

BACK TO THE FUTURE II

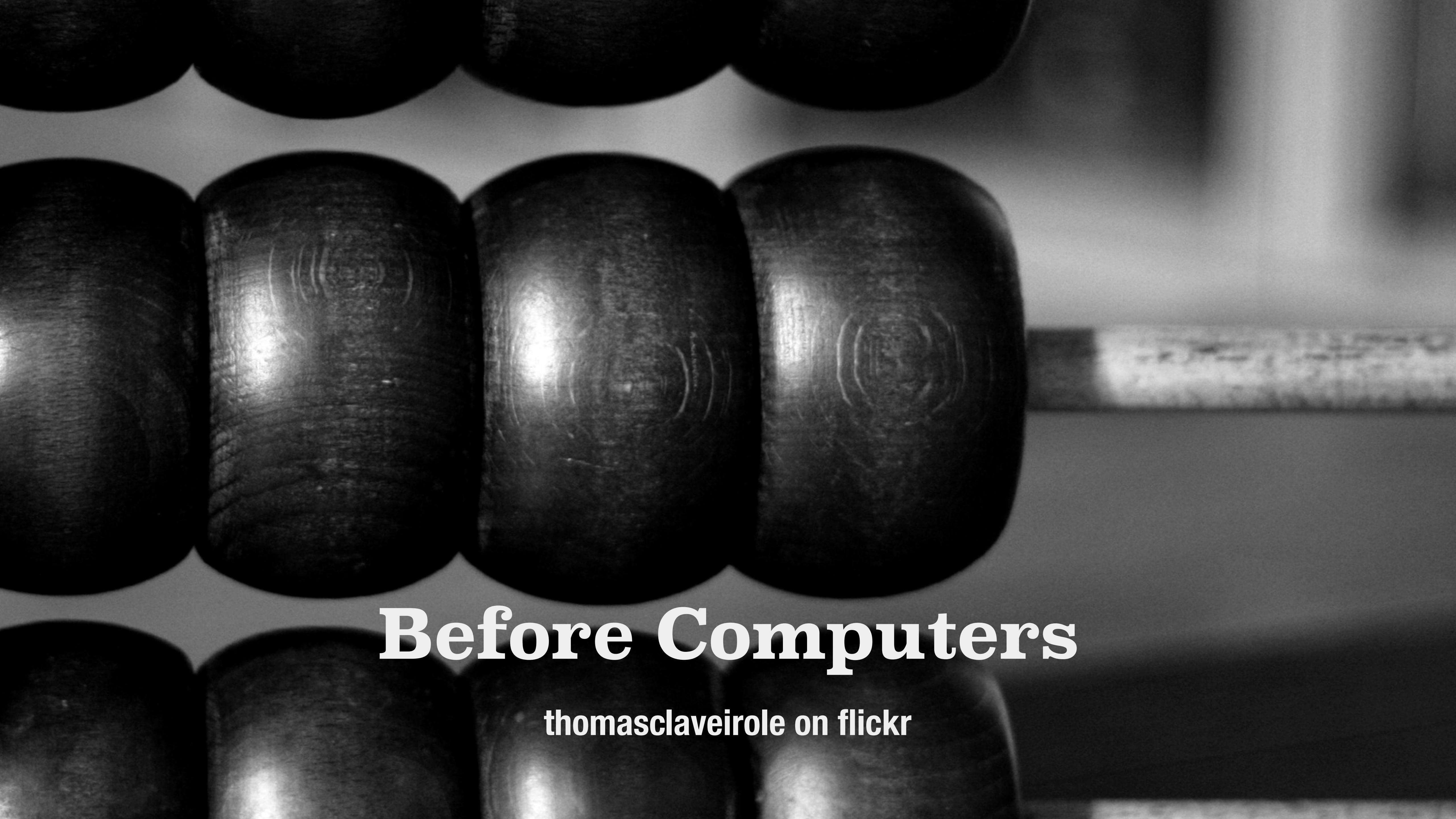
Part II





back to the future with HCI

October 21, 2015
Valkyrie Savage

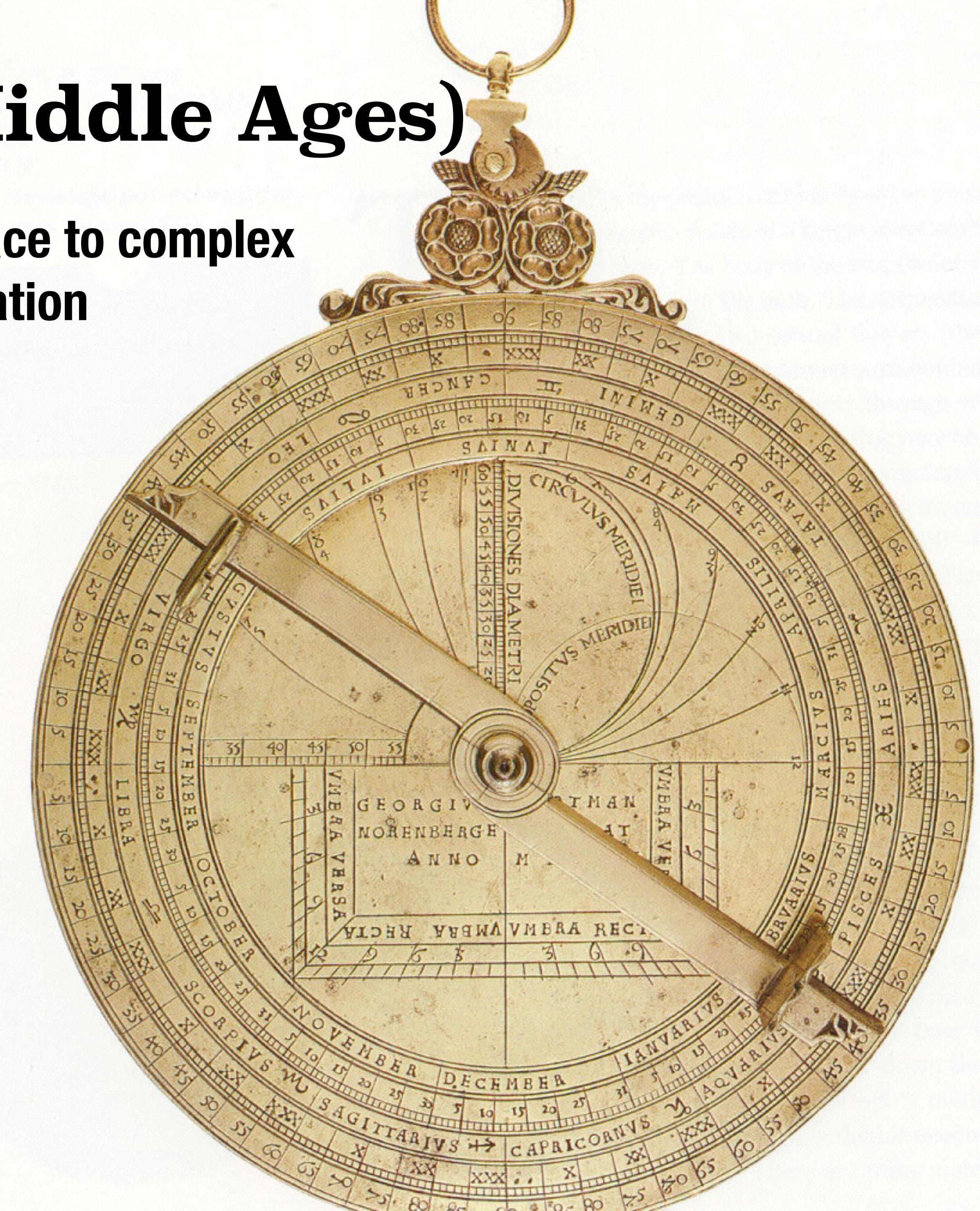
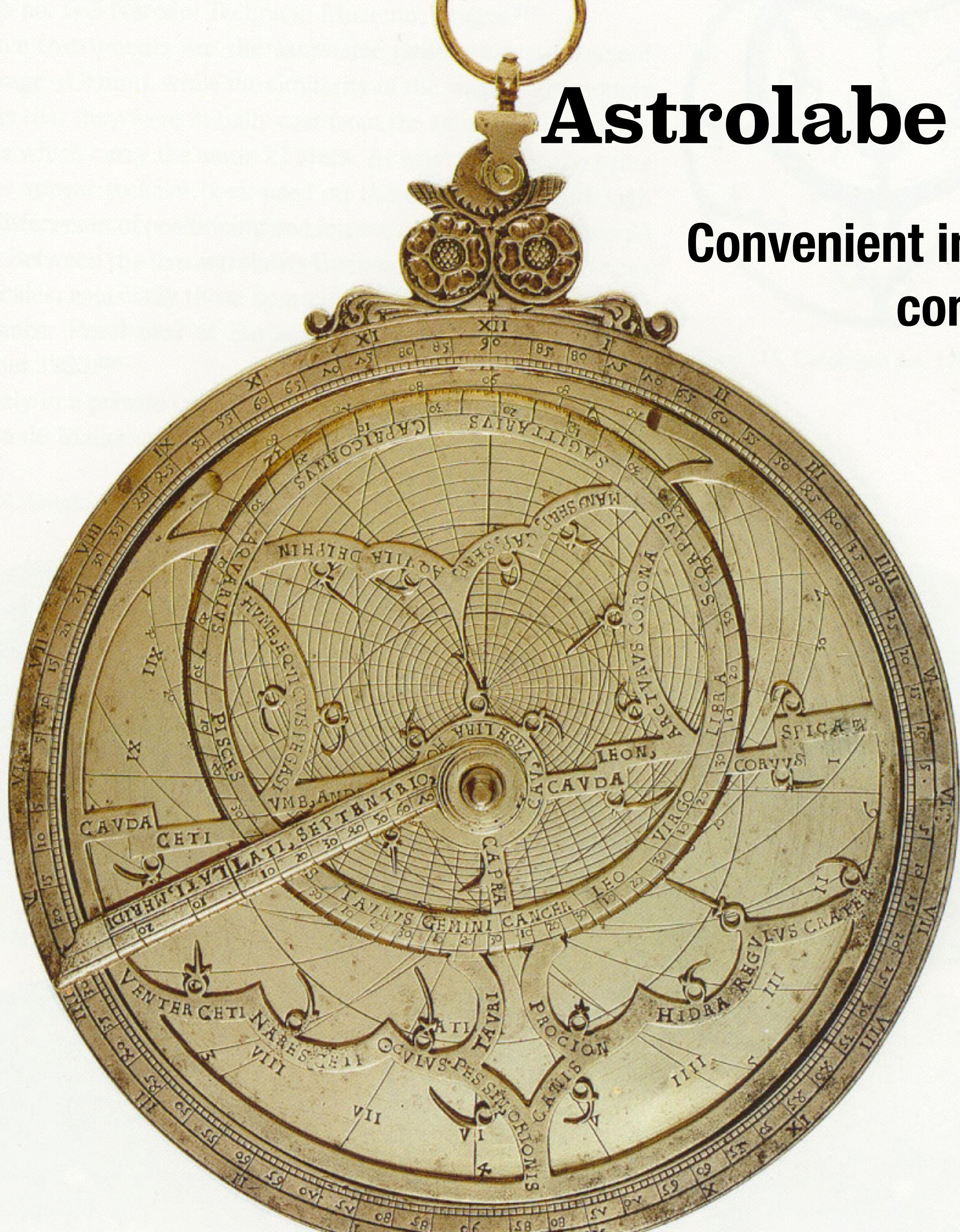


Before Computers

thomasclaveirole on flickr

Astrolabe (Middle Ages)

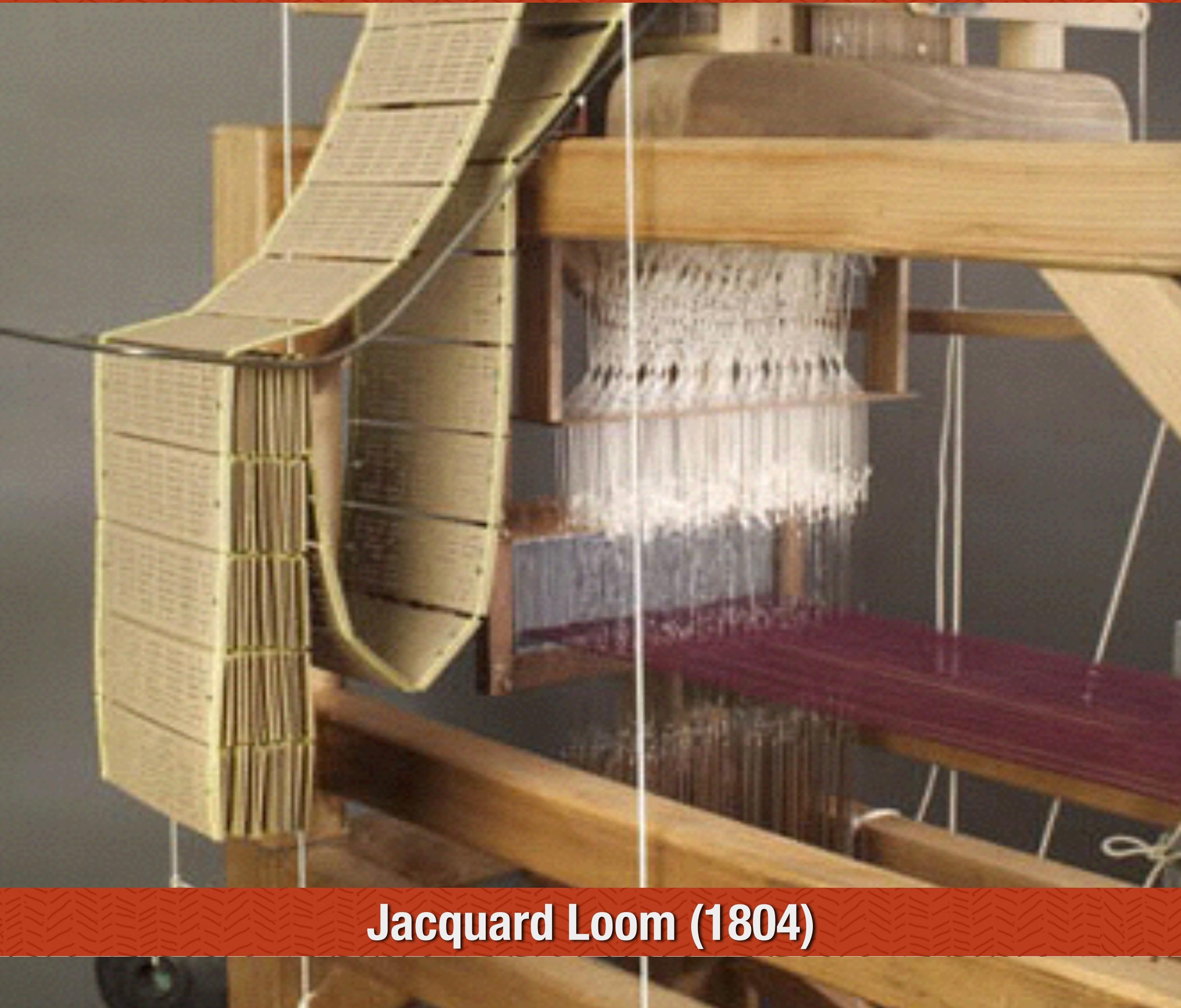
Convenient interface to complex computation



