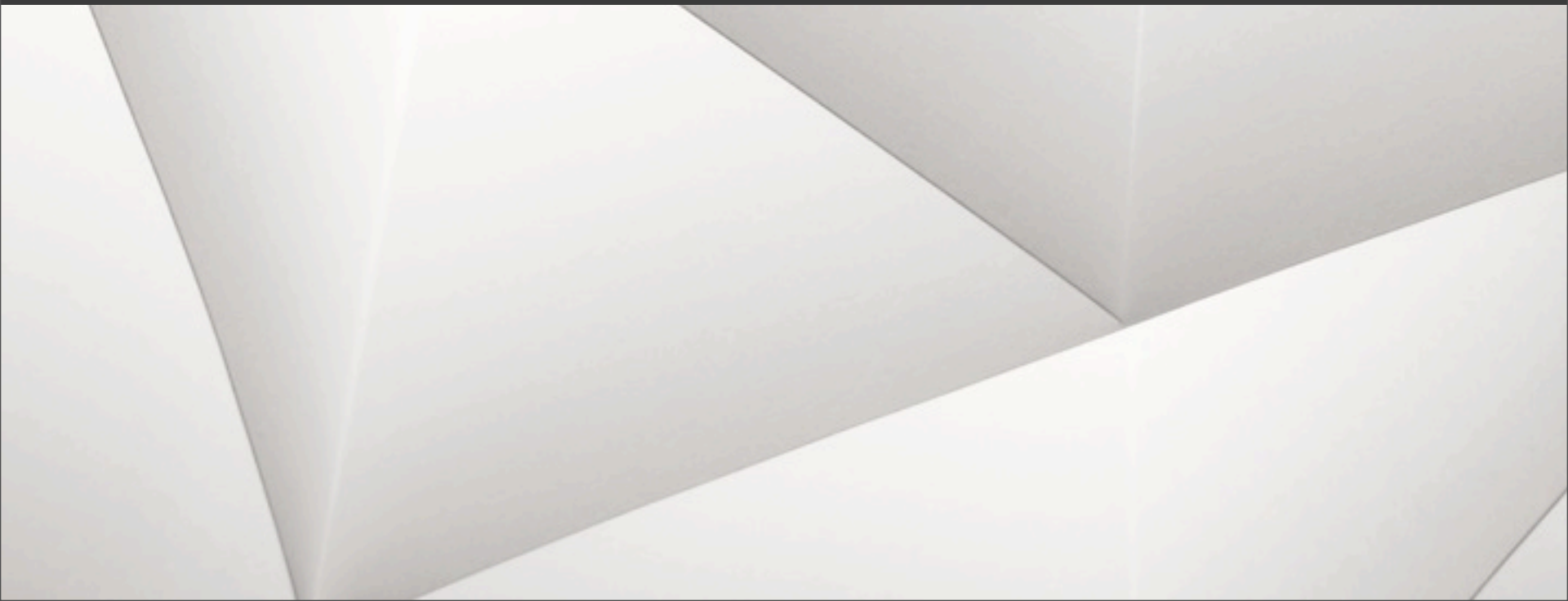
Proactive Assistant Agents

Organizers:
Felipe Meneguzzi and Jean Oh
Carnegie Mellon University



Proactive Assistant Agents

Organizers:

Felipe Meneguzzi and Jean Oh

PAA says: You have forgotten to include your name. I will do that for you.

Proactive Assistant Agents

Organizers:
Felipe Meneguzzi and Jean Oh
Carnegie Mellon University

Presented by:
David V. Pynadath
University of Southern California

Problem Statement

- Decide whether user needs assistance
- Determine what assistance to give
- Give assistance in useful way

Problem Statement

- Decide whether user needs assistance

  UM

- Determine what assistance to give

- Give assistance in useful way

Problem Statement

- Decide whether user needs assistance

  UM

- Determine what assistance to give

  AI

- Give assistance in useful way

Problem Statement

- Decide whether user needs assistance

  UM

- Determine what assistance to give

  AI

- Give assistance in useful way

  HCI

Problem Statement

- Decide whether user needs assistance

  UM

- Determine what assistance to give

  AI

- Give assistance in useful way

  HCI

PAA = UM + AI + HCI

Agent Tasks

- **Intelligent tutoring systems**
  - Folsom-Kovarik et al.
- **News reading**
  - Iacobelli et al.
- **Workflow management**
  - Gil et al.
- **Elder Care**
  - Han & Pereira, Lin & Makedon
- **Disaster Response, Threat Detection**

Challenges

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- **Building models**

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- **Interpreting models**

Challenges

- **Building models**
- **Interpreting models**
- **Making decisions under uncertainty**

Challenges

- **Building models**
- **Interpreting models**
- **Making rtainty**

PAA says: Your presentation is too long. I have deleted the remaining 17 challenges.

Solution Methods

- **Exploit social media to build models**
  - Facebook apps
  - Wikipedia
- **Semantic workflows**
- **Decision theory**
  - Bayesian networks
  - (PO)MDPs

Outstanding Issues

Outstanding Issues

- **How do we deal with naive users?**

Outstanding Issues

- How do we deal with naive users?
- How do we quantify savings to user?

Outstanding Issues

- **How do we deal with naive users?**
- **How do o user?**

PAA says: Your slides are too boring. I have inserted a picture of a sock monkey.

Thank You

- **http://www.cs.cmu.edu/paa-2010/**