Apple's Siri:
A Closer Look

President's Council of Advisors on Science and Technology

characterized computing as:

"*arguably unique among all fields of science and engineering in the breadth of its impact* "

in Report to the President and Congress

Designing a Digital Future

(page viii, Dec 2010)

Digital/Virtual Personal Assistant

- **Siri**
  - Apple's iPhone, iPad
  - http://www.youtube.com/watch?v=rNsrl86inpo

- **Apple's Siri vs Google's Now**
  - http://www.youtube.com/watch?v=aFDYwo-PJO4

- **Speaktoit**
  - Android, Apple/iOS, Windows Phone
  - http://www.speaktoit.com/

Historical Notes

- ## Siri (personal assistant)
  - Started at SRI (previously Stanford Research Institute)
  - roots in the CALO (Cognitive Assistant that Learns and Organize) project in the early 2000s
  - Siri project started in 2007
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- **Apple's Siri**
  - on iPhone 4S in Oct 2011

Key Components/Challenges

| Sound to text | → | Understanding Requests/ Questions | → | Responding with Actions/Answers |

Sound to (Written) Text

- Dictation
- "Speech Recognition"
- Computer
  - sound -> numbers -> text

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- **Reading comprehension**
- **"Natural Language Processing"**
- **"Question answering"**
  - Understanding questions
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  - What does it refer to? The party, plane or store?
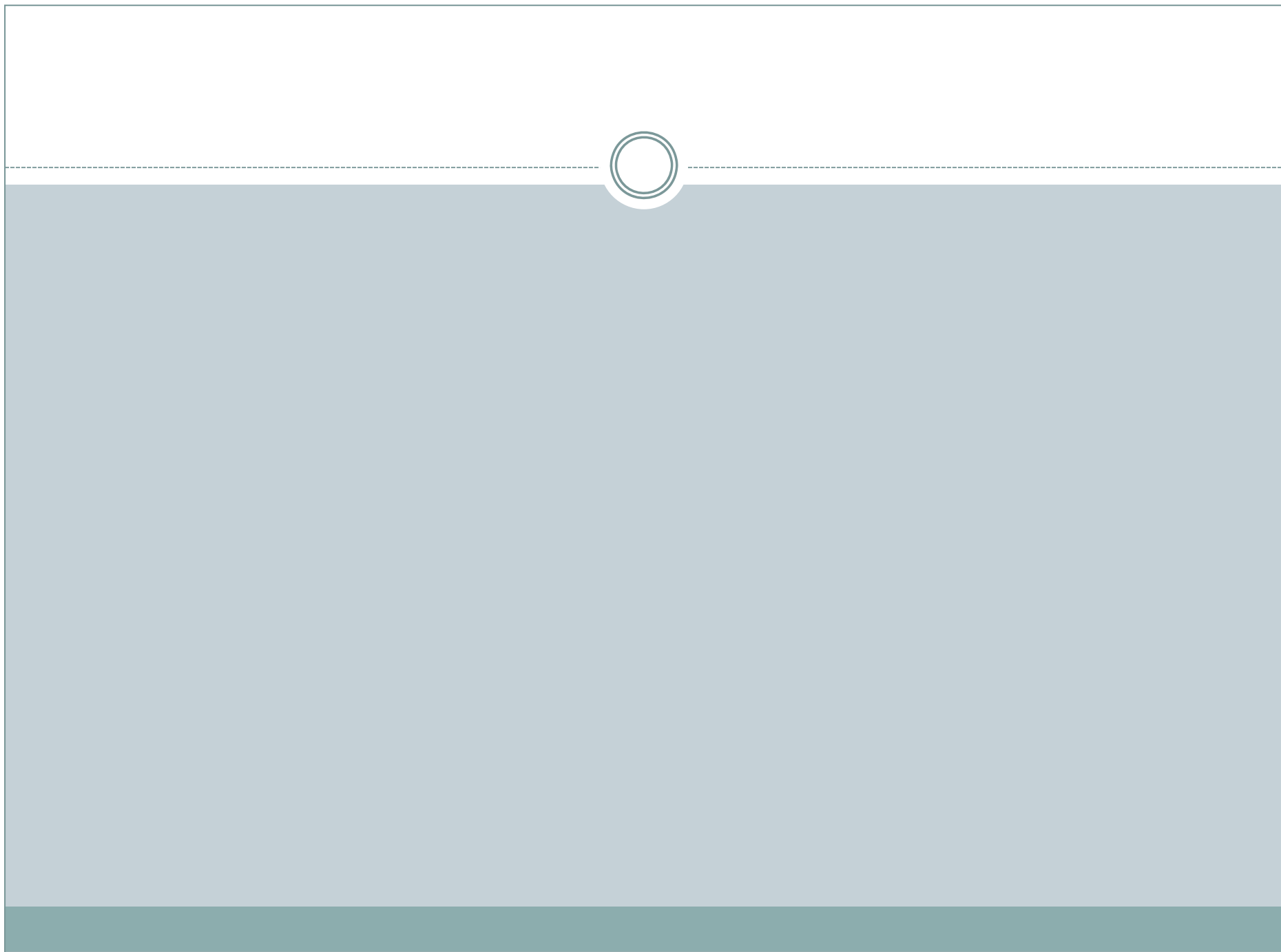
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  - "On the way to Mary's birthday party, John saw a plane at the store. He wondered if it was a good present for Mary."
  - What does it refer to? The party, plane or store?
  - Clear to you: you know about birthdays and presents, the plane is probably a toy airplane, real airplanes are not in stores, real airplanes and stores are too expensive as presents, …

Machines Acting Like Humans

- **Computers**
  - Excellent at crunching numbers
  - Poor at dealing with what humans usually encounter
    - Spoken and written languages, images, …

- **Artificial Intelligence**

Outreach Events
cs.fit.edu/~pkc/cs4hs   has videos

- **Recent Past:**
  - Jul, 2012: Summer Camps
  - Jul, 2012: Teacher Workshop on CS (videos available)
  - Nov, 2012: Teacher Workshop on Alice (videos available)
- **Today:**
  - Jan, 2013: Public Lecture (videos to be available)
- **Upcoming:**
  - Mar, 2013: School visits [first week is our Spring Break]
  - Mar-Apr, 2013: Student competition with Alice
  - Jul, 2013: Summer Camps

Thank You

Questions?

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