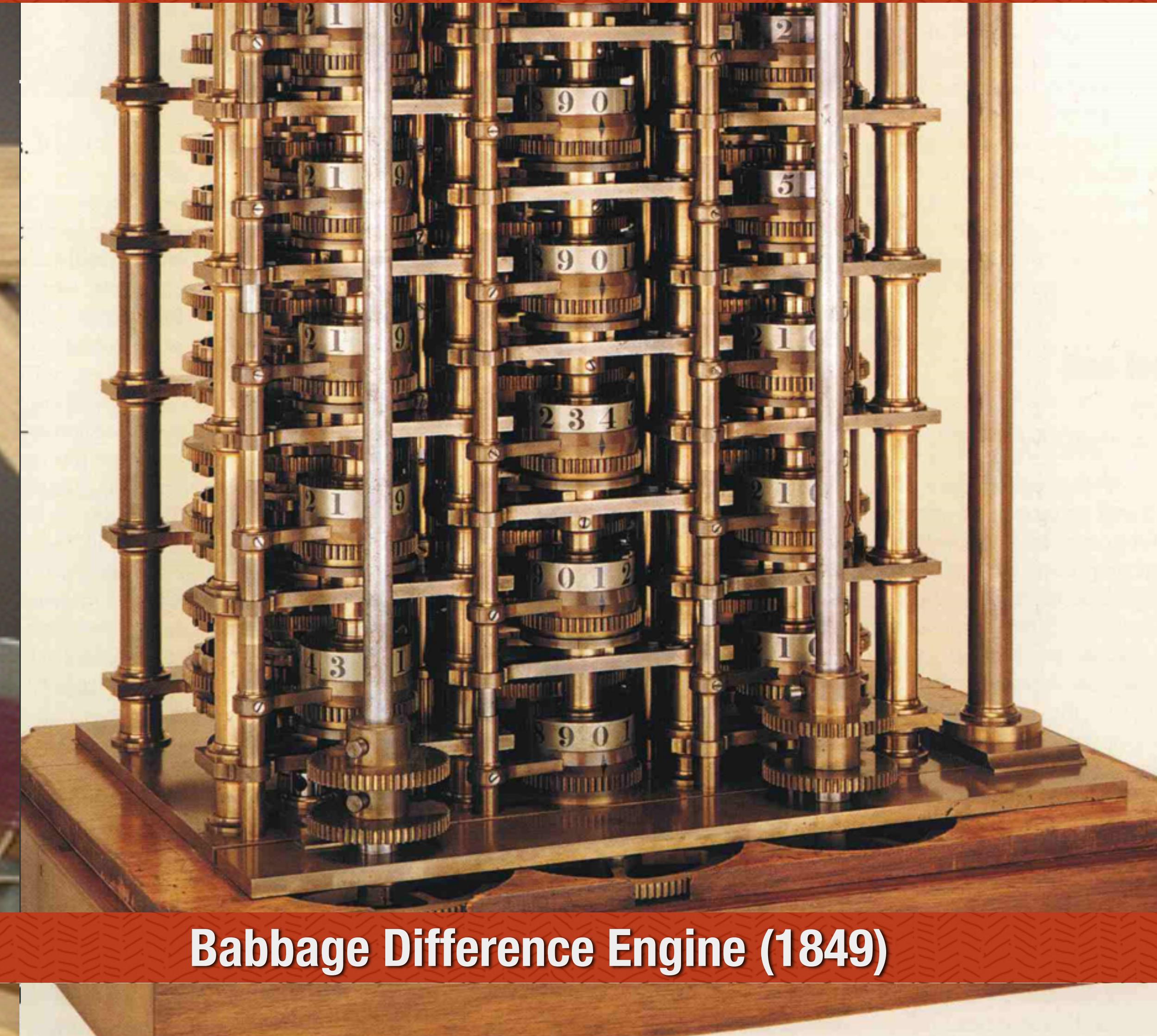
Affordances



Mechanical Control & Computation

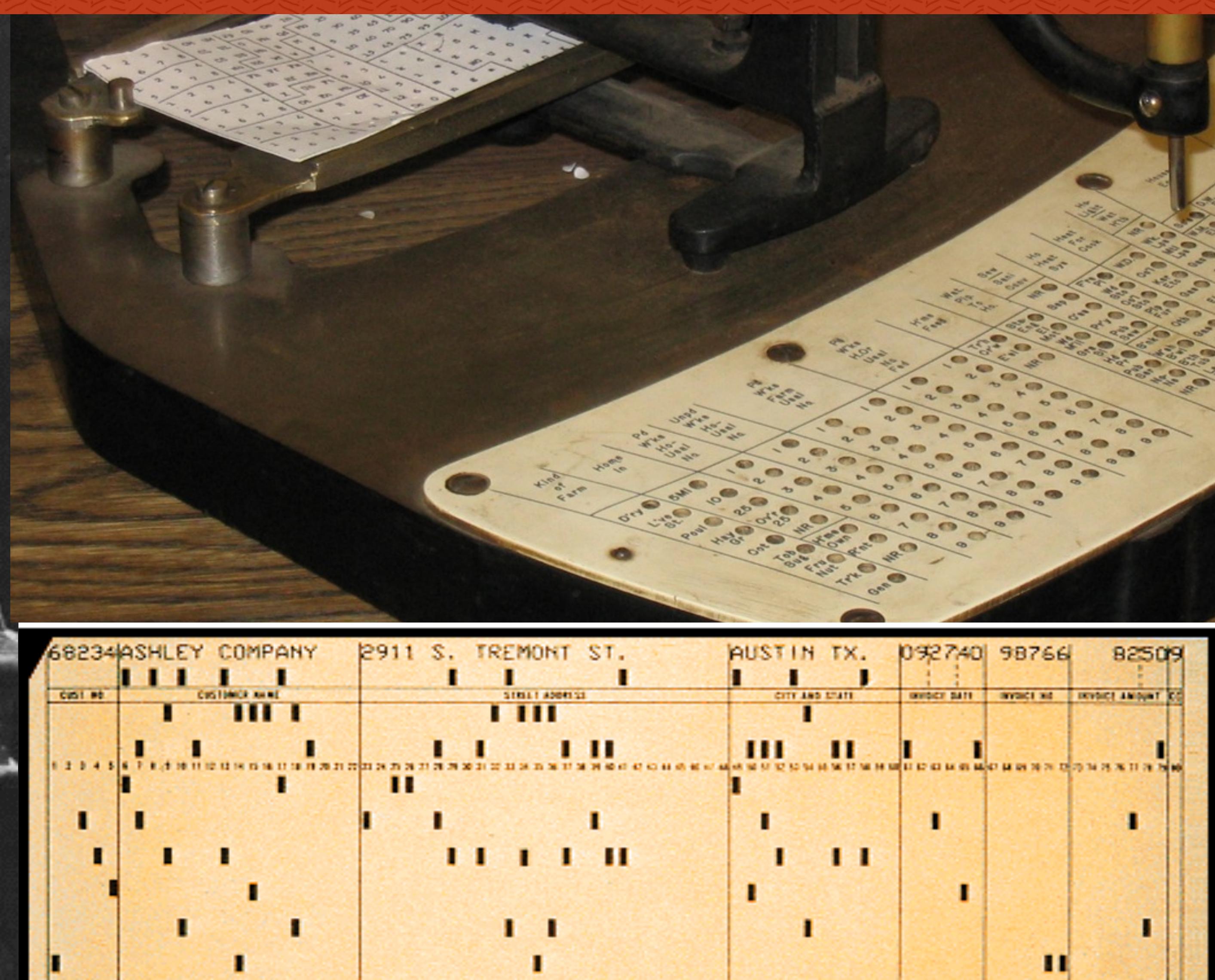
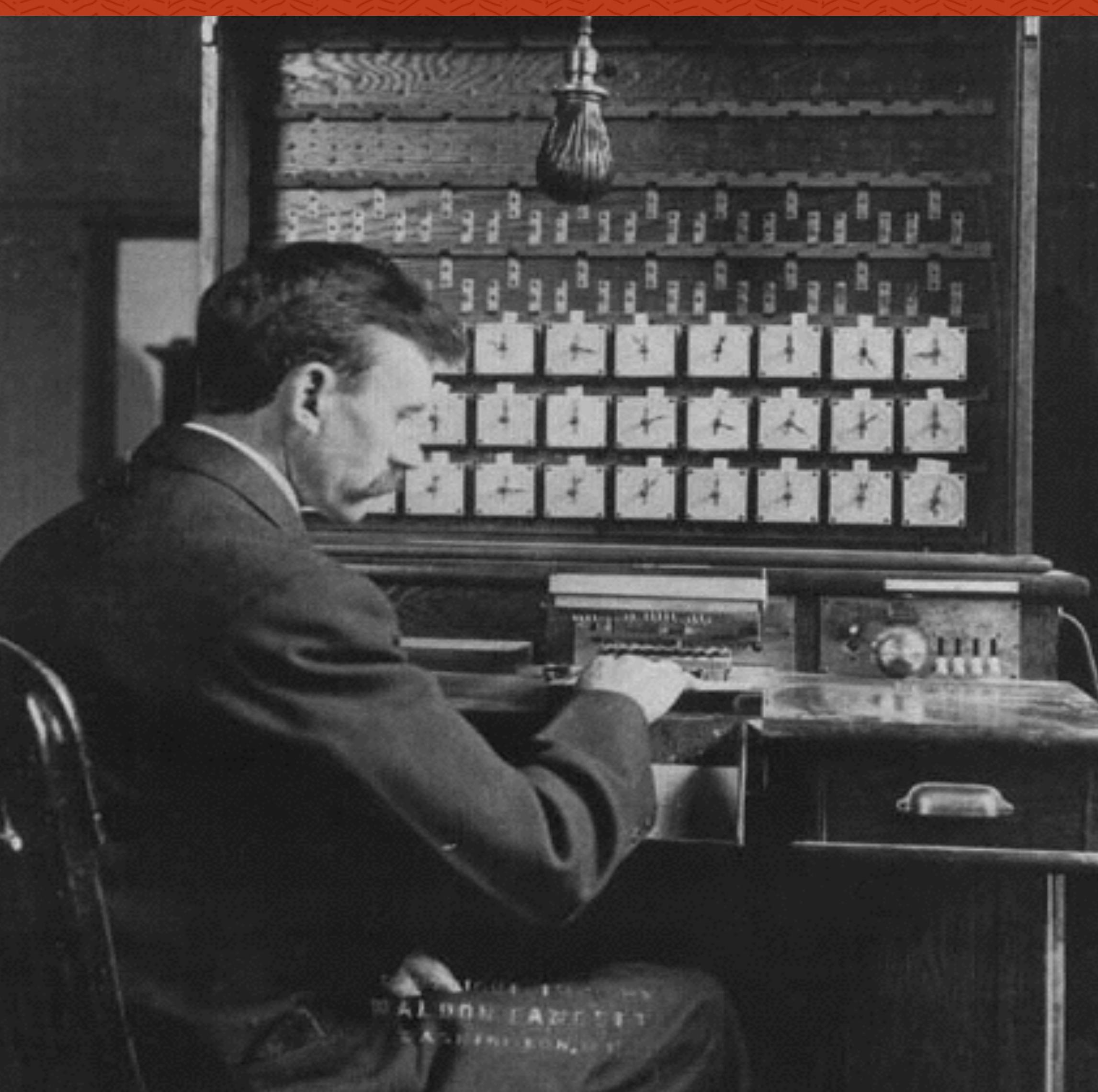


Jacquard Loom (1804)



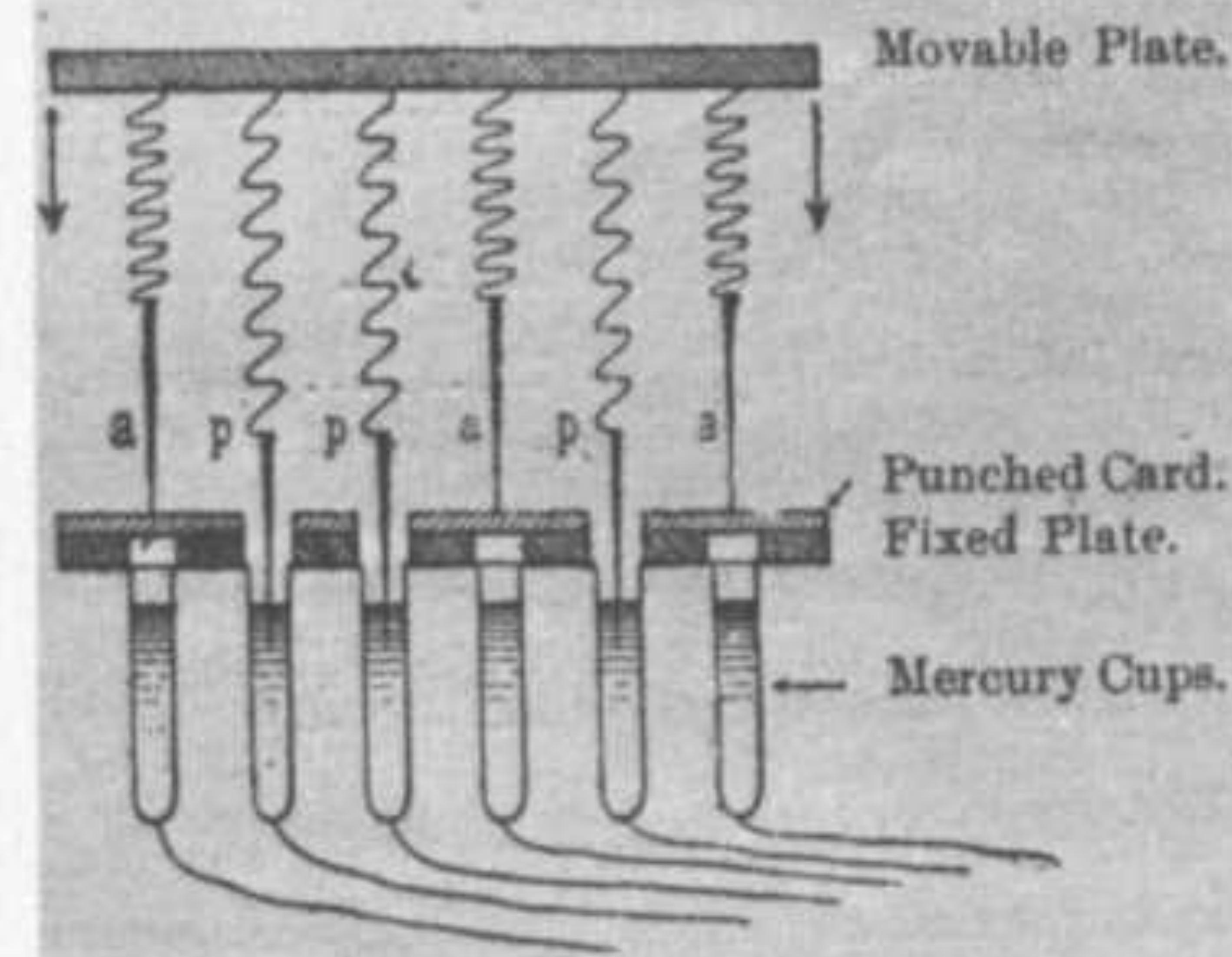
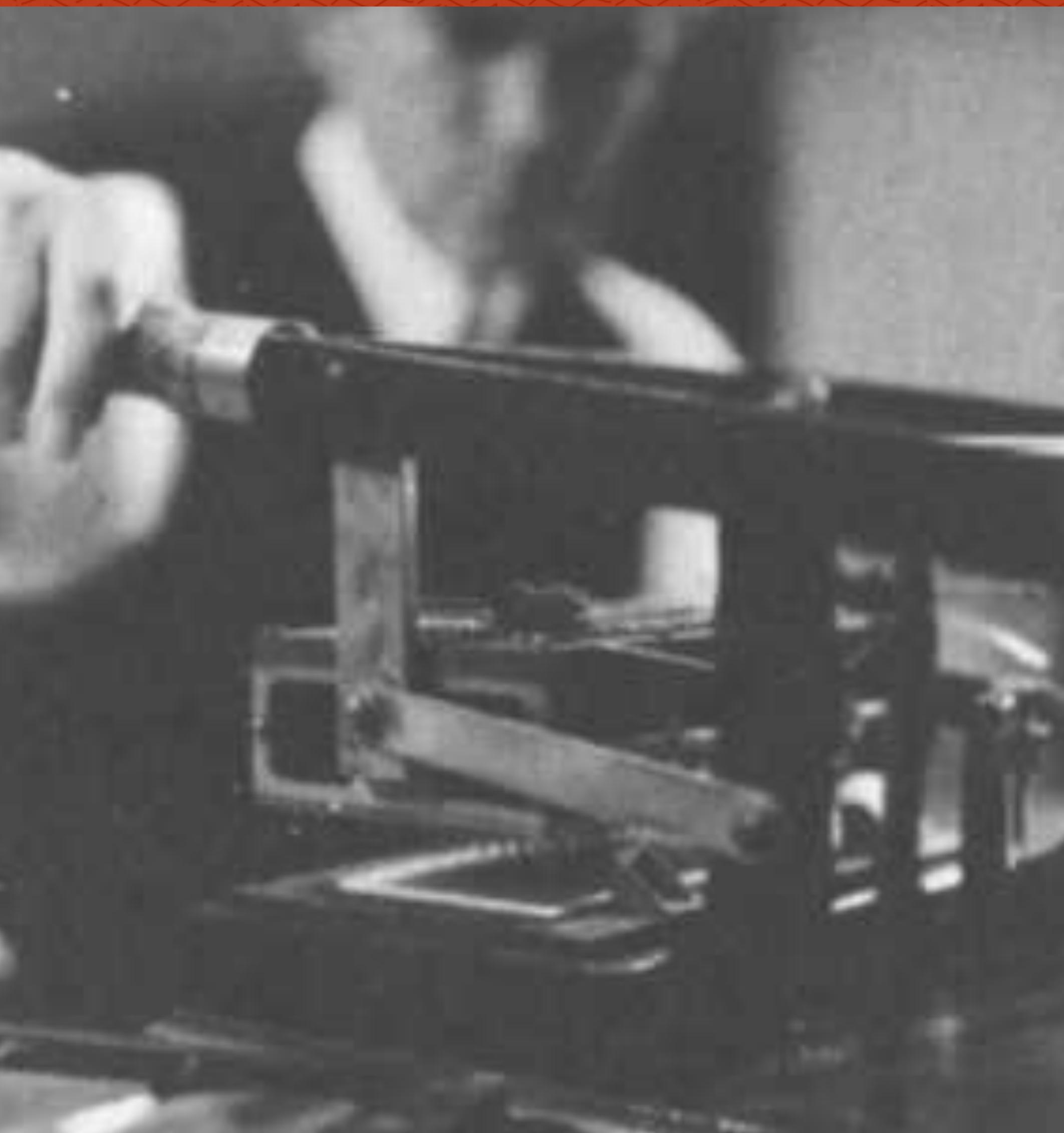
Babbage Difference Engine (1849)

Hollerith Punch Cards (1890)



Hollerith Electric Tabulator, US Census Bureau, Washington, DC, 1908,
Photograph by Waldon Fawcett. Library of Congress, LC-USZ62-45687.

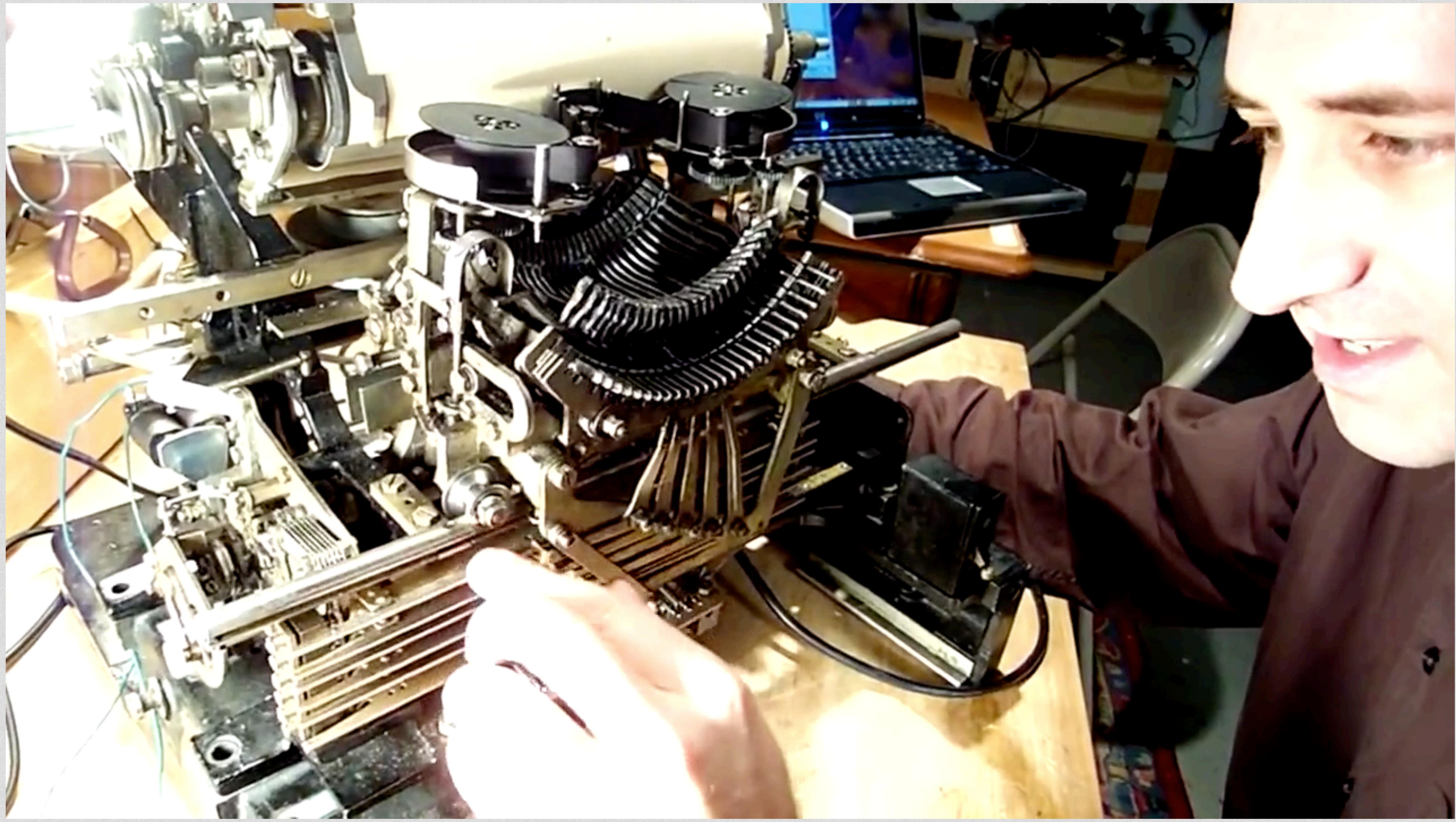
Hollerith Punch Cards (1890)



