

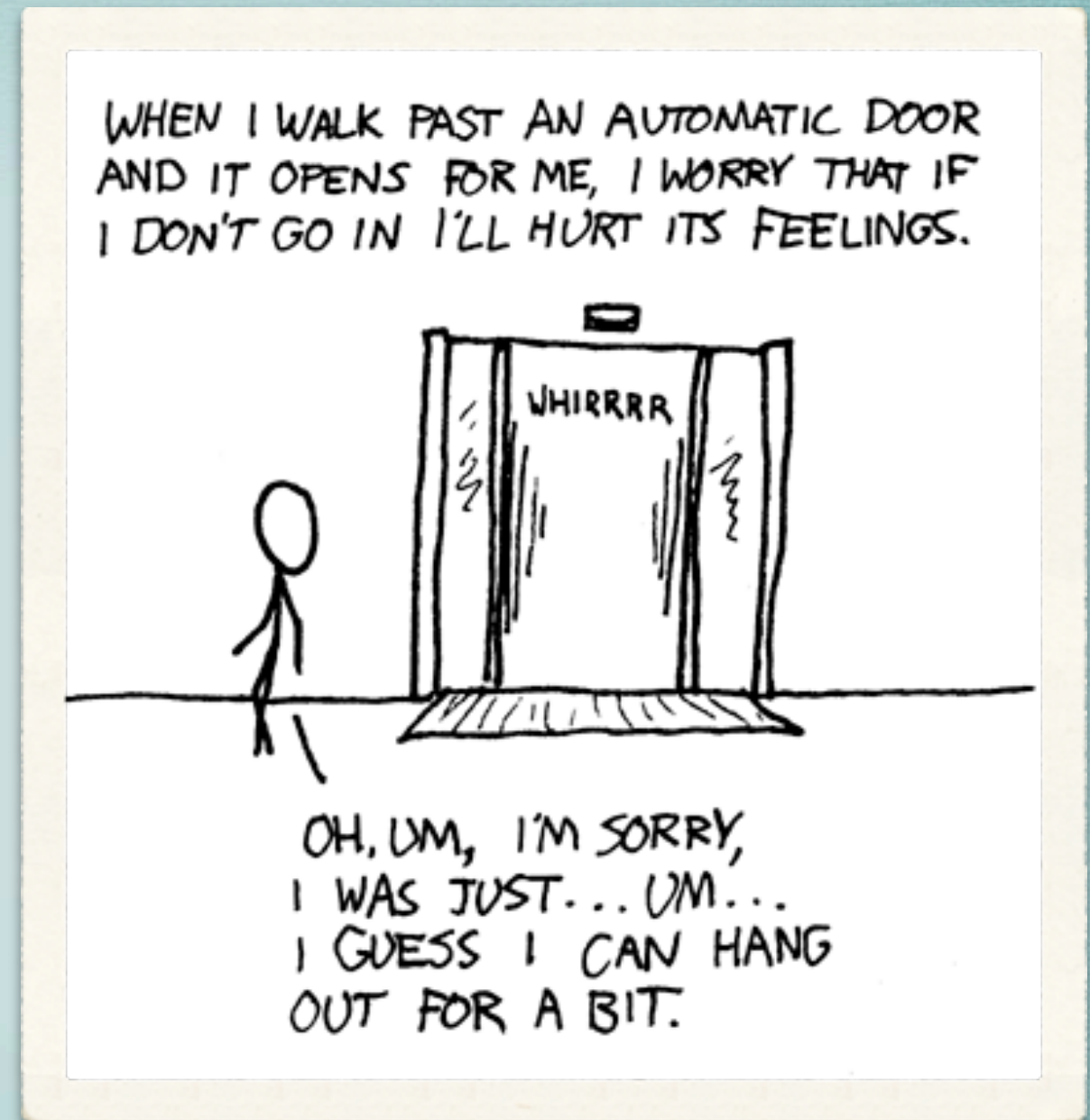
TALKING ELEVATOR AN EXTENDED DIALOG MODEL

