Reconnecting with our Futures Past

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apidays

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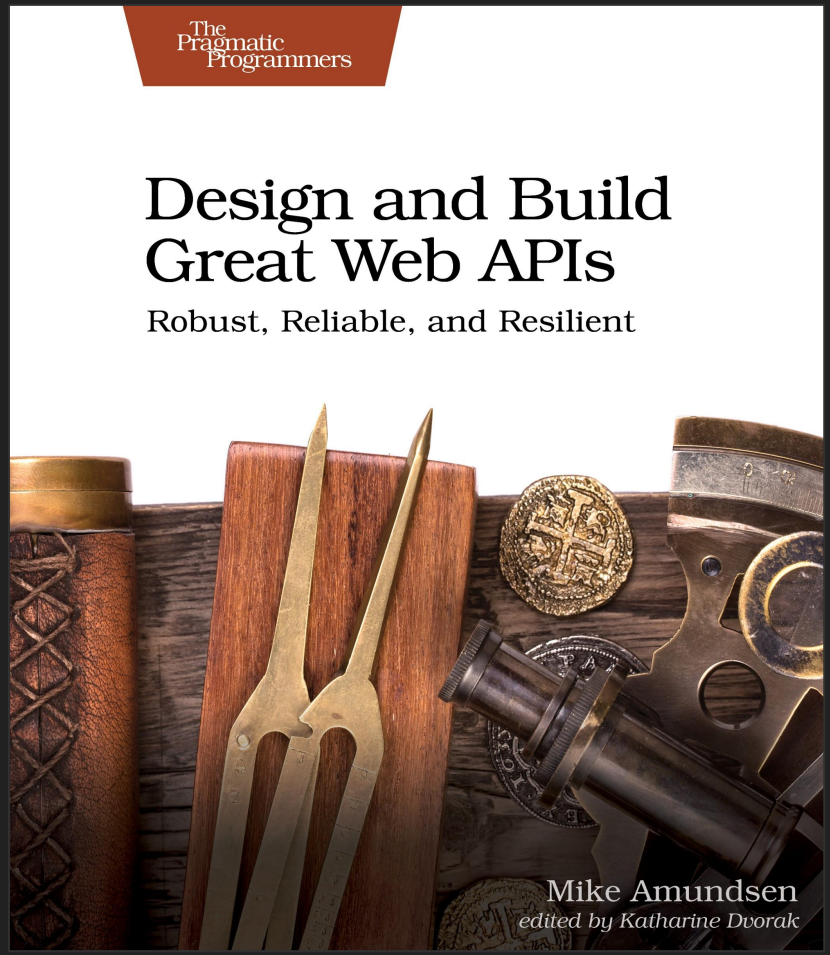
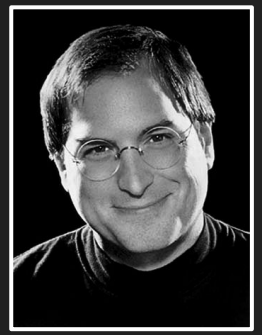
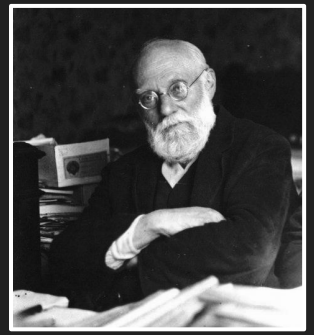
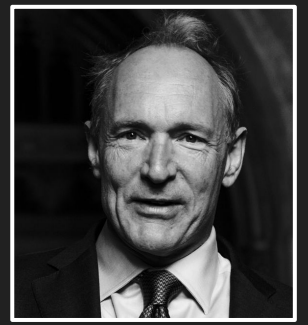
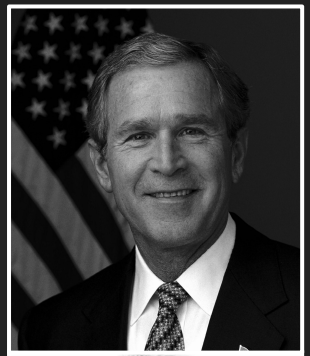
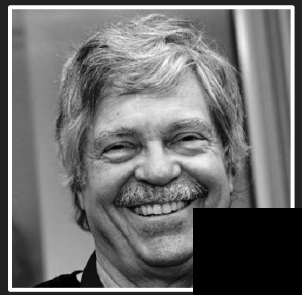
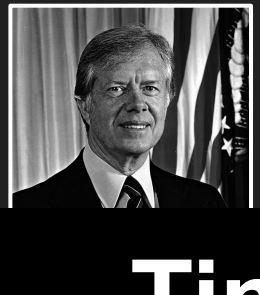
g.mamund.com/GreatWebAPIs

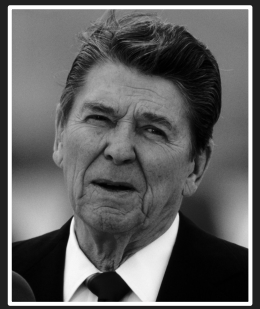
"From design to code to test to deployment, unlock hidden business value and release stable and scalable web APIs that meet customer needs and solve important business problems in a consistent and reliable manner."

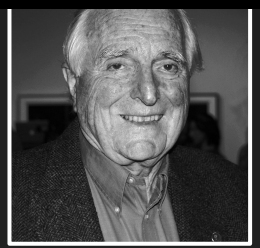
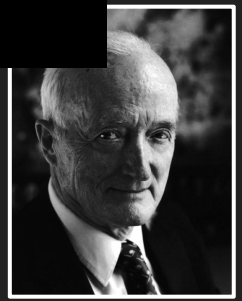
-- Pragmatic Publishers

