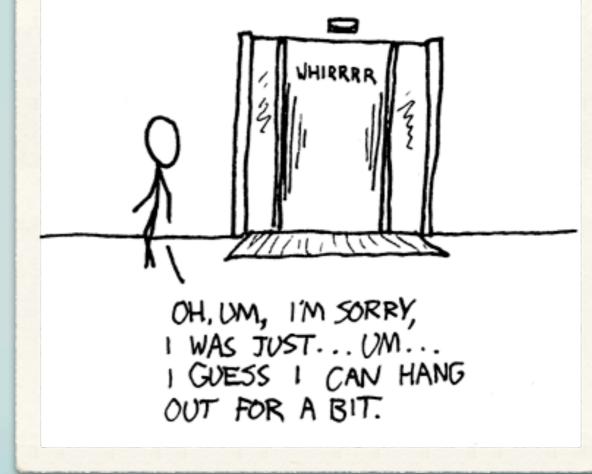
TALKING ELEVATOR AN EXTENDED DIALOG MODEL Jennifer Moore

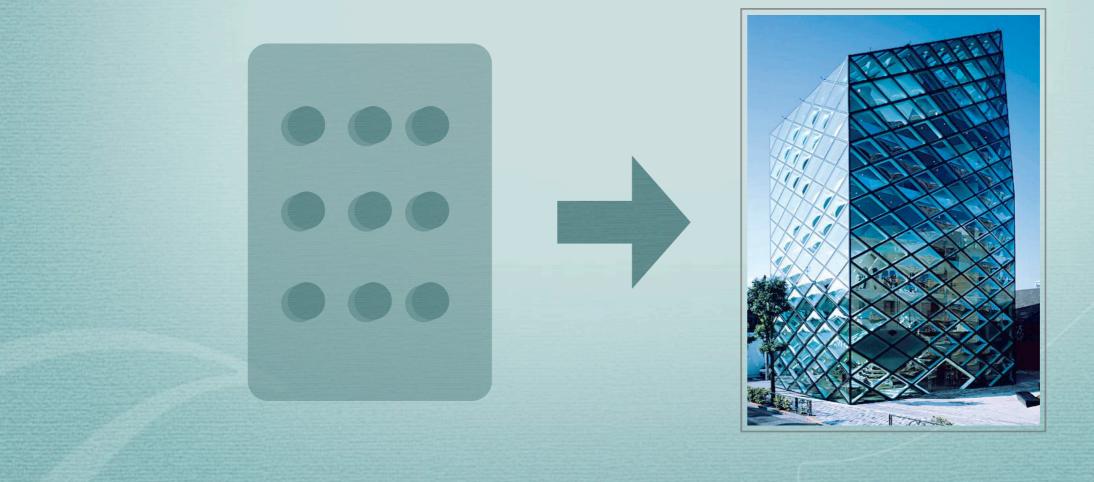
Universität des Saarlandes, Wintersemester 2006

