

# The Two Fundamental Questions

◆ **1) WHY???**

◆ **2) W H Y ? ? ?**

◆ Why our technological world is made like this?

◆ Could it go differently?

Exercise:

Let's use a powerful weapon

- ◆ Look behind (!)
- ◆ Let's see a brief history of the first steps of the Web (until 1995...), to understand a bit where we have arrived so far...

## The Weapon of the Past

- ◆ Understanding why we are in this situation now, we can also better understand where we will be tomorrow
- ◆ ***Look behind to look forward!***

What was the address of the *first* web page in the world?



# Web History – Common Version

- ◆ 1980-2000:  
Bill Gates and Microsoft  
invent Internet,  
the computer, the mouse,  
and the Web.
- ◆ (Poll made in the USA  
in the 2000..(!)
- ◆ ... and in Italy with the  
same results in 2006 (!))



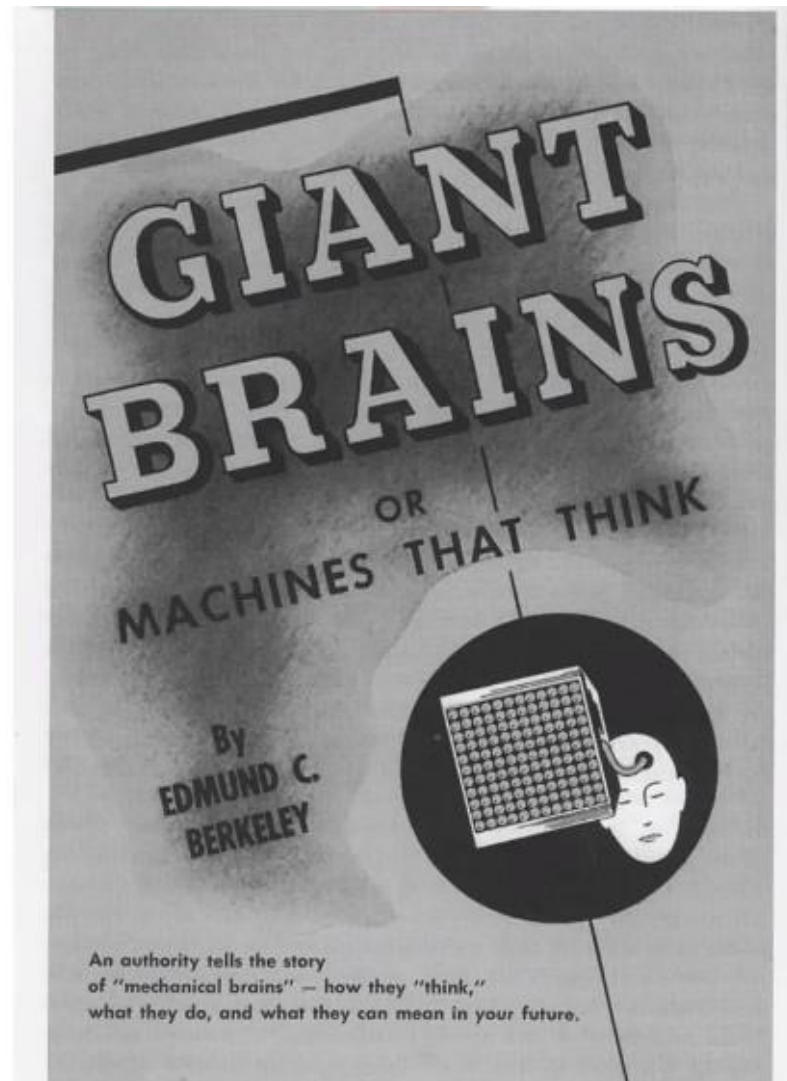
## Web History – Common Version **Reloaded...**

- ◆ Italian poll (2016):  
Steve Jobs invented  
Internet,  
the computer,  
the mouse, and  
the Web.



