

# Questions?

- Check your grades!
- Class survey

# Growing up

(From *The Invisible Computer*, Don Norman)

- Technology
- Customers
- Product development



1922

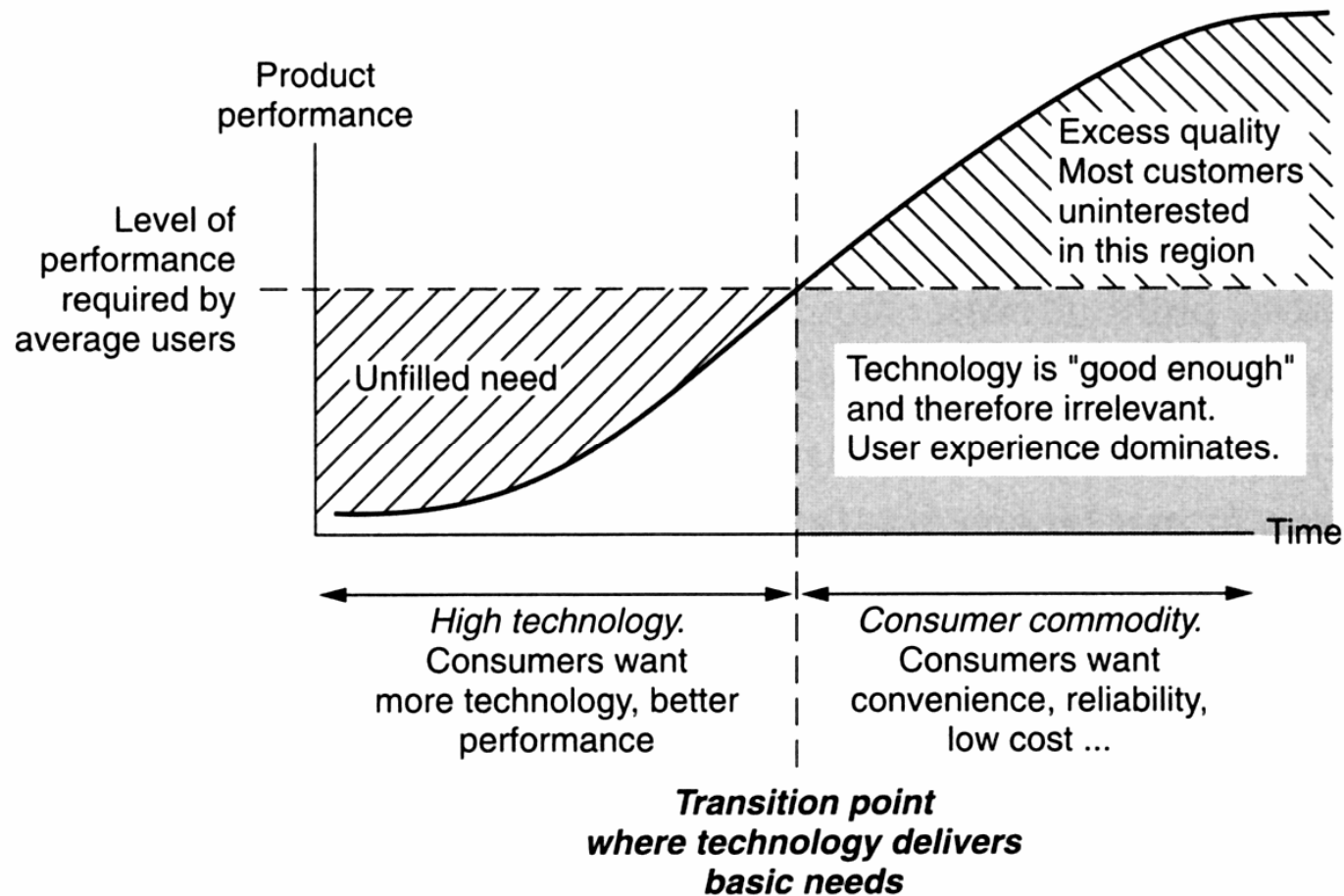


1945



199X

# Technology: the need-satisfaction curve

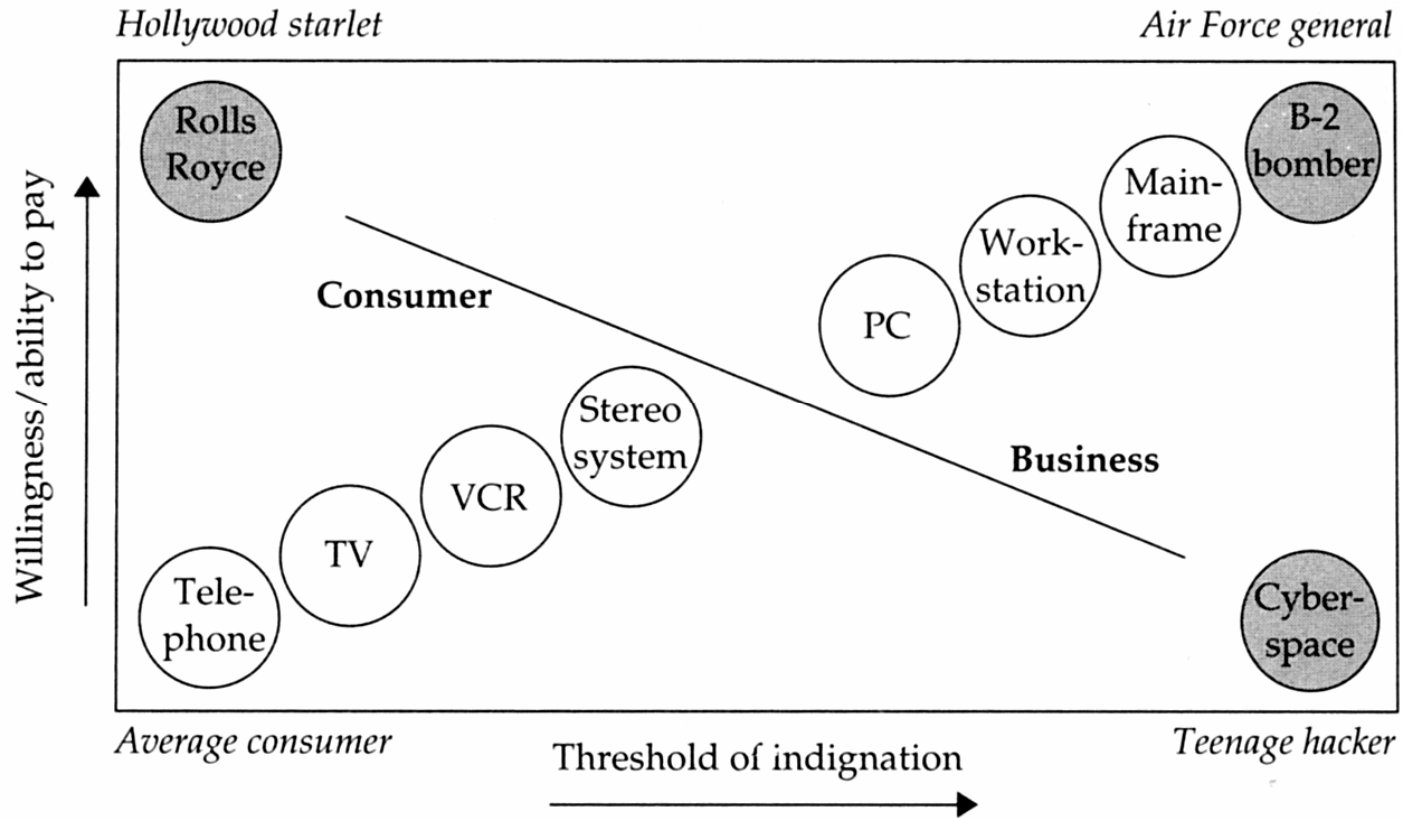