Jennifer Moore

Universität des Saarlandes, Wintersemester 2006

Dialog Design

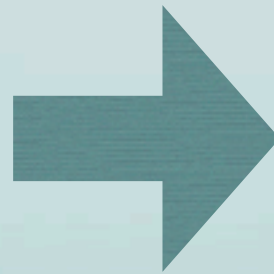
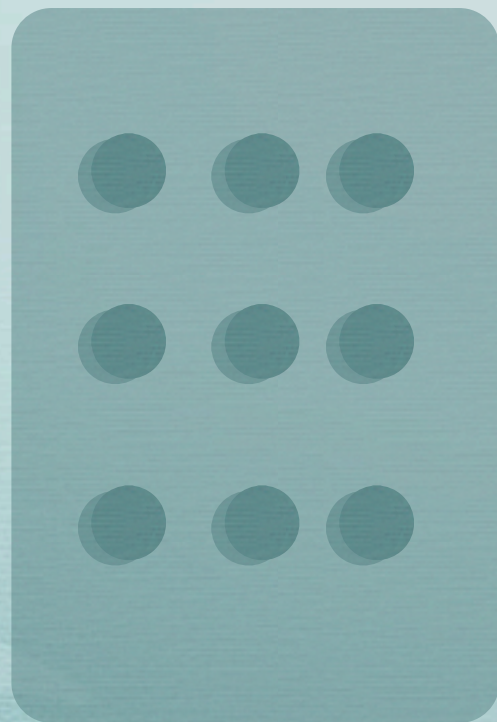
How do we model interactions in an elevator dialog system?