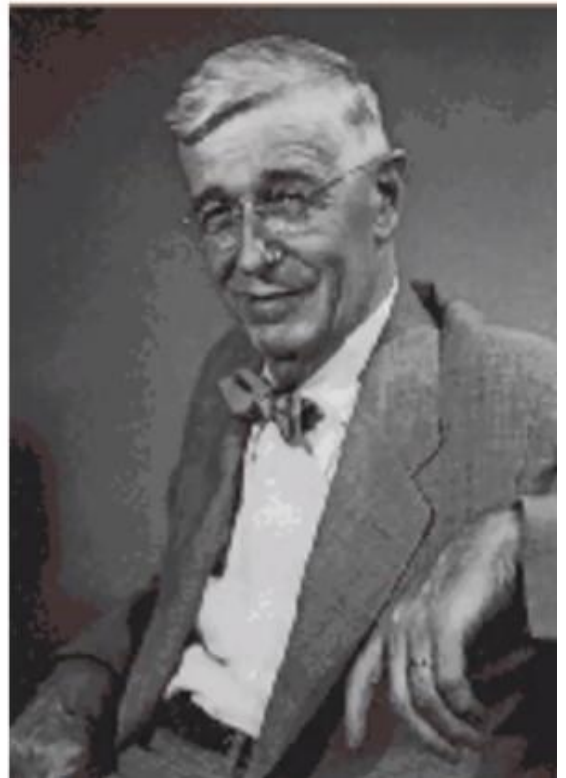


Years '40



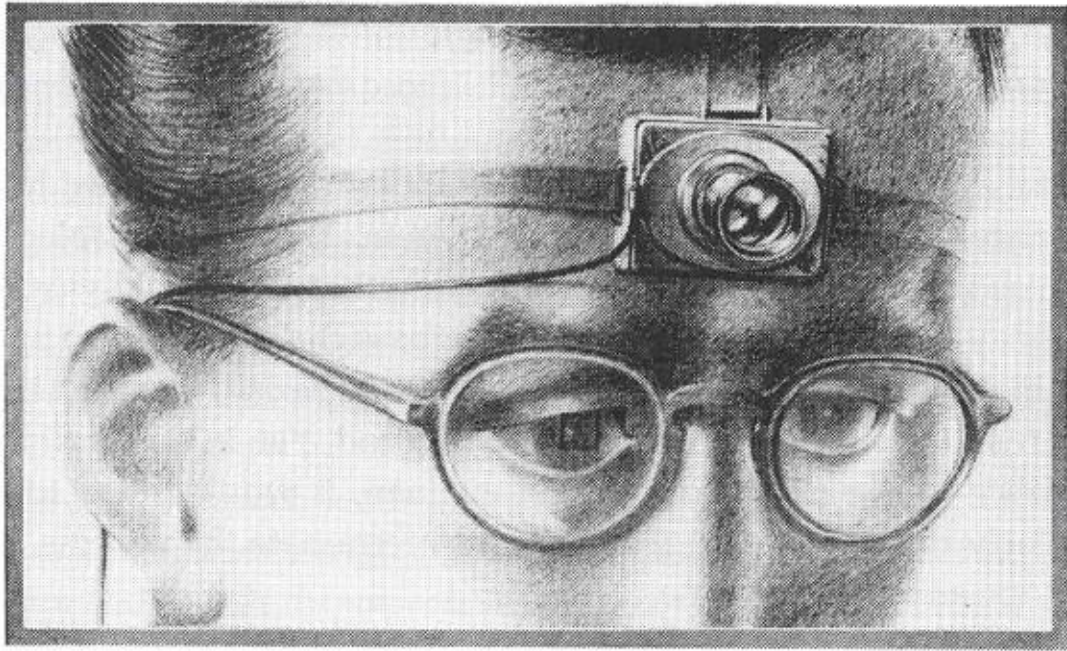
## 1945: Vannevar Bush

- ◆ Vannevar Bush write an article on the *Atlantic Monthly* about the **Memex**



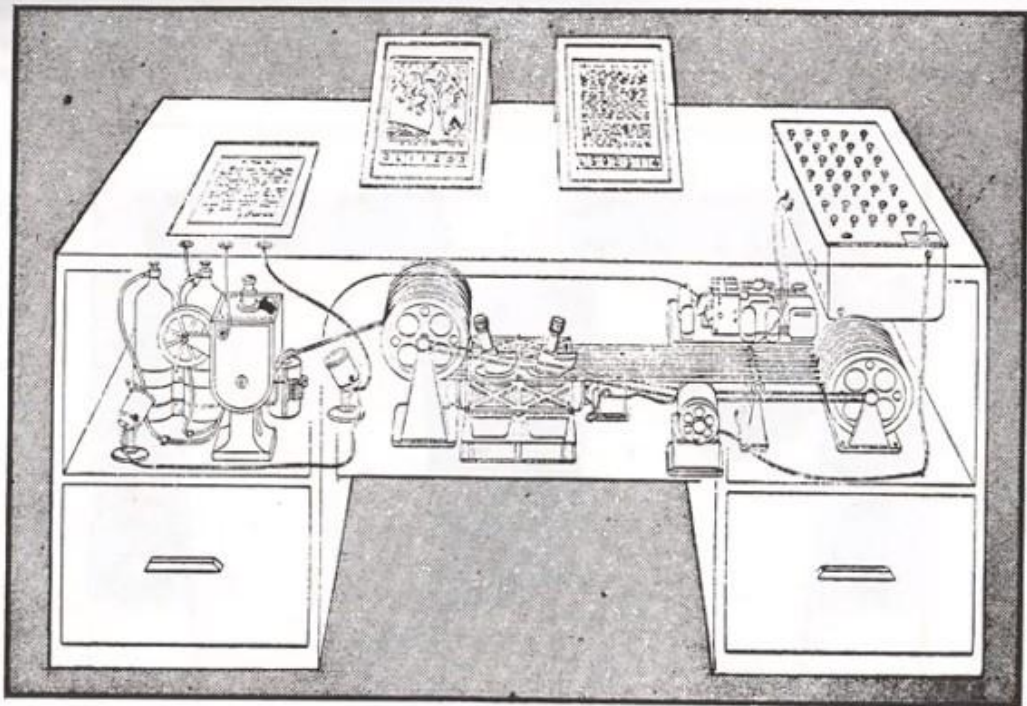


## Memex: Cyclops camera



A scientist of the future records experiments with a tiny camera fitted with universal-focus lens. The small square in the eyeglass at the left sights the object (*LIFE* 19(11), p. 112).