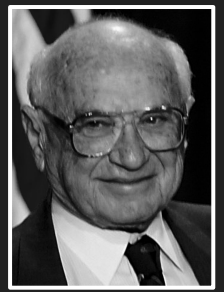


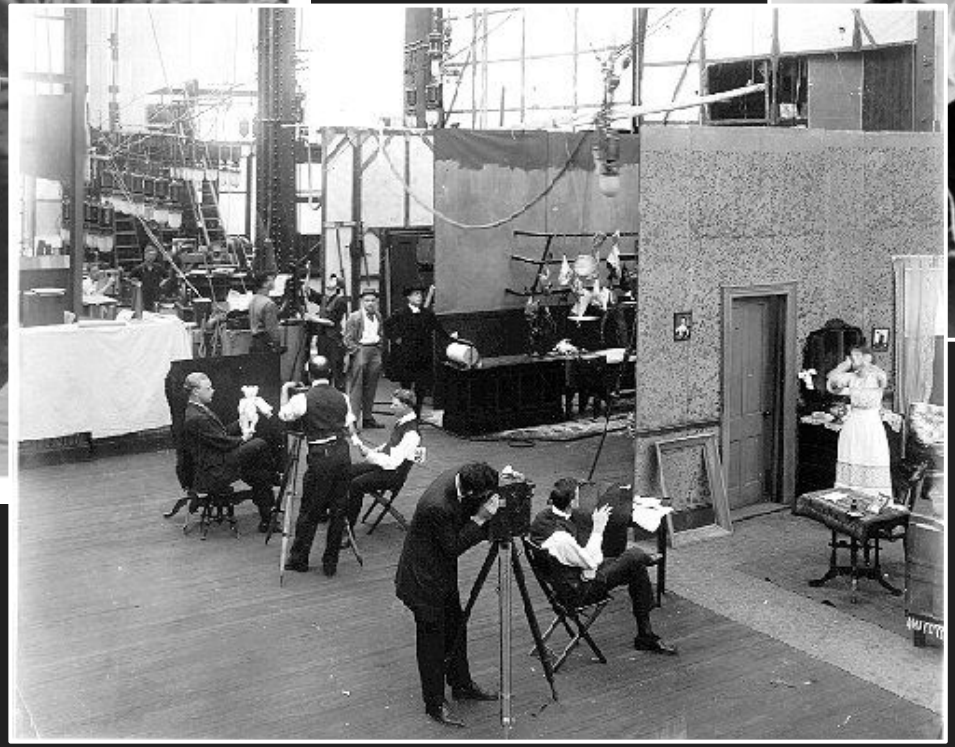


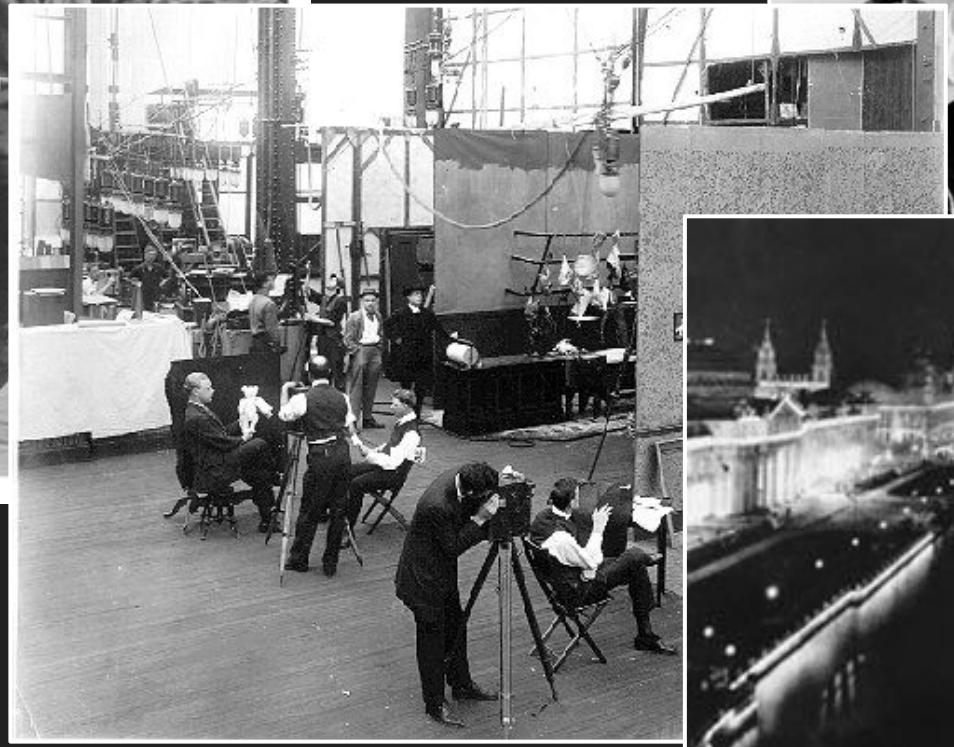





Time

1900s Timeline



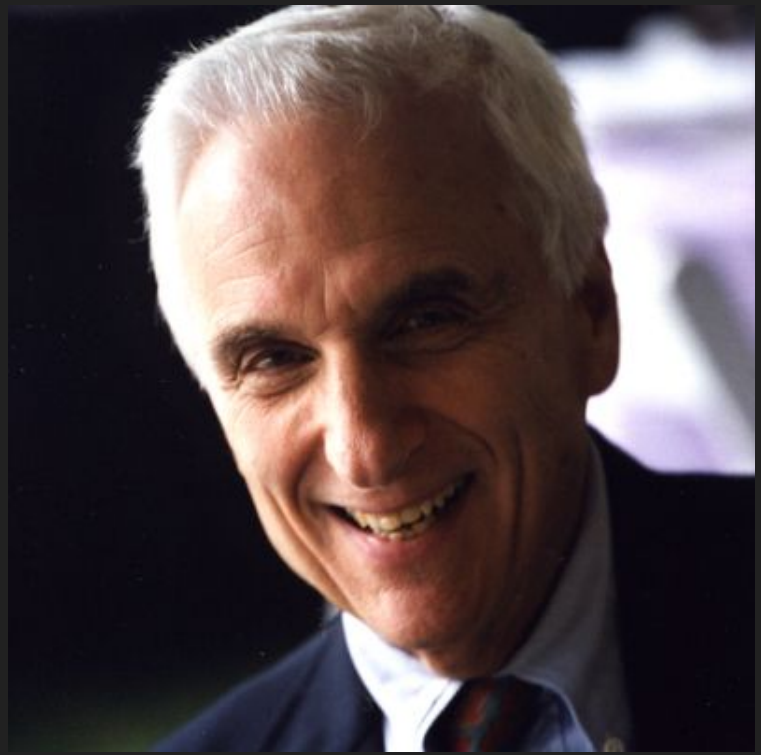


"Time Machine", 1895

"It is possible to believe that all the past is but the beginning of a beginning, and that all that is and has been is but the twilight of the dawn."

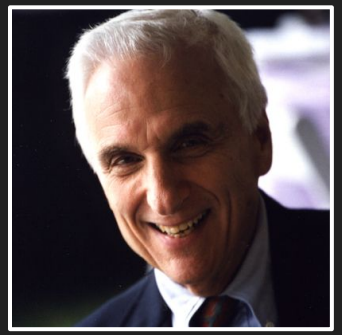
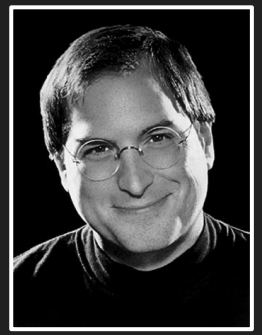
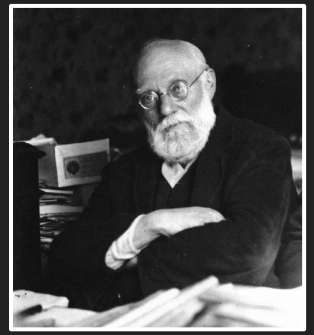
H. G. Wells, 1895

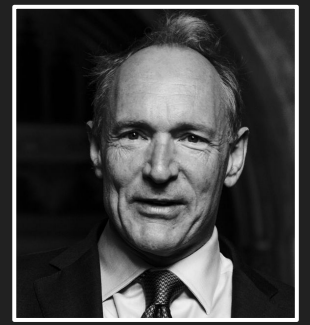
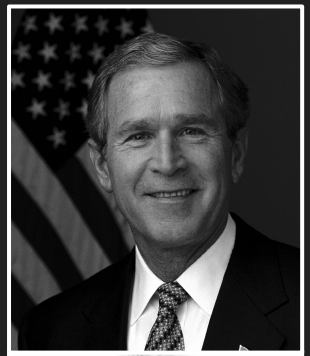
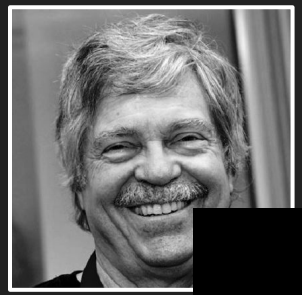
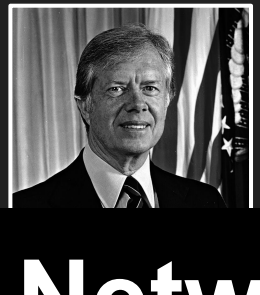
Decisions, Decisions

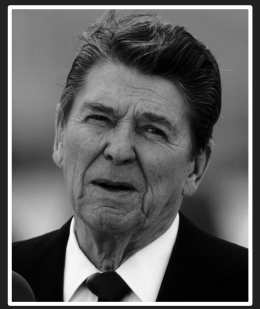


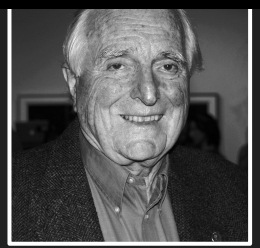
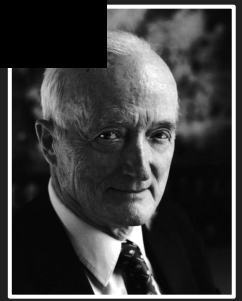
"The very act of organizing a team means that certain decisions have already been made."

