



Embodied Conversational Agents

Intelligent User Interfaces

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Readings

- Pelachaud, Multimodal Expressive Embodied Conversational Agents, MM'05
- Bickmore & Picard, Establishing and Maintaining Long-Term Human-Computer Relationships, ToCHI 2005
[*Ph.D. thesis journal article*]

Play videos: [Laura](#) & [Greta](#)

An Unfortunate Terminology

- ***Embodied Conversational Agent:***
Autonomous agent with a human-like appearance and communicative skills.
-Pelachaud
- originally used to distinguish from “disembodied” agents
- but now humanoid robots becoming important---robots have real bodies!

Key Issues

- Generating
 - facial expressions
 - gestures
 - body language
 - expressive speech
- Recognizing all of the above (though this work not as developed)
- Graphics (real-time)
- Generic tools

Overlap with Other Course Topics

- Goal/Task Based User Interfaces
- Intelligent Tutoring Systems
- Personal Assistants
- Multimodal Dialogue
- Collaborative Dialogue
- Affective Computing
- Human-Robot Interaction

Readings

- Pelachaud, Multimodal Expressive Embodied Conversational Agents, MM'05
 - mainly concerned with generation
 - emotional expressivity
- Bickmore & Picard, Establishing and Maintaining Long-Term Human-Computer Relationships, ToCHI 2005
 - mainly concerned with persistence (increasingly important issue in software generally)
 - best user study you'll read in course (cf. NIH)

“Low End” Version

- Microsoft Agent - free toolkit download