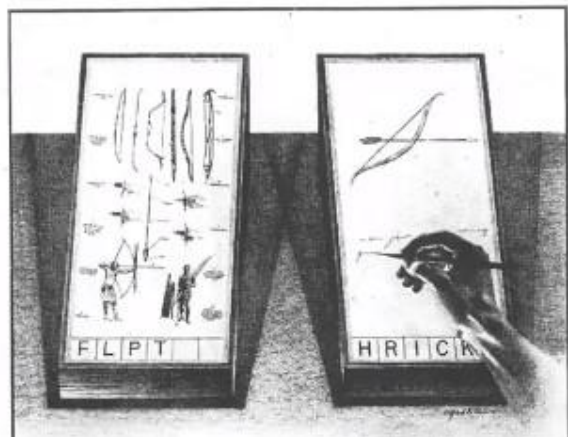
# Memex



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 (*LIFE* 19(11), p. 123).

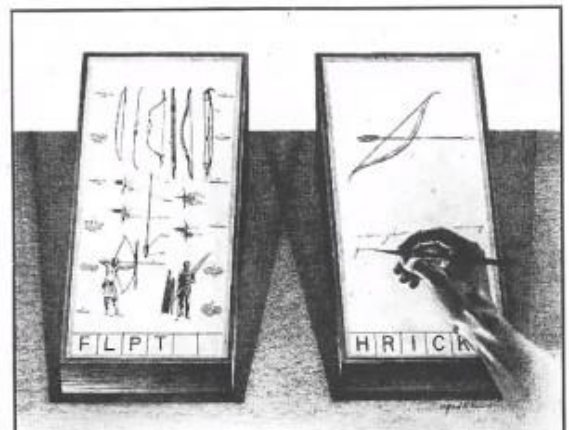
## Memex and the trails

- ◆ ***"Associative indexing (...) This is the essential feature of the memex. The process of tying two items together is the important thing."***



