ut
- Unknown first ut
- Unknown pu-s start

Legend:
- FK
- NN
- SGOMS
- Optimal
Using Cognitive Architectures to Explain Real Time Strategy Games

C. Peters, R. West, B. Esfandiari
Complex Games

- Blizzard has made the original Starcraft open source

- AI tournaments
  - Lots of big data used here
    - Alpha GO techniques

- AI versus human tournaments
  - Humans still win
ACT-R/SGOMS inspired agent versus ChadBot
ACT-R/SGOMS inspired agent versus ChadBot
ACT-R/SGOMS inspired agent versus ChadBot
ACT-R/SGOMS inspired agent versus ChadBot
Generating Narrative with ACT-R Agents

R. West, K. Dudzik, B. Greenspan
Rachelle Project

- Project with Digital Humanities
- Literary project
- Based on William Gibson’s novel, IDORU
- And Allan Newell’s idea to model a whole task
- Purpose - generate realistic narrative
• Rachel works in a bar

• She has realistic, expert bartender knowledge

• She also has emotions and values

• Other characters have other reasons to be in the bar

• Interaction produces narrative

• Narrative is qualitatively evaluated
Applications

- Design better Non Player Characters
- Authoring tool