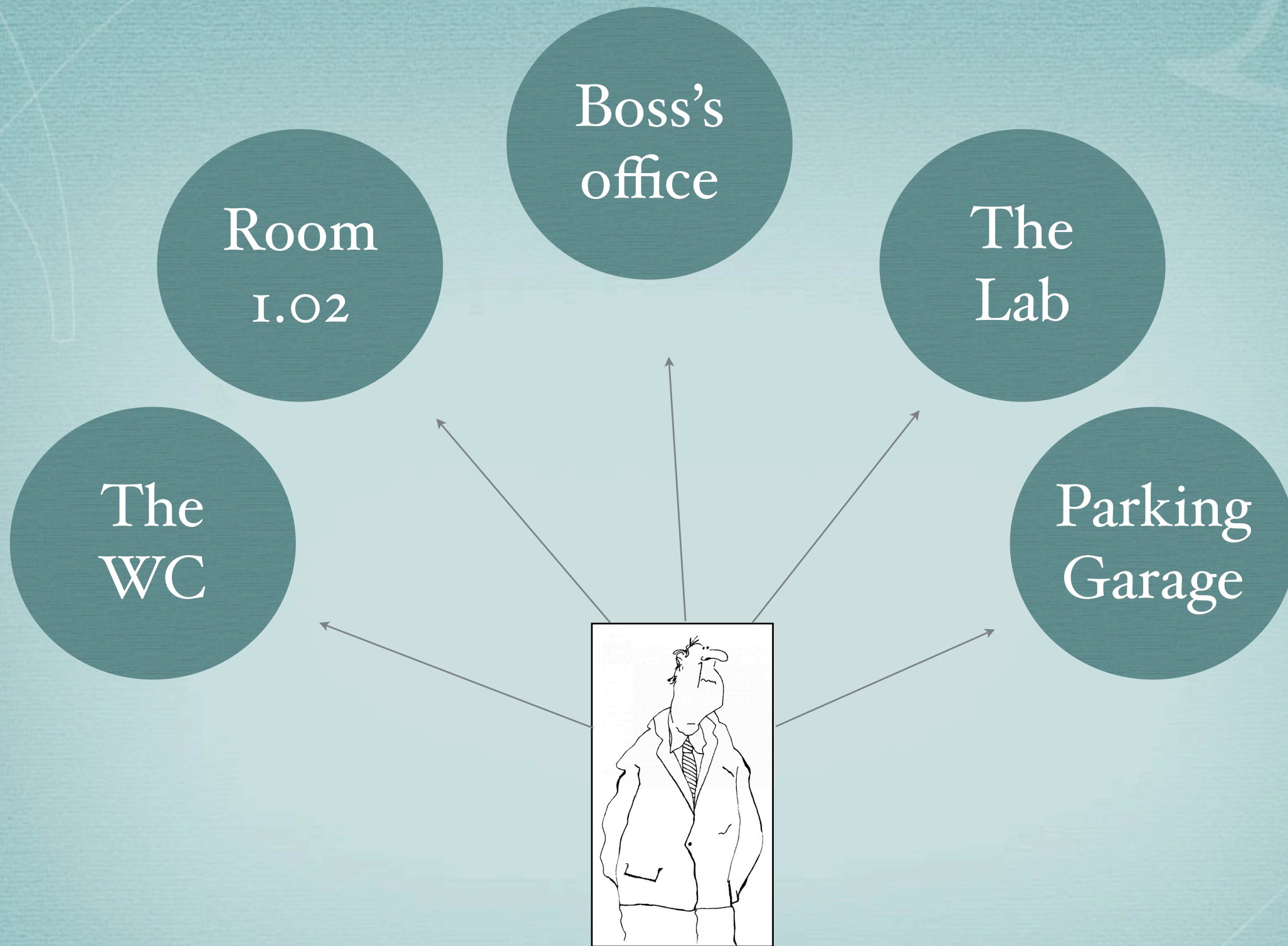


BASIC REQUEST

A. “Where can I take you?”