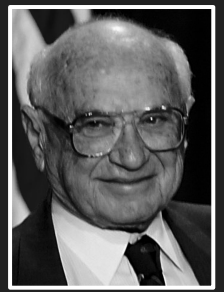
Mel Conway, 1968

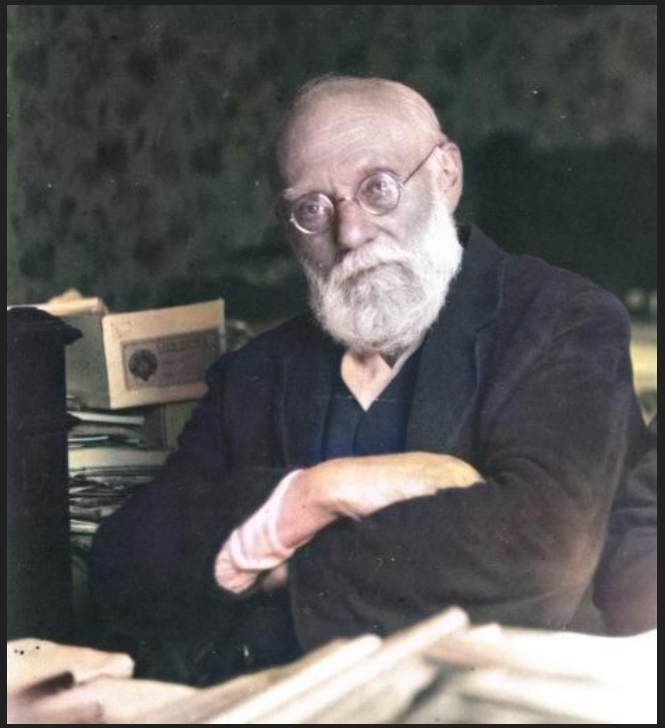




Networks

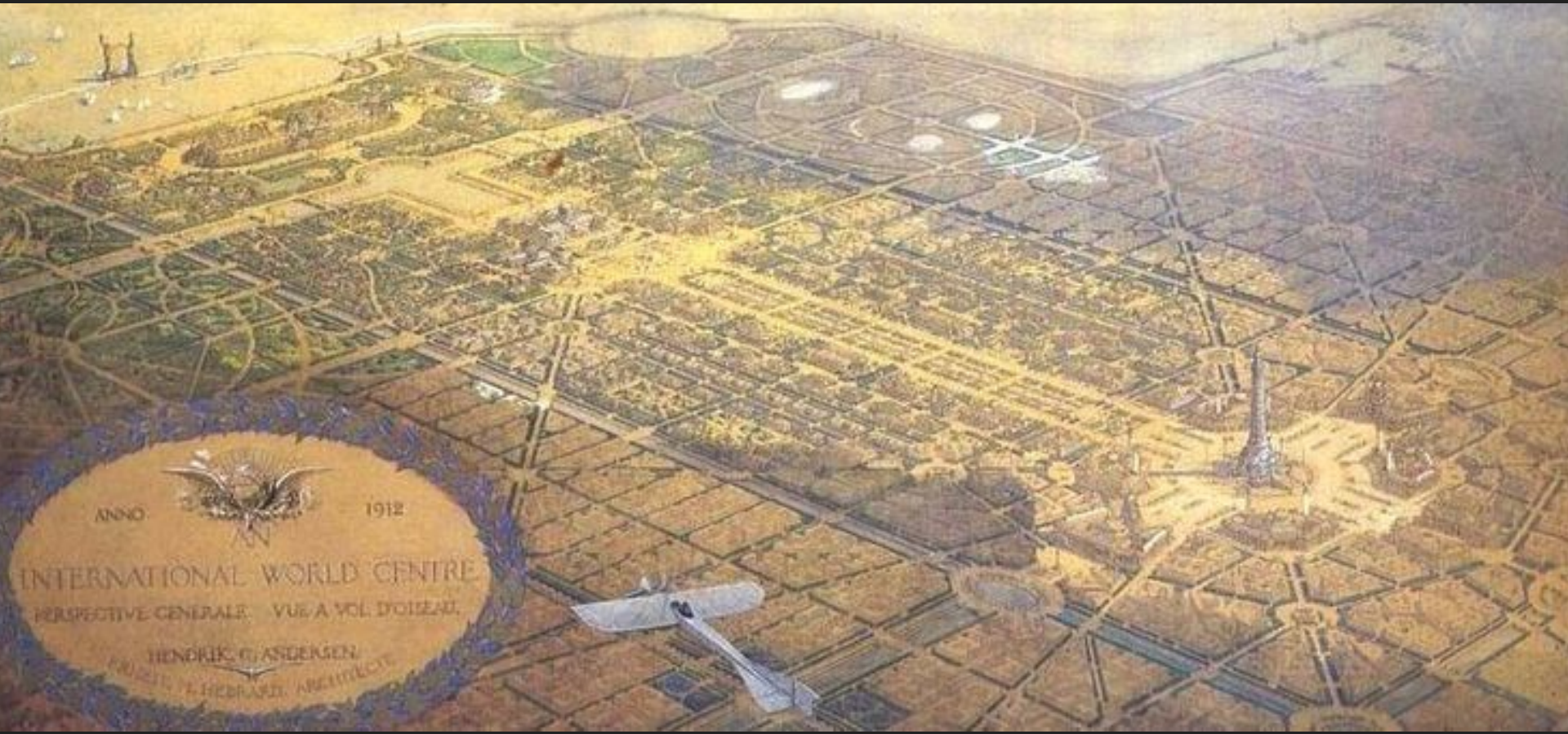
A moving image of the world

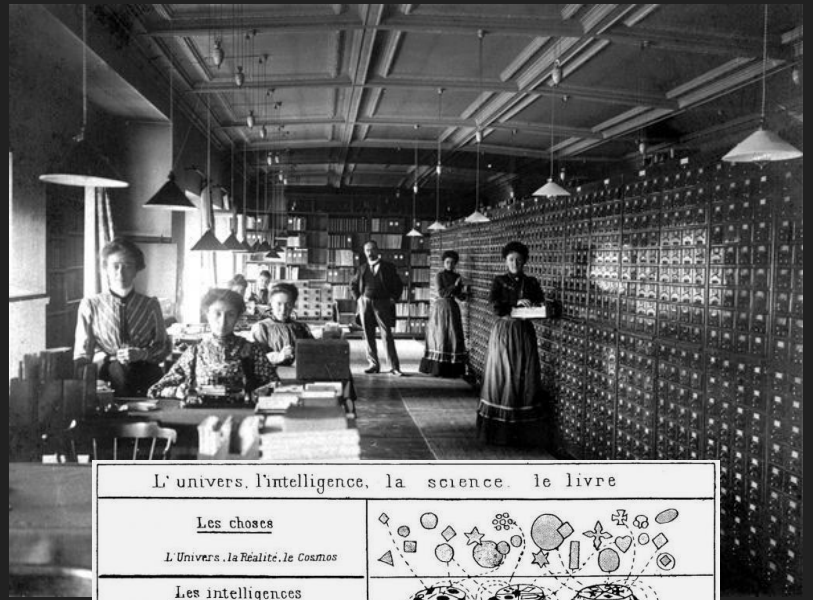


"From a distance, everyone will be able to read text, enlarged and limited to the desired subject, projected on an individual screen."

Paul Otlet, 1935

SPECIES MUNDANEUM
X 081
Doc. N° 8504


ANNO 1912
INTERNATIONAL WORLD CENTRE
PERSPECTIVE GENERALE VUE A VOL D'OISEAU
HENDRIK G. ANDERSEN



L'univers, l'intelligence, la science le livre

Les choses

L'Univers, la Réalité, le Cosmos

Les intelligences

qui pensent les choses fragmentairement

La science

Remet et coordonne en ses cadres les pensées de toutes les intelligences particulières

Les Livres

Transcrivent et photographient la science selon l'ordre divisé des connaissances

La Collection de livres forment la Bibliotheque

La Bibliographie

Inventorie et catalogue les livres

La réunion de notices Bibliographiques forme le repertoire Bibliographique universel

L'Encyclopédie

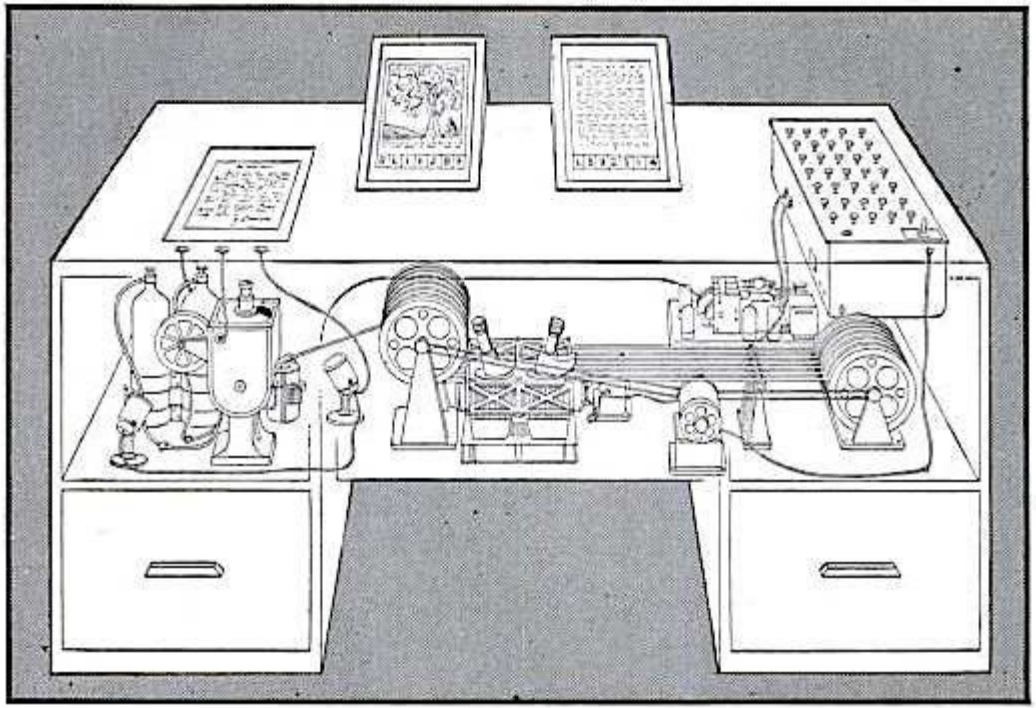
(Texte et Image)

Dossier Atlas Microfilm

Concentre, classe et coordonne le contenu des livres

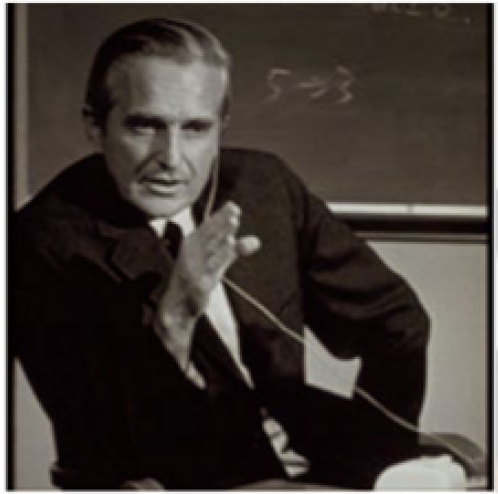
La Classification

Conforme à l'ordre que l'intelligence, découvre dans les choses, sert à la fois à l'ordonnance de la science des livres, de leur Bibliographie et de l'Encyclopédie



MEMEX in the form of a desk would instantly bring files and material on any subject to the operator's fingertips. Slanting translucent viewing screens magnify supermicrofilm filed by code numbers. At left is a mechanism which automatically photographs longhand notes, pictures and letters, then files them in the desk for future reference.

AS WE MAY THINK CONTINUED

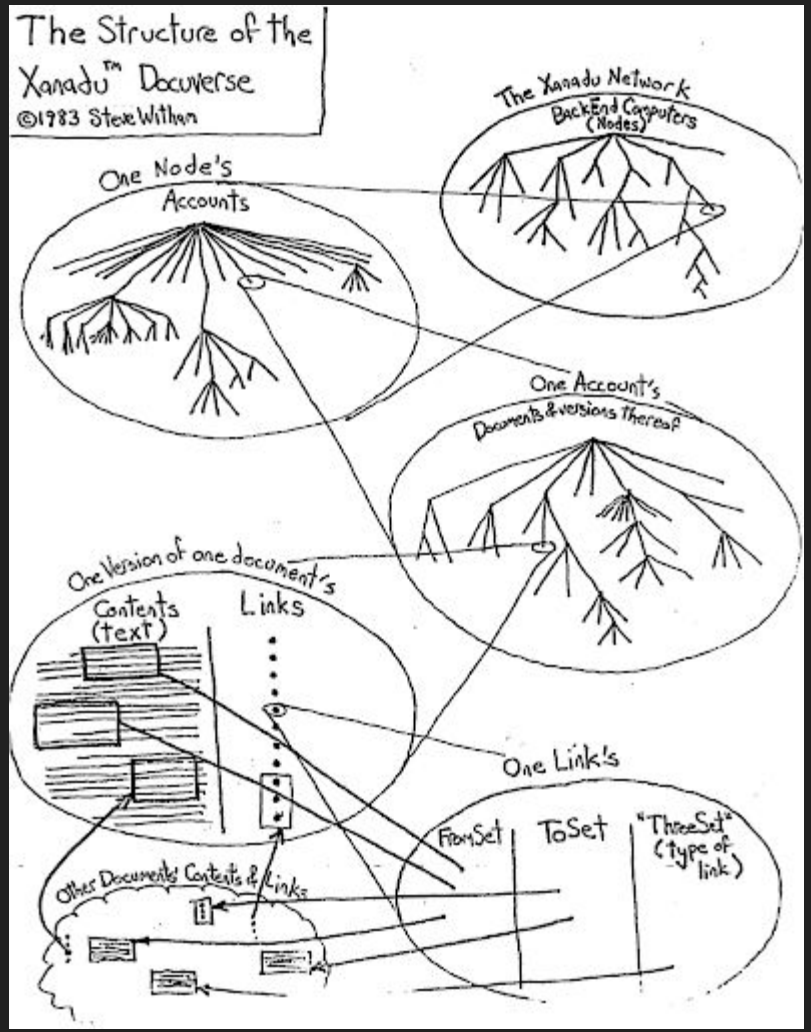


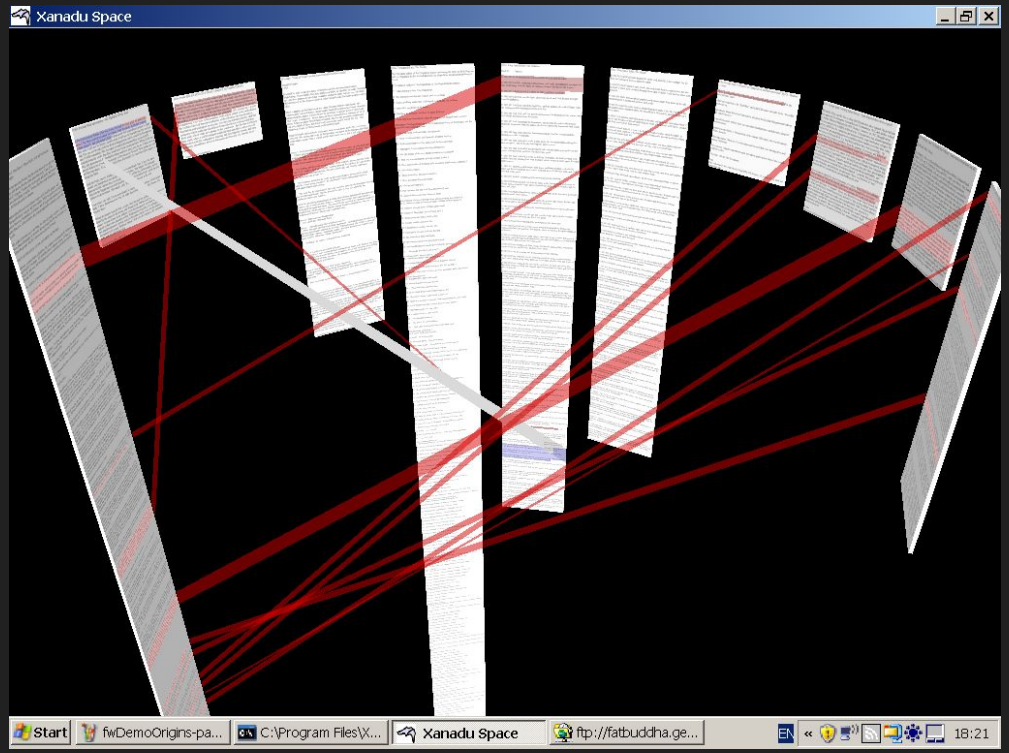
BANANAS
CARROTS
LETTUCE
BEANS
CANS
CEREALS
COLD LOCKER
FROZEN LOCKER
MISCELLANEOUS
SHOE STORE
HARDWARE
ART SUPPLY
BOOK STORE
LIBRARY

We should not impose regularity.