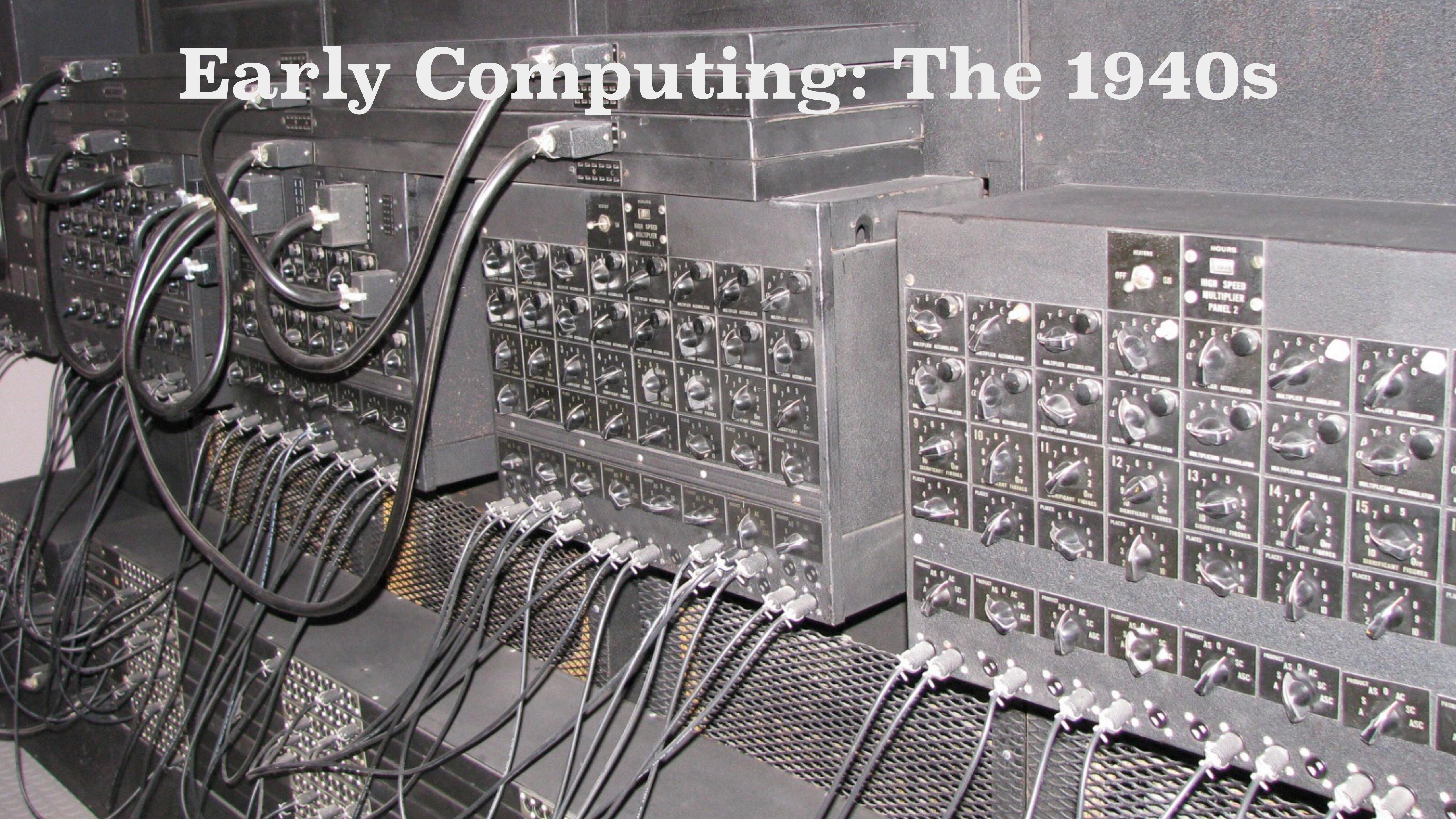
Computer History Museum video:
<http://www.youtube.com/watch?v=9HXjLW7v-II>

Teletype (ca. 1910)

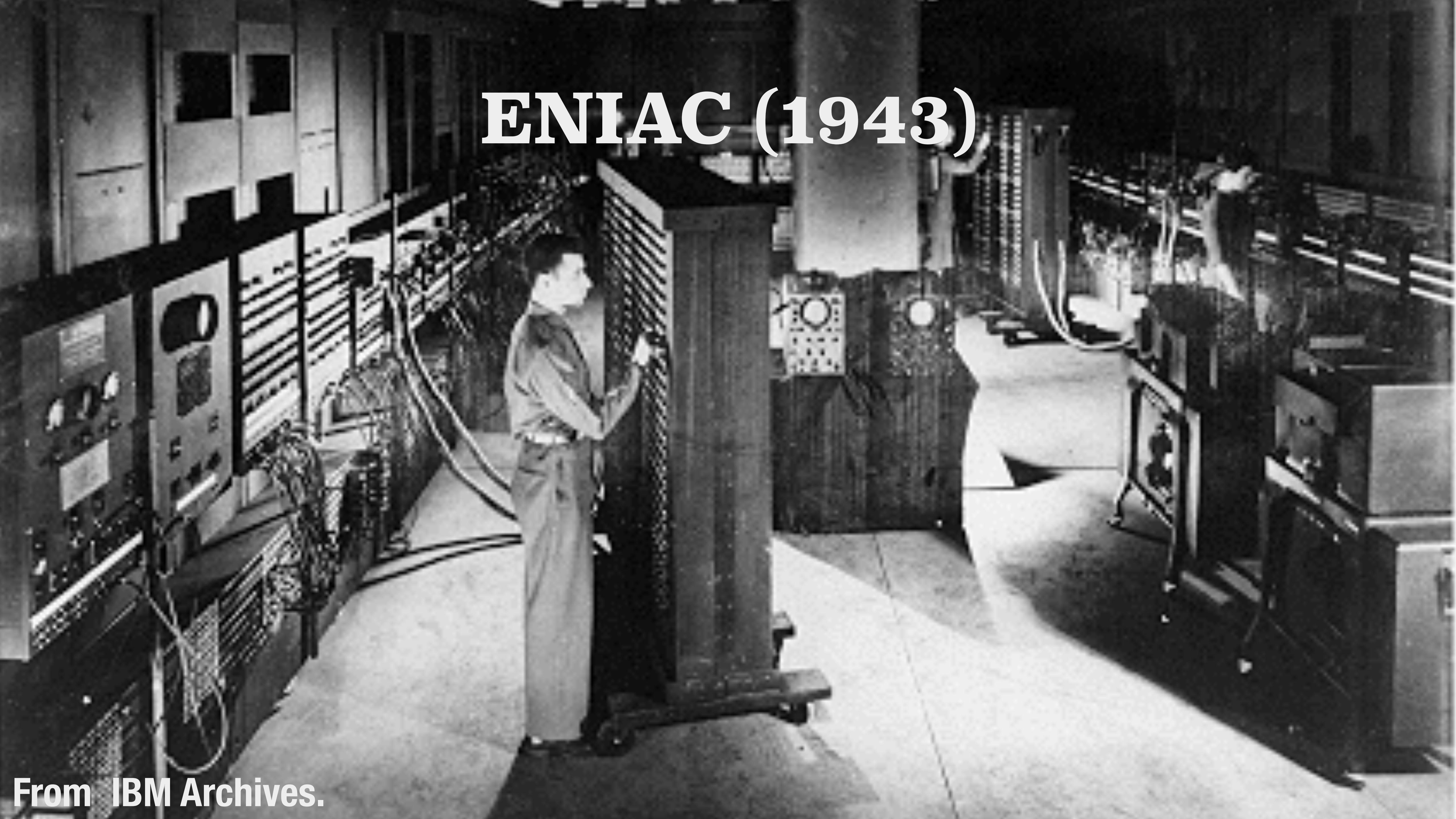




Early Computing: The 1940s



ENIAC (1943)



From IBM Archives.

Harvard Mark I (1944)

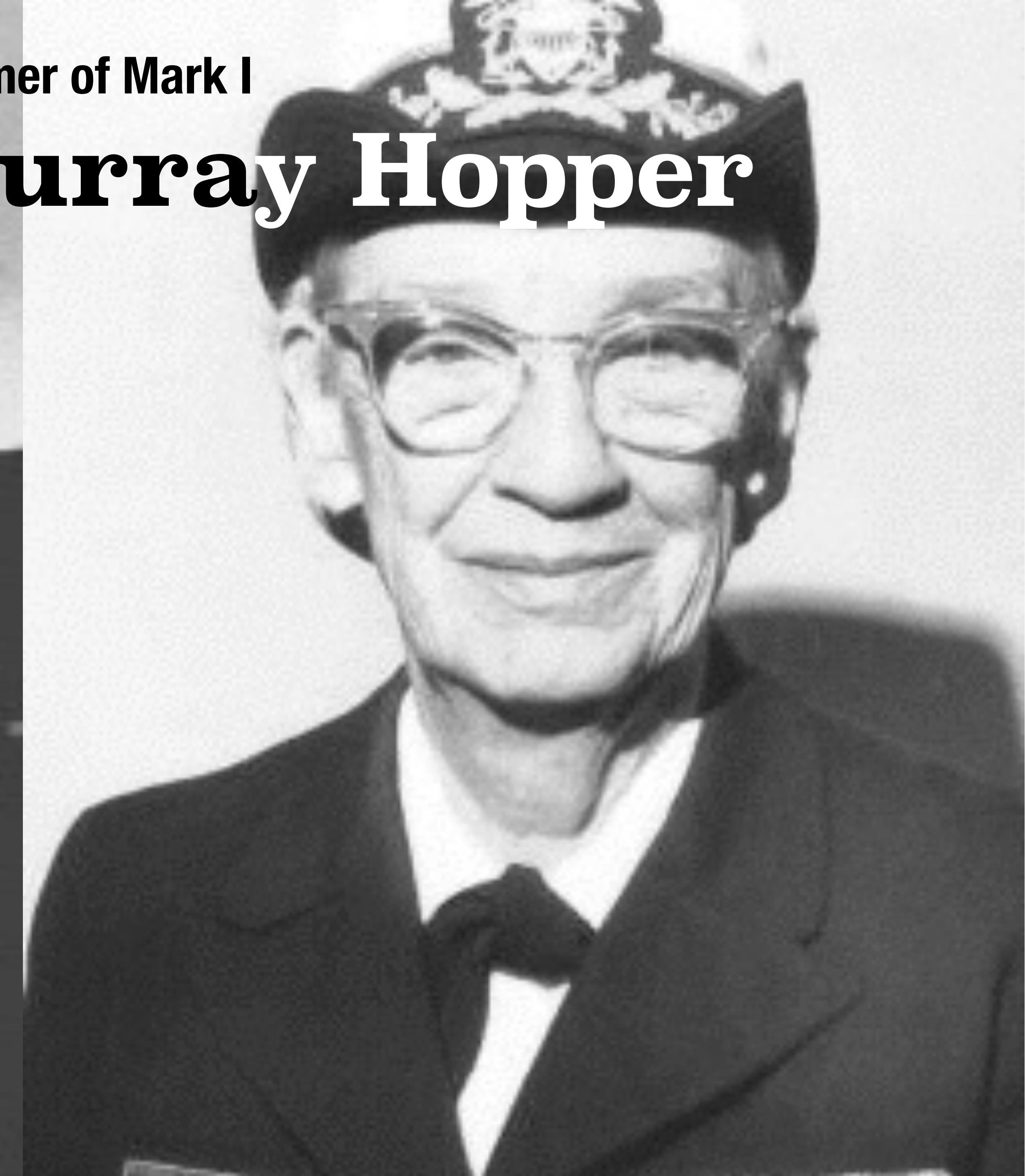


55 feet long, 8 feet high, 5 tons



First programmer of Mark I

Adm. Grace Murray Hopper



arctan started
 " stopped - arctan ✓ {
 13° 00' (032) MP - MC ~~1.98214000~~
 (033) PRO 2 2. 130476415
 const 2. 130676415

First actual case of bug being found.
 Started test.
 Started Cosine Tape (Sine check)
 Started Multi Adder Test.



Relay #70 Panel F
 (moth) in relay.

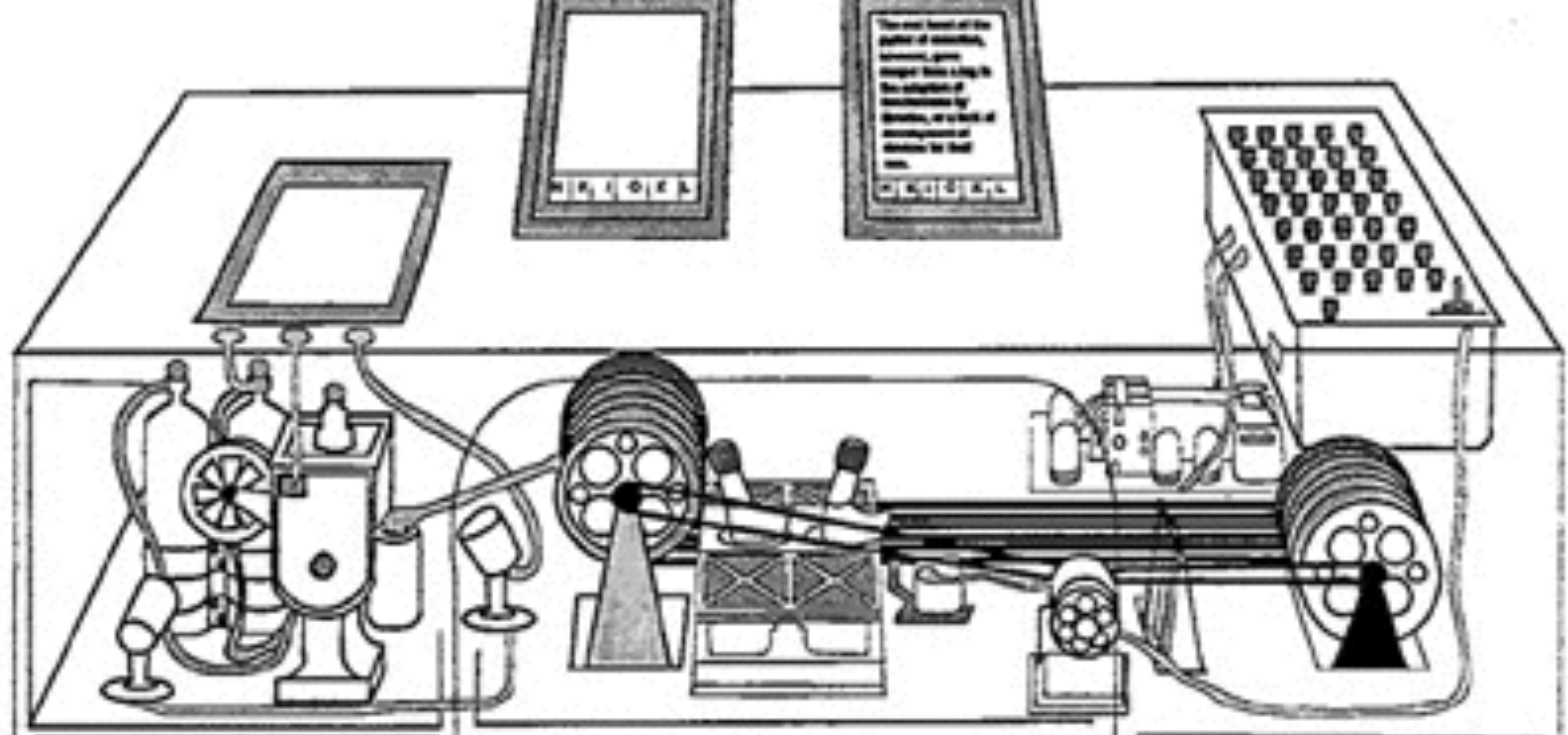
A black and white portrait photograph of Vannevar Bush. He is an elderly man with thinning hair, wearing a dark suit jacket over a light-colored shirt and a dark, diagonally striped tie. He is seated at a desk, looking slightly to his left with a thoughtful expression. His hands are clasped together on the desk in front of him. The background is dark and out of focus.

Vannevar Bush

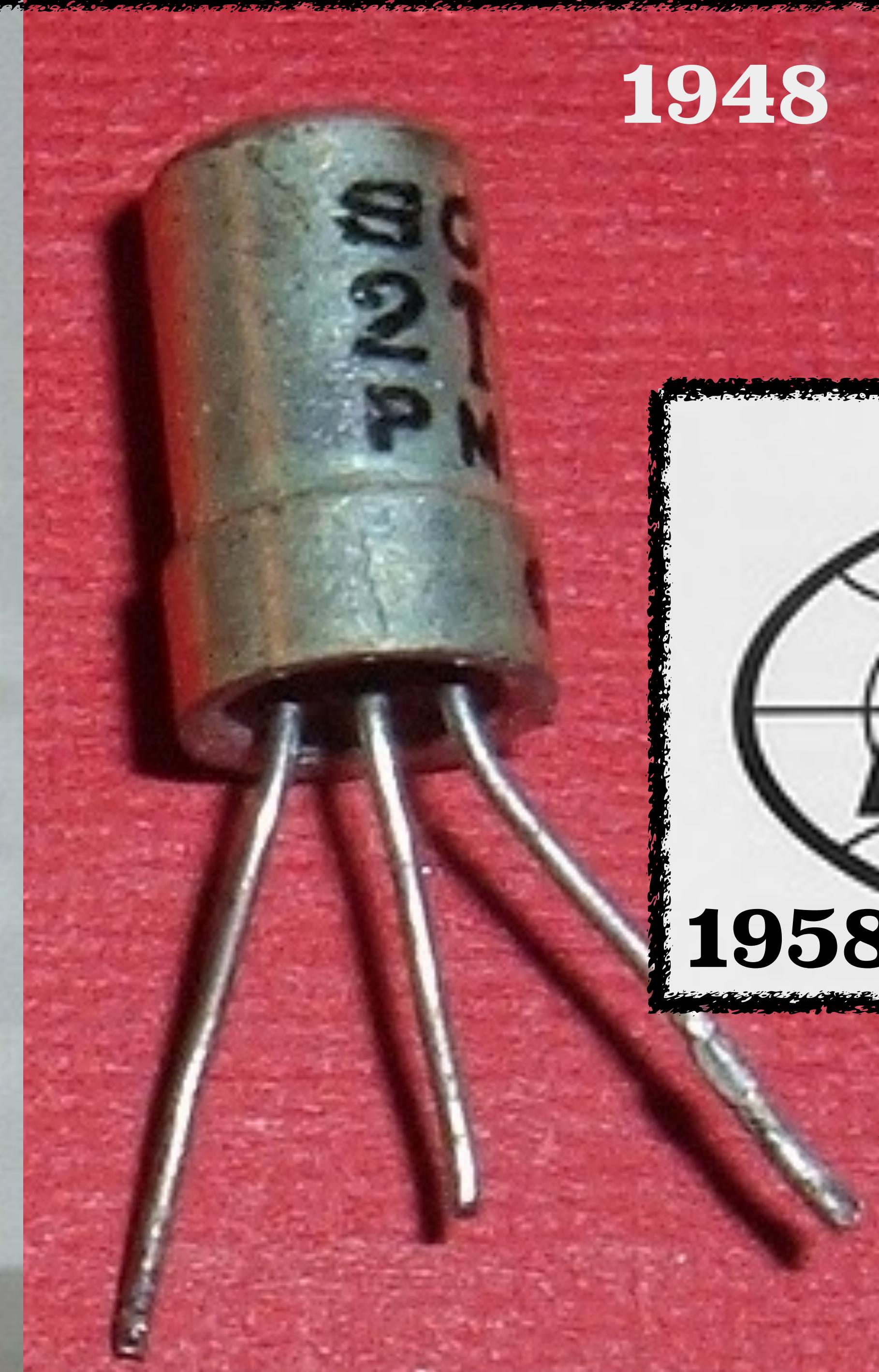
1890 - 1974

A high-contrast, black and white photograph of a vintage typewriter's keyboard area. The keys are large and rounded, with visible lettering. The lighting is dramatic, creating deep shadows and bright highlights on the metallic and wooden components. The perspective is from above, looking down at the keys.

