



Multi-Domain Transactional Dialogues

Project Proposal

Ryan Kearns & Lucas Sato
Mentor: Giovanni Campagna
7 May 2020

- 1. What is the motivation for the project?**
2. What is the state of the art?
3. What will you do?
4. What do you think you will learn at the end?
5. What will be your demo?
6. What will each of you do at each step?





Human-machine dialogues today: single-domain



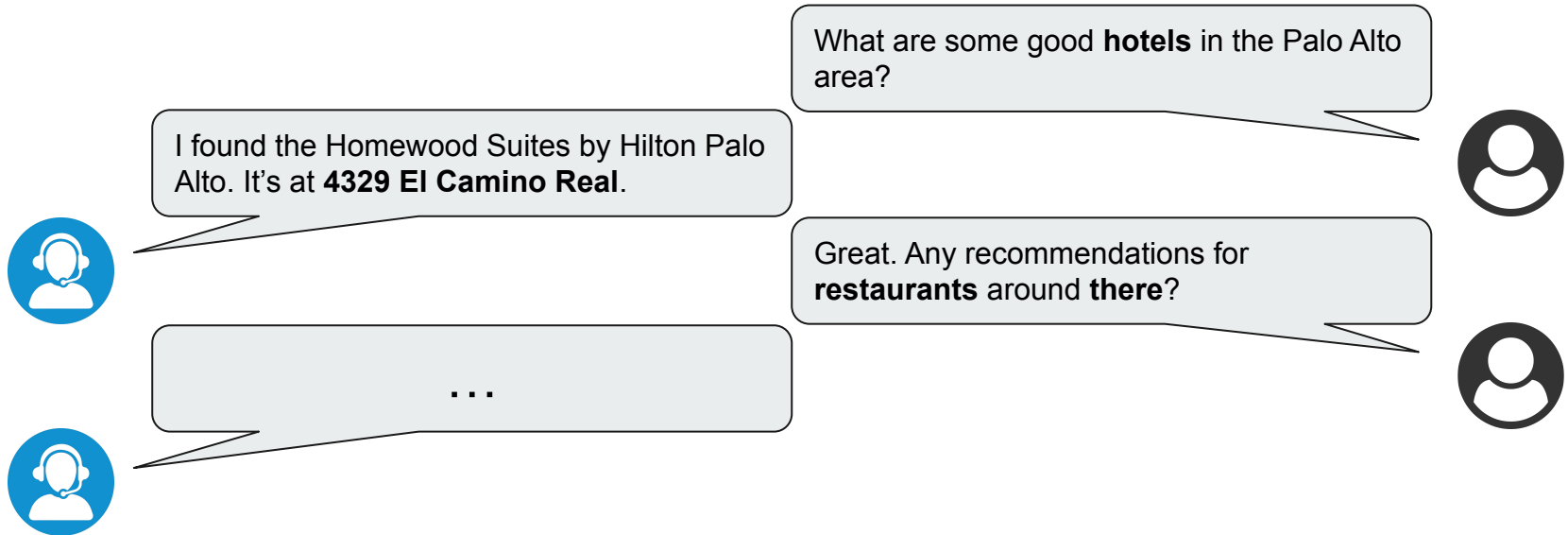
I found the Homewood Suites by Hilton Palo Alto. It's at 4329 El Camino Real.

What are some good hotels in the Palo Alto area?



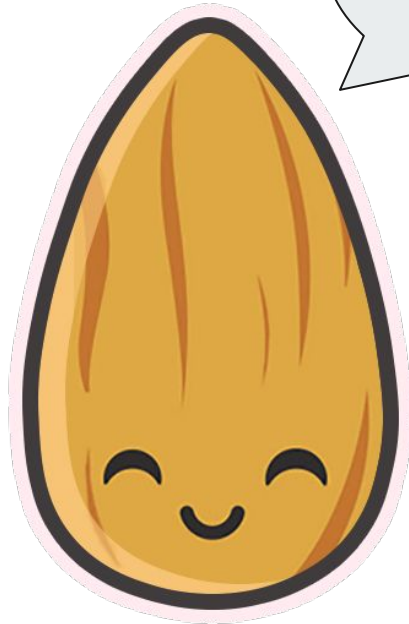
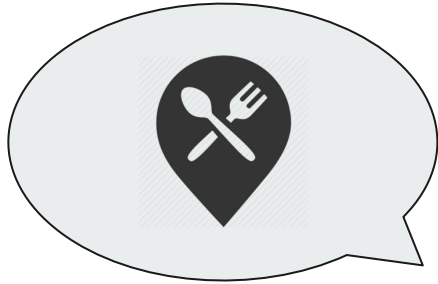


Human-human dialogues today: multi-domain





Our Motivation



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What we'll do

- Extend multi-domain dialogue state tracking to compound ontologies
- Avoid annotated dialogues in training; rely instead on the domain schema
- Construct domain-independent, reusable dialogue models
- Use executable representations
- Compute state transitions & agent responses from the **current state**, *not* the full dialogue history

