Inferring a User's Intent on Joining or Passing by Social Groups

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Introduction

Scenario Description

Social encounters between a user and social groups of virtual agents embedded as static, free-standing, conversational groups

Requirements

- Virtual agents with an interactive capacity for an autonomous, plausible reactive and proactive behavior towards other entities
- Inferring the user's hidden intent to allow for plausible reactions of the virtual agents

Research Question

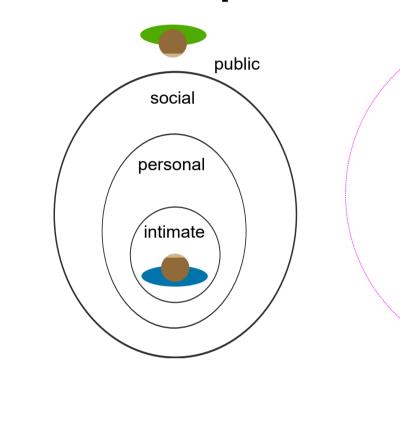
How to infer a user's decision to join or to pass by social groups, while enhancing the response of the respective agents?

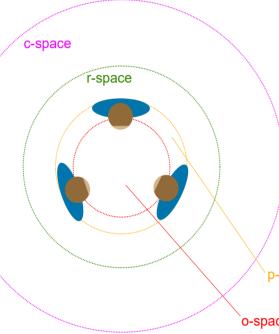
Classification Scheme

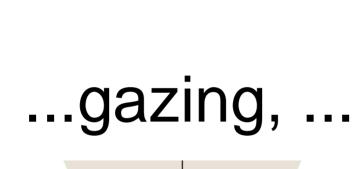
Two-stage classification scheme to ...

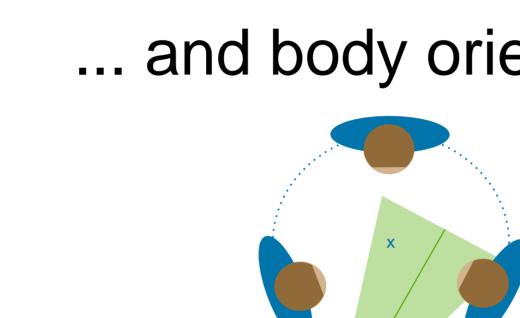
• ... infer a user's intent based on three social cues namely...