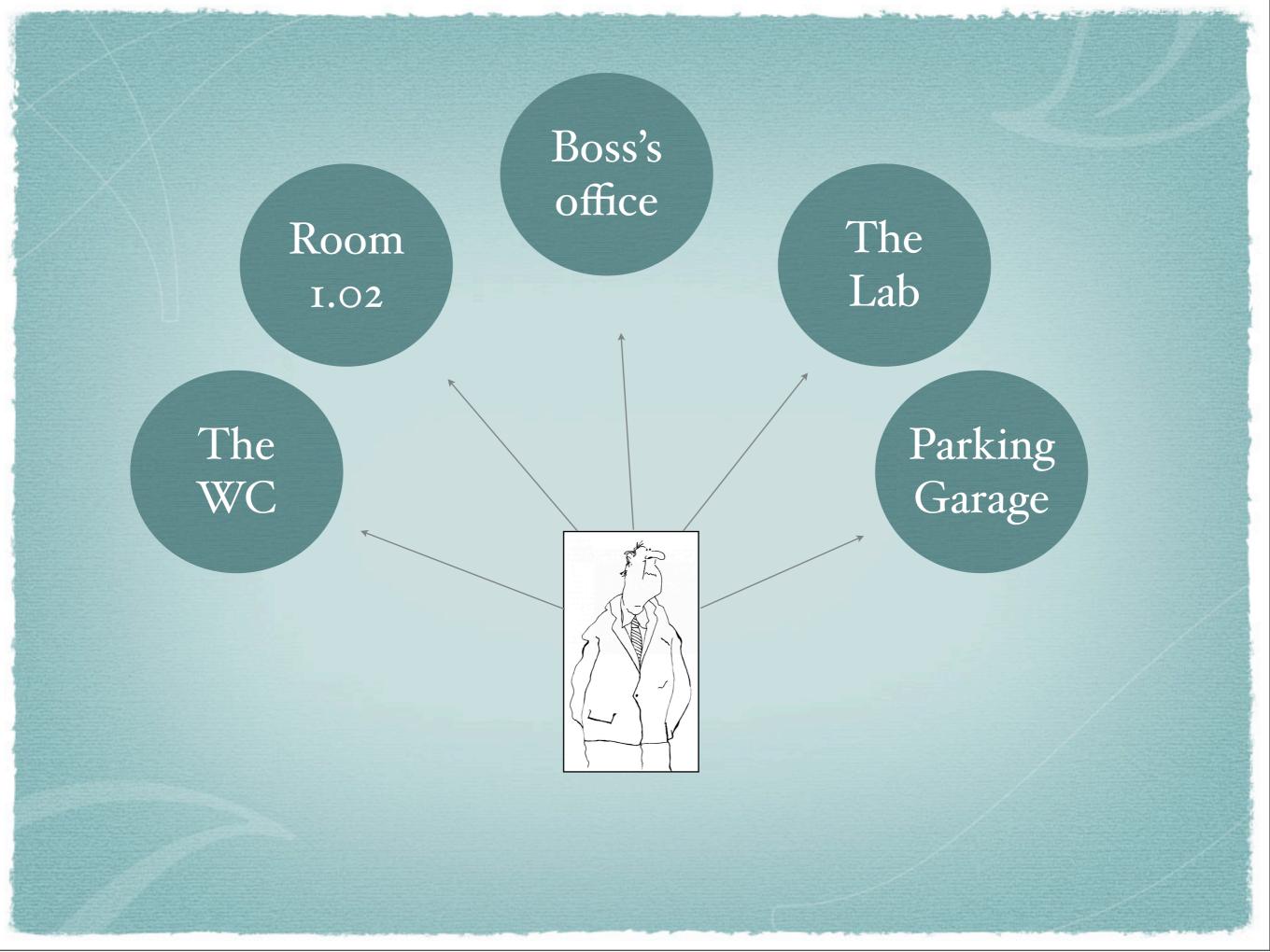
Dialog Design How do we model

interactions in an elevator dialog system? WHEN I WALK PAST AN AUTOMATIC DOOR AND IT OPENS FOR ME, I WORRY THAT IF I DON'T GO IN I'LL HURT ITS FEELINGS.



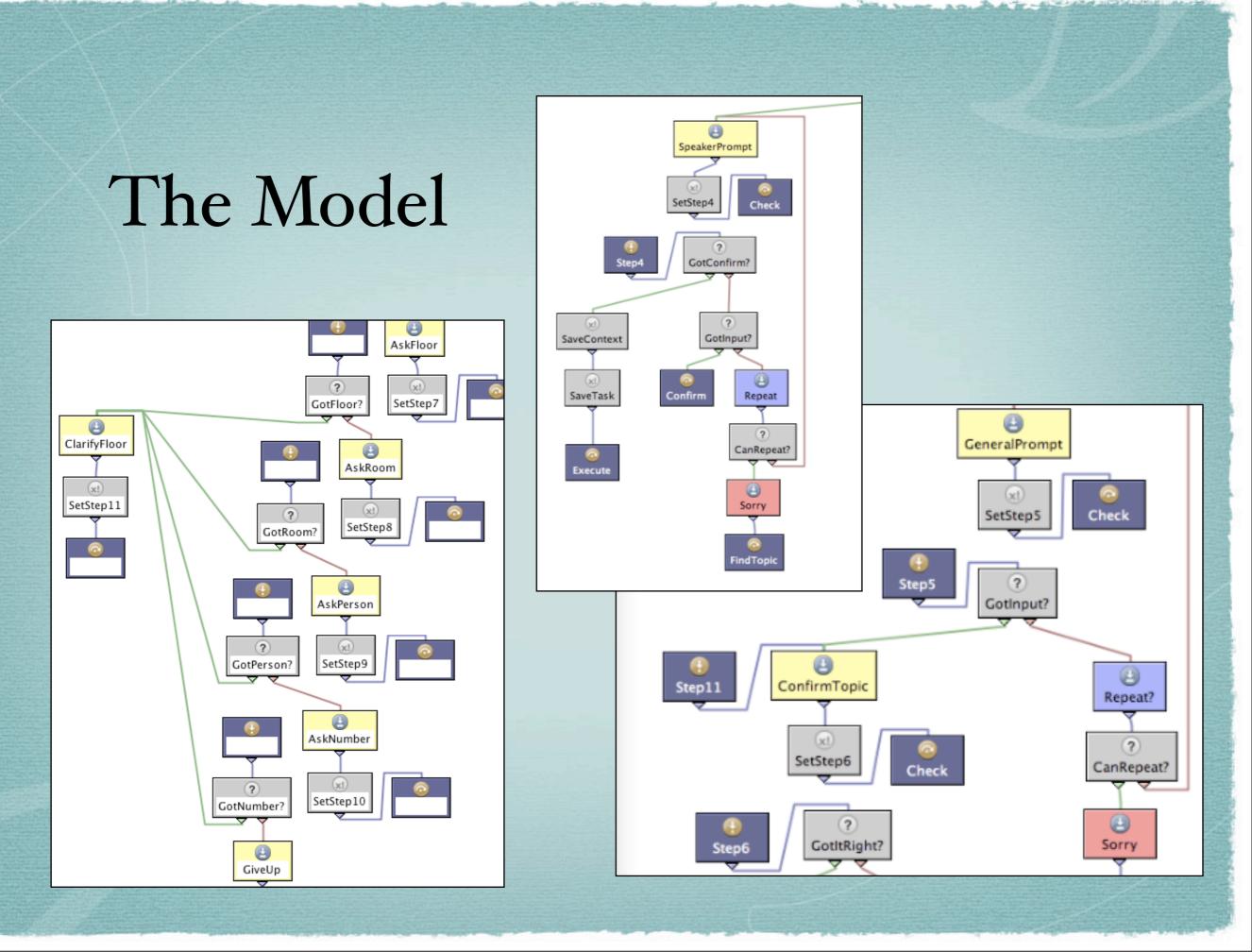
BASIC REQUEST A. "Where can I take you?" B. "The second floor, please."