B. “The second floor, please.”



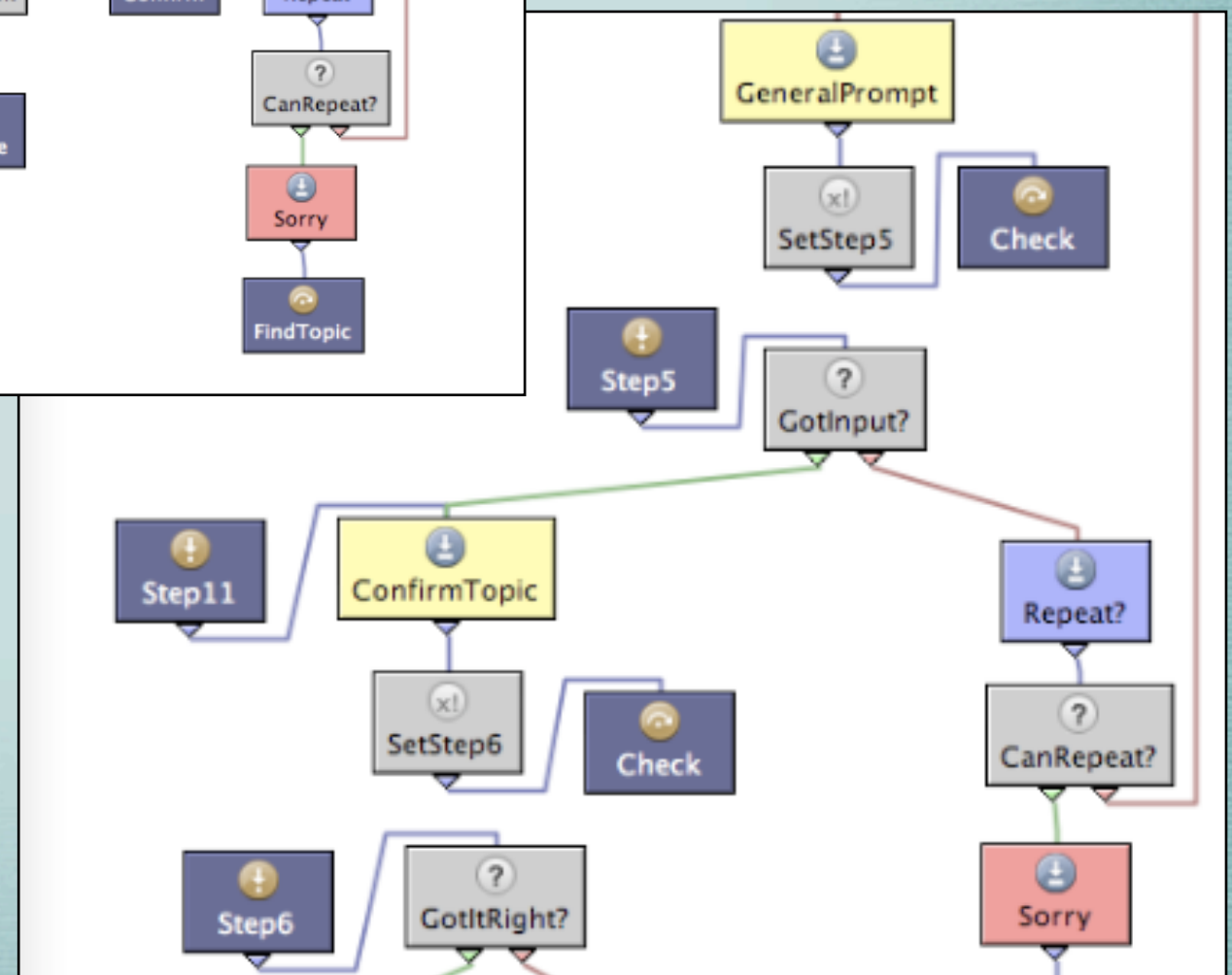