"The point was to be able to have a medium that would record all the connections and all the structures and all the thoughts that paper could not."

-- Ted Nelson


The Structure of the
Xanadu™ Docuverse
©1983 Ted Nelson
The Xanadu Network
Back End Computers
(Nodes)
One Node's
Accounts
One Account's
Documents & versions thereof
One Version of one document's
Contents
(text)
Links
One Link's
FromSet
ToSet
"ThreeSet"
(type of
link)
Other Documents' Contents & Links


Xanadu Space
Start
fwDemoOrigins-pa...
C:\Program Files\X...
Xanadu Space
ftp://fatbuddha.ge...
18:21

You can and must understand computers NOW.

COMPUTER

DREAM MACHINES

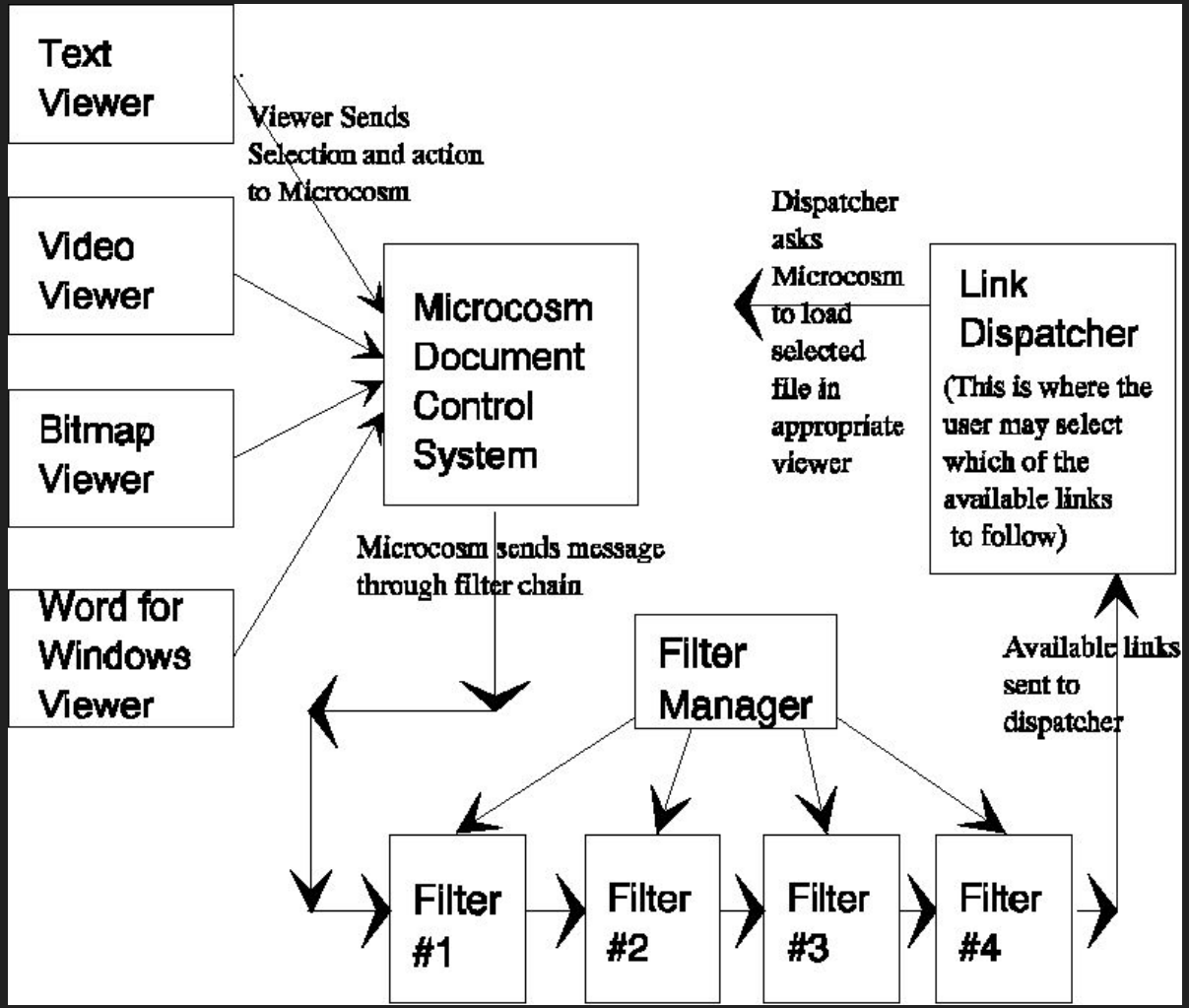
New Freedoms Through Computer Screens
— a Minority Report

This is the flip side of Computer Lib.

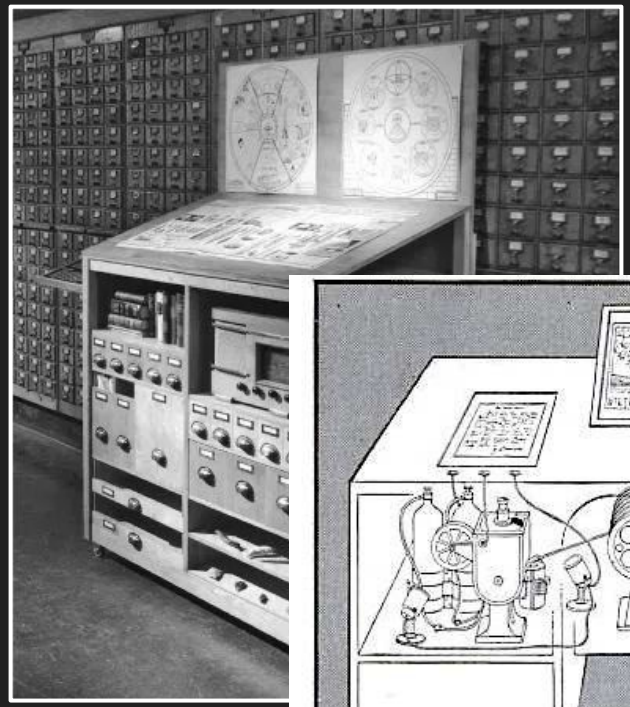
The whole foundation of hypertext is collaborative

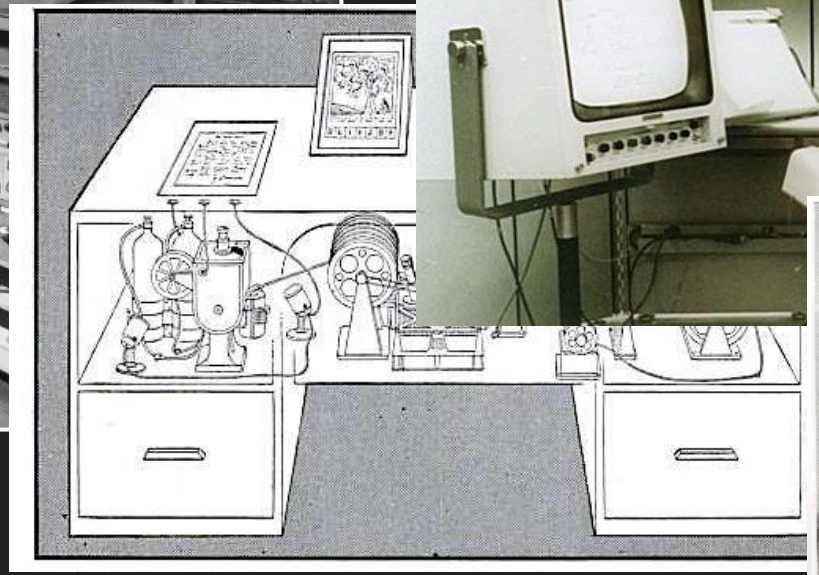
"The strength of the internet is its global interconnection."

