Questions?

- Check your grades!
- Class survey
Growing up
(From The Invisible Computer, Don Norman)

• Technology
• Customers
• Product development

1922
1945
199X
Technology: the need-satisfaction curve

Technology is "good enough" and therefore irrelevant. User experience dominates.

Transition point where technology delivers basic needs

High technology. Consumers want more technology, better performance

Consumer commodity. Consumers want convenience, reliability, low cost...
Examples

• Photography
  – Easy to process film (Kodak)
• Car
  – Affordable and easy to fix Ford-T (Ford)
• Radio
  – Extensive use of transistors (Sony or is it the Regency TR-1 from I.D.E.A.)
• Personal computers
  – Easy “on your desk” printing (Apple Mac)
• Internet
  – Easy access from your home computer (AOL)
• Digital music
  – Integrated hardware/content experience (iPod/iTune)
Price-indignation curve
(Paul Safo in Bringing design to software)
Customer: adopter categories

The chasm

Relative % of customers

Innovators, technology enthusiasts

Early adopters, visionaries

Early majority pragmatists

Late majority conservatives

Laggards, skeptics

Time

Customers want technology and performance

Customers want solutions and convenience
Examples

• Xerox Star
  – Targeted casual users, but lacked necessary performance

• Cellular phones
  – Almost at the laggards stage

• Personal computers?
From one cycle to the next

• Beware of the underdog

- Personal computers vs large mainframes
- Small Japanese car versus Large American car
- More example in the “Innovator Dilemma” by Clayton M. Christensen
The 3 legs of product development

The invisible computer, Don Norman

The inmates are running the asylum, Alan Cooper
Examples
(from The inmates are running the Asylum, Alan Cooper)

• Novell
  – NetWare dominated the market only while being the only game in town

• Microsoft
  – Good value, lot of features but how many loyal customers?

• Apple
  – Saved by its design of the user experience!