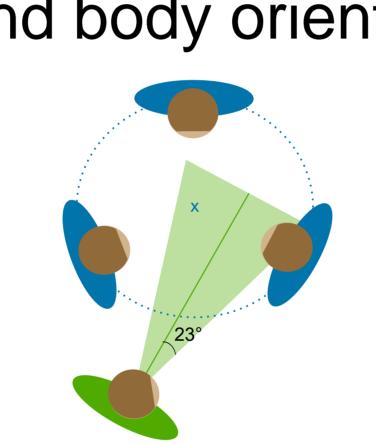




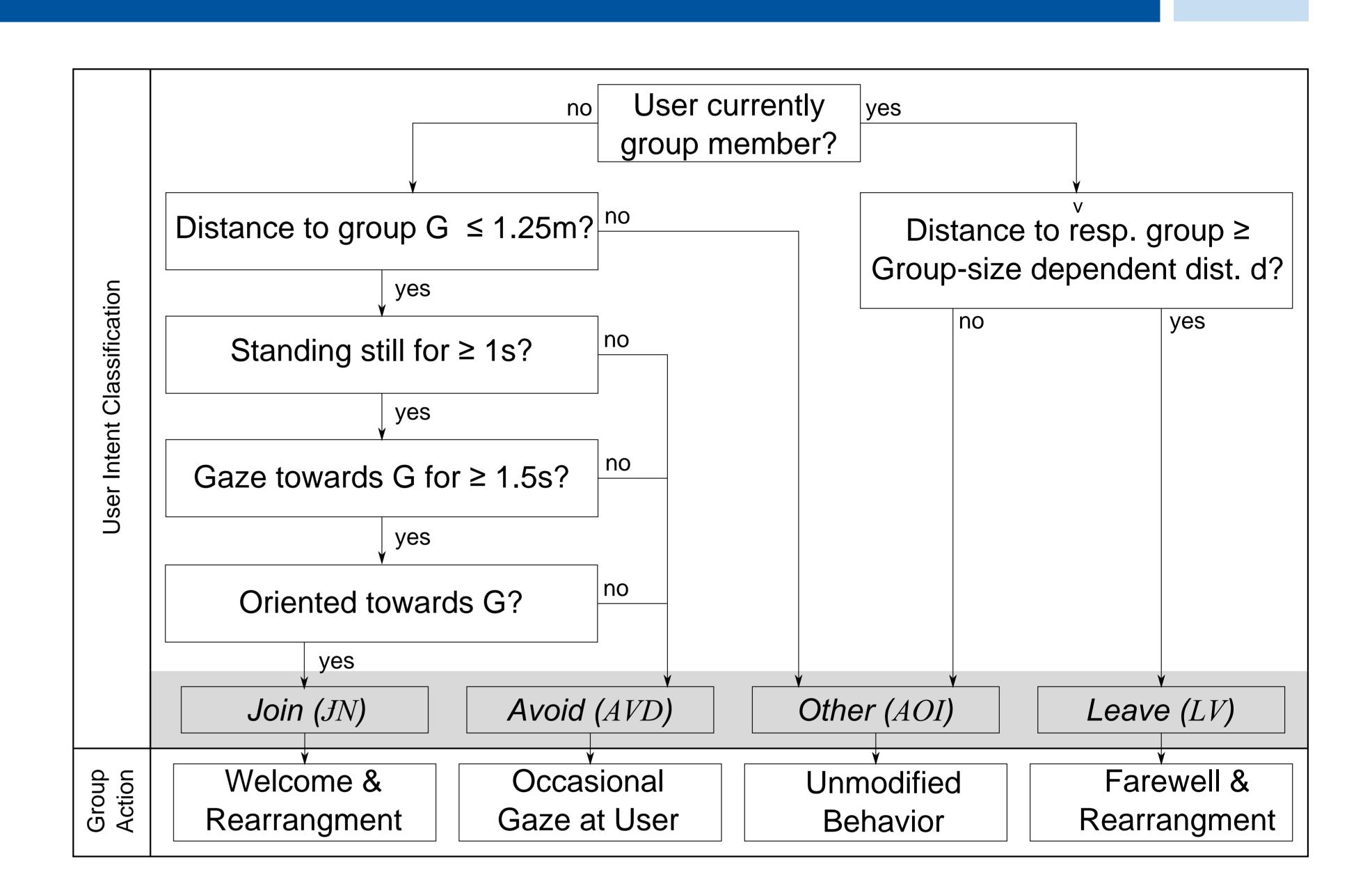




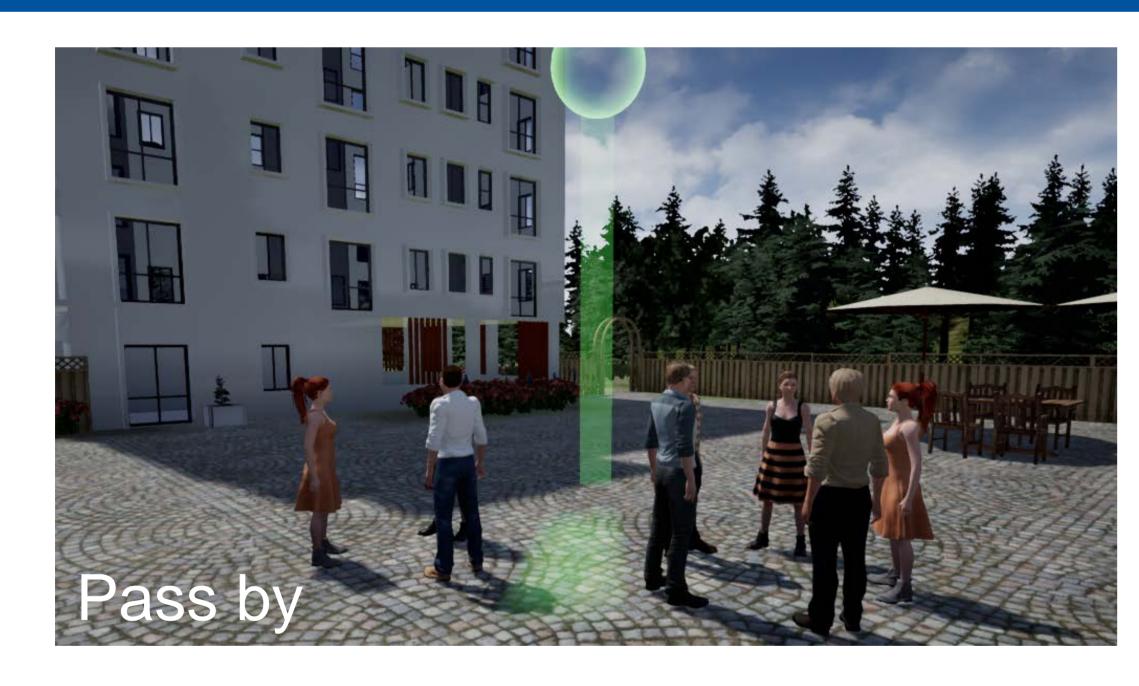
... and body orientation



• ... trigger a natural response of the group members



Pre-Evaluation with 16 Subjects







H1: The subject's intent is inferred correctly.

Intent	Subject's Intent		Classification
	Stated	Detected	Correct
Join	53	50	94.3%
Pass by	32	21	65.6%

accept for "Join"

weak accept for "Pass by"

as 8/11 pass by missmatches due to proximity constraint neglectable --> Which passing distance is still a pass by?

H2: Subjects prefer user-aware agents when joining a social group.

accept

- ~66% of subjects preferred user-aware agents over ignorant ones
- occasional user responses

inconclusive

• subjects felt comfortable

H3: Subjects prefer user-aware agents when passing by a social group.

- ~59% of subjects preferred user-aware agents over ignorant ones
- unfavorable ignorant behavior as subjects still felt to be looked at
- pass-by-distance issue resulting in identical agents' responses



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