Summary

Goal: Investigate which behaviors people believe are characteristic of AI or human gameplay

Findings: Difference in how perceived human and perceived AI behavior are identified

Contributions:
- Behavioural study based on the Human Navigation Turing Test (HNTT)
- Novel agent passes the HNTT
- Insights into human perception of human-like behaviour in video game navigation

Human Navigation Turing Test

Analyzed 426 responses justifying AI vs. human judgment of navigation based on behavioral study from Devlin et al.

Results

Human identifiers (top)

AI identifiers (bottom)

Fails HNTT (top)

Passes HNTT (bottom)

Conclusion

HNNT agent
Our reward-shaping agent passes HNTT

Top human identifiers
Related to human play
Smooth physical movements

Top AI identifiers
Non-related to human play
Jerky physical movement

Human perception
Assessors may have a notion of what constitutes human play but struggle to describe specific clues.
Assessors more accurately describe AI behavior.