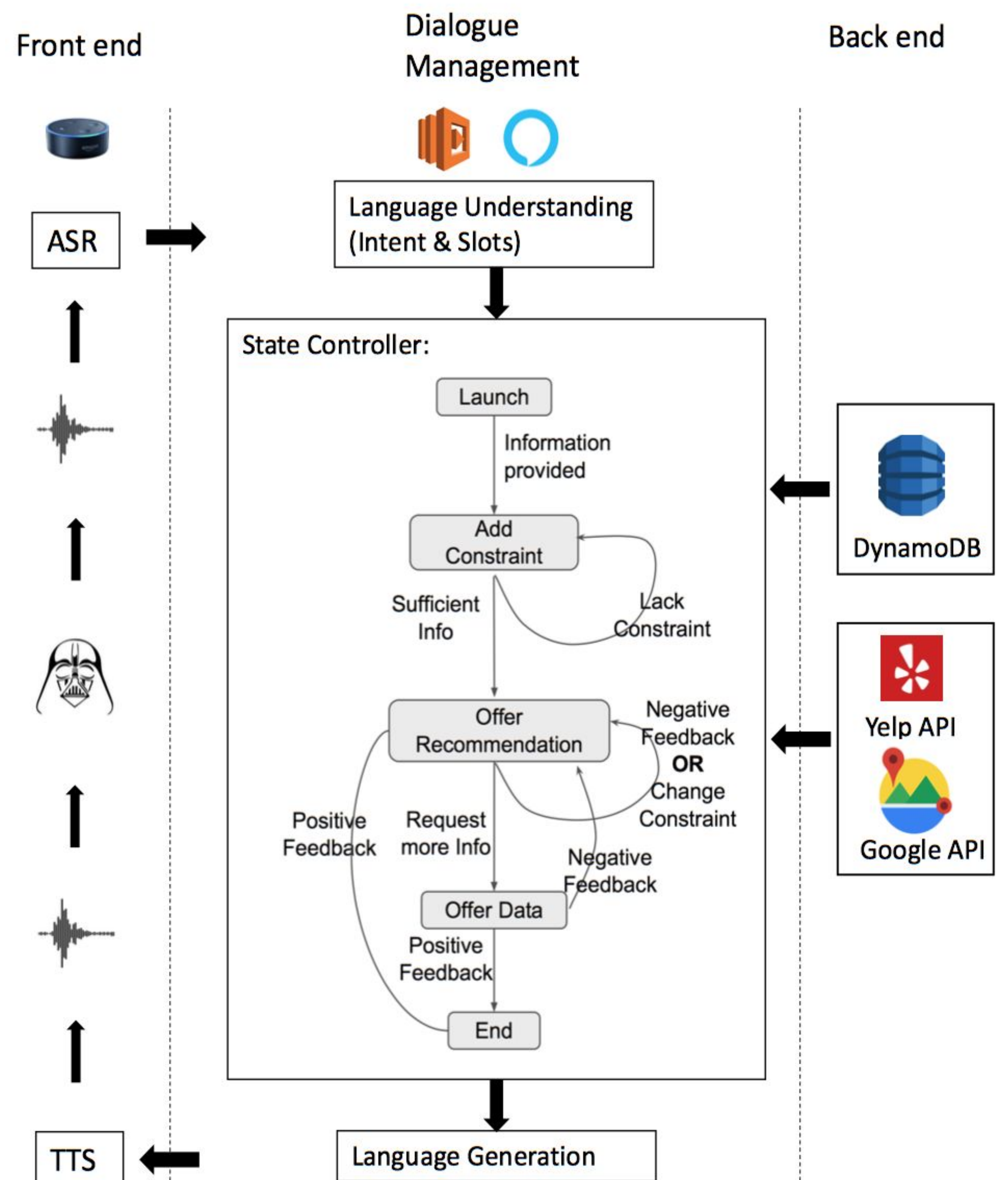


AN ALEXA BASED RESTAURANT RECOMMENDER

MOTIVATION

Develop an interactive voice-activated restaurant recommendation system that is able to give tailored restaurant recommendations for at-home users thinking about dining out.

SYSTEM ARCHITECTURE



SAMPLE DIALOGS

User: I'd like thai food near university of washington

System: How about Amazing Thai Cuisine? They have 433 reviews and their rating is 4. It is 0.8 mi away and it takes 17 mins to walk there or 5 mins to drive there. Do you need more information about this place?

User: no next place

System: Welcome back! What did you think of the last place that I recommended?

User: I liked it a lot

System: Great, how about Lando's Grill? A lot of people like both places, and it has 5 stars from 800 reviews, and is 1.2 miles or a 20 minute walk away from your work. Do you want more information about it?

User: What's their address?

System: 111 Cloud City, Outer Rim, Bespin.

User: Cool, thanks!

User: How about Little Thai Restaurant? They have 301 reviews and their rating is 4. It is 0.3 mi away and it takes 8 mins to walk there or 3 mins to drive there. Do you need more information about this place?

User: no next

System: How about Thai Tom? They have 1878 reviews and their rating is 3. It is 0.7 mi away and it takes 15 mins to walk there or 6 mins to drive there. Do you need more information about this place?

User: actually first one

System: What else do you want to know about Amazing Thai Cuisine

User: what are their opening hours

System: They open until 22:00 today.

User: awesome thanks

EVALUATION METRICS

Ratio:

Success to Failure
Errors to Dialog Turns

Failure: User exits before recommendation offered

Errors: Incorrect intent, unrecognized utterances, explicit negative feedback

LIMITATIONS

- 👤 Out-of-the-box design of ASK hinders making customized apps
- 👤 Inability to reliably capture either single word or full utterances is limiting

FUTURE WORK

- 👤 Proactive recs based on platform trends + user behavioral similarity
- 👤 Inferred constraints via learning over time
- 👤 Tuning appropriate confirmations

**Combines Fabritech ANs-5d unit with long-range PTDA #PA-9r and short-range PTAG #PG-7u units.

***Combines Fabritech ANc-2.7 tracking computer and SI 5g7 "Quicksan" vector-imaging system.