# Examples

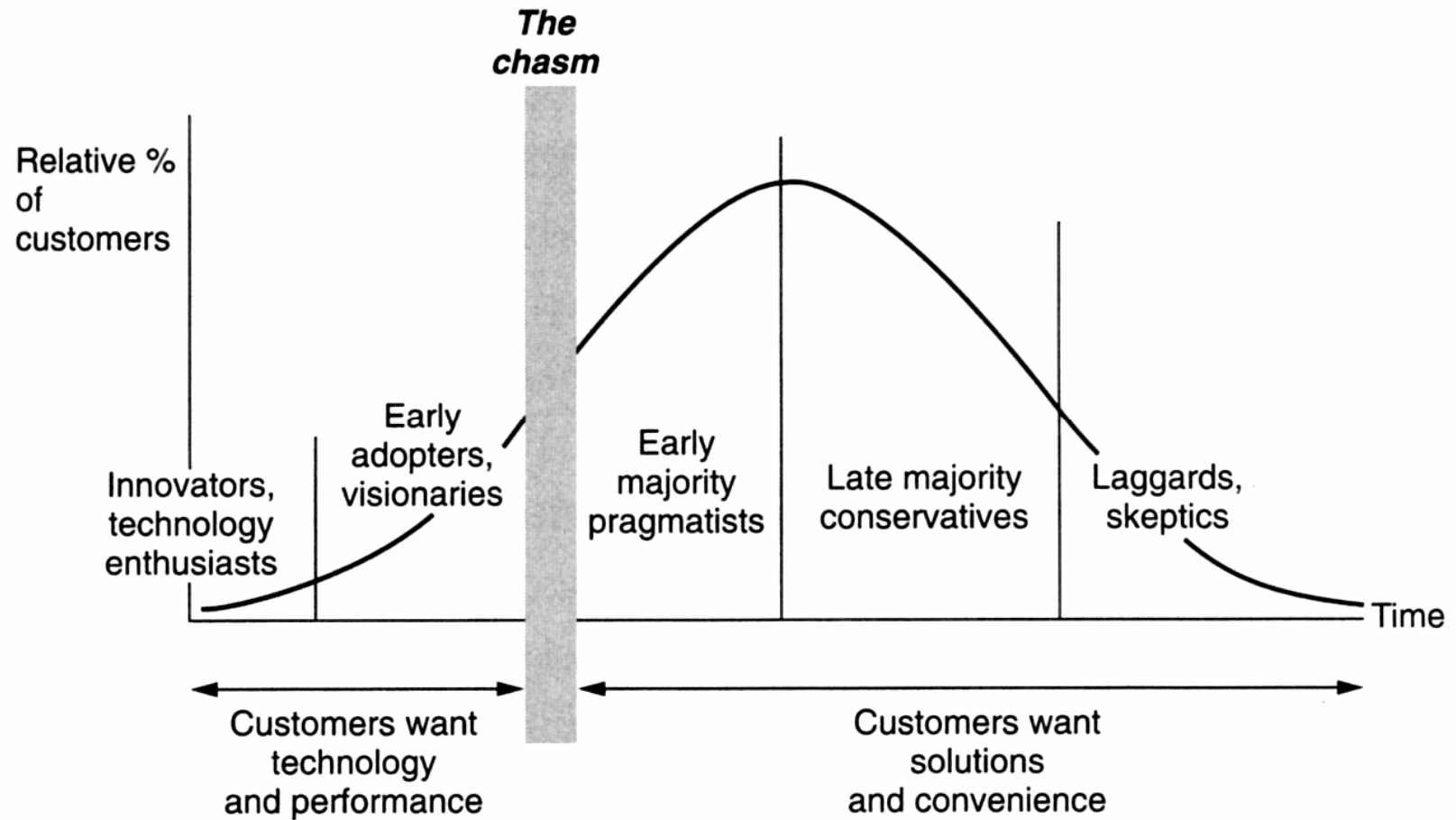
- Photography
  - Easy to process film (Kodak)
- Car
  - Affordable and easy to fix Ford-T (Ford)
- Radio
  - Extensive use of transistors (Sony or is it the Regency TR-1 from I.D.E.A.)
- Personal computers
  - Easy “on your desk” printing (Apple Mac)
- Internet
  - Easy access from your home computer (AOL)
- Digital music
  - Integrated hardware/content experience (iPod/iTune)

# Price-indignation curve

(Paul Safo in Bringing design to software)



