

History of Computers & Computing

Jon Kolko
Savannah College of Art & Design

IDUS315 - HCI | 1

History of Computers & Computing

- Historical Overview & Timeline
- Who's Who
- What's Going On in the CHI world

IDUS315 - HCI | 2

Historical Overview : A Question

It is now 2005.


When was the first computer built?

IDUS315 - HCI | 3

Historical Overview : An Answer

- Although there were machines before it, the IBM Mark I was the first fully programmable calculator, developed in ...


1943.



- Occupied an entire building
- Weighed 5 metric tons
- Used "a few tons of ice" per day to cool it
- Punch cards, or tapes, are fed into the machine in a certain order
- "Programming" the device meant creating and ordering the cards

IDUS315 - HCI | 4

Historical Overview : 1940s




- UNIVAC, in 1947, was the first available computer to consumers (businesses)
- UNIVAC-1 was mass produced to the tune of **46** total units, selling for over a million bucks a shot

IDUS315 - HCI | 5

Historical Overview : 1950s

- **International Business Machines** begins selling computers in 1952, offering the Model 701 – which had 1k of RAM. Followed with the Model 706.
- 706 Model 1 had a monthly rental charge of approximately \$2,600
- The 706 was withdrawn from marketing on June 6, 1956.
- The 740, pictured at right, provided output in the form of a Cathode Ray Tube (CRT).



IDUS315 - HCI | 6

Historical Overview : 1950s

- In 1954, two new companies begin offering computers: **Commodore & Fujitsu Ltd.**
- In 1955, **FORTRAN** is established as the first high level programming language
- In 1960, **DEC** releases the first mini-computer: the PDP-1, costing \$250,000



IDUS315 - HCI | 7

Historical Overview : 1960-1968

- In 1962, Ivan Sutherland creates **Sketchpad** – the first graphical system that can make pictures on a screen
- In 1963, Douglas Englebart invents the **mouse**, which is later patented in 1967
- In 1967, Seymour Papert created Logo
- In 1968, Douglas Englebart demos his "chord" keypad, keyboard, mouse & windows in San Francisco – this is better known as the invention of the **GUI!**

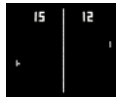


Doug's Presentation: [1](#) [2](#).

IDUS315 - HCI | 8

Historical Overview : 1969 - 1973

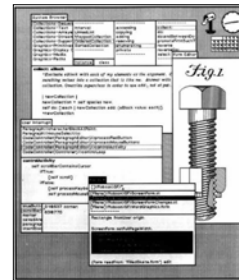
- In 1969, ARPAnet is created by the government, linking various universities and laboratories. ARPAnet evolved into what we think of now as **The Internet**.
- In 1972, **Pong** was created – the first commercially available video game. The company created to market it was called **Atari**.
- In 1973, the **bar code** is invented, and the internet has 25 computers attached to it.



IDUS315 - HCI | 9

Historical Overview : 1973

- Xerox Alto, created at Xerox PARC



IDUS315 - HCI | 10

Historical Overview : 1975 – 1977

- 1975 is a big year:
 - **Motorola** ships the Sphere 1 with 4k of RAM and a keyboard for \$650.00; additional peripherals cost over \$2000
 - **Texas Instruments** begins selling scientific calculators (Concept I at right)
 - **Micro-Soft** is formed by Bill Gates & Paul Allen



- In April, 1977, **Apple Computers** is formed by Steve Wozniak & Steve Jobs
- **UNIX** is introduced for IBM computers

IDUS315 - HCI | 11

Historical Overview : 1980 - 1983

- 1980 - 1983 proved to be the boom of the computer industry:
 - The dot matrix **printer** is introduced in 1978
 - Seagate creates the **harddisk** – the first one could store 5 megabytes of data
 - The first PCs are created, and sell for about \$4000; they run at about 8MHz and have 64k of RAM



IDUS315 - HCI | 12

What's Going On in the CHI world

- [GUI Paradigm Using Two Hands](#) (1997)
- [Media Blocks](#) (1999)
- [Media Blocks in Toys](#) (2001)