-- Dame Wendy Hall, 2019

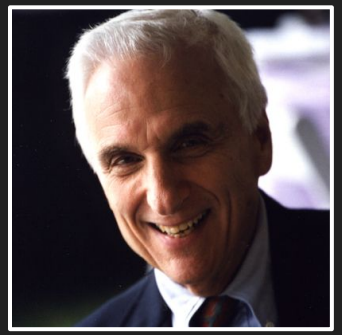
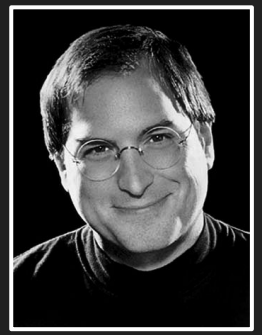
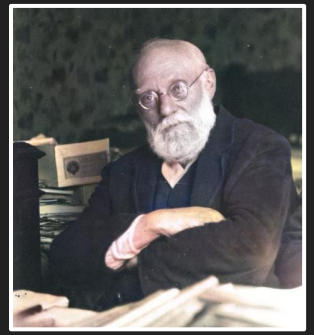

Text Viewer
Video Viewer
Bitmap Viewer
Word for Windows Viewer
Viewer Sends Selection and action to Microcosm
Microcosm Document Control System
Dispatcher asks Microcosm to load selected file in appropriate viewer
Link Dispatcher
(This is where the user may select which of the available links to follow)
Microcosm sends message through filter chain
Filter Manager
Available links sent to dispatcher
Filter #1
Filter #2
Filter #3
Filter #4

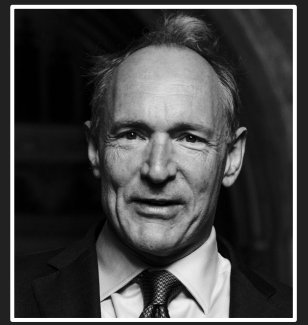
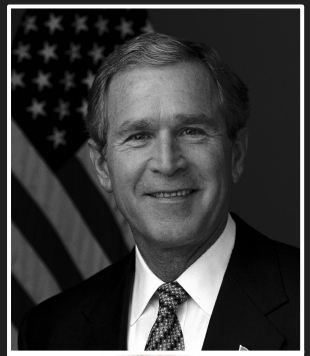
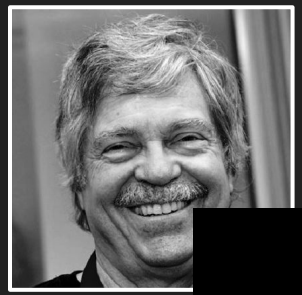
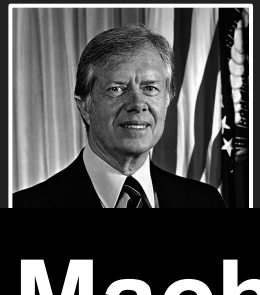
Microcosm

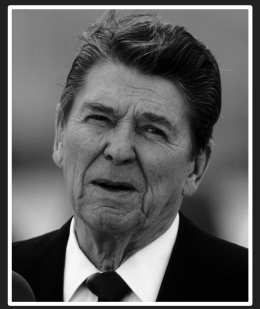


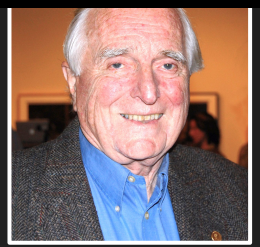
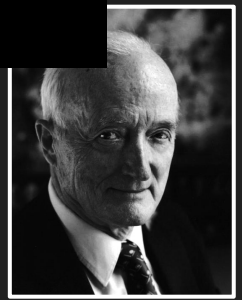


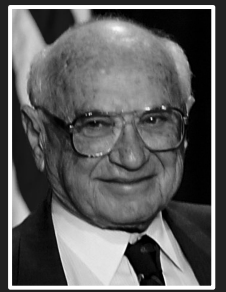
Microcosm





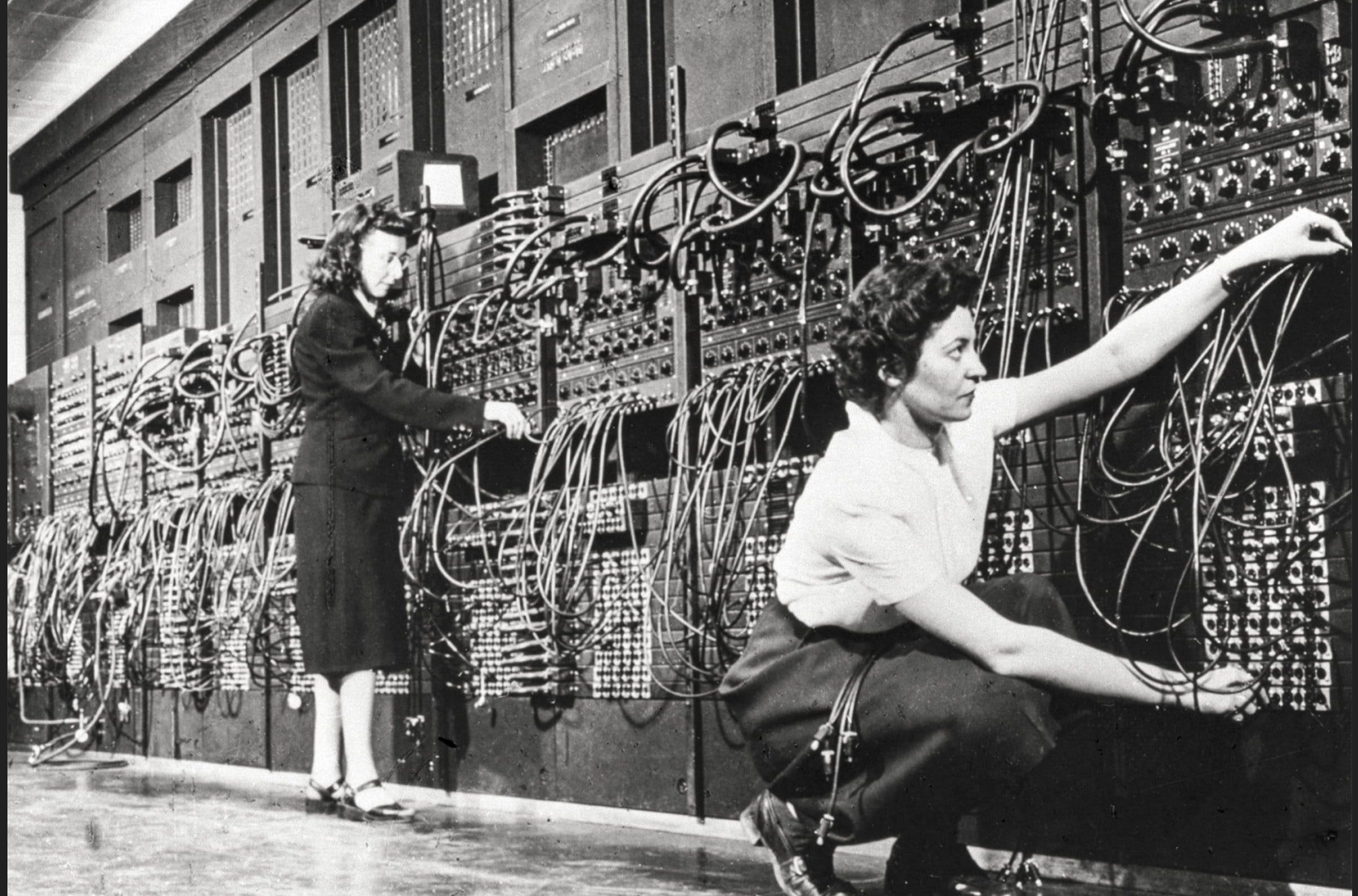
Machines

The "ENIAC Six" -- 1946

- *Betty Snyder Holberton*
- *Jean Jennings Barik*
- *Kay McNulty Mauchly Antonelli*
- *Marlyn Wescoff Meltzer*
- *Ruth Lichterman Teitelbaum*
- *Frances Bilas Spence*

"The Computers: The Remarkable Story of the ENIAC Programmers" -- Kathy Kleimar

https://vimeo.com/ondemand/eniac6



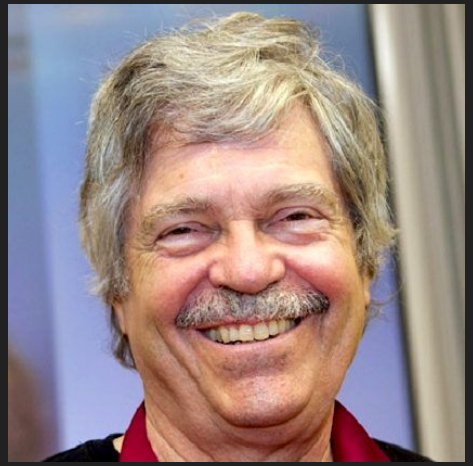
The UNIVAC -- 1949

"To me programming is more than an important practical art. It is also a gigantic undertaking in the foundations of knowledge."

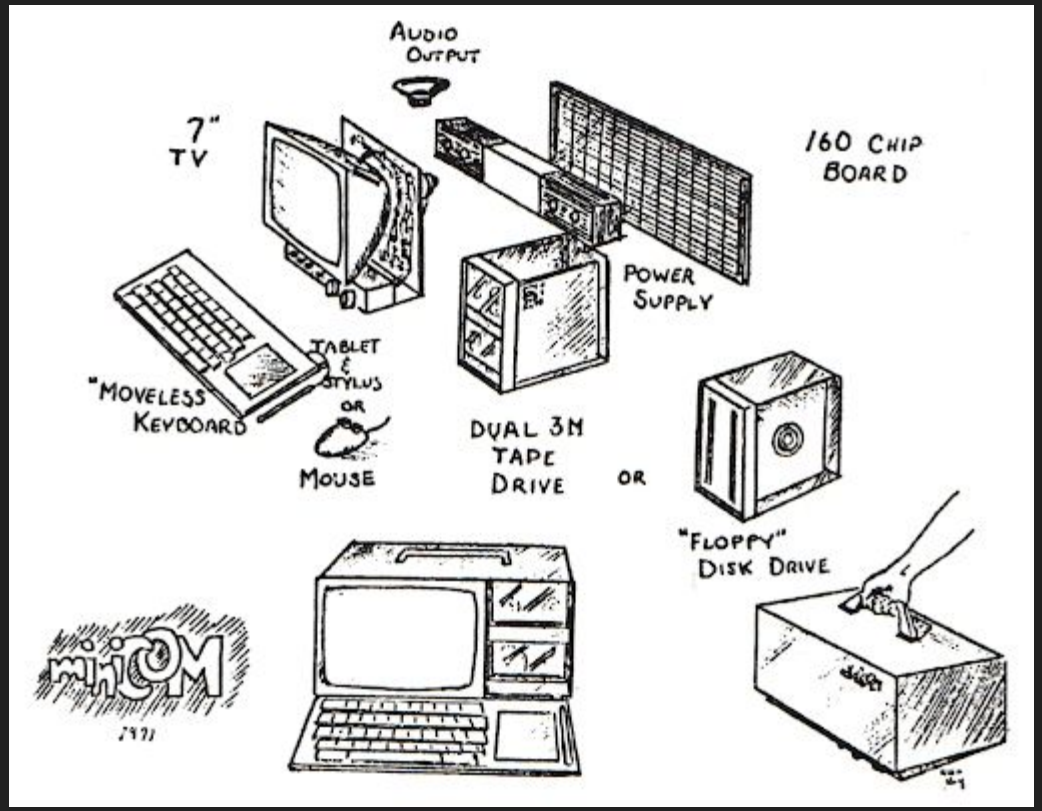
-- Admiral Grace Hopper (1906 -- 1992)