As We May Think



Memex



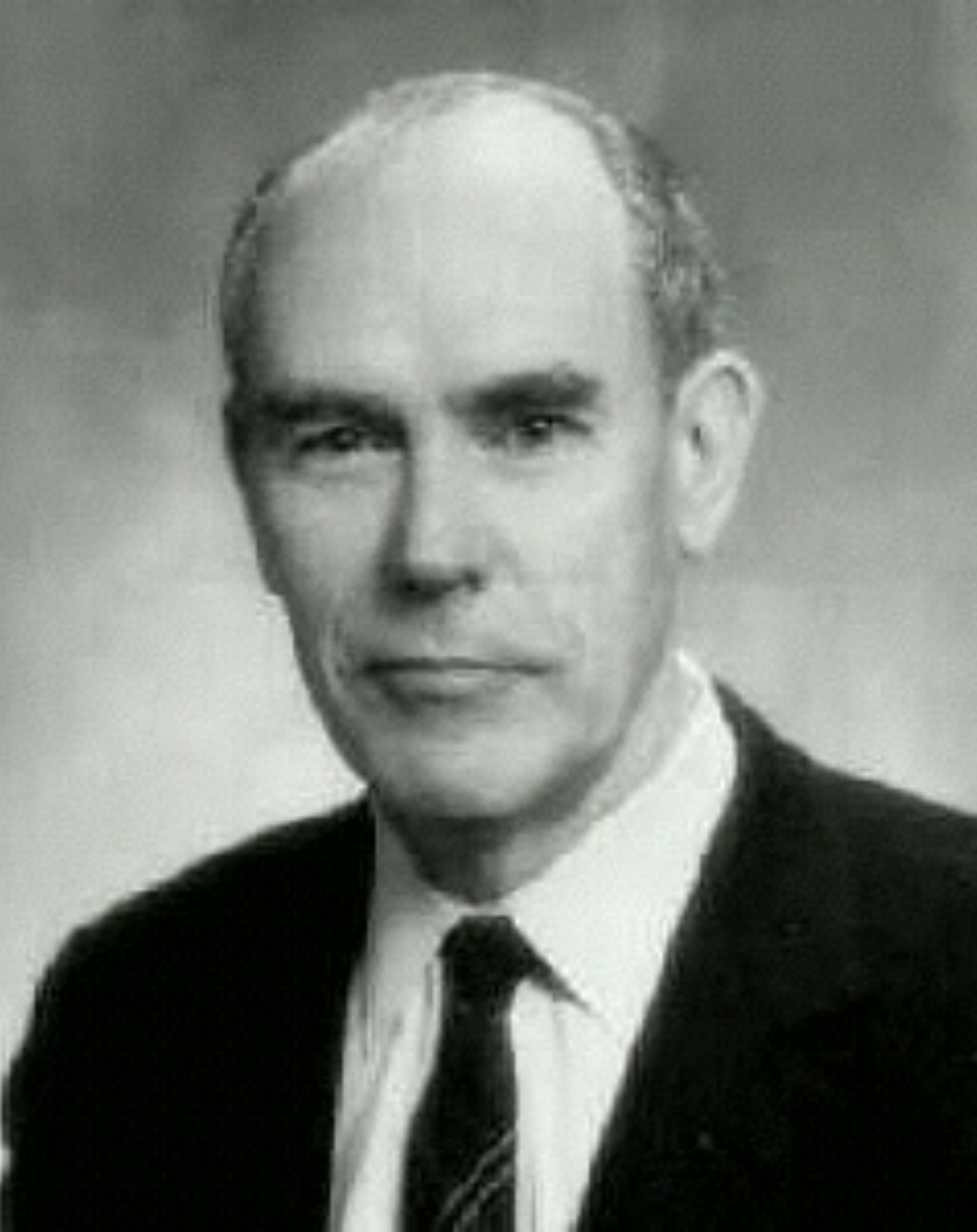
1948

1958



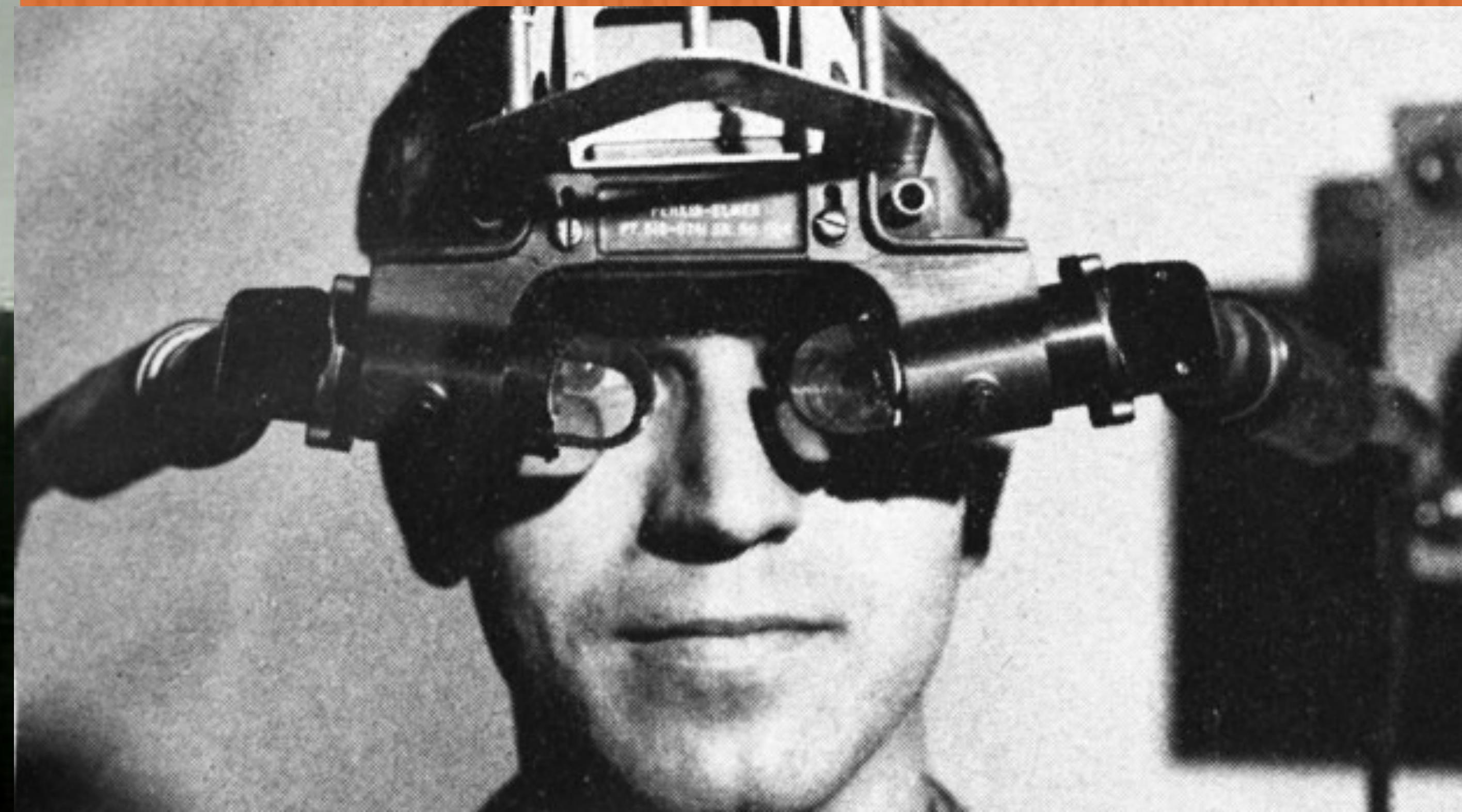
Visionary Demos: The 1960s

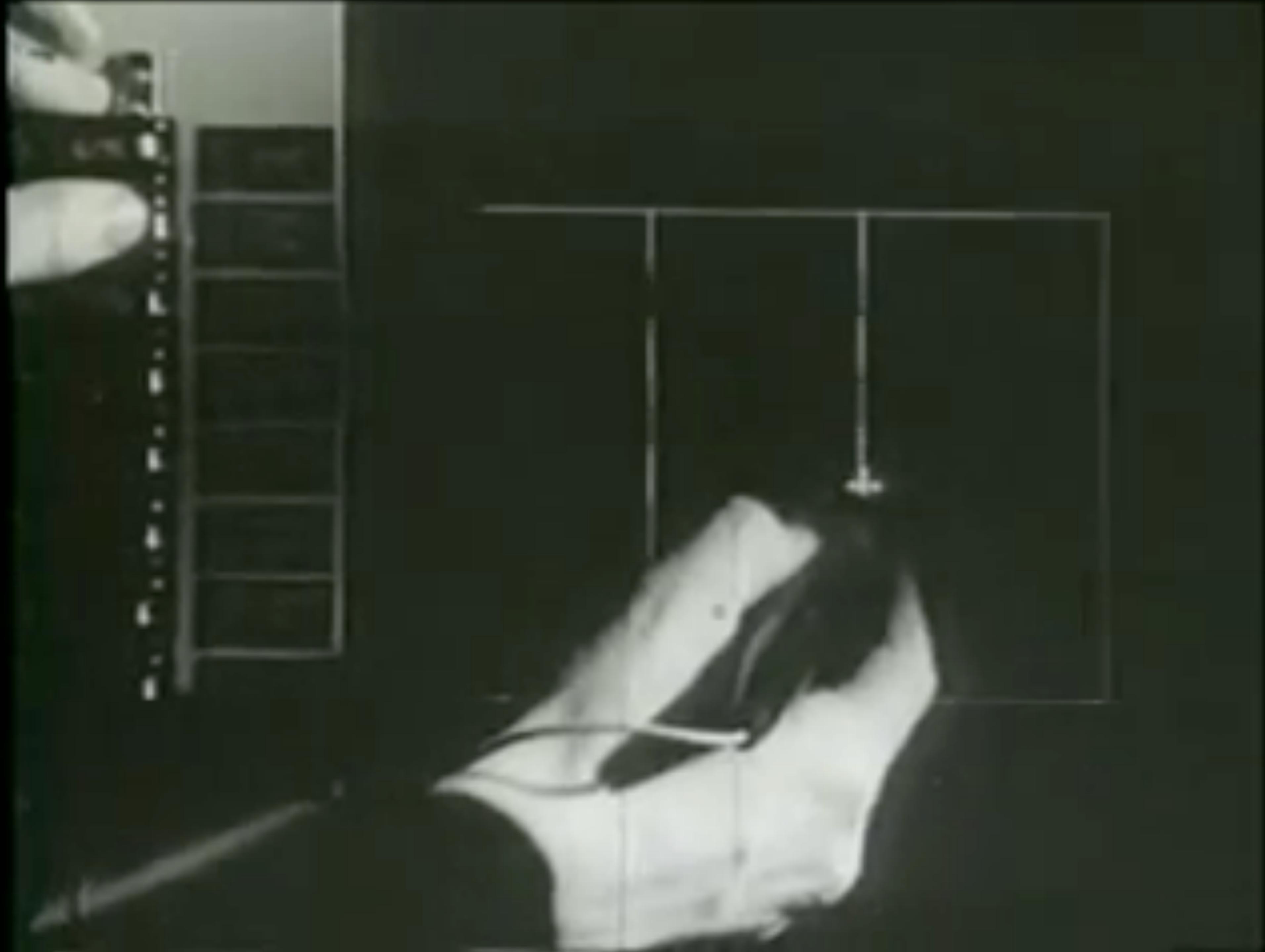


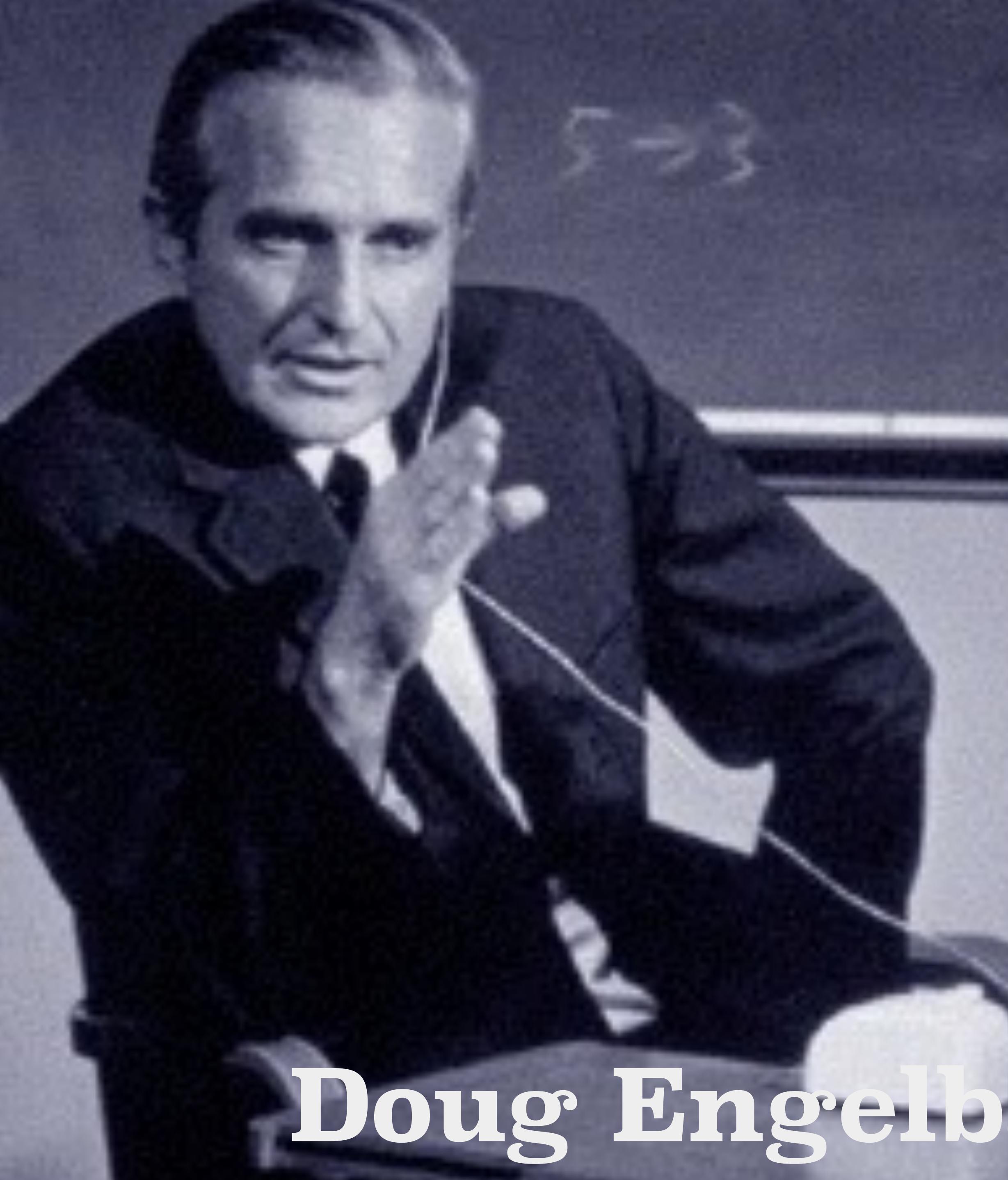


Ivan Sutherland (1938-)

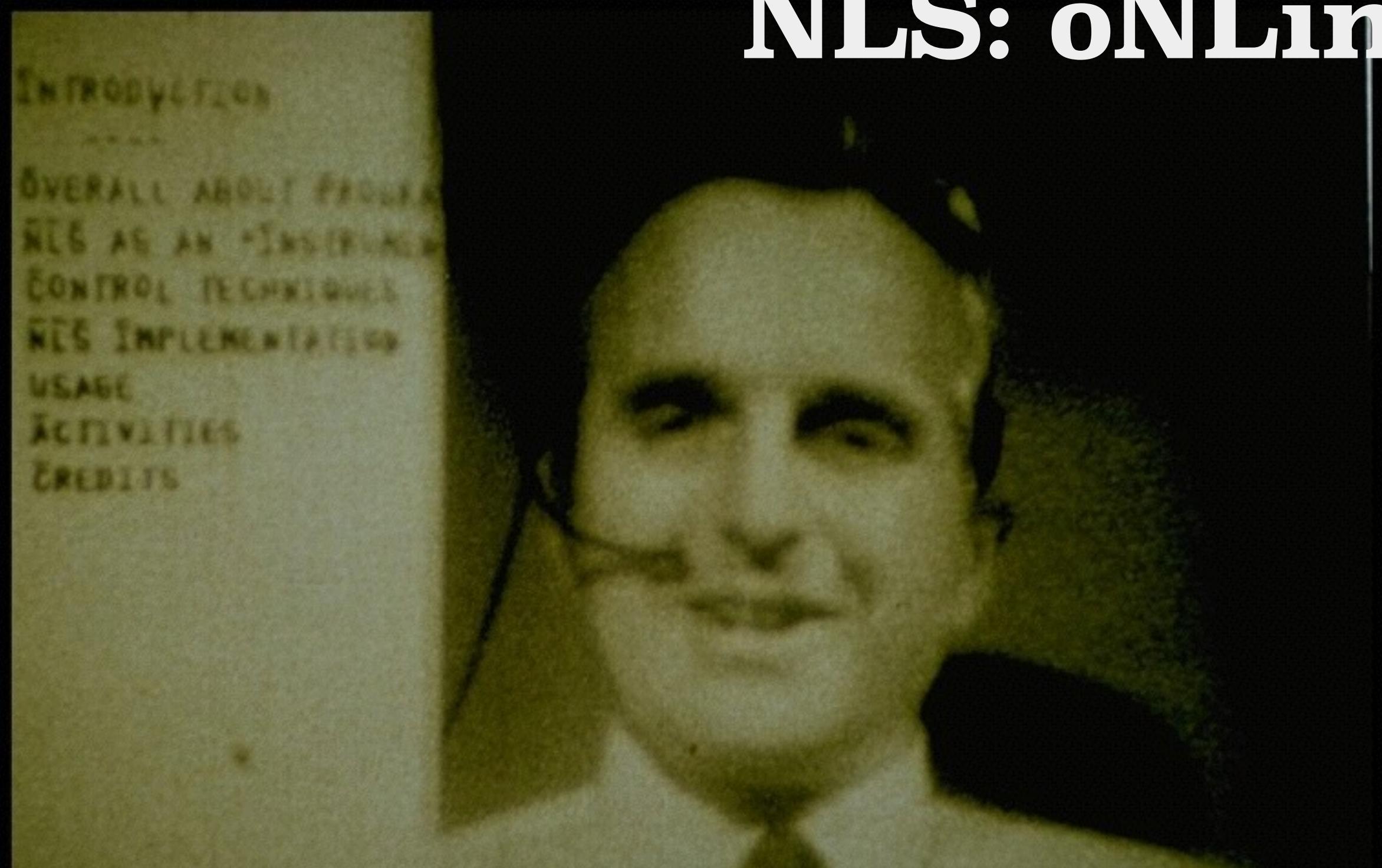
Established Computer Graphics
Turing award 1988