OVERVIEW Extending the Dialog Model

Adding New Request Types
 Handling Multiple Users
 Current State of Affairs

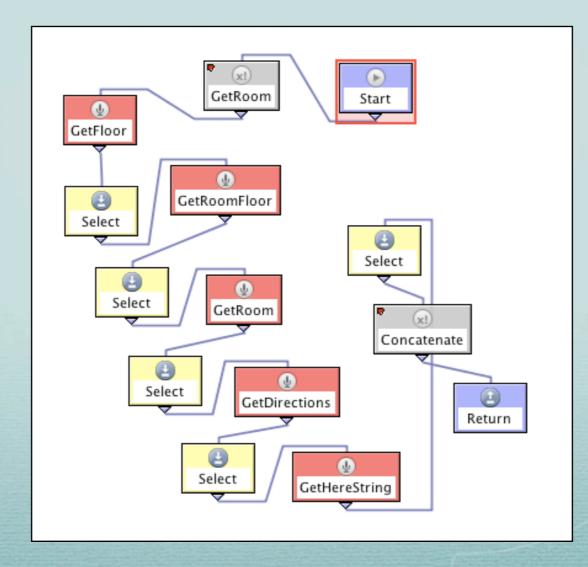


REQUESTS TYPES

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
I	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
I	eyetrack	1.07	I	"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	I	"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
I	3.01	I	caroline	sporleder	"Ms. Sporleder's office, in room three oh one."	"Caroline Sporleder's office is down the hall."	English
2	3.01	I	caroline	sporleder	"Caroline Sporleders Büro, im dritten stock."	"Caroline Sporleders Büro ist am Ende des Ganges."	German

MULTIPLE USERS

Handling Directions 000 Elevator.xml N 3 . 0 於 # -Select Scroll Add Delete Wizard of Oz Show Grid Run Debug Steps KnownSpeaker? Step13 Elevato GotInput? Ask 问 Clar 0 CheckFloo Con Reset GeneralPrompt Must edit SpeakerPrompt 📁 Gen CheckFloor Get(0 (x!) Getf (x!) CheckFloor 0 Check SetStep5 SetStep4 Cetf Check Get! (x?) Getf CheckStep ? Step5 ? Getf Step4 GotInput? GotConfirm? GoT Gree 📁 Han 8 6 ? ConfirmTopic (x!) Step11 Sele Sele Repeat? 9 SaveContext GotInput? Setu (x!) C Spea ? 0 6 SetStep6 (x!) Check CanRepeat? Sper SaveTask Confirm Repeat Sper Ch_Ch (?) 9 Ð ?) Ch_Ch 0 GotItRight? Step6 Sorry CanRepeat? Gel_Gel 0 Execute 0 Ca_Rei 0 FindTopic 11 Say (x!) 6 Sorry SaveContext CheckTopic 00 10 6 (?) • GetTask 12 FindTopic SameTopic? Step12 0 0 Execute (x!) SetStep12 0 Step7 AskFloor 0) + + + ()) 4 b

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CURRENT STATE

- I. 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:

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

THANK YOU!