



HCI Human Computer Interaction

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2013-2014



UNIVERSITÉ DE NANTES

Three Major Axes

- ▶ Conception
- ▶ Design
- ▶ Evaluation

Course goals

- ▶ Conceive an interface
- ▶ Construct an interface
- ▶ Evaluate an Interface



Part I : History



UNIVERSITÉ DE NANTES

- ▶ History of HCI
 - ▶ from Marc Mathieu (ERG, Bruxelles)

Cabinet of Curiosities

- ▶ 1628
- ▶ the Cabinet of Curiosities of Cornelis van der Geest
- ▶ by Willem van Haecht
- ▶ Hype at this time of history



Cabinet of Curiosities

- ▶ 1666
- ▶ Cabinet of Curiosities
- ▶ by Georg Haintz



reading wheel

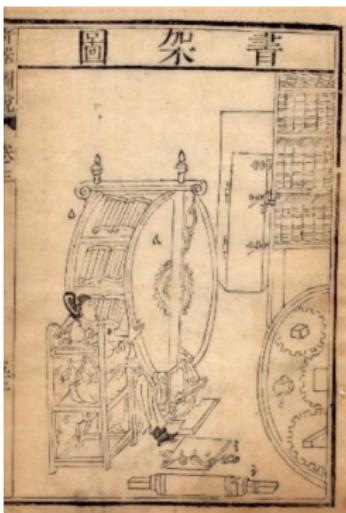
- ▶ 1588
- ▶ reading wheel
- ▶ by Agostino Ramelli



History

reading wheel

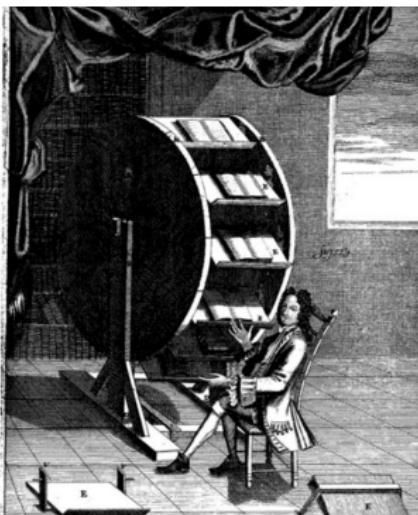
- ▶ 1627
- ▶ reading wheel
- ▶ by Terrence Schreck and Wang Cheng



History

reading wheel

- ▶ 1719
- ▶ reading wheel (improved model: no more gears)
- ▶ by Grollier de Serviere



History

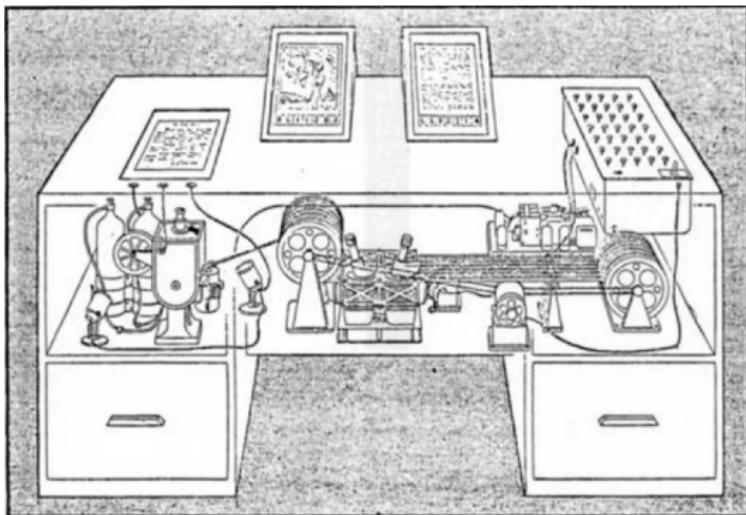
Memex

- ▶ 1945
- ▶ "memex" : memory extender
- ▶ described by Vannevar Bush
- ▶ is a kind of analogical computer
- ▶ Bush envisioned the memex as a device in which individuals would compress and store all of their books, records, and communications, "mechanized so that it may be consulted with exceeding speed and flexibility." (wiki)