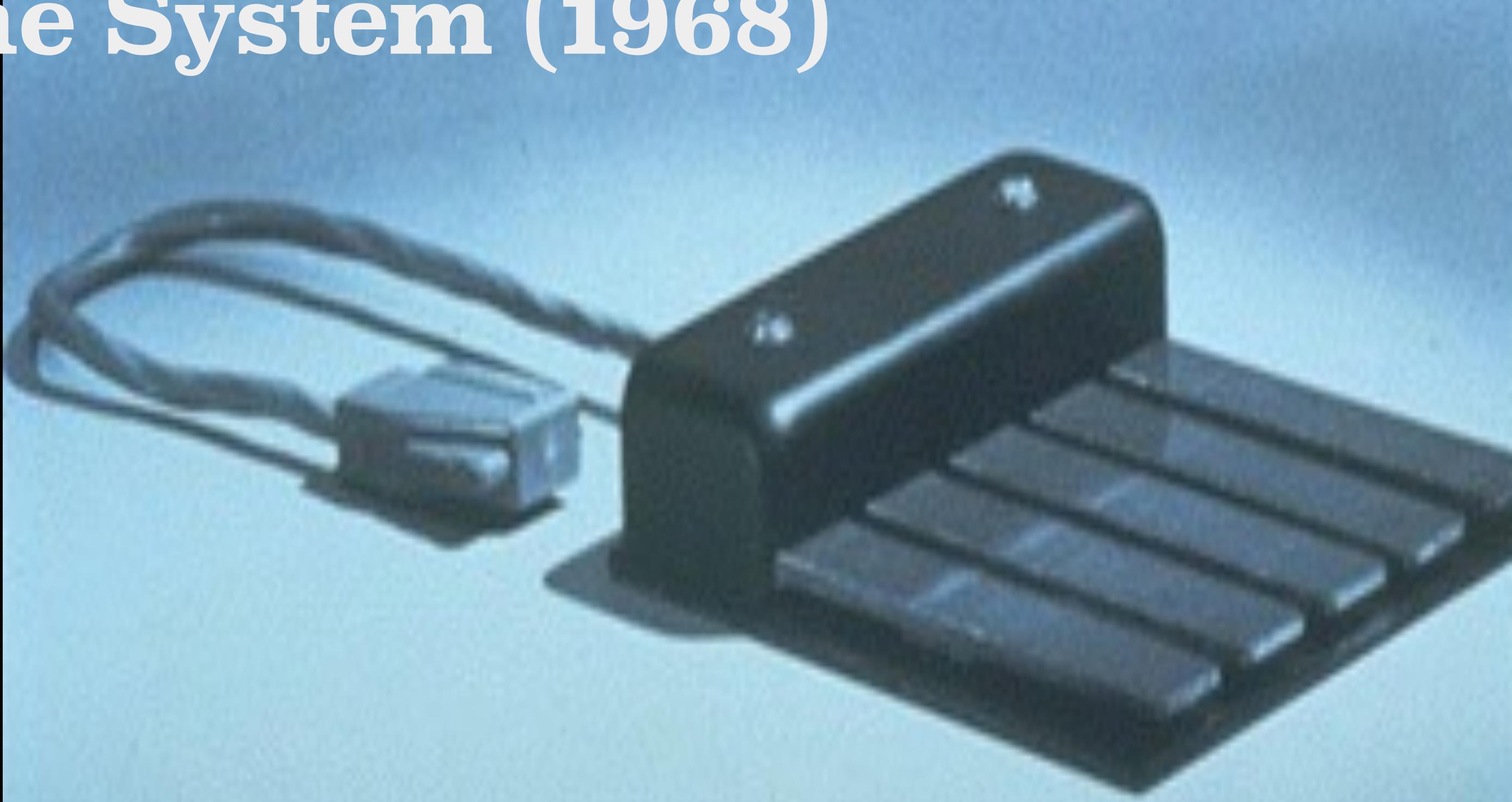
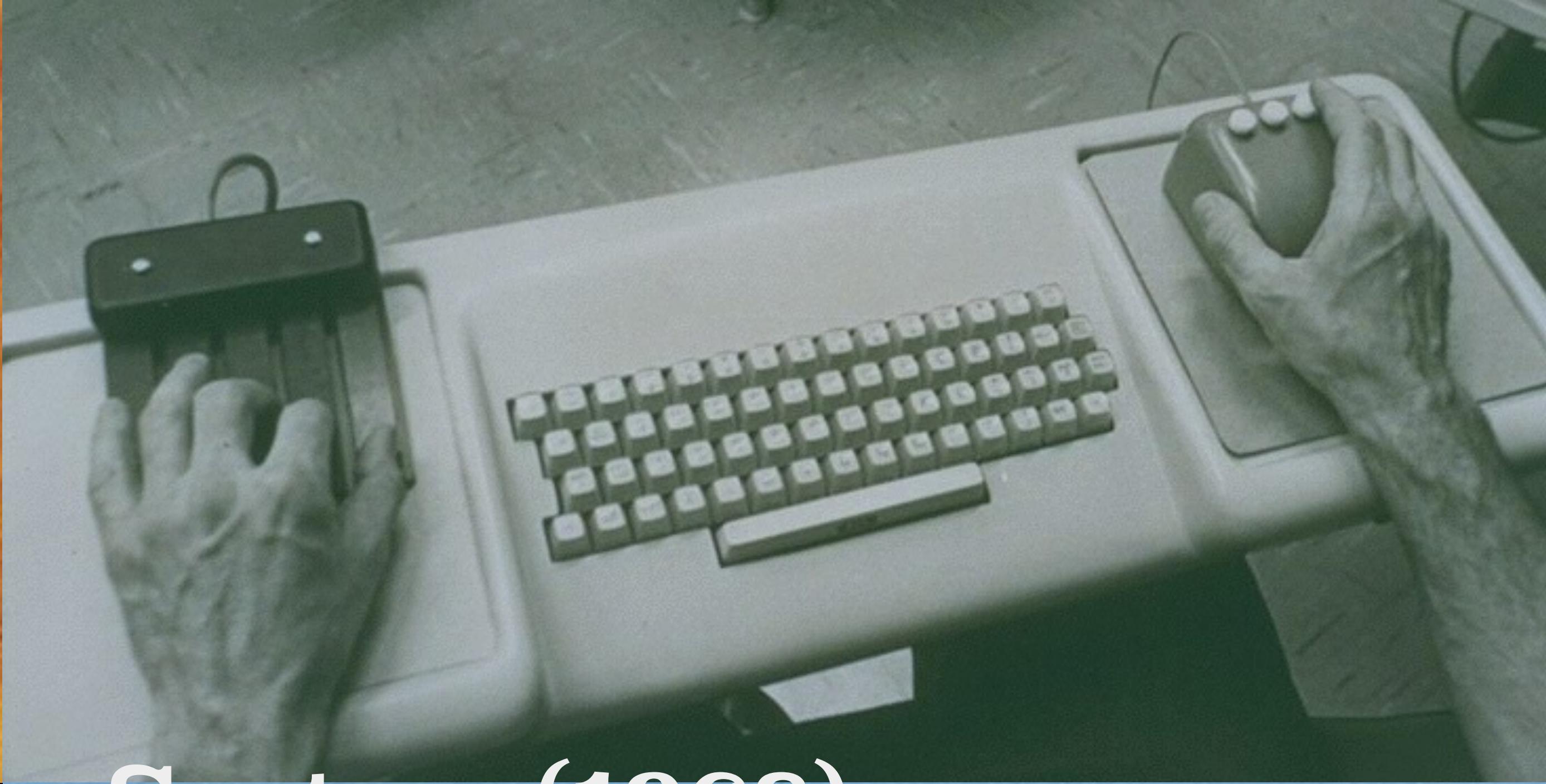




Doug Engelbart (1925-2013)



NLS: oNLine System (1968)



These include:

- modern word processing
- outlining and hypermedia
- mouse & 1-hand keyboard
- shared files
- messaging
- email and filtering
- video/desktop conferencing



The Rise of Personal Computing: The 1970s



HOW TO "READ" FM TUNER SPECIFICATIONS

Popular Electronics

WORLD'S LARGEST-SELLING ELECTRONICS MAGAZINE JANUARY 1975/75¢

PROJECT BREAKTHROUGH!

**World's First Minicomputer Kit
to Rival Commercial Models...**

"ALTAIR 8800"

SAVE OVER \$1000



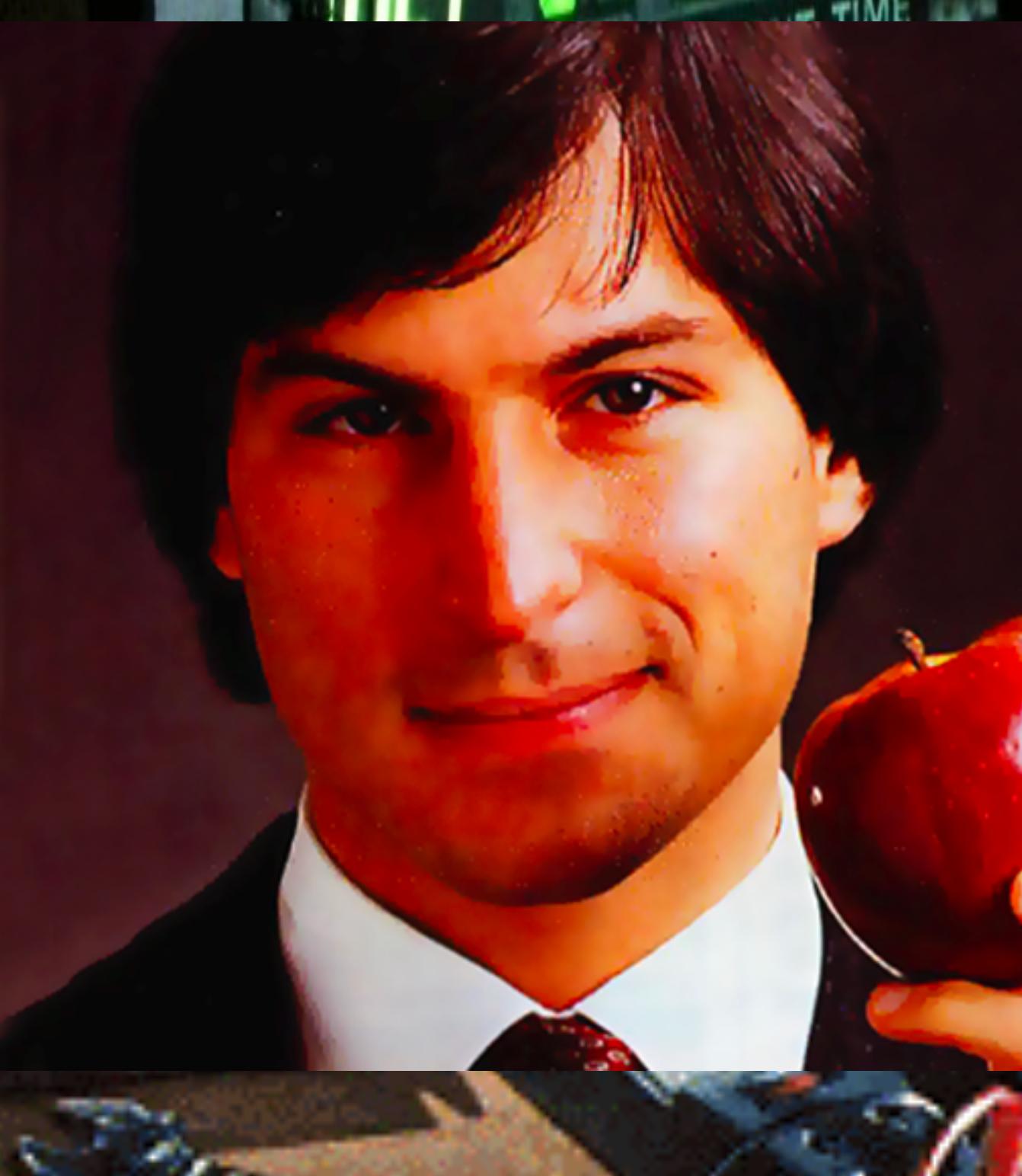
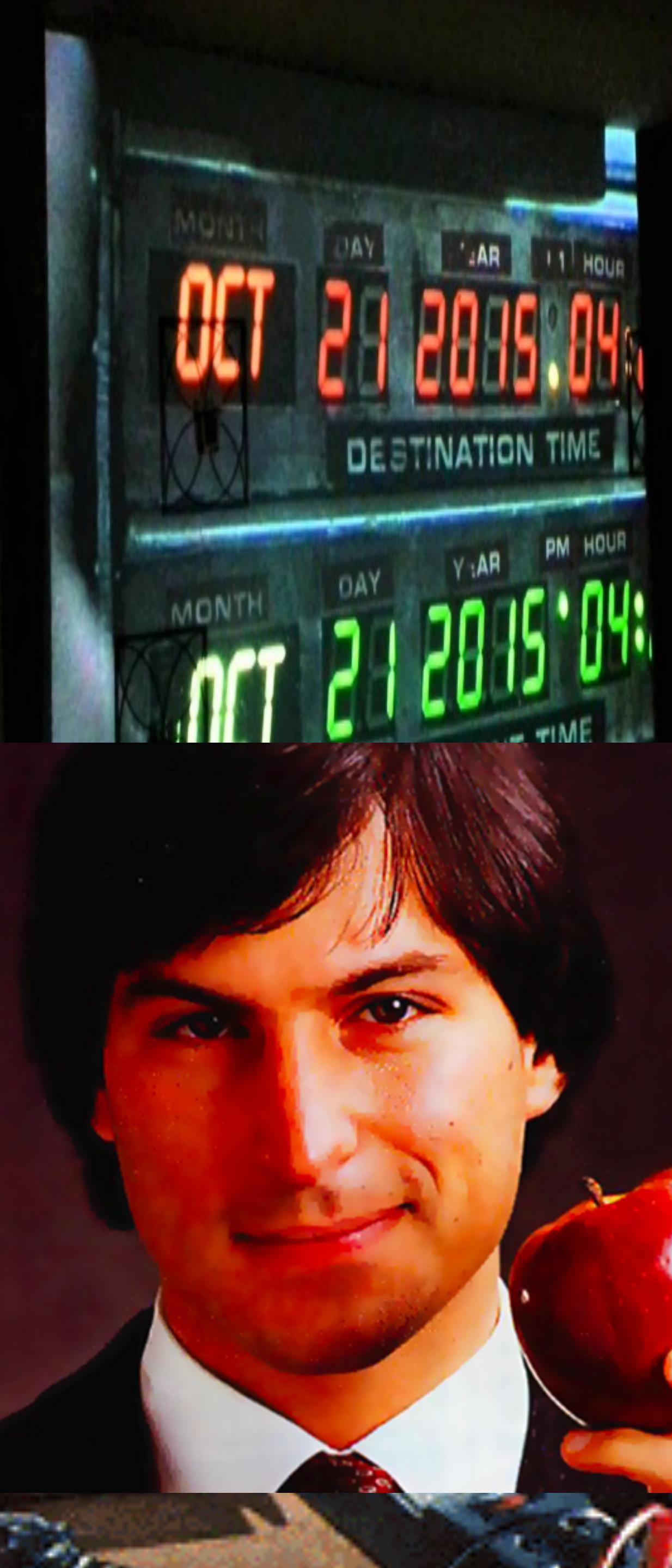
ALSO IN THIS ISSUE:

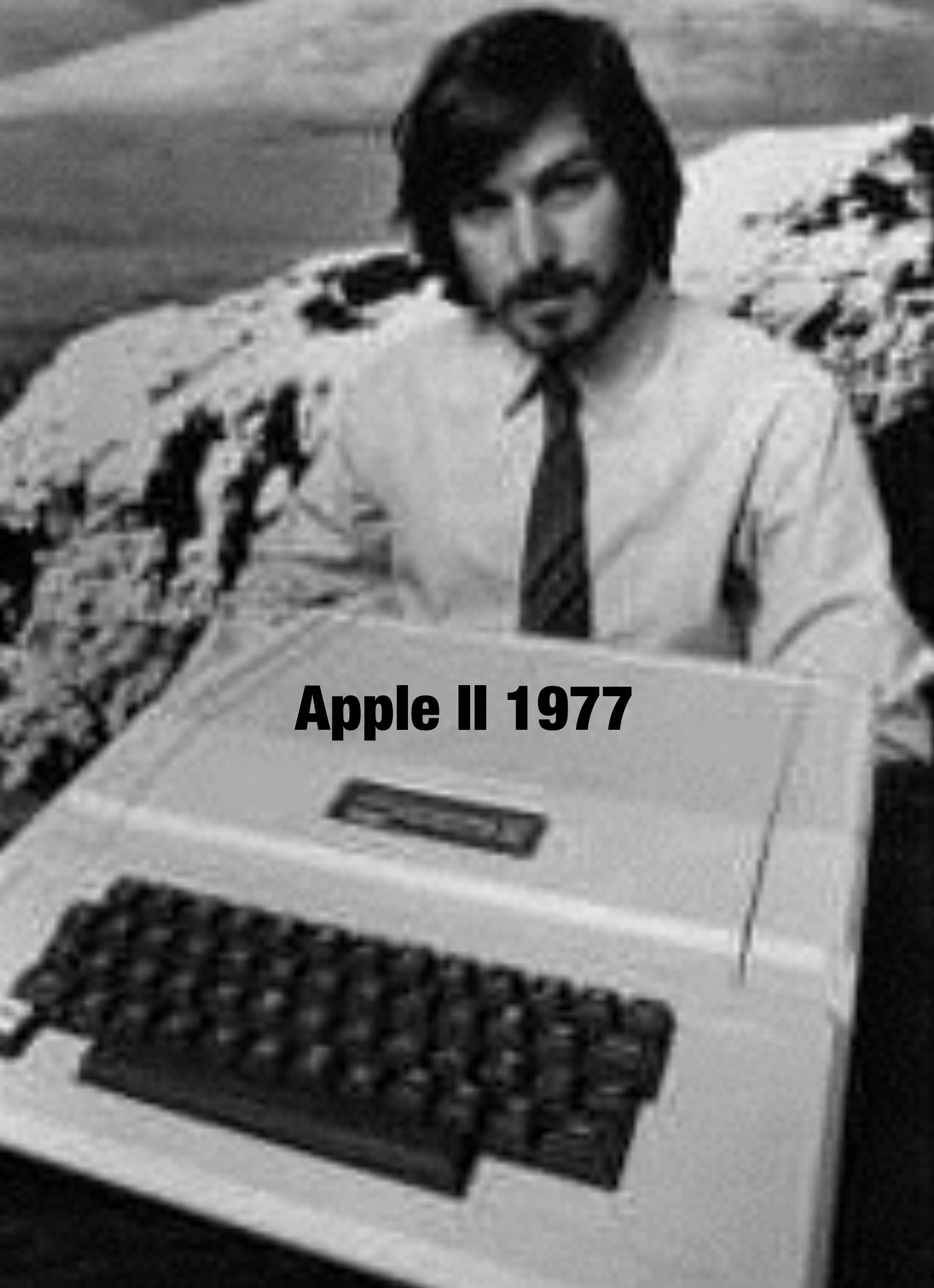
- An Under-\$90 Scientific Calculator Project
- CCD's—TV Camera Tube Successor?
- Thyristor-Controlled Photoflashers



TEST REPORTS:

- Technics 200 Speaker System
Pioneer RT-1011 Open-Reel Recorder
Tram Diamond-40 CB AM Transceiver
Edmund Scientific "Kirlian" Photo Kit
Hewlett-Packard 5381 Frequency Counter