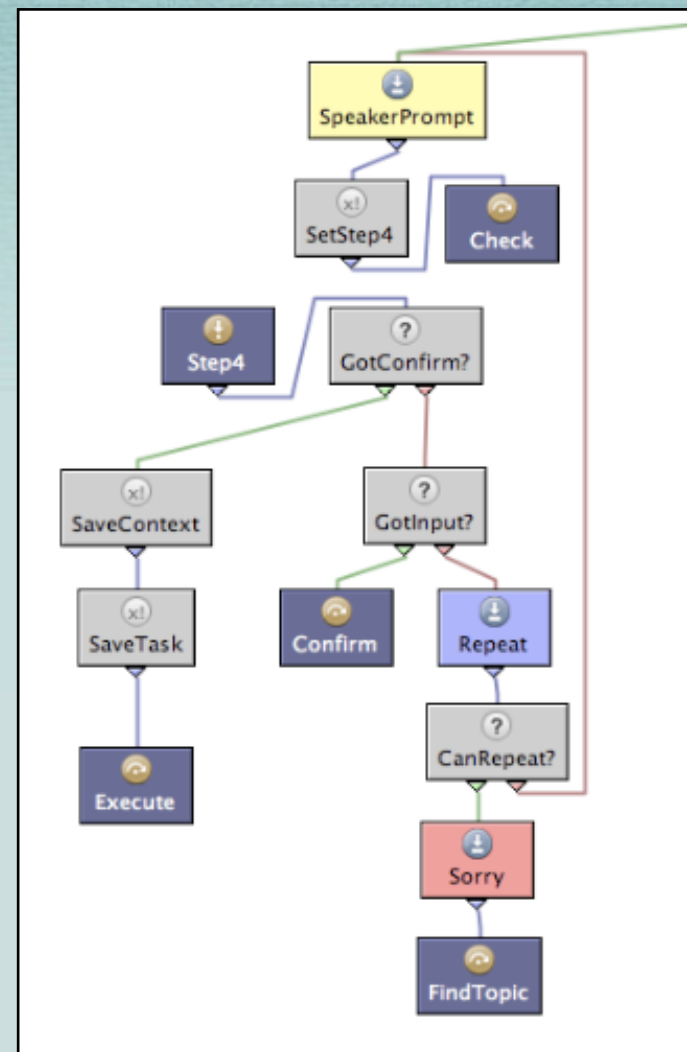
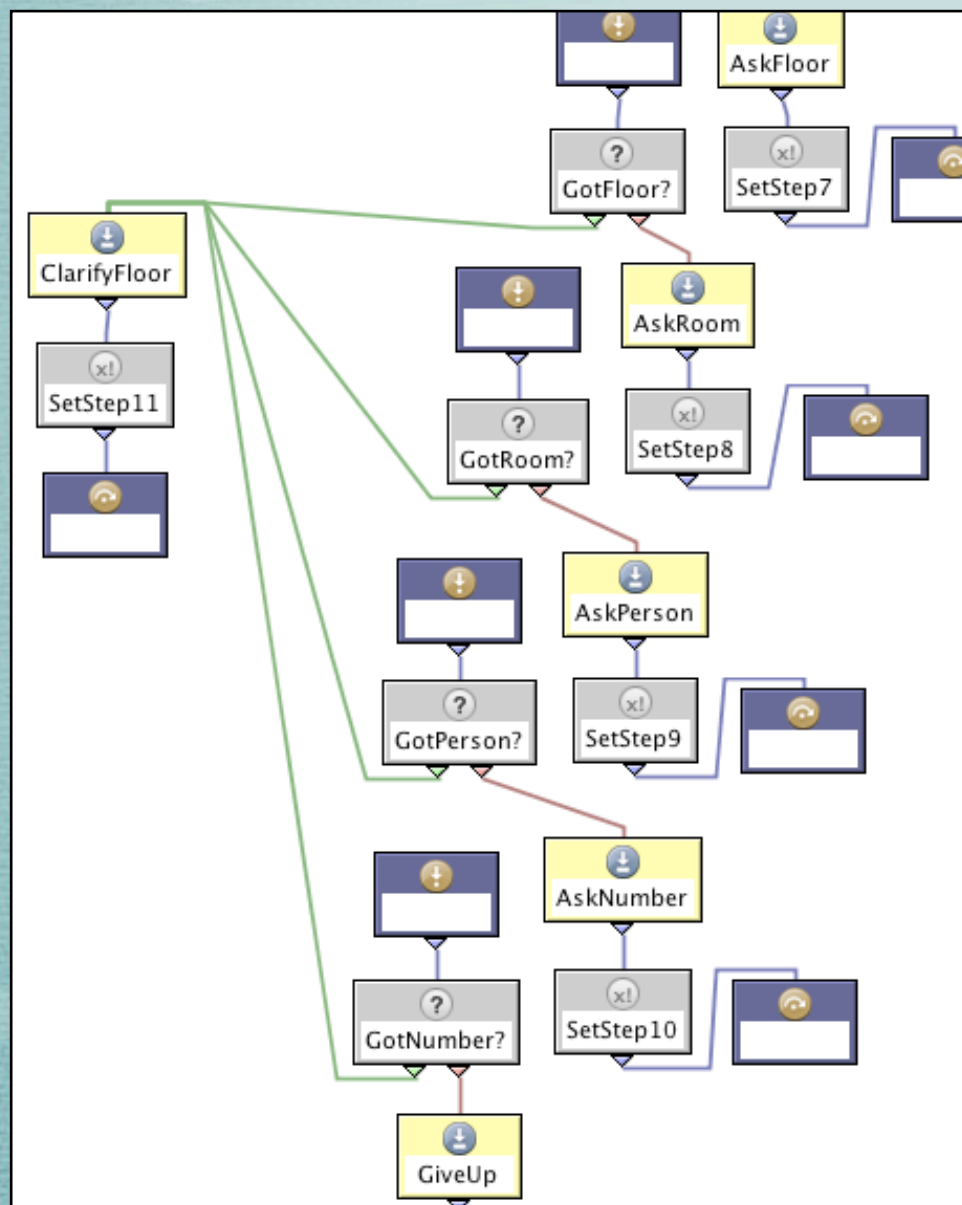