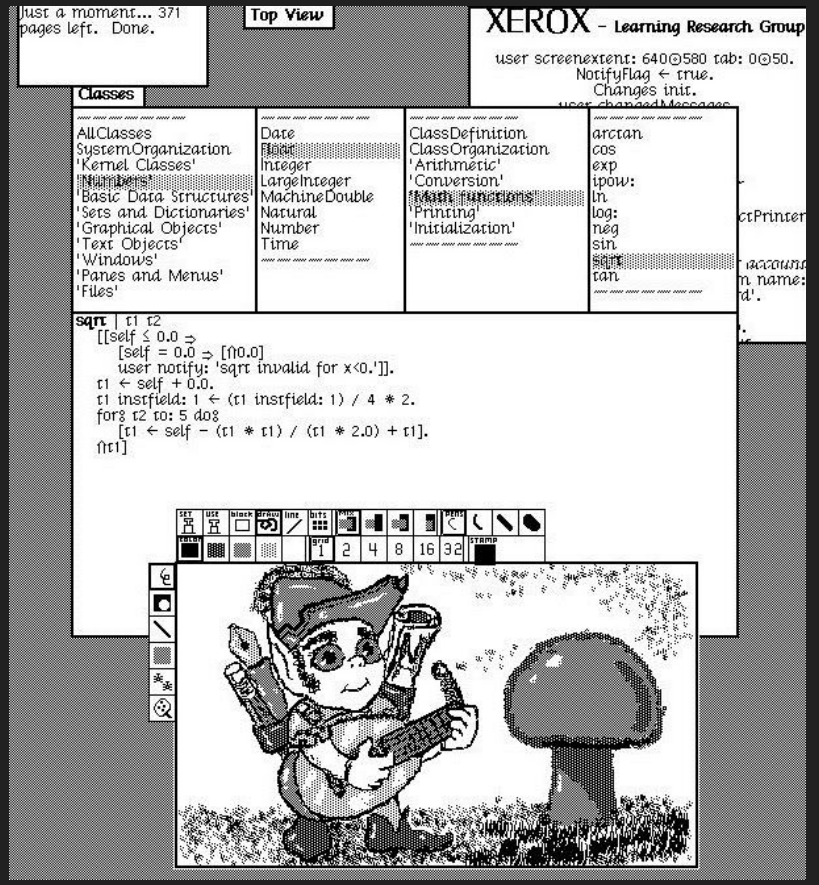
GRACE HOPPER
CELEBRATION

Adele Goldberg & Alan Kay -- 1970s



- *XEROX Parc*
- *Smalltalk Language*
- *Object-Oriented Programming*
- *Dynabook*


AUDIO OUTPUT
7" TV
160 CHIP BOARD
POWER SUPPLY
TABLET & STYLUS
OR
"MOVELESS KEYBOARD"
MOUSE
DUAL 3M TAPE DRIVE
OR
"FLOPPY" DISK DRIVE
miniCOM
1971


Just a moment... 371 pages left. Done.
Top View
XEROX - Learning Research Group
user screenextent: 640@580 tab: 0@50.
NotifyFlag ← true.
Changes init.
Classes
AllClasses
SystemOrganization
'Kernel Classes'
'Numbers'
'Basic Data Structures'
'Sets and Dictionaries'
'Graphical Objects'
'Text Objects'
'Windows'
'Panes and Menus'
'Files'
Date
Float
Integer
LargeInteger
MachineDouble
Natural
Number
Time
ClassDefinition
ClassOrganization
'Arithmetic'
'Conversion'
'Math functions'
'Printing'
'Initialization'
arctan
cos
exp
ipow:
ln
log:
neg
sin
sqrt
tan
sqrt | t1 t2
[[self ≤ 0.0 ⇒
[self = 0.0 ⇒ [↑0.0]
user notify: 'sqrt invalid for x<0.']].
t1 ← self + 0.0.
t1 instfield: 1 ← (t1 instfield: 1) / 4 * 2.
for§ t2 to: 5 do§
[t1 ← self - (t1 * t1) / (t1 * 2.0) + t1].
↑t1]

12"
9
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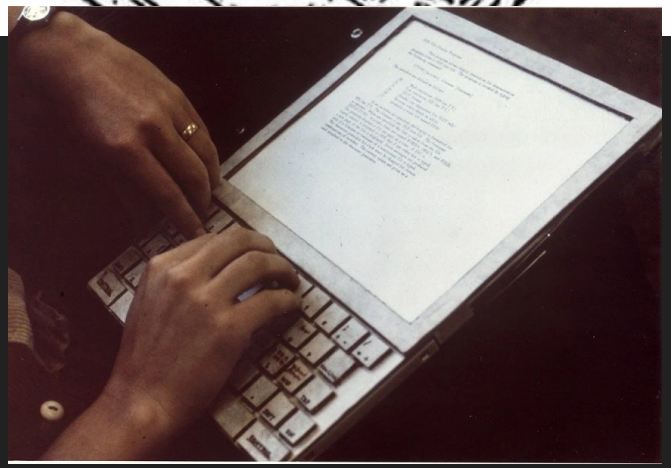
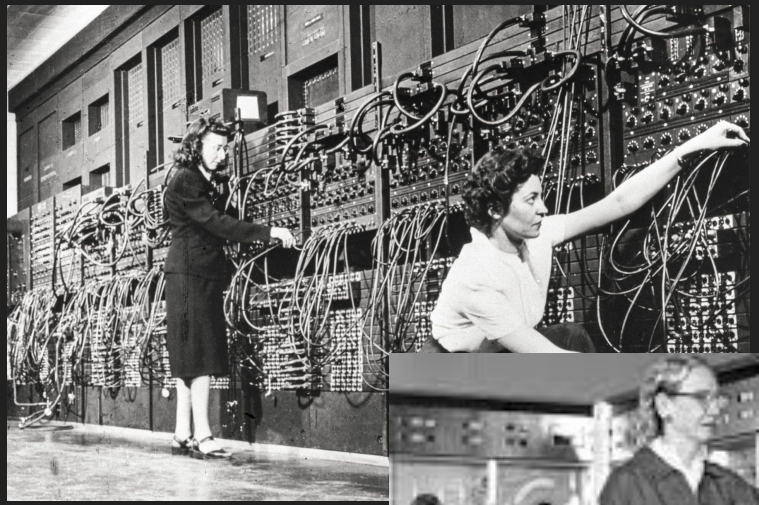
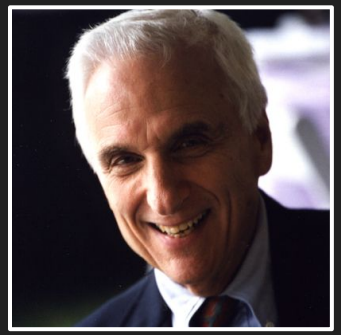
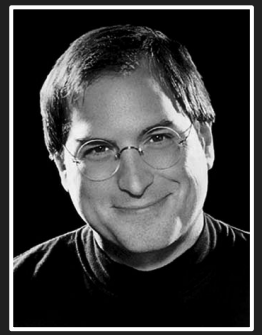
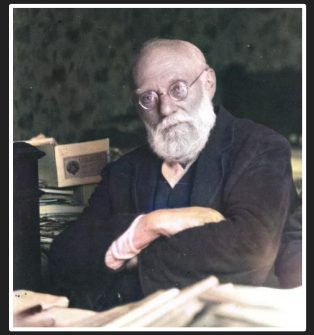
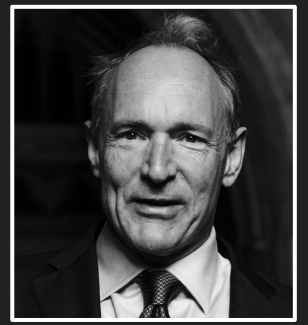
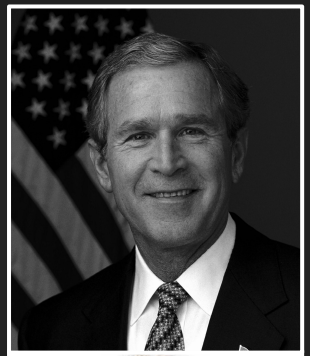
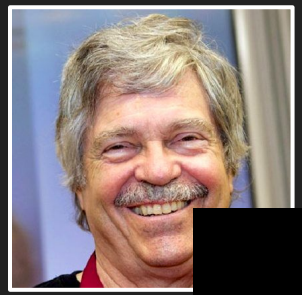
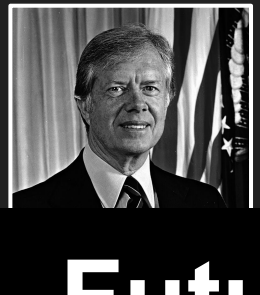
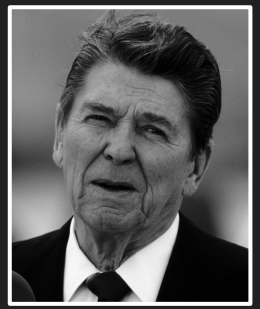
PILES

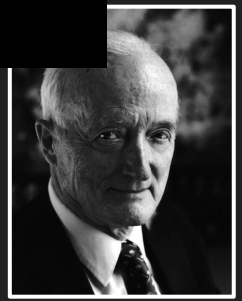


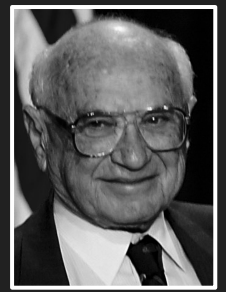




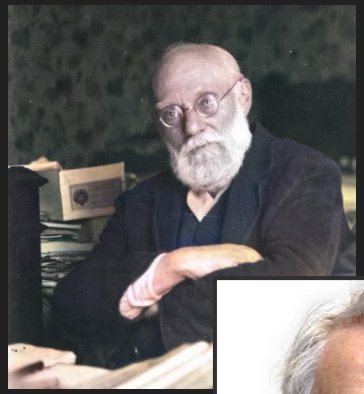




Futures

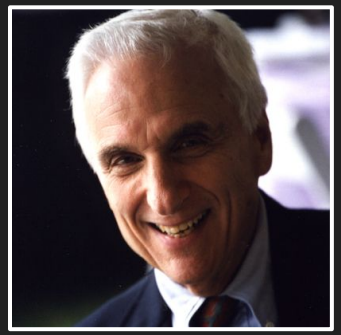
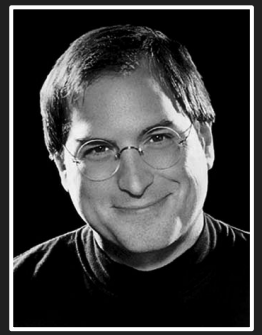
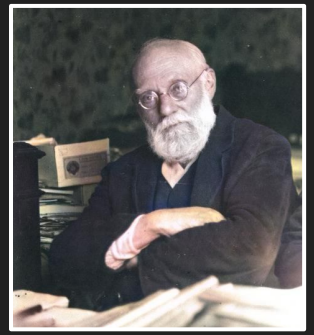
Otlet-Nelson-Hall Networks