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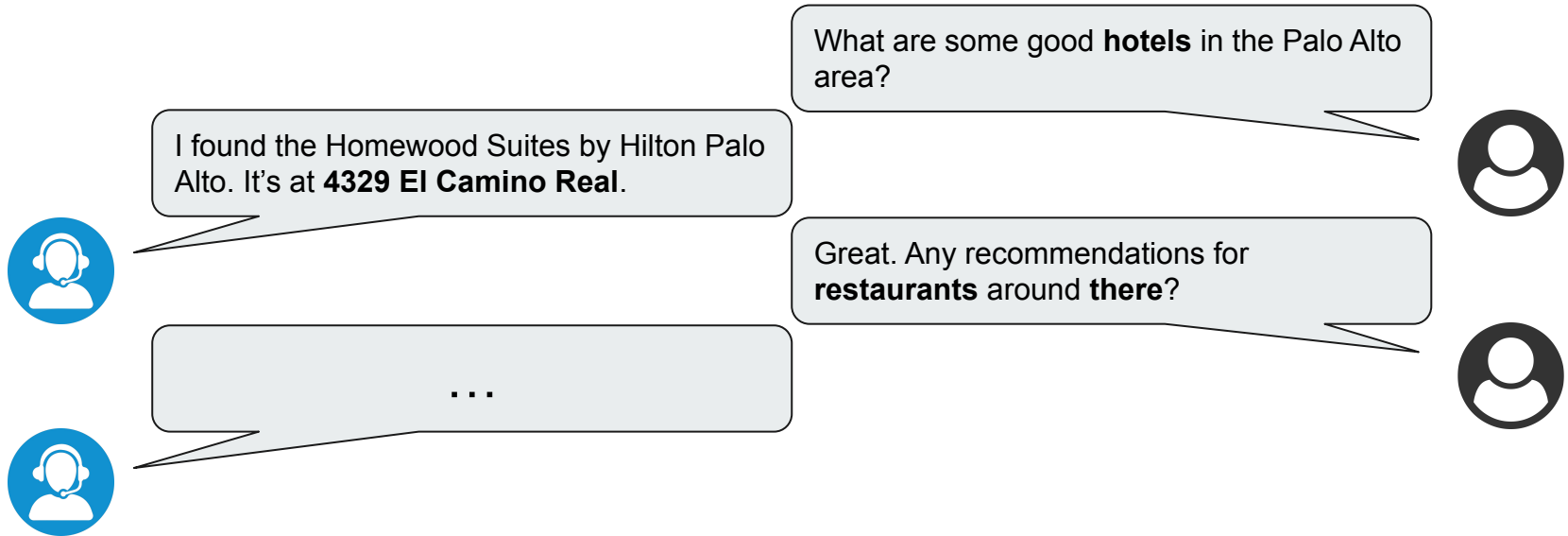
What we expect to learn

- Almond
 - ThingTalk, Schemas, Skills
- Virtual Assistants
 - Dialogue states, templates
- Research
 - Error analysis, question-answering within a structured project context

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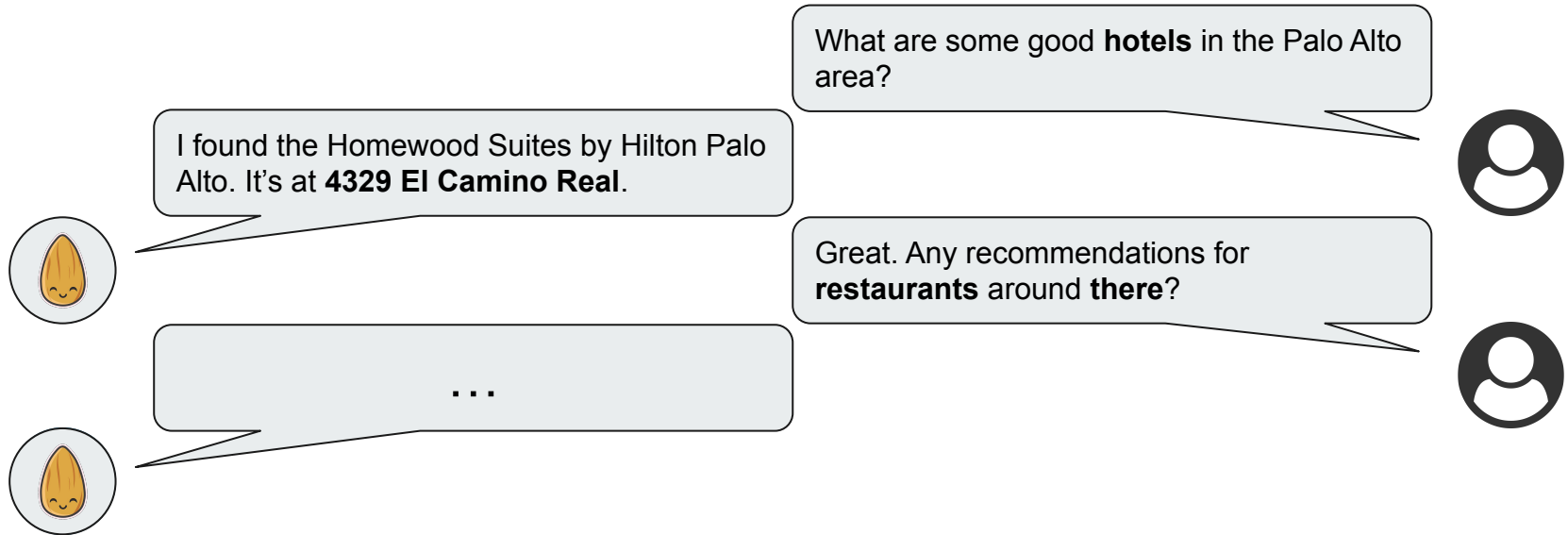


Human-human dialogues today: multi-domain





Human-machine dialogues tomorrow: multi-domain



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-



What each of us will do

Wk	Goal by end of week
5	Hotel skill; some annotation for dev/test for Hotel
6	More annotation; some domain-switch dialogue templates
7	Experiments; more domain-switch dialogue templates; paper writing
8	More of the above, focus on paper (EMNLP submission Monday week 9)
9	Refine; presentation
10	Refine; project report



Thank you!