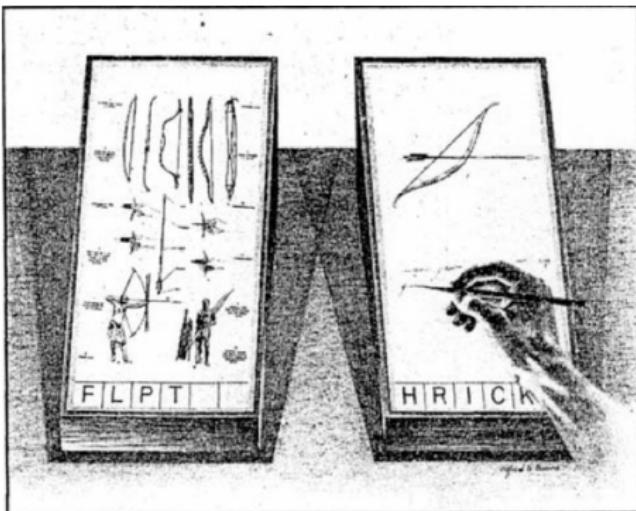
Memex

- ▶ Communication tool



Sage

- ▶ Sage System
- ▶ 1963
- ▶ The Semi-Automatic Ground Environment
- ▶ first realtime interactive computerized system with data transmission



History

SketchPad

- ▶ SketchPad System
- ▶ 1963
- ▶ Ivan Sutherland
- ▶ first interactive vector drawing tool



History

Graficon

- ▶ Graphicon System
- ▶ 1963
- ▶ Douglas Engelbart
- ▶ trackball, lightpen, joystick



History

First Mouse

- ▶ 1963-1964
- ▶ Douglas Engelbart



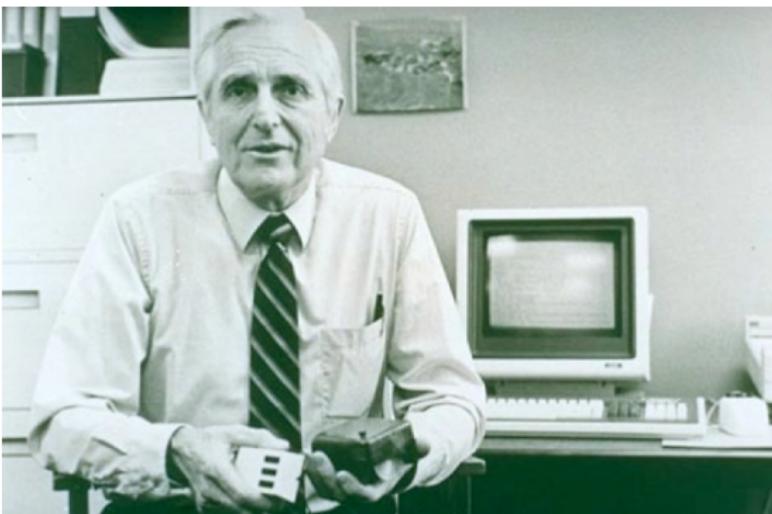
X-Y position indicator

- ▶ 1963-1964
- ▶ Douglas Engelbart
- ▶ patent registered in 1970



Douglas Engelbart

- ▶ January 30, 1925 - July 2, 2013
- ▶ American engineer and inventor,
- ▶ an early computer and Internet pioneer.
- ▶ He is best known for his work on human - computer interaction, ergonomics



History

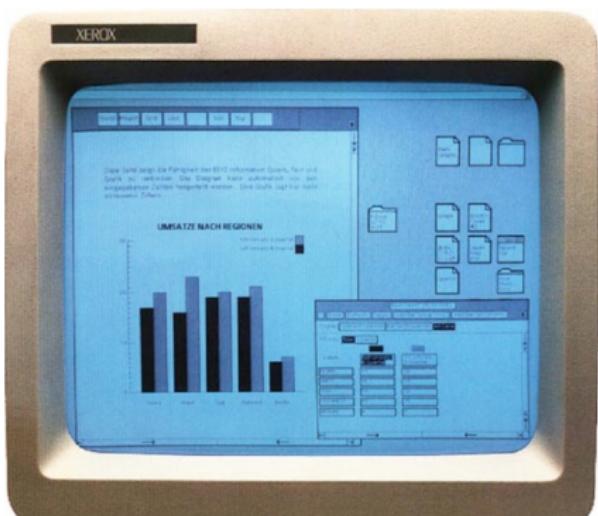
NLS

- ▶ oN-Line System
- ▶ 1968
- ▶ Douglas Engelbart
- ▶ system that permits:
 - ▶ to work in network
 - ▶ multiple windowed environment
 - ▶ hypertext
 - ▶ mouse "keyset"