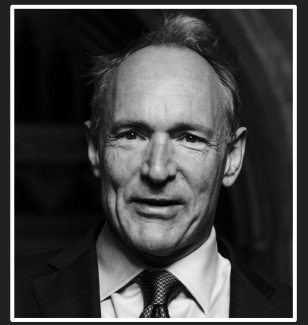
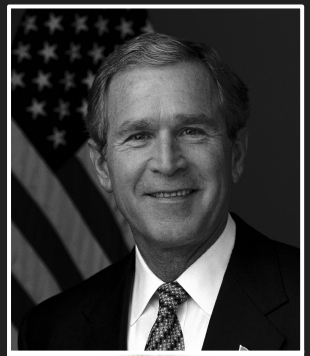
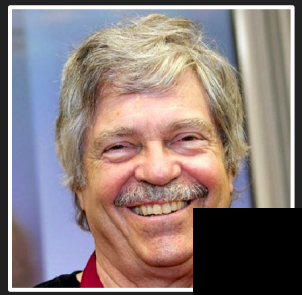
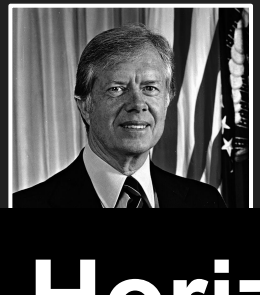
- Planetary library in an extra-territorial city state (Otlet)
- Links as an added layer on the unspoiled original content (Nelson)
- An open, resource-based message-passing system (Hall)

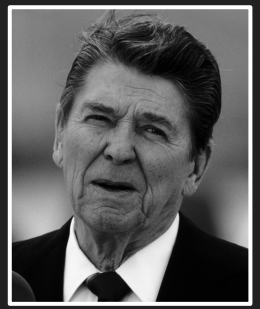


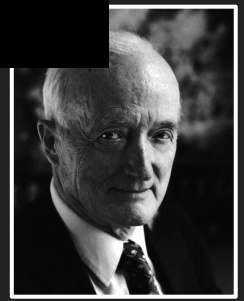
McNulty-Hopper-Goldberg Machines

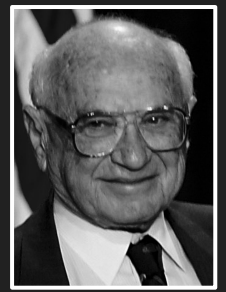
- Organized into coherent machine-language routines (McNulty)
- Self-documenting domain-specific application-languages (Hopper)
- Message-passing opaque components (Goldberg/Kay)







Horizons

A Friedman doctrine—

The Social Responsibility Of Business Is to Increase Its Profits

By MILTON FRIEDMAN

TAMING G.M.—Chairman James Roche of General Motors (right) replies to members of Campaign G.M. (below, wearing "Tame G.M." buttons) at the corporation's stockholders' meeting in May. Representatives of the campaign demanded that G.M. name three new directors to represent "the public interest" and set up a committee to study the company's performance in such areas of public concern as safety and pollution. The stockholders defeated the proposals overwhelmingly, but management, apparently in response to the second demand, recently named five directors to a "public-policy committee." The author calls such drives for social responsibility in business "pure and unadulterated socialism," adding: "Businessmen who talk this way are unwitting puppets of the intellectual forces that have been undermining the basis of a free society."

Increase Profits -- 1970

"I am favor of cutting taxes under any circumstances and for any excuse, for any reason, whenever it's possible."

-- Milton Friedman (1912 -- 2006)

$32.95
FREE

A Crisis of Confidence -- 1979

"We can see this crisis in the growing doubt about the meaning of our own lives and in the loss of a unity of purpose for our nation."

-- Jimmy Carter, 1979

Problems

"Government is not the solution to our problem; government is the problem."

-- Ronald Reagan, 1981

The Promise of America

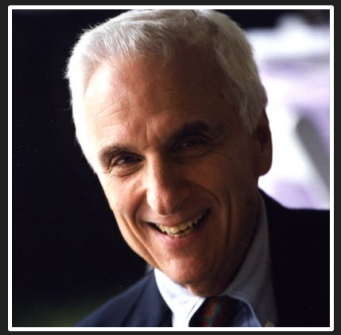
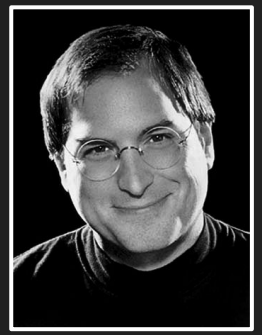
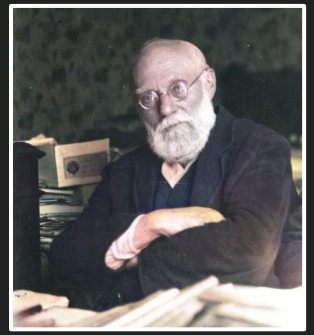
"America doesn't need more big government."

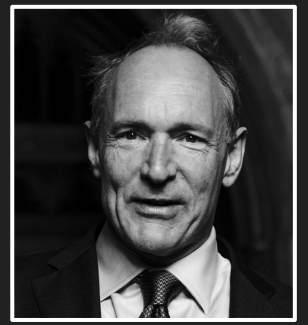
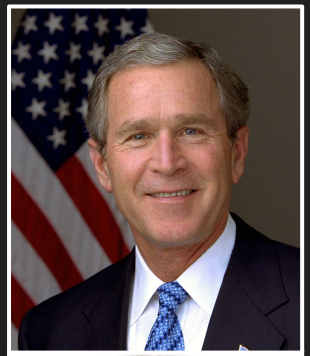
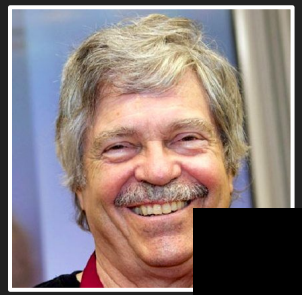
-- George E. Bush, 2002

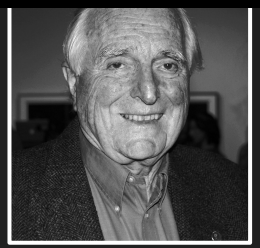
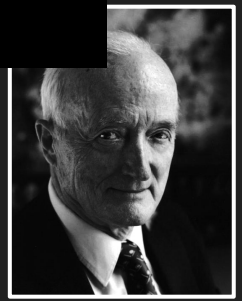
Money

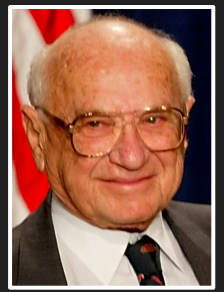
"[Trump] is a guy who learned to turn politics into money."

-- Wayne Barrett, 1992



Parallels

"All the News That's Fit to Print"

The New York Times

LATE CITY EDITION

Weather: Cloudy, rain likely today and tonight. Partly sunny tomorrow. Temp. range: today 64-50; Wed. 67-46. Full U.S. report on Page 73.

VOL. CXIX ... No. 40,997 © 1970 The New York Times Company. NEW YORK, THURSDAY, APRIL 23, 1970

10 CENTS

PRICES CLIMB 0.4% BUT RATE OF RISE APPEARS TO SLOW

Gain in the Consumer Index for March Lags Behind the 4 Previous Months

INCREASE IS STEEP HERE

Medical Care and Mortgage Interest Are the Major Elements in Changes

By EDWIN L. DALE Jr.
Special to The New York Times

WASHINGTON, April 22—Consumer prices rose strongly again in March but there were signs that the pace of inflation was slowing, the Labor Department reported today.

After adjustment of the data to reflect normal seasonal changes, the Consumer Price Index rose four-tenths of 1 per cent in March, less than the five-tenths rise in February and the six-tenths rate of the three months before that.

What is more, one-quarter of the entire March increase in the index was accounted for by a somewhat artificial recording of an increase in Veterans Administration mortgage interest rates. The ceiling on these rates was recently raised by the Government, but the cost to the borrower was not increased by as much as the face amount of the interest.

Finds Easing of Rate

Joel Popkin, Assistant Com-

Millions Join Earth Day Observances Across the Nation

The New York Times (by Patrick A. Burns)

Throngs jamming Fifth Avenue yesterday in response to a call for the regeneration of a polluted environment. View is north from 45d Street, with Central Park in background.

U.S. CONCERN SUED WITH 2 IN JAPAN

Westinghouse and Mitsubishi Companies Are Accused in

Mood Is Joyful as City Gives Its Support

By JOSEPH LELYVELD

Huge, light-hearted throngs ambled down autoless streets

Activity Ranges From Oratory to Legislation

By GLADWIN HILL

Earth Day, the first mass consideration of the globe's en-

BACKERS OF ROJAS THREATEN REVOLT

But Colombian Government Appears in Full Control—

Fraud Charge Renewed

U.S. Plane Flies In Arms As Trinidad Fights Mutiny

By TAD SZULC
Special to The New York Times

WASHINGTON, April 22—The United States flew a planeload of weapons, including mortars and machine guns

CAMBODIAN CRISIS GROWS AS TROOPS SEEM TO FALTER

With Reds Near, Pnompenh Is Gloomy Over Limited Response to Aid Pleas

CIVIL AVIATION CURBED

Aide Declines to State How Long Army Can Hold Out With the Arms It Has

By HENRY KAMM
Special to The New York Times

PNOMPENH, Cambodia, April 22—An atmosphere of heightening national emergency is overtaking Cambodia.