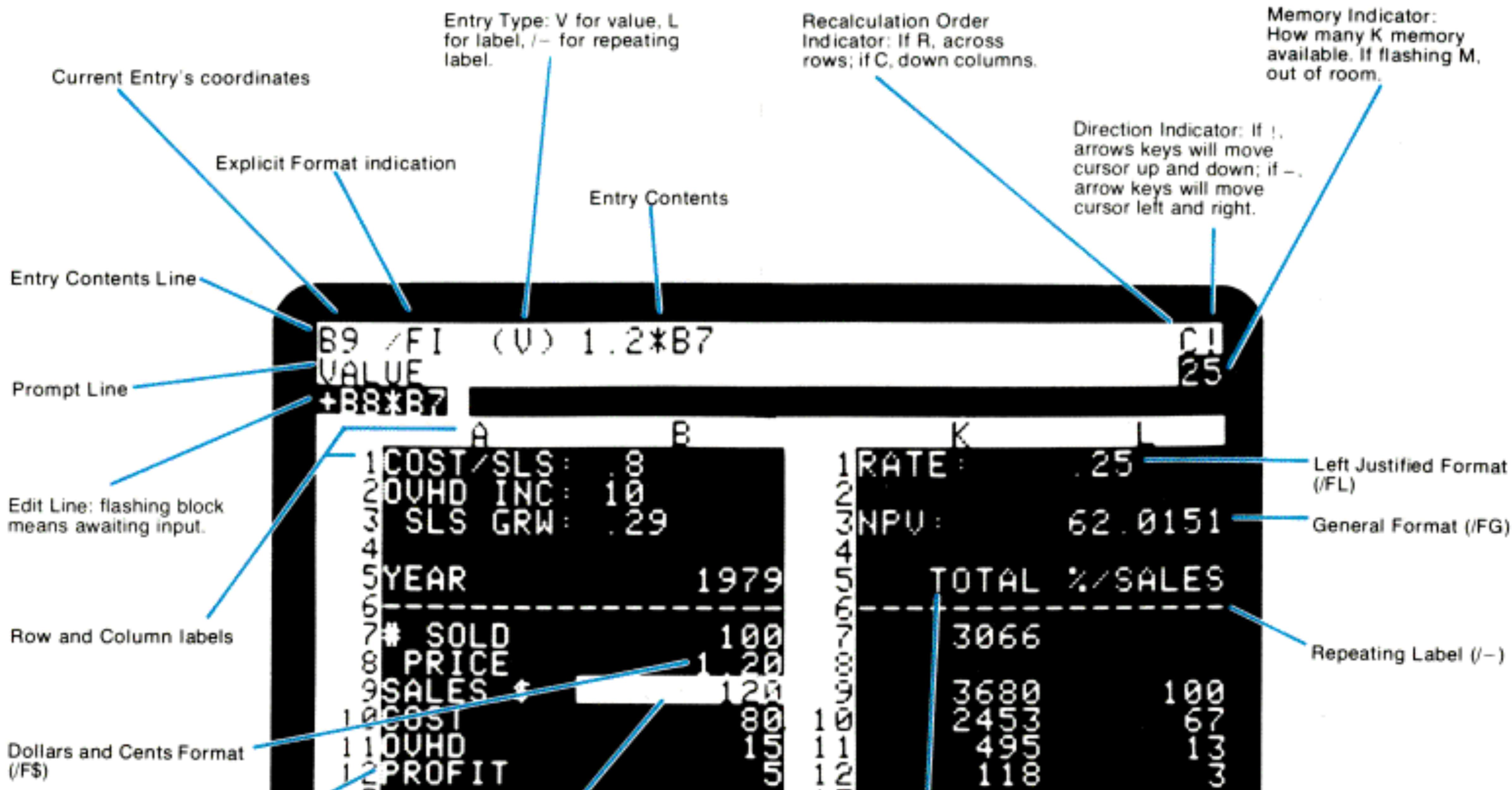


Apple II 1977



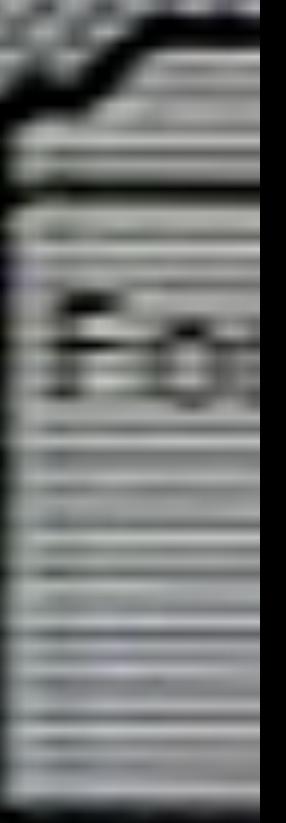
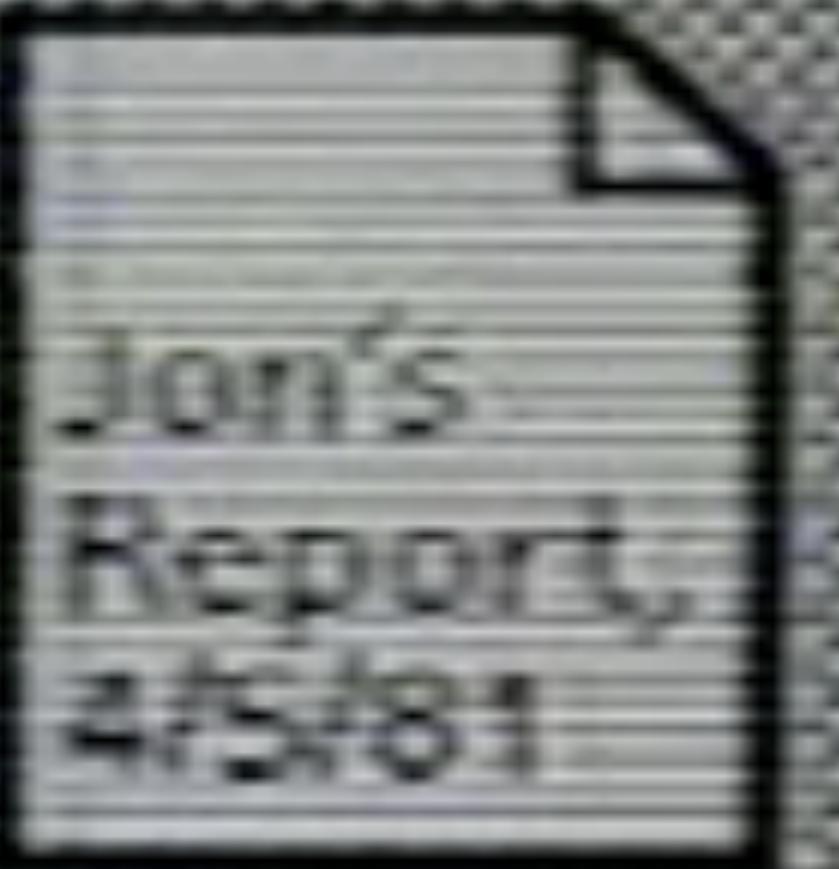
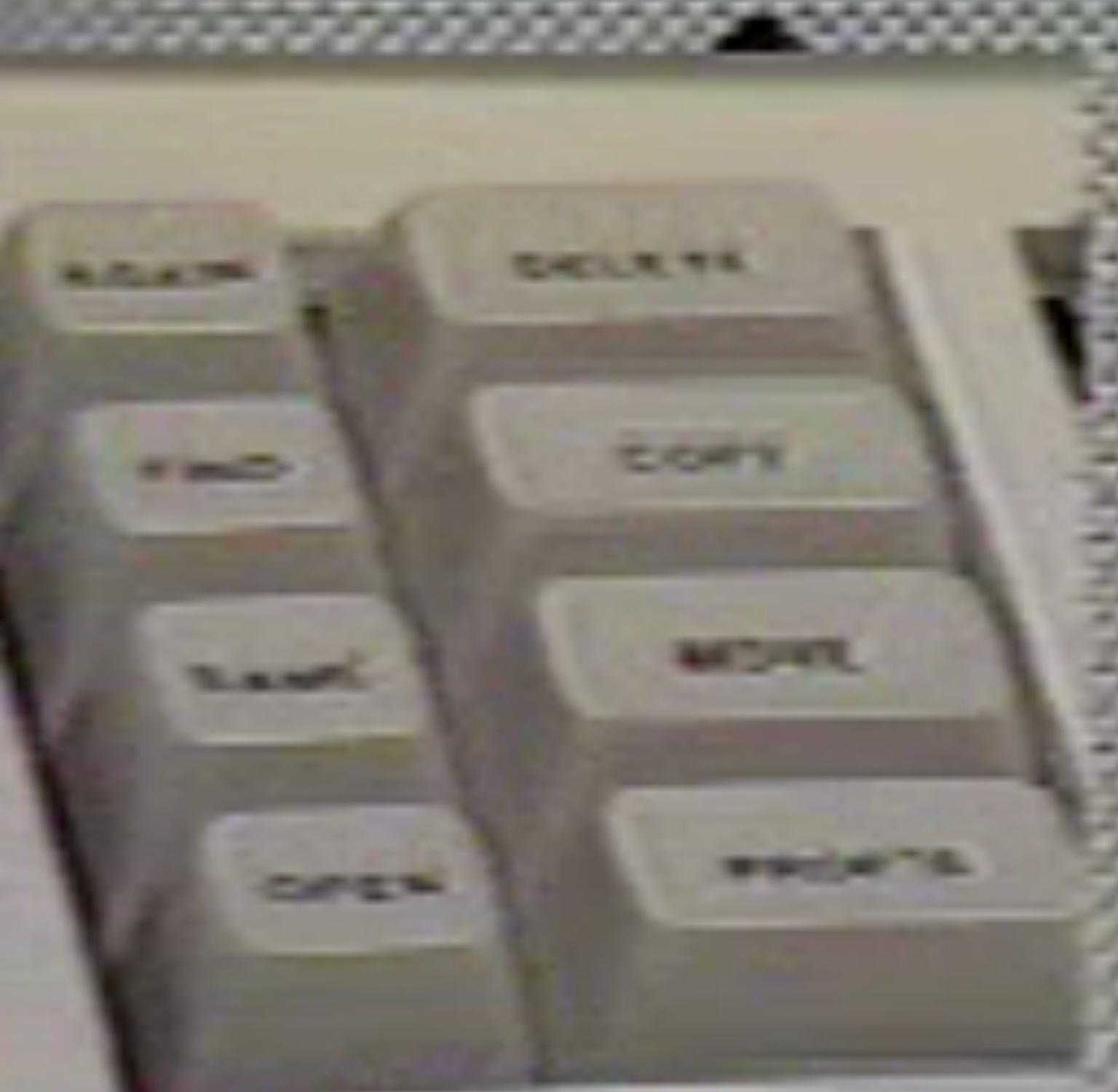
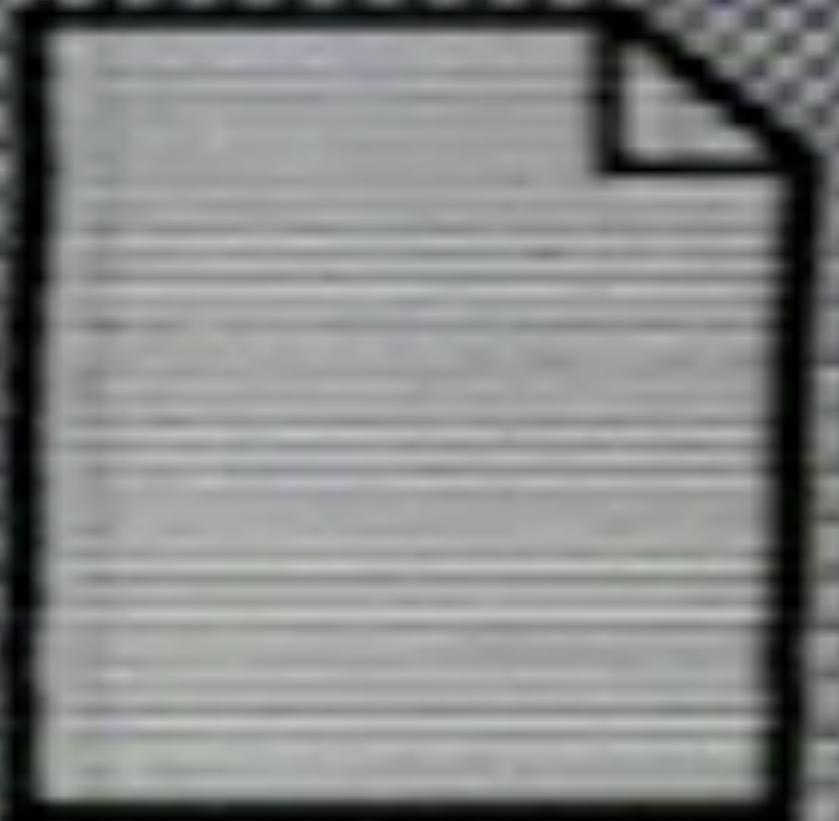
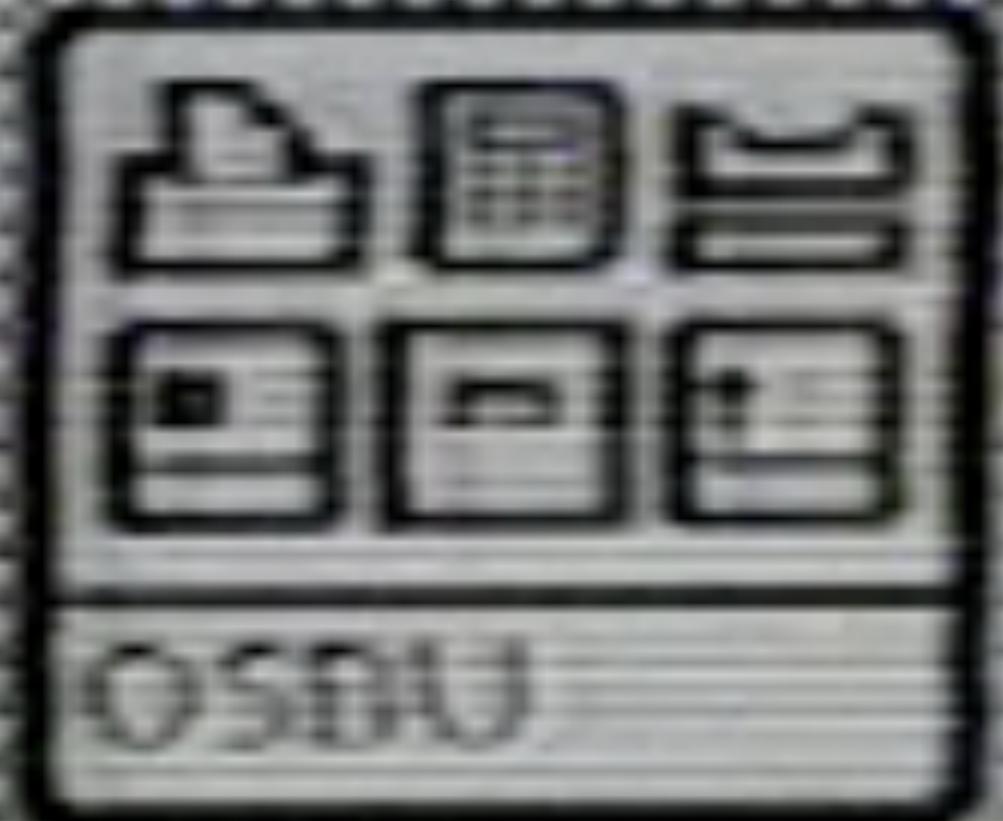
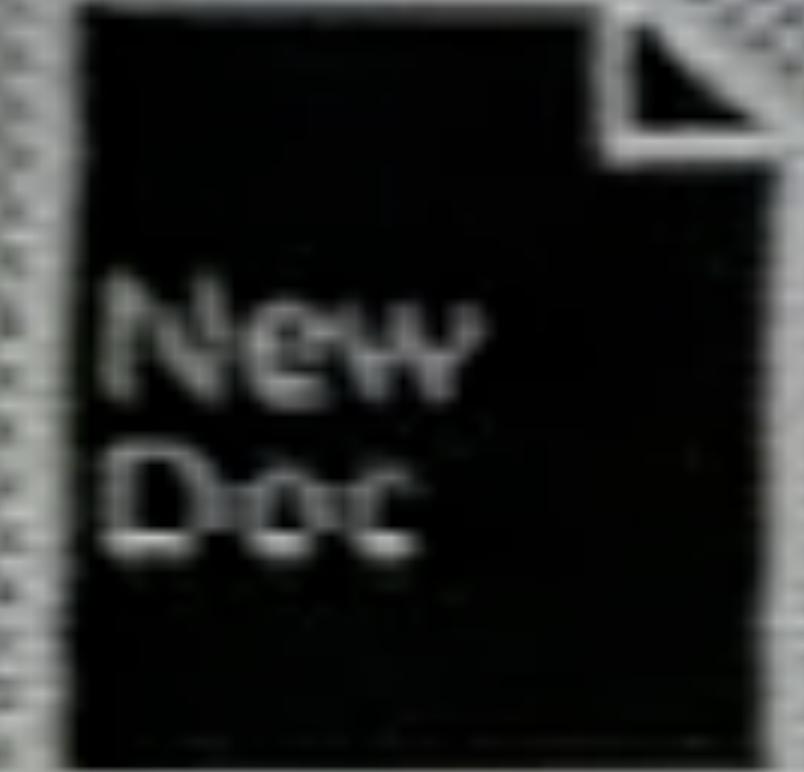
IBM PC 1981

A VISICALC™ Screen:



Graphical User Interfaces: The 1980s



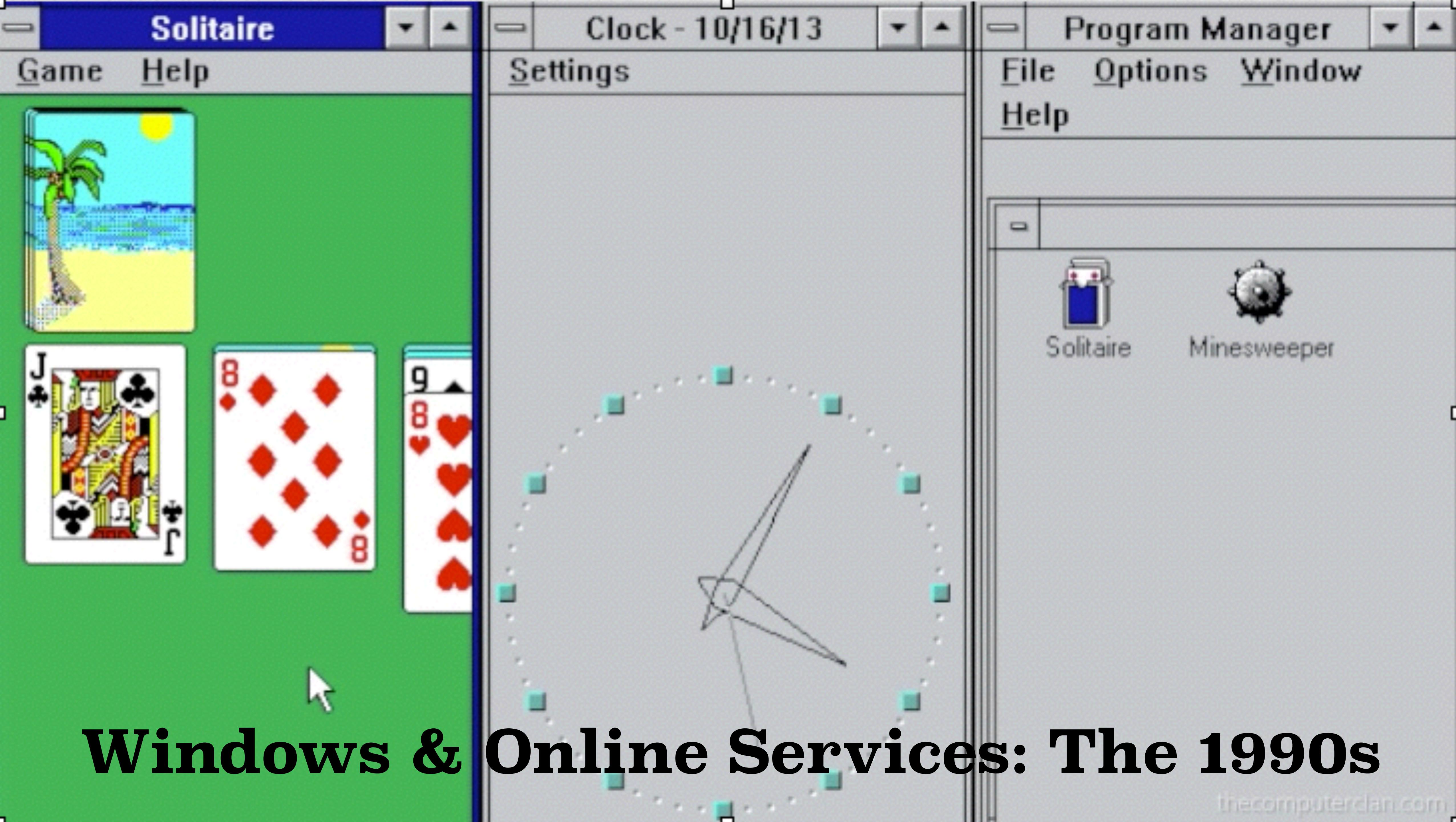




**the STAR design team
developed a new
methodology for design:
user-centered process!**



Star -> Mac



Windows & Online Services: The 1990s



Dialing...