OVERVIEW

Extending the Dialog Model

1. Adding New Request Types
2. Handling Multiple Users
3. Current State of Affairs

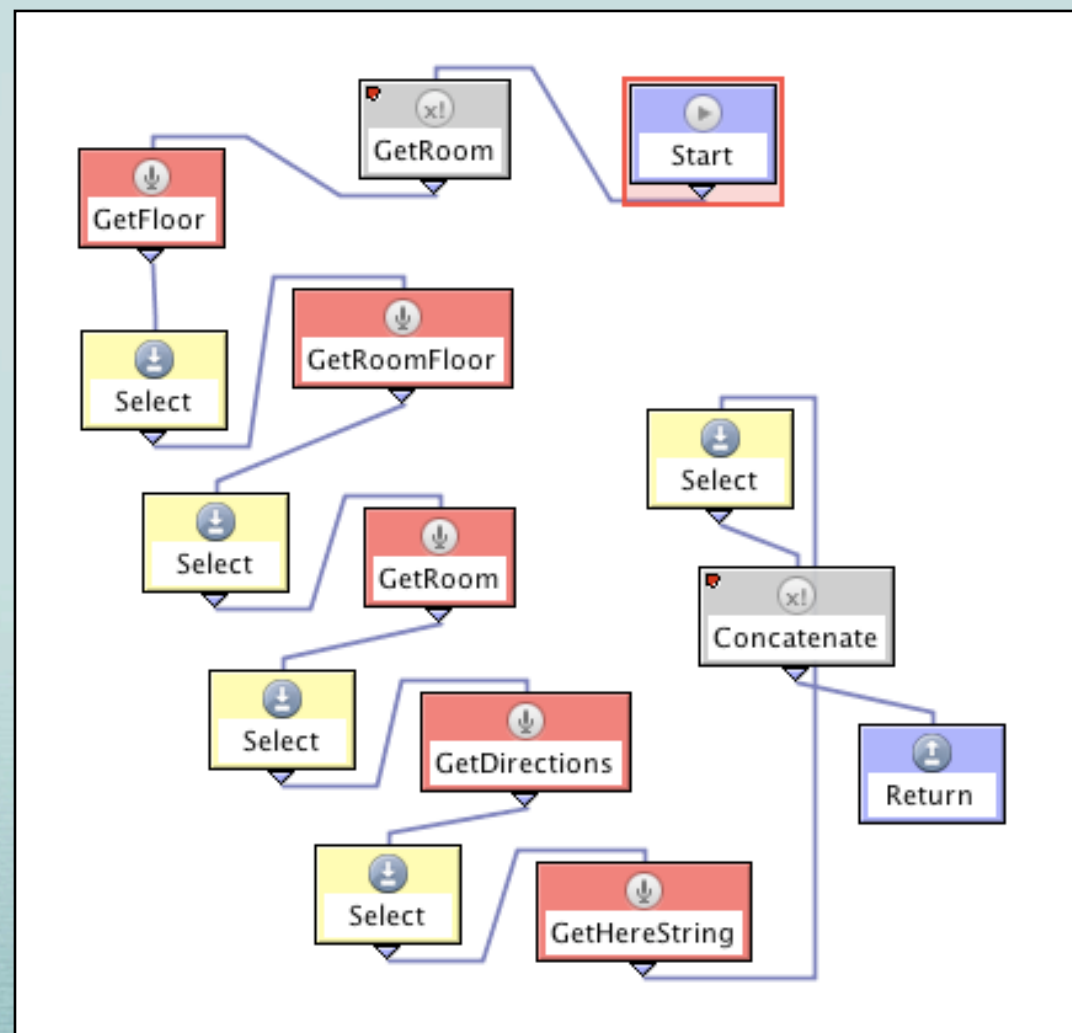
The Model



REQUESTS TYPES

ROOM REQUEST

- A. “The Aquarium, please.”
- B. “Alright. Room 3.1, the Aquarium, on the third floor.”



Semantic Tag : room = “aqua”

floor_layout.db

ID	Tag	Num	Floor	Room Name	Location String	Direction String	Language
1	aqua	3.1	3	“the aquarium”	“The aquarium, on the third floor.”	“The aquarium is through the door, on the left.”	English
2	aqua	3.1	2	“das Aquarium”	“das Aquarium, im dritten Stock”	“Das Aquarium ist links hinter die Tür.”	German

confirm = “Alright. The aquarium, on the third floor.”

goodbye = “Here we are. The aquarium is through
the door, on the left.”

NUMBER REQUEST

- A. “Room 1.07, please.”
- B. “Eye Tracking Lab Two, room 1.07, on the first floor. One moment please.”

Semantic Tag : number = 1.07

floor_layout.db

ID	Tag	Num	Floor	Room Name	Location String	Direction String	Language
1	eyetrack	1.07	1	“room one oh seven”	“Eye Tracking Lab Two, on the first floor.”	“Eye Tracking Lab Two is down the hall.”	English
2	eyetrack	1.07	1	“die Eye-tracking-labore zwei”	“die Eye-tracking-labore zwei im ersten Stock”	“Die Eye-tracking-labore sind unten.”	German

PERSON REQUEST

- A. “Caroline Sporleder’s office, please. ”
- B. “Ms. Sporleder’s office, in room 3.01. One moment and I’ll take you to the third floor.”