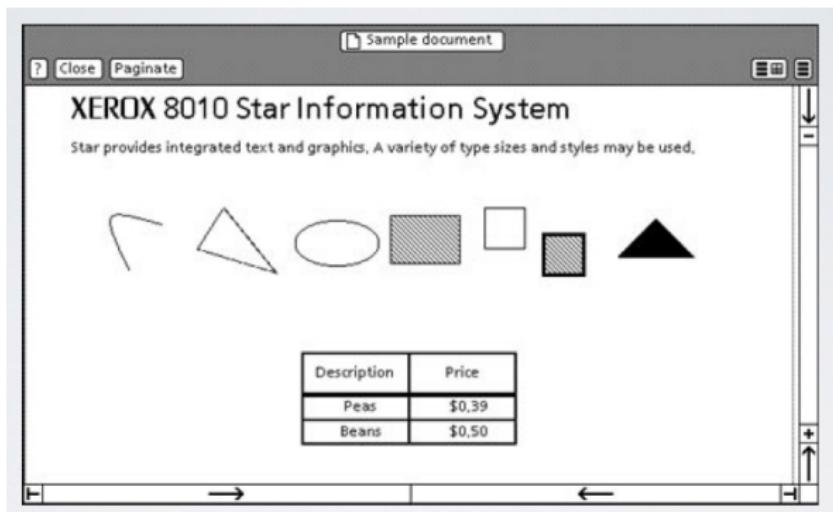
Xerox

- ▶ 1981
- ▶ Xerox Star



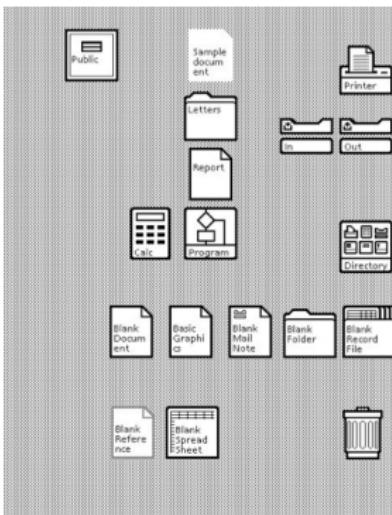
Xerox Star

- ▶ 1981
- ▶ Xerox Star



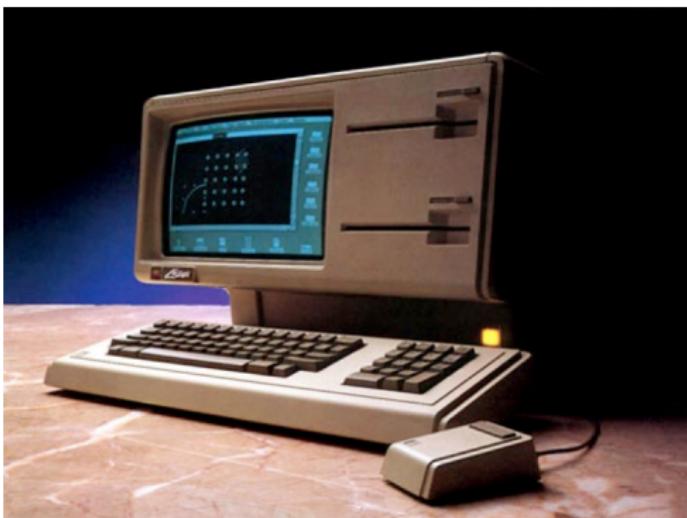
Xerox Star

- ▶ 1981
- ▶ Xerox Star



Apple Lisa

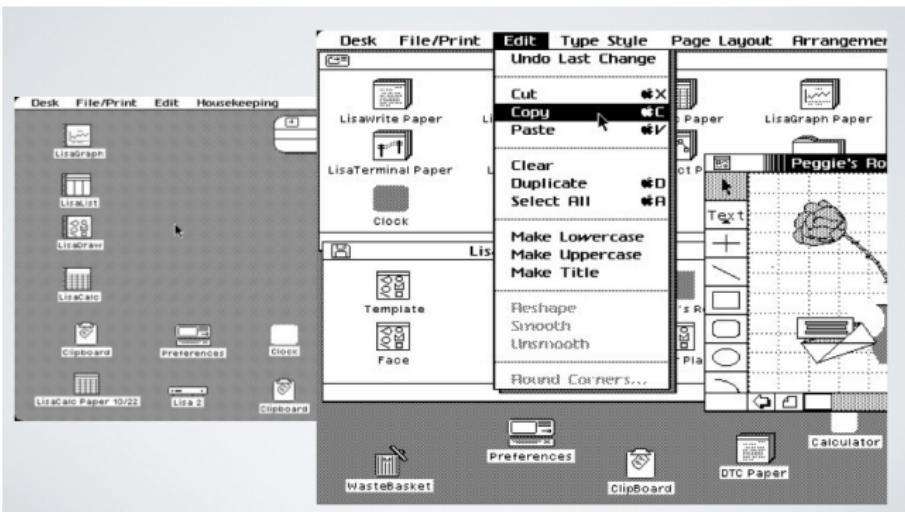
- ▶ 1983
- ▶ Apple Lisa



History

Apple Lisa

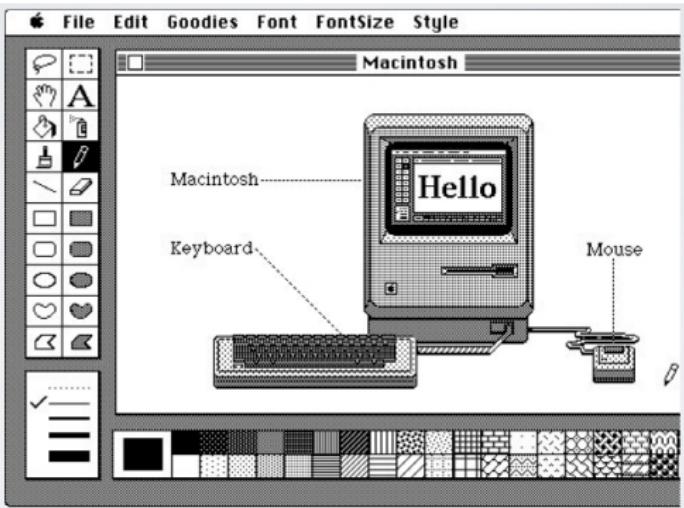
- ▶ 1983
- ▶ Apple Lisa
- ▶ all metaphors and fundamental interactions are there (Xerox Star was for professionals)



History

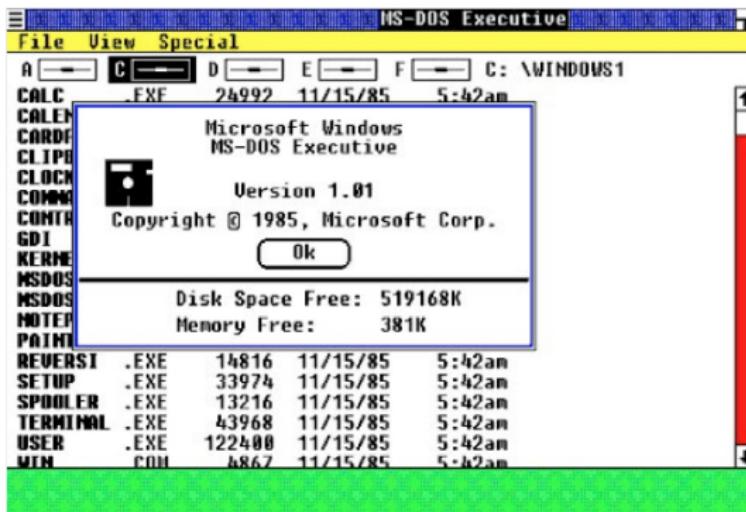
Apple Macintosh

- ▶ 1984
- ▶ Apple Macintosh
- ▶ Mac Paint



Microsoft Windows

- ▶ 1985
- ▶ Microsoft
- ▶ Colored Screen



NeXTSTEP

- ▶ 1989
 - ▶ NeXTSTEP
 - ▶ An object-oriented, multitasking operating system
 - ▶ Steve Jobs (away from Apple)
 - ▶ Apple's OS X and iOS are direct descendants of NeXTSTEP



Apple OS X

- ▶ 1999
- ▶ started with Rhapsody derived from NeXTSTEP
- ▶ An object-oriented, multitasking operating system
- ▶ Steve Jobs (away from Apple)
- ▶ Apple's OS X and iOS are direct descendants of NeXTSTEP



And...

- ▶ XWindows (1985 Unix)
- ▶ World Wide Web (Cern 1990) network hypertext
- ▶ Java AWT, Swing (Sun Microsystem 1995)
- ▶ C++ QT (Trolltech) : multi OS (development environment)
- ▶ C++ wxWindows : multi OS