Read Write Mail Center Print My Files My AOL Favorites Internet Channels People

Find http://members.aol.com

Channels

America Online Channels

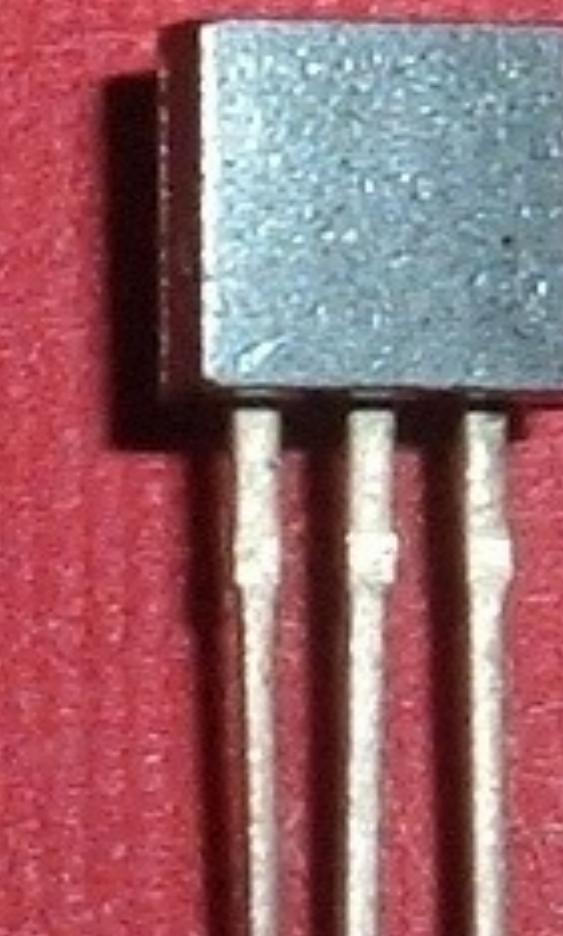
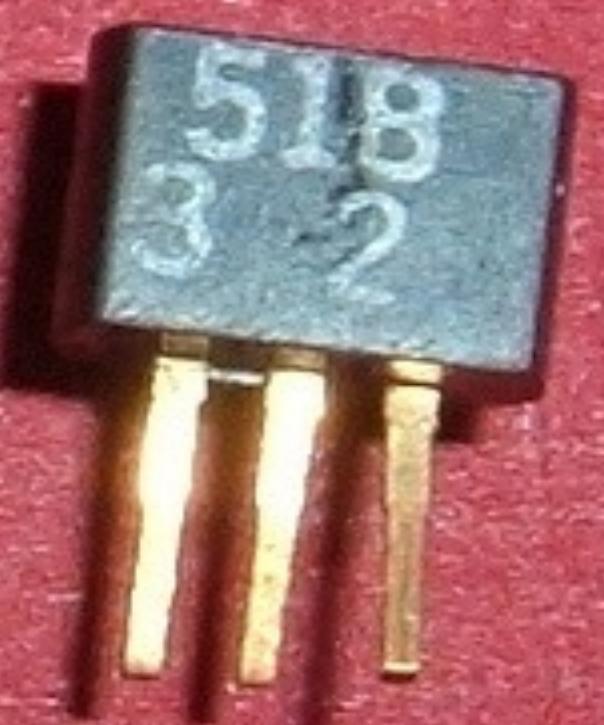
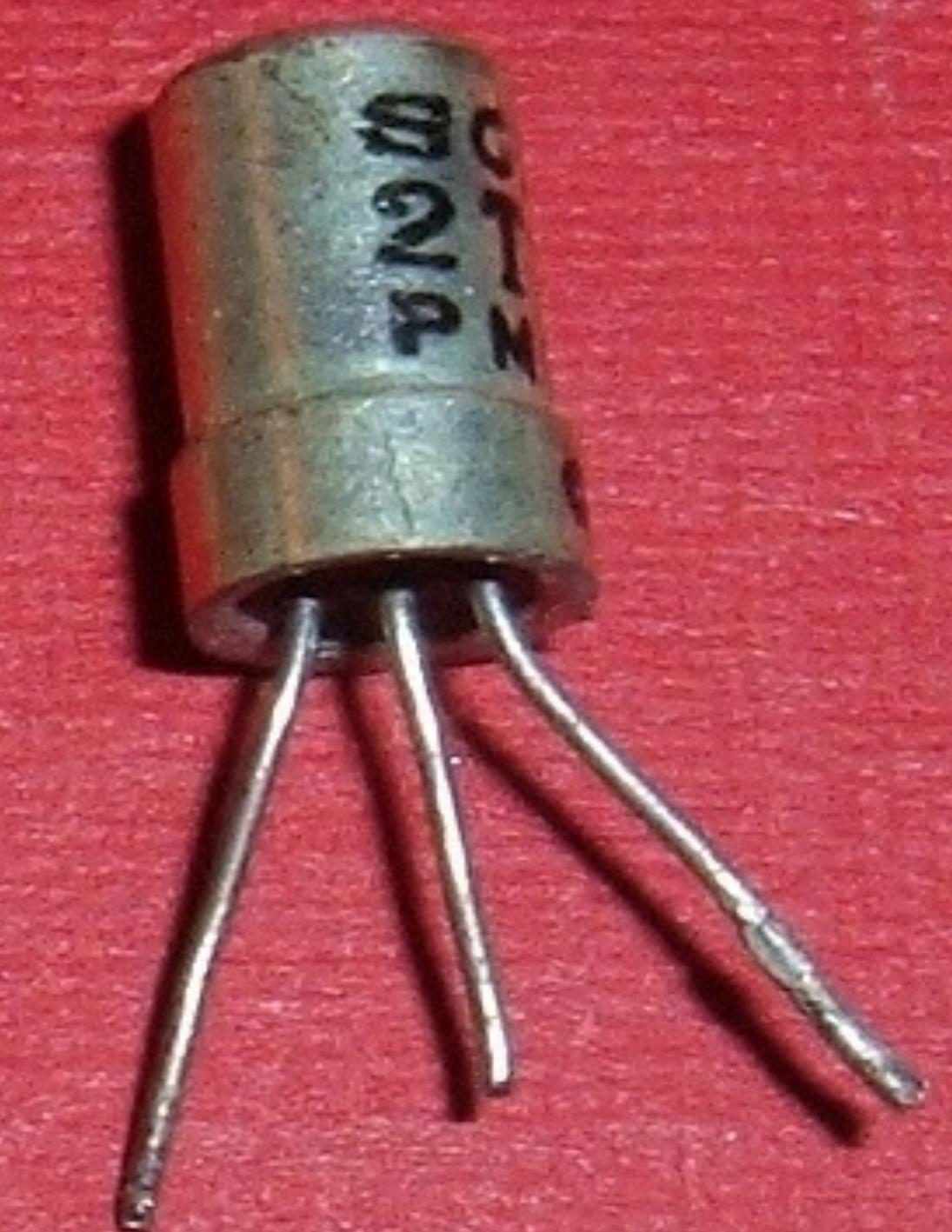
Return to Welcome Find

GAMES Interests Lifestyles Shopping Health families

My AOL Preferences

- My Member Profile
- Screen Names
- Passwords
- Parental Controls

- Online Clock
- Buddy List
- Personal Publisher
- Stock Portfolios
- Reminder Service
- News Profiles



File Edit View Favorites Tools Help



Back Search Favorites History

Address http://www.geocities.com/Tokyo/Palace/1167/

Anime no Miko's

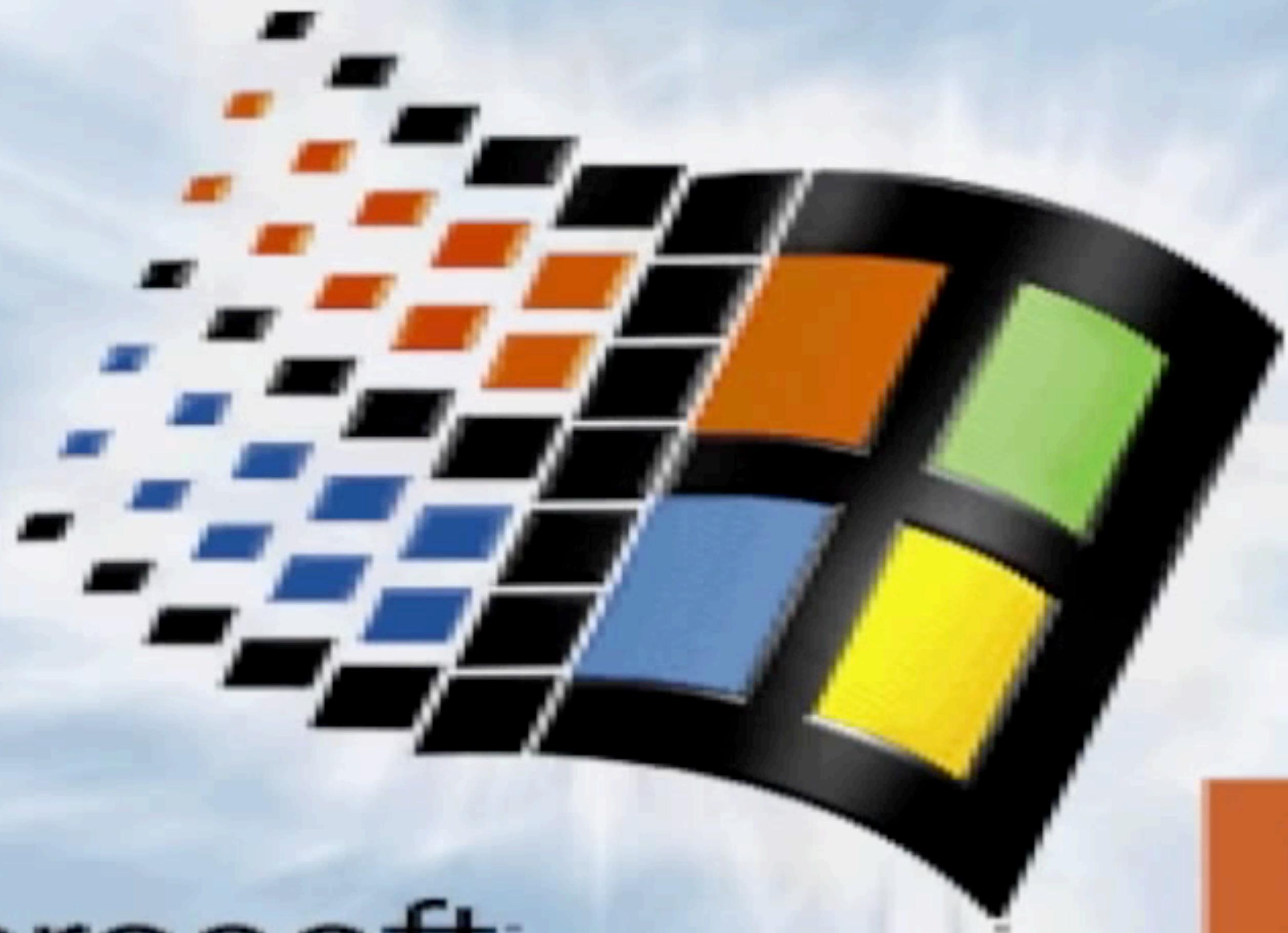
"Everything Anime" Page

(Wo ai Anime!!! ^.^)

Hey all you anime lovers out there!!! My page is actually being updated! Is that not a miracle or what??? So keep watching for more surprises! Arigato gauzimasu and "Jya!!" ^.^

~ "Youki Anime" aka "Anime no Miko"





Microsoft
Windows

Plus!
98

...today?

A close-up photograph of a man's face, focusing on his eyes and mouth. He has brown hair and a mustache. Overlaid on the image are several futuristic, semi-transparent digital elements. In the upper right, there is a circular targeting reticle with a small orange dot in the center. To its right is a digital watch with a blue strap and a digital face showing 'Mo. 9k' and 'Px'. Below the watch are three identical fuel gauge icons, each labeled 'ROCKETS Moon Mission' and showing '25% FULL'. In the lower left corner, there is a hexagonal grid of small red circles. The word 'ENCODED MICRO-BIOLOGY' is written vertically along the left edge of the image.

tomorrow!

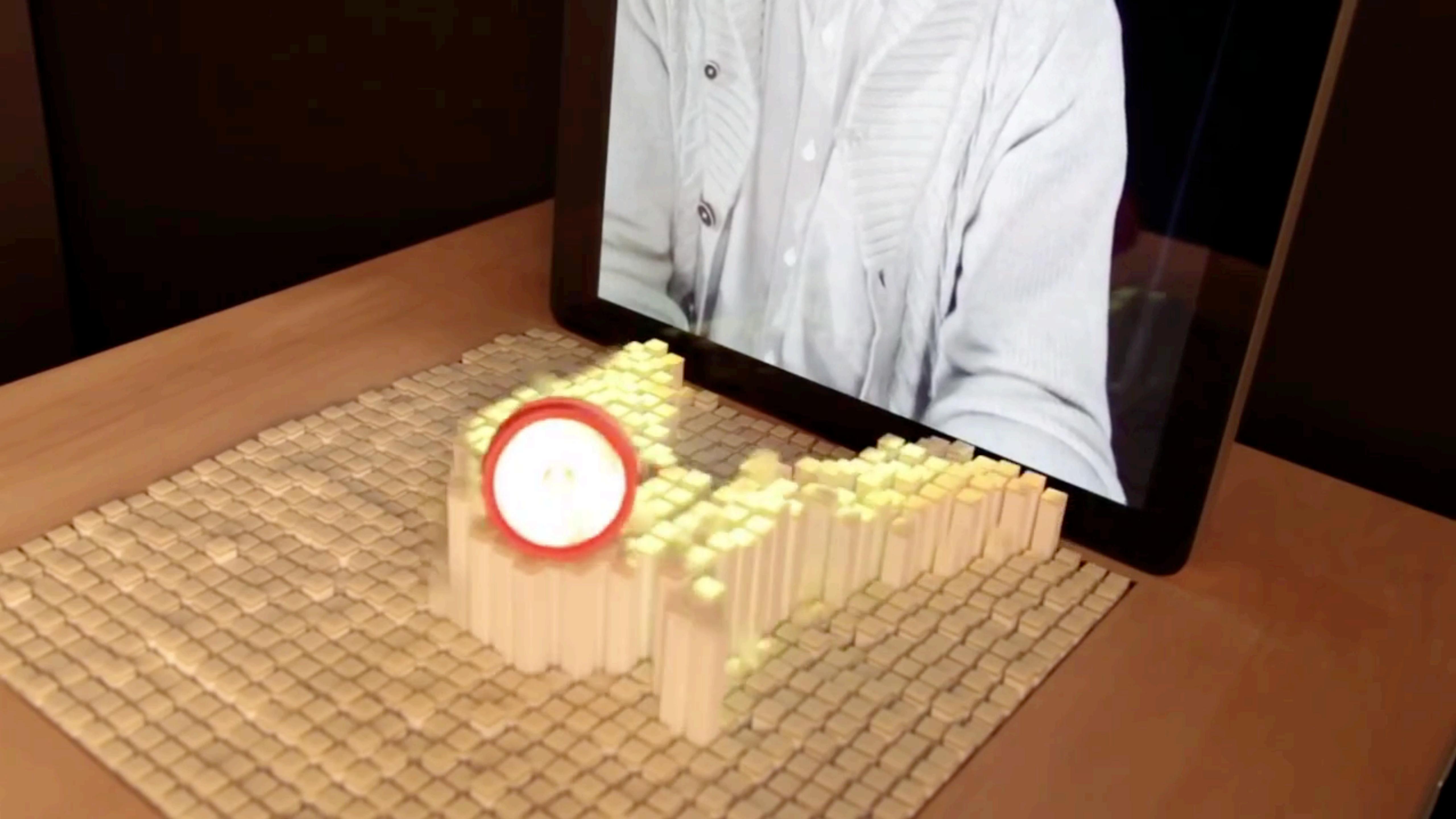
10:27

Mail

New email message
from [redacted]
with 1 attachment.
Subject: [redacted]
Date: [redacted]
From: [redacted]
To: [redacted]