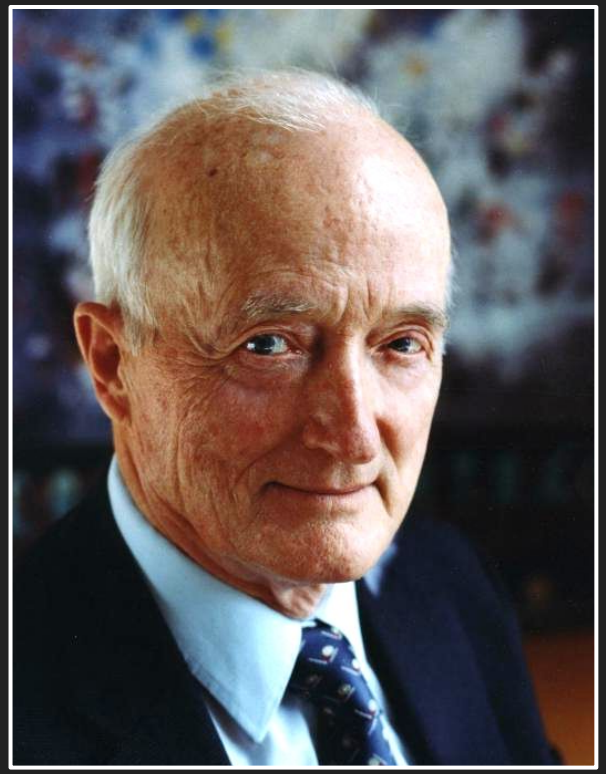
It is due to evidence that the Cambodian Army is unable to turn back the Vietnamese Communist forces, which at one point are within 15 miles of the capital, and to the limited response to Premier Lon Nol's appeal to all nations for arms aid.

The military authorities closed the Pnompenh airport this evening to all civilian traffic. According to military sources, it is to remain closed until tomorrow in connection with an important military operation. The operation is presumably intended to dislodge the North Vietnamese and Vietcong forces from the district capital of Saang, about 15 miles south of here.

An Appeal to Newsmen

The discouragement over the failure of such countries as the

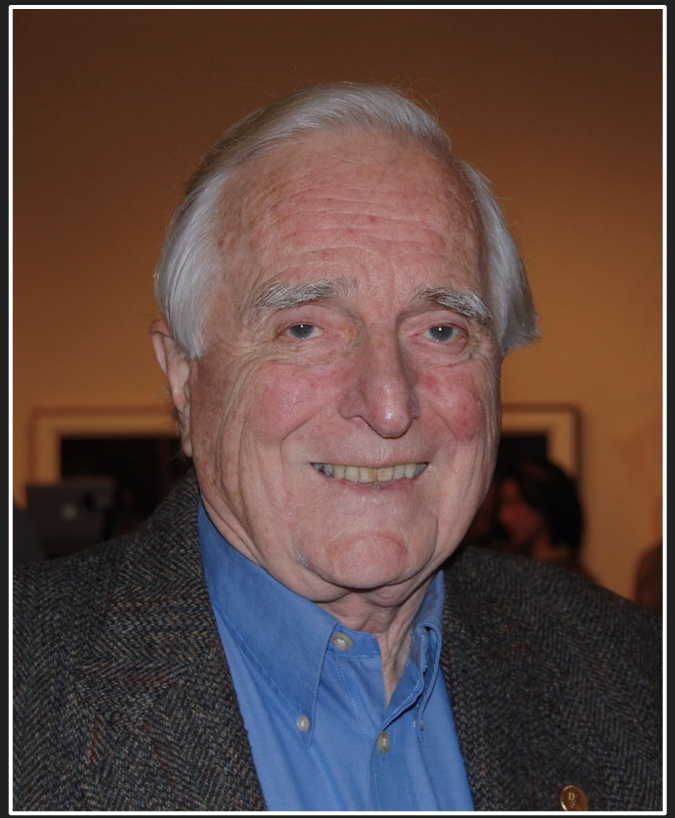
Founder of Earth Day -- 1970



"The world of tomorrow is not foreordained to be either good or bad...rather it will be what we make it."

-- John McConnell
(1915 -- 2012)

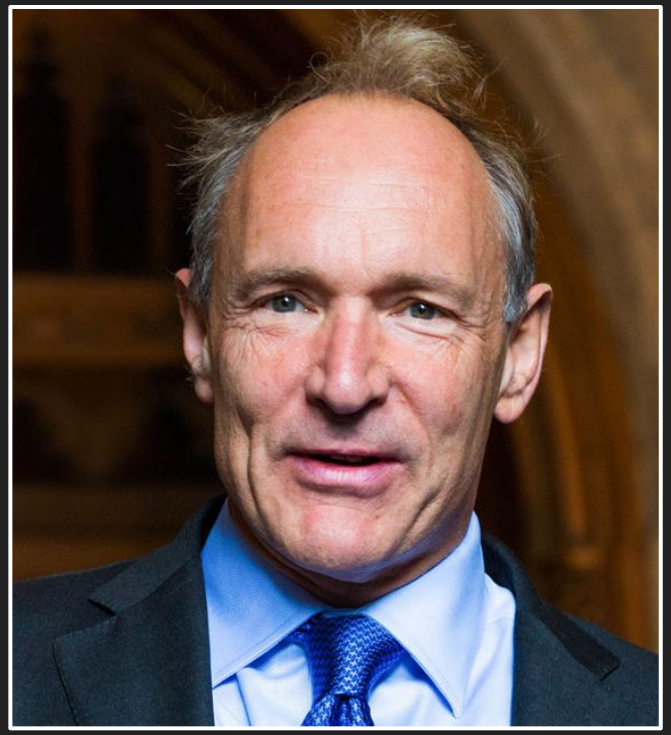
Digital Revolution -- 1980s



"The digital revolution is far more significant than the invention of writing or even of printing."

-- Doug Engelbart (1925 -- 2013)

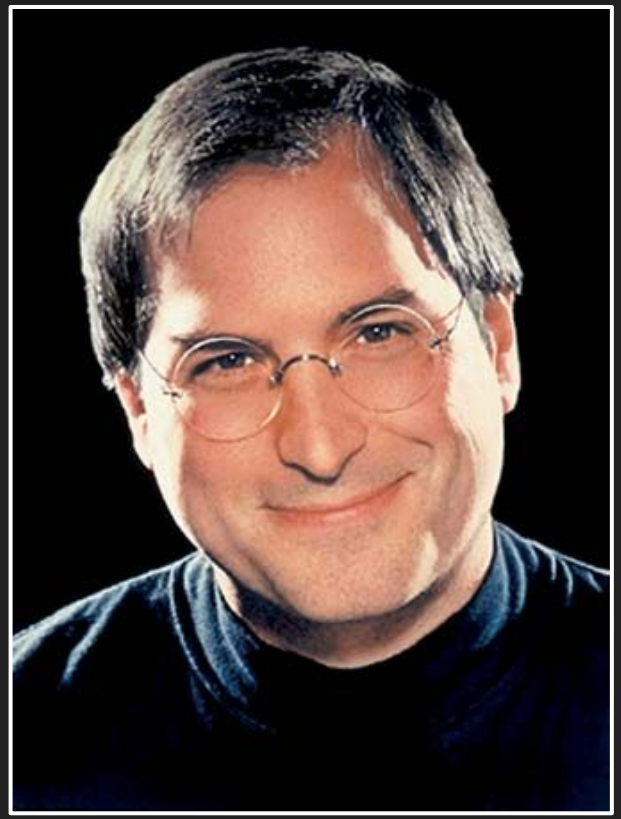
We have not seen it yet



"The Web as I envisaged it, we have not seen it yet. The future is still so much bigger than the past."

-- Sir Tim Berners-Lee

A Bicycle for our Minds, 1990



"What a computer is to me is it’s the most remarkable tool that we’ve ever come up with, and it’s the equivalent of a bicycle for our minds."

-- Steve Jobs, 1990

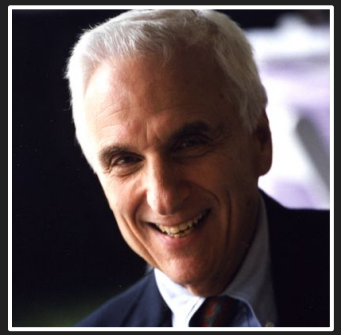
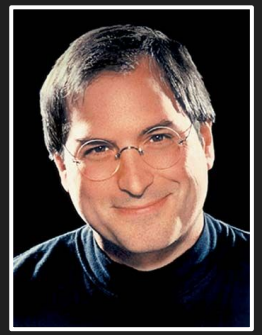
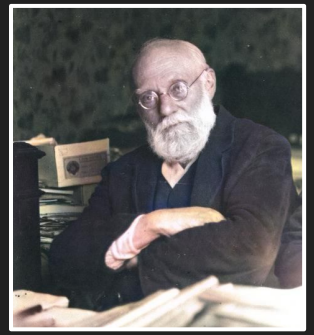
"Time Machine", 1895

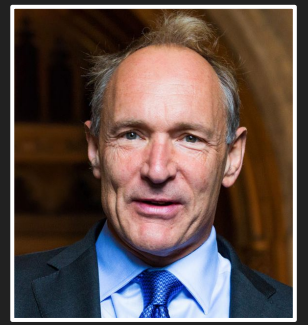
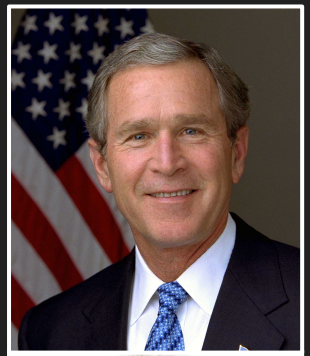
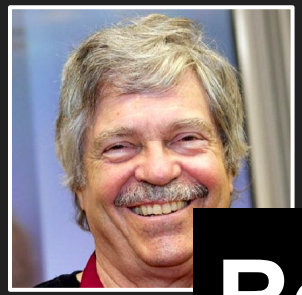
"Every time I see an adult on a bicycle, I no longer despair for the future of the human race."

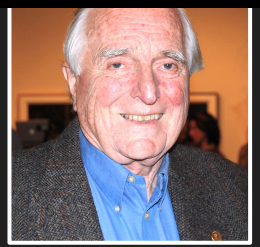
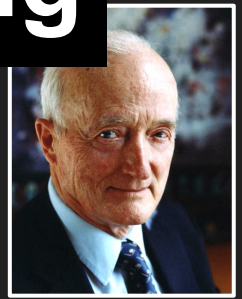
-- H. G. Wells

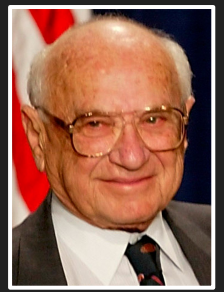
FUTURE

THE BEST WAY
TO PREDICT THE
FUTURE
IS TO CREATE IT



Reconnecting

Reconnecting with our Futures Past

Mike Amundsen
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