Designing the Future: 
Early & Future Visions of HCI

Prof. James A. Landay
Computer Science Department
Stanford University
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Interface Hall of Shame or Fame?

- From IBM’s Real Series
  - prompt
  - button

• Black on black???
  - cool!
  - but you can’t see it
  - “click here” shouldn’t be necessary
  - like a door that has a sign telling you to push

Virgin America Website
Courtesy Andrea S.
https://www.virginamerica.com/book

Hall of Fame or Shame?

Who's flying?

Virgin America Website
Courtesy Andrea S.
https://www.virginamerica.com/book

Hall of Fame or Shame?

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Courtesy Andrea S.
https://www.virginamerica.com/book

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Wizard of Oz Technique

- Faking the interaction. Comes from?
  - the film “The Wizard of OZ”
  - “the man behind the curtain”
- Long tradition in computer industry
  - e.g., prototype of a PC w/ a DEC VAX behind the curtain
  - much more important for hard to implement features
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Computing in 1945

ENIAC
First Electronic, General Purpose Computer


Vannevar Bush Kicked Off Big Science

• MIT faculty member
• Coordinated WWII scientific effort
• Social contract for science
  – federal government funds universities
  – universities do basic research
  – helps economy & national defense

• “As We May Think”, the Atlantic Monthly, July 1945
• Futuristic inventions / trends
  – wearable cameras to record life
  – encyclopedia for a nickel
  – automatic transcripts of speech
  – trails of discovery
  – capture of nerve impulses
  – Memex

Memex

Was he right? Memex never built… or was it?
Computing in 1965

Douglas Engelbart (Turing Award 1997)
Augmenting Human Intellect

- Stanford Research Institute (SRI) in the 1960s
- 1962 Paper “Conceptual Model for Augmenting Human Intellect”
  - complexity of problems increasing → need new tools to solve
- Demoed NLS (oNLine System), 1968 Fall Joint Computer Conf. (SF)
- Known for?
  - mouse

Engelbart’s Crusade

“The complexity of a lot of the problems [in the world] and the means for solving them are just getting to be too much. The time available for solving a lot of the problems is getting shorter and shorter. So the urgency goes up… The complexity/urgency factor had transcended what humans can cope with. I suddenly flashed that if you could do something to improve human capability to cope with that, then you’d really contribute something basic.”


Augmenting Human Intellect
The NLS Hardware
Augmenting Human Intellect: Firsts!

- First mouse, and ?
- First 2D editing & windows
- First hypertext
- First word processing
- First document version control
- First groupware (shared screen teleconferencing)
- First context-sensitive help
- First distributed client-server
- Many, many more!

Tricycles & Bicycles: Specialized Tools

“[If ease of use was the only valid criterion, people would stick to tricycles and never try bicycles.]” – Douglas Engelbart

Engelbart’s Influences

- Tools for Thought, Ch. 9 “The Loneliness of a Long-Distance Thinker”, Howard Rheingold, 2000

More on Englebart

- Booststrapping, Thierry Bardini, 2000
- MouseSite (video clips/papers)
“The best way to predict the future is to invent it”

Alan Kay

Administrivia

- Keep up w/ readings/HW on class website
  - [http://hci.stanford.edu/cs147](http://hci.stanford.edu/cs147)
  - remember midterm based on lecture, reading & project HW

- Questions about Medium-fi Prototype assignment?
TEAM BREAK

2019 CS147 Film Festival Awards
- Best Acting
- Best Music/Soundtrack
- Funniest/Most Humorous
- Best Production Values
- Best Project Concept
- Best Overall Video

Best Acting
Runner Ups
Coral & 2Fit
Winner
off

Best Music / Soundtrack
KnockOut

Funniest/Most Humorous Video
Runner Up
Coral
Winner
Lessonly

Best Production Values
deatz
Best Project Concept

Runner Up
Thread

Winner
off

Best Overall Video

deatz

The Future


Microsoft Productivity Future Vision 2019

Spike Jonze’s Her (2013)
Next Time

- Lecture
  - Visual Information Design

- Watch Scott Klemmer’s HCIOnline lectures
  - 6.1 Visual Design (7:37)
  - 6.2 Typography (10:47)
  - 6.3 Grids & Alignment (17:33)

- Studio
  - Medium-fi prototypes results
    - what did you do? what changed? why? (give design rationale/test results)