

Interaction Devices

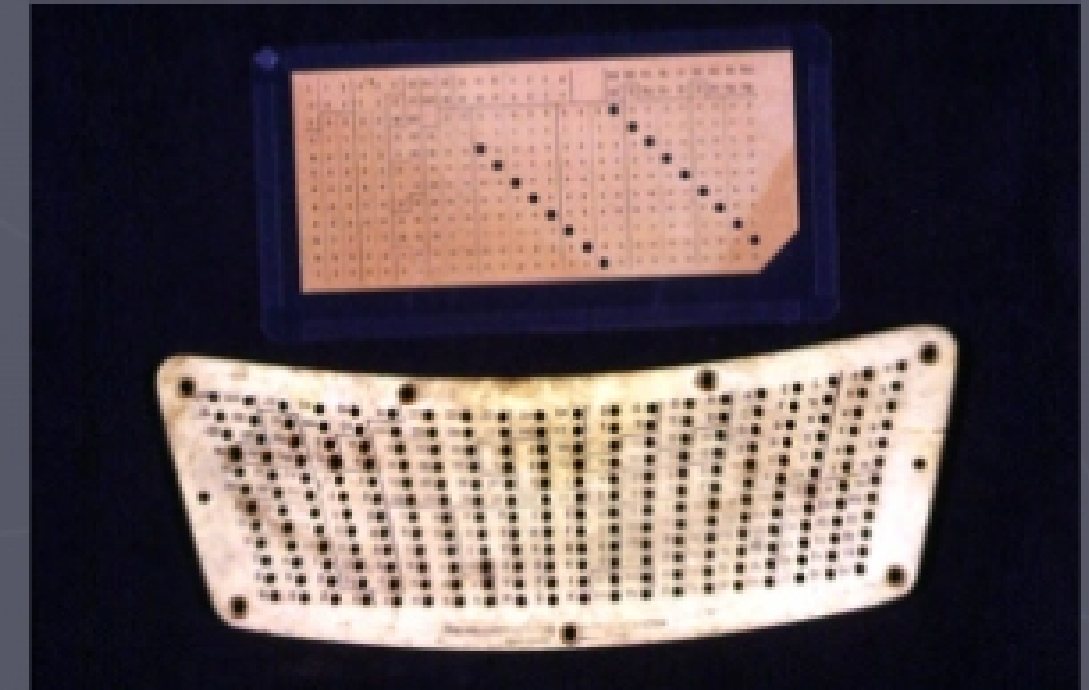
Human Computer Interaction

CIS 6930/4930

Section 4188/4186

Interaction Performance

- ▶ 60s vs. Today
 - Performance
 - ▶ Hz -> GHz
 - Memory
 - ▶ k -> GB
 - Storage
 - ▶ k -> TB
 - Input
 - ▶ punch cards ->
 - ▶ Keyboards, Pens, tablets, mobile phones, mice, digital cameras, web cams
 - Output
 - ▶ 10 character/sec
 - ▶ Megapixel displays, color laser, surround sound, force feedback, VR
- ▶ Substantial bandwidth increase!



Interaction Performance

- ▶ Future?
 - Gestural input
 - Two-handed input
 - 3D I/O
 - Others: voice, wearable, whole body, eye trackers, data gloves, haptics, force feedback
 - Engineering research!
 - Entire companies created around one single technology
- ▶ Current trend:
 - Multimodal (using car navigation via buttons or voice)
 - Helps disabled (esp. those w/ different levels of disability)