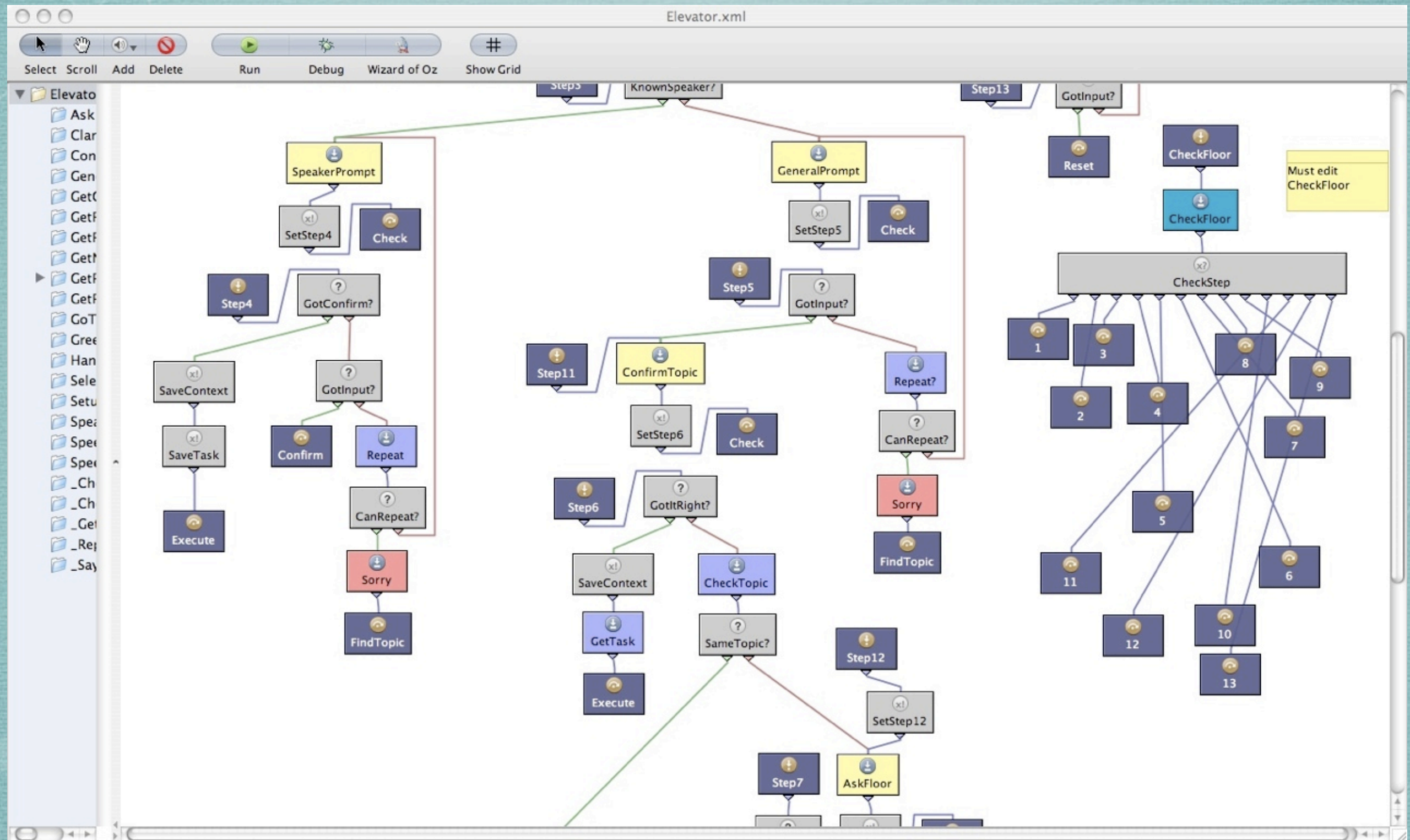
Semantic Tag : person = “caroline_sporleder”

offices.db

ID	Office	Floor	First	Last	Location String	Direction String	Language
1	3.01	1	caroline	sporleder	“Ms. Sporleder’s office, in room three oh one.”	“Caroline Sporleder’s office is down the hall.”	English
2	3.01	1	caroline	sporleder	“Caroline Sporleders Büro, im dritten stock.”	“Caroline Sporleders Büro ist am Ende des Ganges.”	German

MULTIPLE USERS

Handling Directions



CURRENT STATE

1. Basic, room name and number work!
2. Person name -- too ambitious for current speech recognition software.
3. Speaker recognition not much tested.

CONCLUSION

A Dialog Model that:

1. Overcomes the key-function assumption.
2. Relates information about the environment for more intuitive dialogs.
3. First attempt at multi-dialog handling.

The background is a solid teal color with a fine, woven texture. Faint, thin white lines are scattered across the surface, including a series of intersecting arcs in the top-left corner and a long, thin diagonal line in the bottom-right corner.

THANK YOU!