



A Social Robot Companion for Individuals Eating Alone

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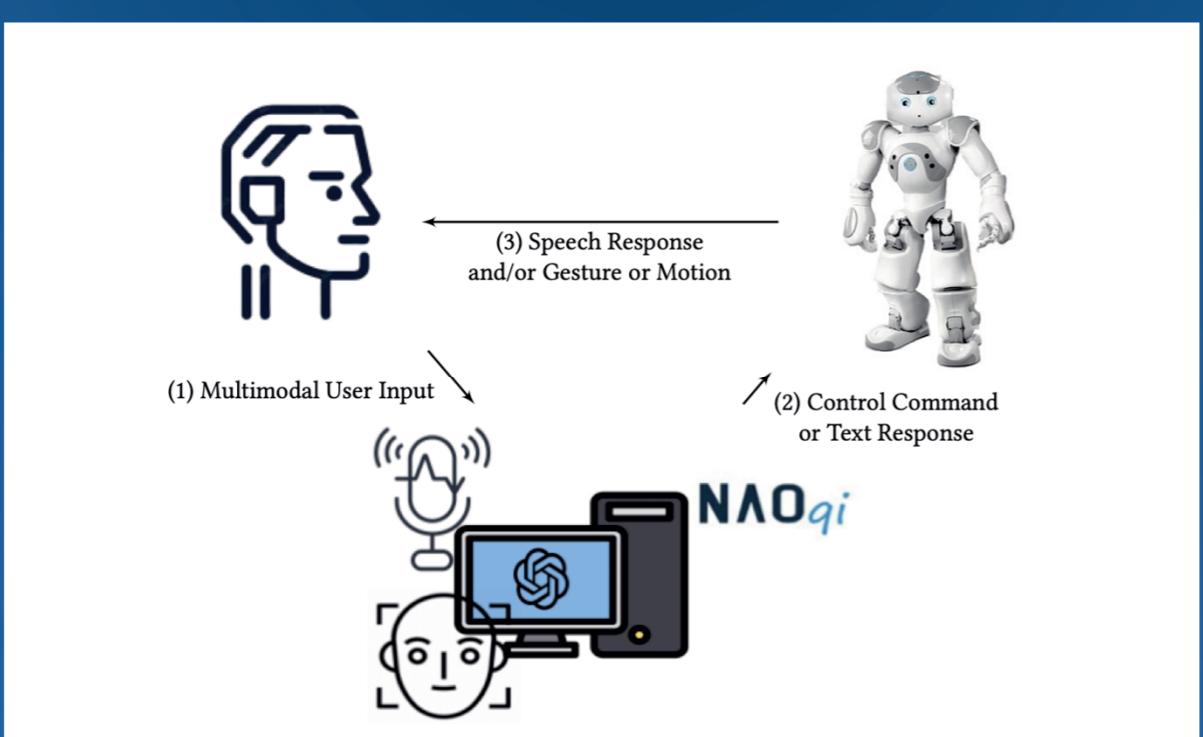
Commensality & Emerging System

Commensality:

- the act of *eating with others*
- many positive effects on mental and physical well-being
- eating alone is often related to detrimental health effects

We present a social robot acting as an artificial commensal companion (ACC) composed of:

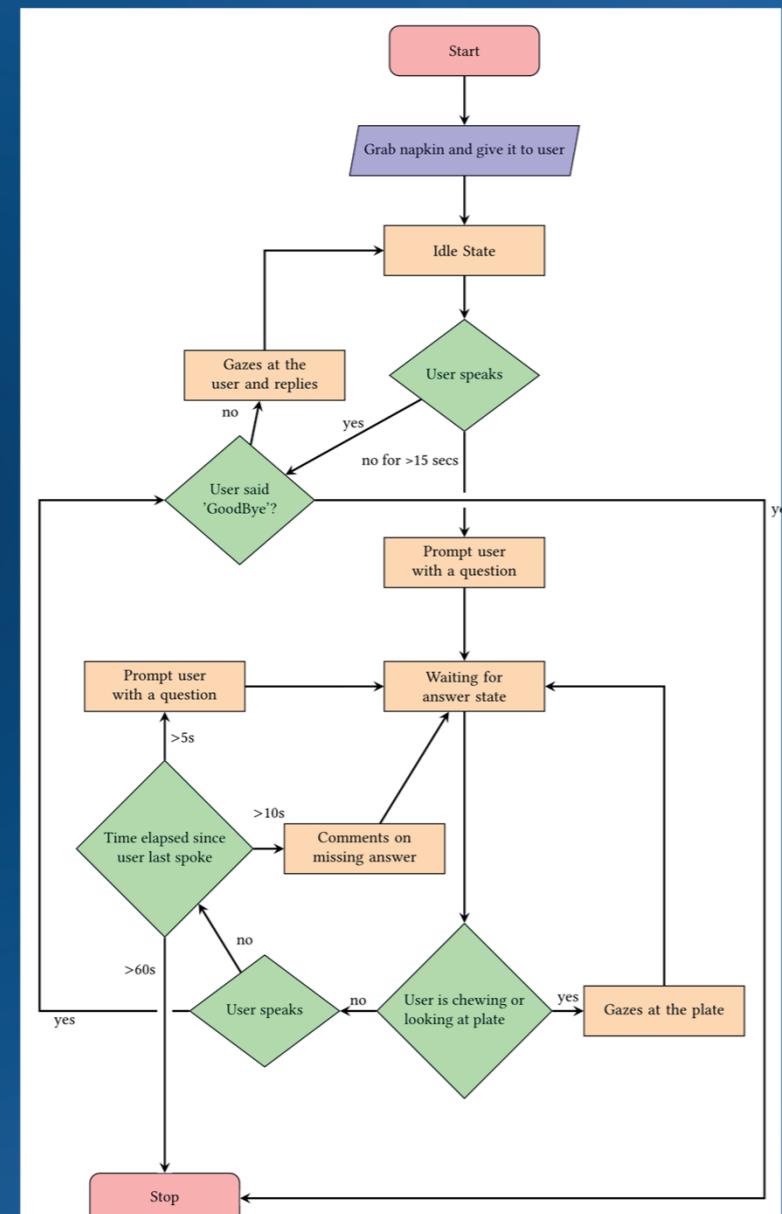
- the *NAO* robot
- dialog management based on existing LLM
- human commensal activities detection in realtime
- human speech recognition



System Design

Our ACC:

- detects human speech and nonverbal behaviors (gaze, food intake, etc.)
- initiates new conversations on various topics (e.g., preferences on food, activities, music)
- answers to human utterances
- displays appropriate nonverbal behaviors (e.g. gaze behaviors)



Experiment Flow

- Demographics
- Big-5 personality test
- General commensality



- Use of technology
- General affect
- Loneliness



Lunch with Commensal Robot



- Enjoyment of interaction
- Connectedness during conversation
- Situational affect



- Qualitative interviews



RQs 1&2

RQs 3&4



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