# Customer: adopter categories

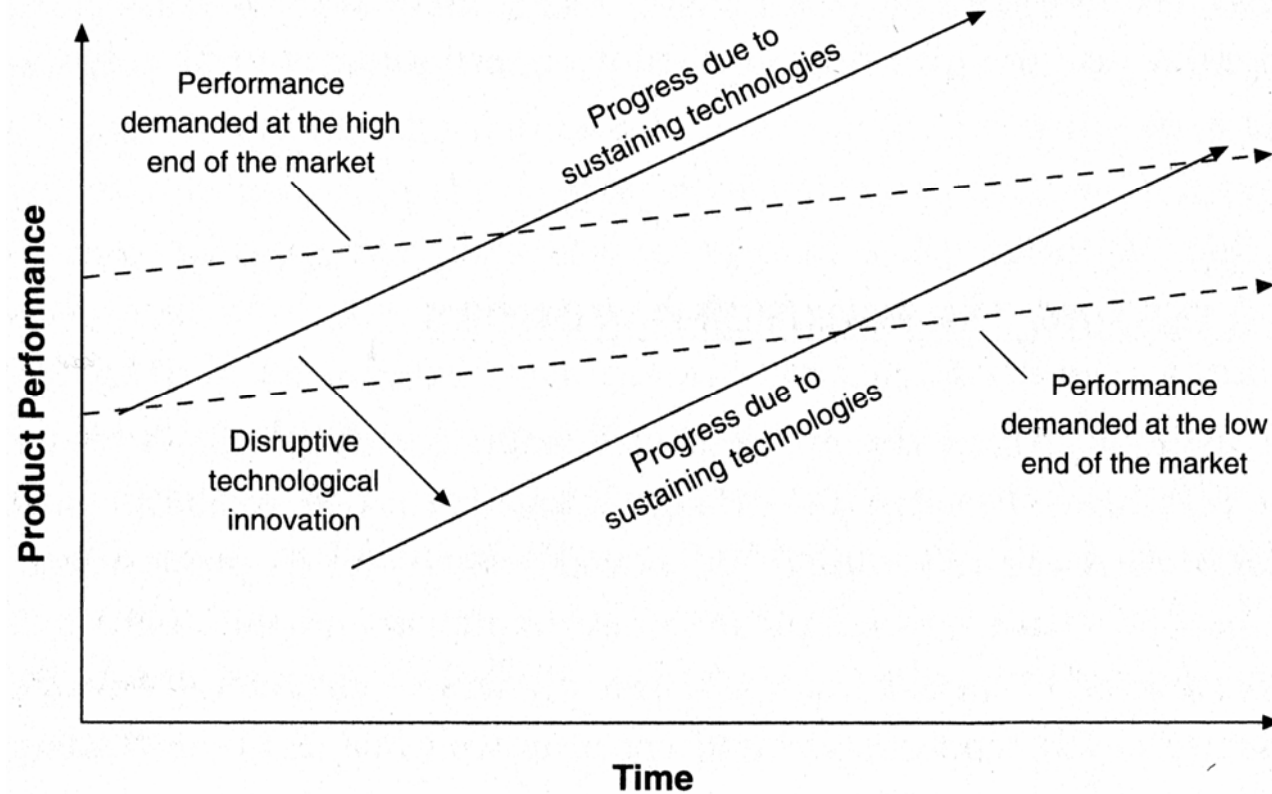


# Examples

- Xerox Star
  - Targeted casual users, but lacked necessary performance
- Cellular phones
  - Almost at the laggards stage
- Personal computers?

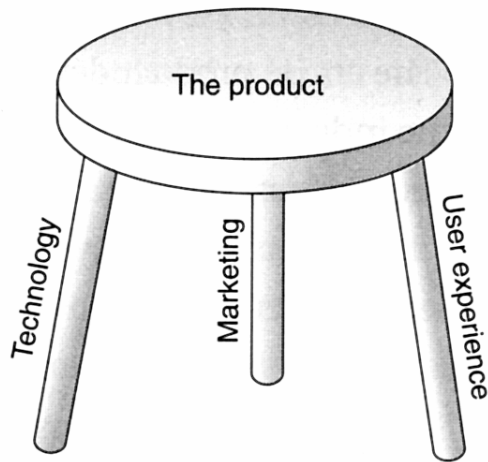
# From one cycle to the next

- Beware of the underdog



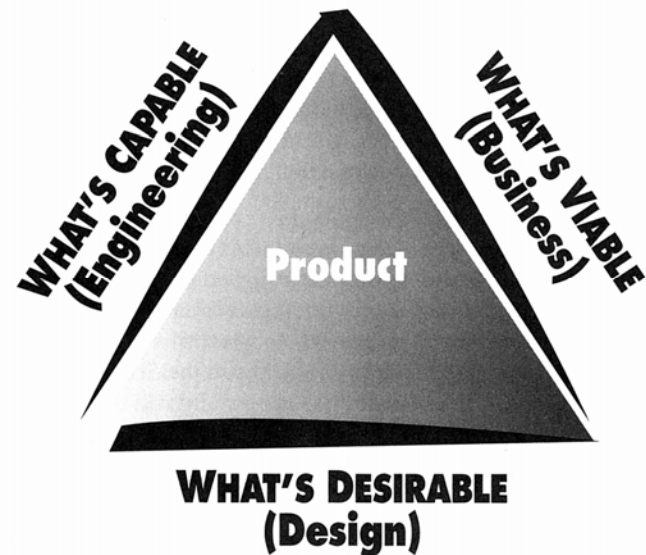
- Personal computers vs large mainframes
- Small Japanese car versus Large American car
- More example in the “Innovator Dilemma” by Clayton M. Christensen

# The 3 legs of product development



The business case

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!