8:12a

100
200
300
400
500
600
700
800
900



MONTH

OCT

DAY

21

YEAR

2085

HOUR

04

DESTINATION TIME

MONTH

OCT

DAY

21

YEAR

2085

PM HOUR

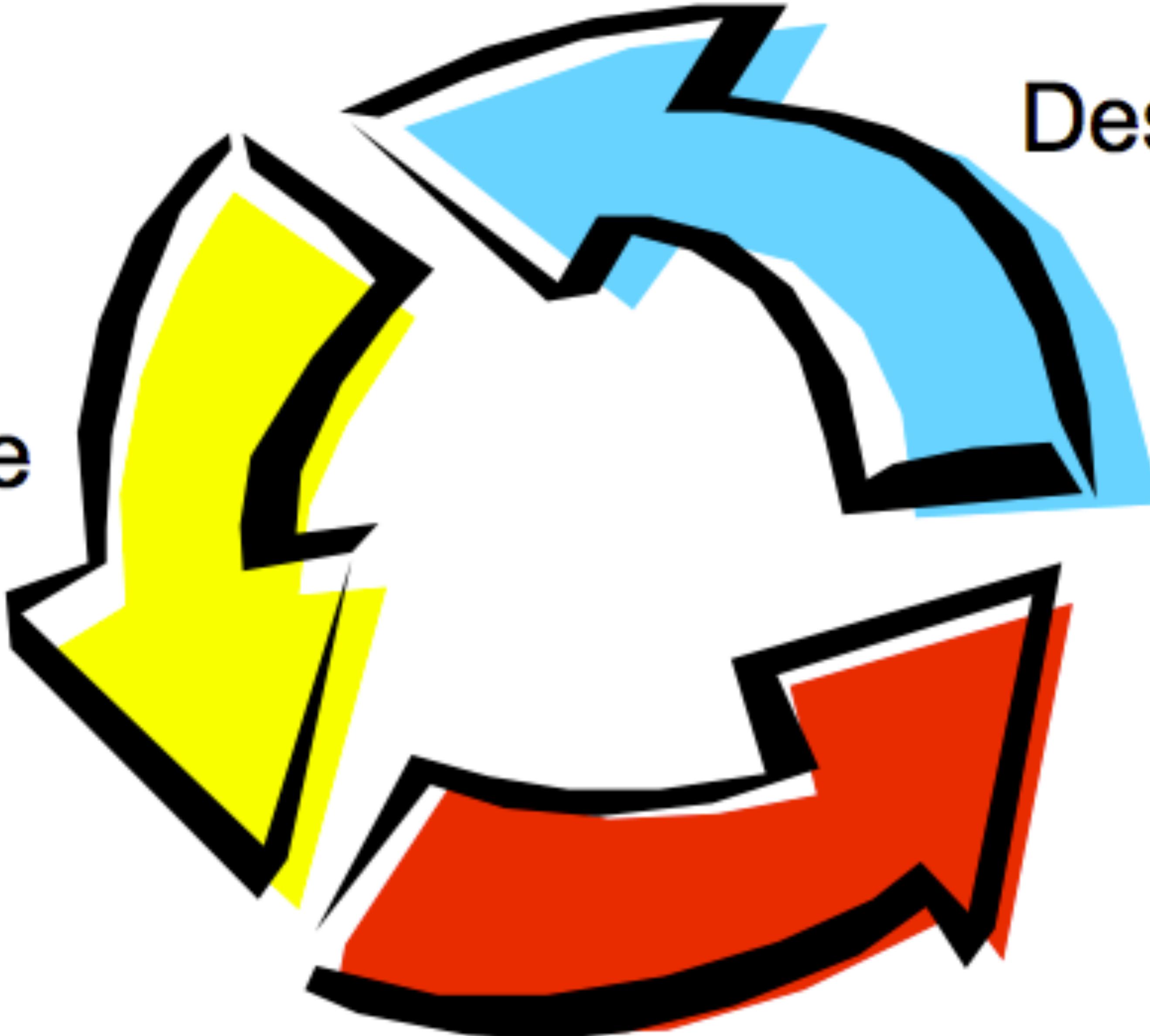
04

PRESENT TIME



WINTERFEST



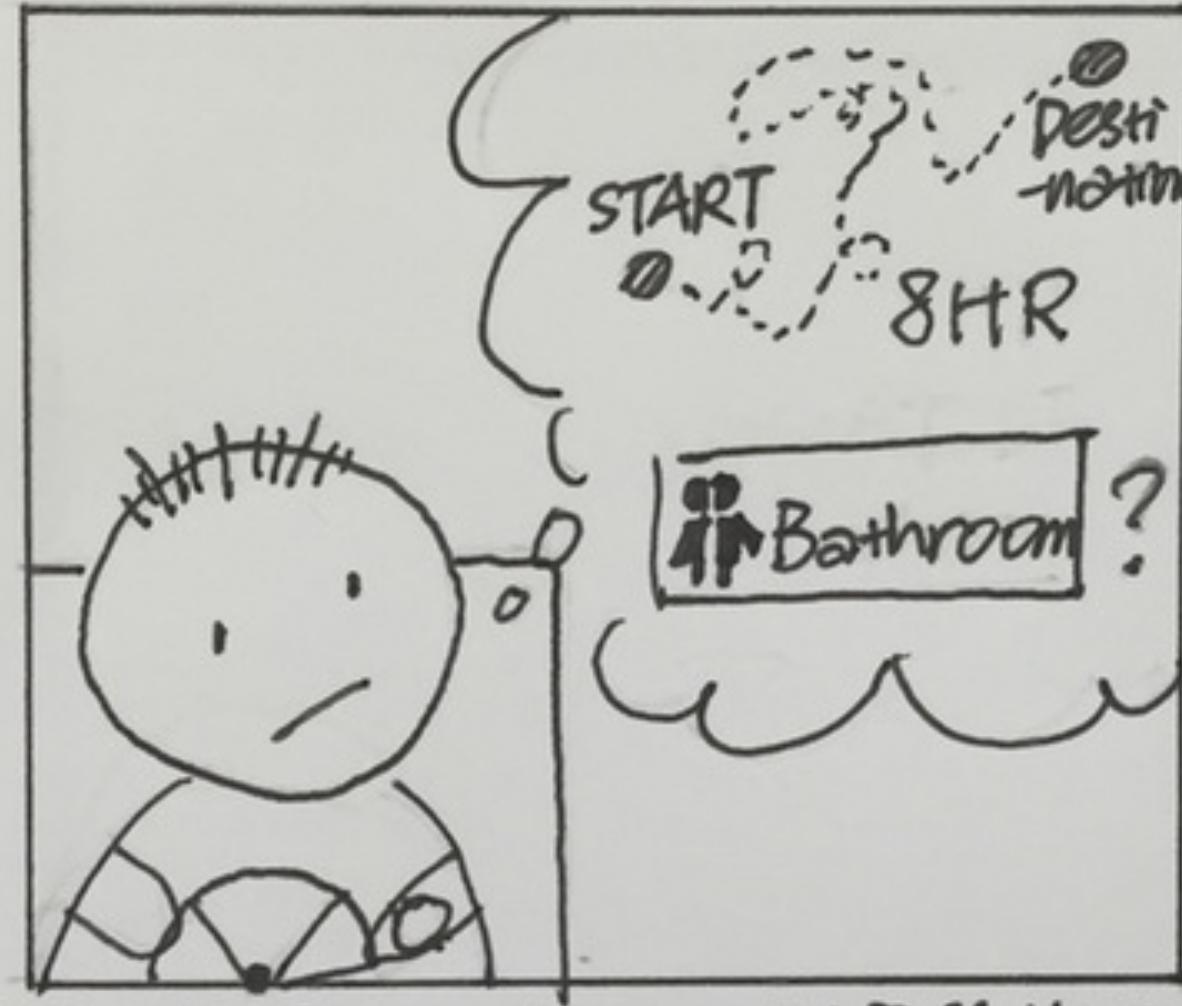


Design

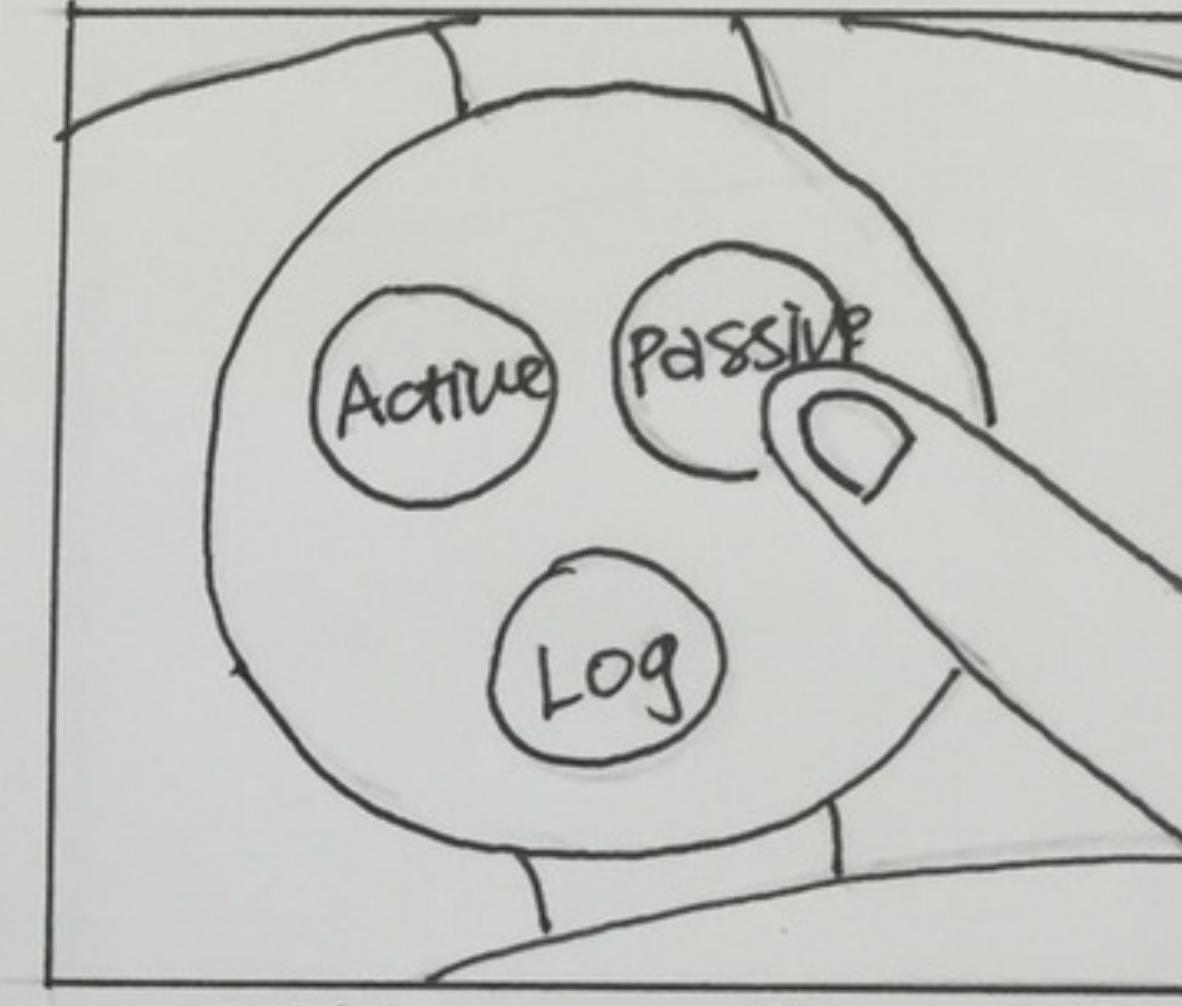
Prototype

Evaluate

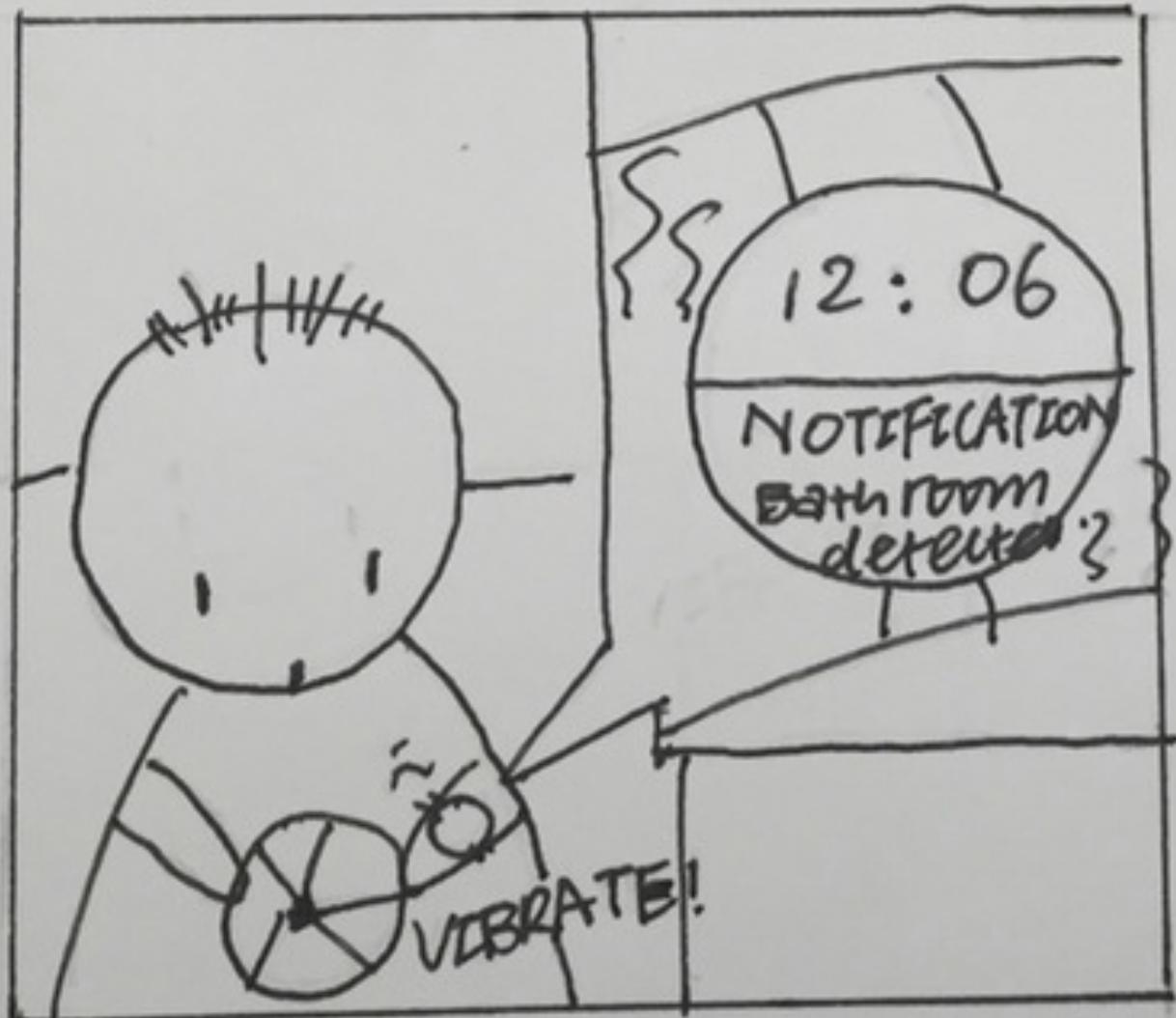




PROBLEM: May realizes that it's a 8-hr long drive, and she's worried that she could not find any bathroom along the way.



SOLUTION: May opens up G-Pee-S and selects "Passive" mode on her watch.



SOLUTION: After 1 hr, the watch vibrates to indicate a gender-neutral bathroom is nearby.



BENEFIT: Jane and May follows the navigation and found the nearby bathroom. They can enjoy their trip now!





- 1. Sharpen the Focus**
- 2. Playful Rules**
- 3. Number your Ideas**
- 4. Build and Jump**
- 5. The Space Remembers**
- 6. Stretch Your Mental Muscles**
- 7. Get Physical**

Sentry



Sleep Sentry

SFO → HKG

+ 9 hours

Strategies

- Melatonin
- Light Therapy

Comments

I did not have enough melatonin. Buy more next time.





Anne Lin

+1 510-XXXX-XXXX (Not confirmed)

Payments



Notifications

On



Notification Previews

Show name and message



In-App Sound

On



In-App Vibrate

On



Synced Contacts



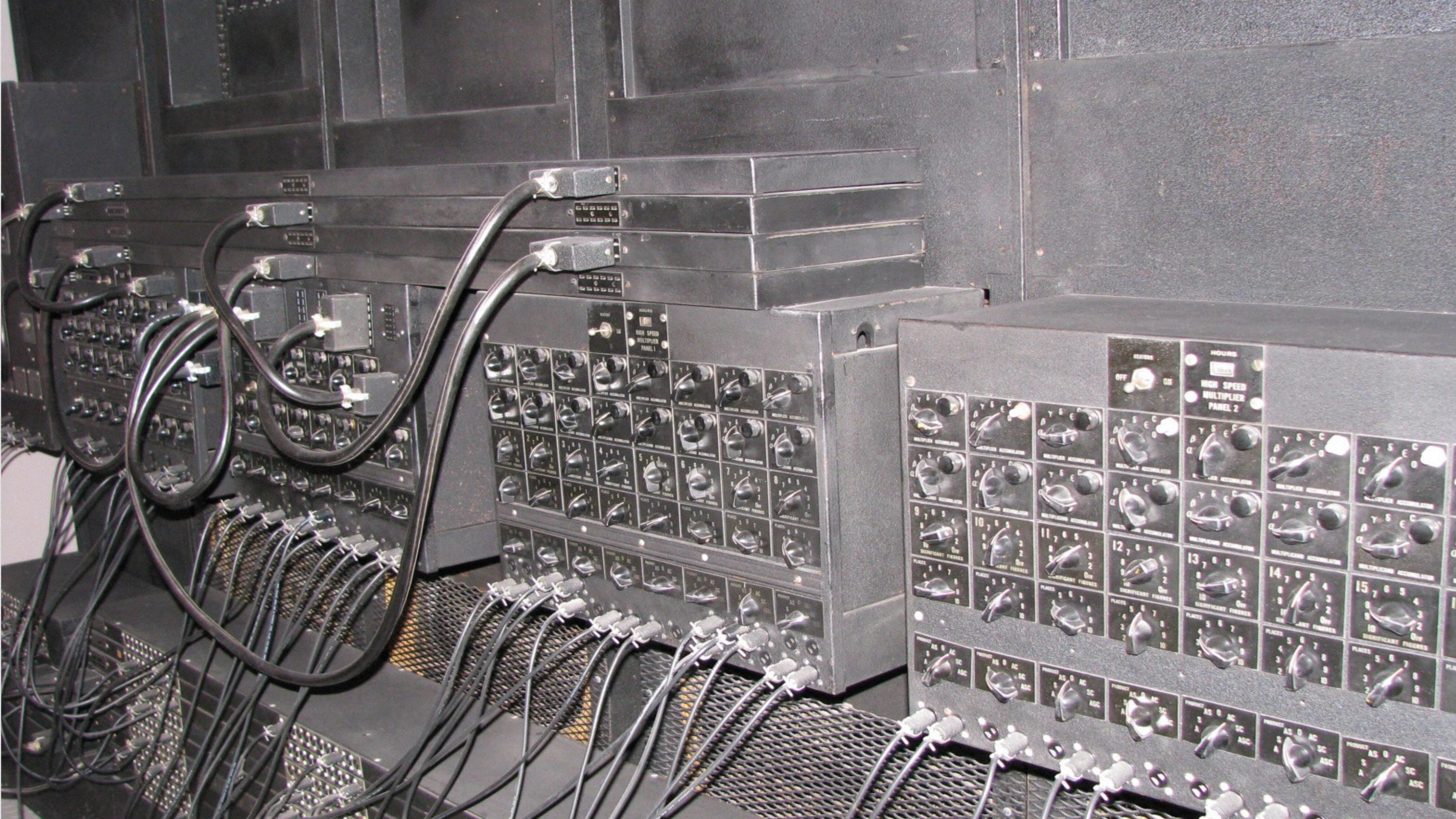
Heuristic violated: Consistency and standards/

Aesthetic and minimalist design

Explanation: Where you change the settings for the app on the settings tab. Both the 'Edit' button and the phone number can be clicked to only change the phone number, making the functionality redundant. Also, 'Edit' is misleading, since users are to edit their settings in the menu below, not through this button.

Severity: 1 A one time problem for every user to overcome—so a frequent one, but not persistent.





A photograph of three young women with dark hair and glasses, laughing together. They are wearing casual clothing, including a grey hoodie and a black t-shirt. The background is a plain, light-colored wall.

THE COMPREHENSIVE, STUDENT-CURATED GUIDE TO

Design at Berkeley

<http://designatberkeley.com/>



Dialing...

back to the future with HCI

October 21, 2015
Valkyrie Savage