## Memex and the trails

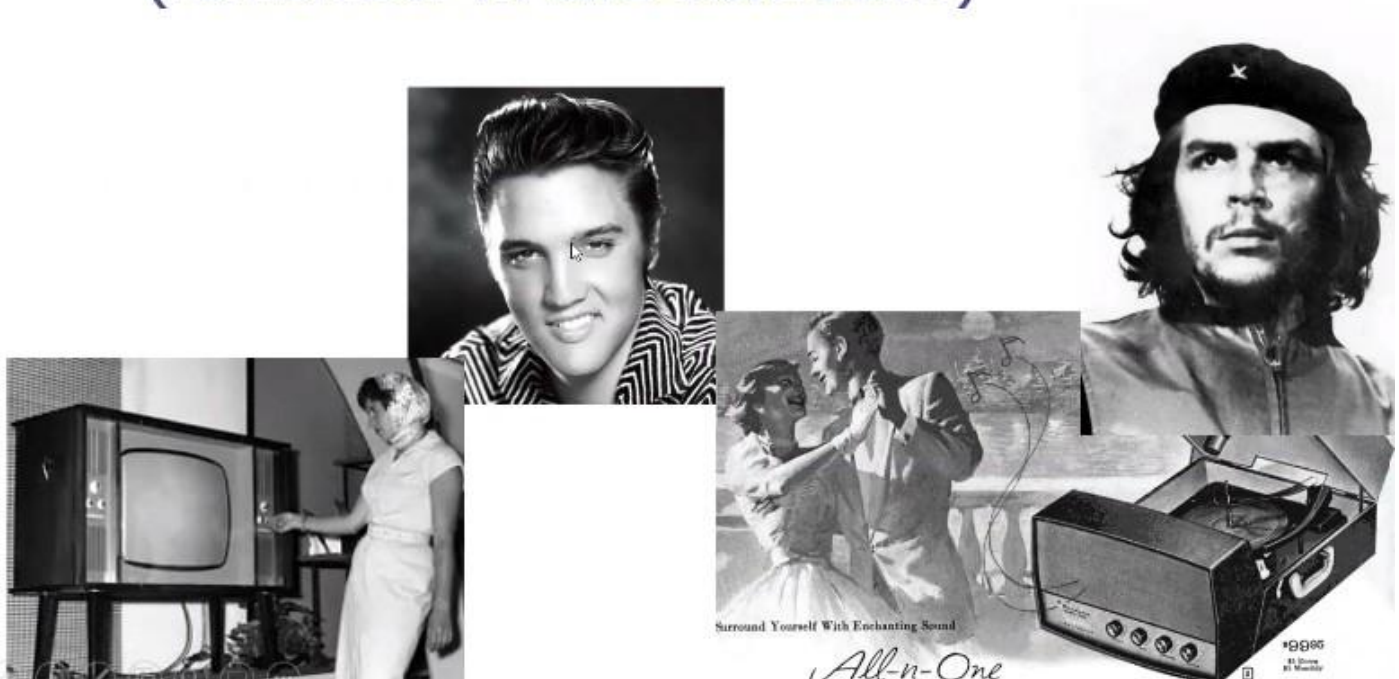
- ◆ *"wholly new forms of encyclopedias will appear, ready made with a mesh of associative trails running through them, ready to be dropped into the memex and there amplified"*





# 1960's: Doug Engelbart, the Genius

- ◆ Doug Engelbart with NLS (oNLine System) (remember *in the sixties...!*)







# 1960: Ted Nelson

◆ Genius and weirdness...



# Ted Nelson



- ◆ His four life points:
- ◆ **"most people are fools,**
- ◆ **most authority is malignant,**
- ◆ **God does not exist,**
- ◆ **and everything is wrong."**

# Ted Nelson

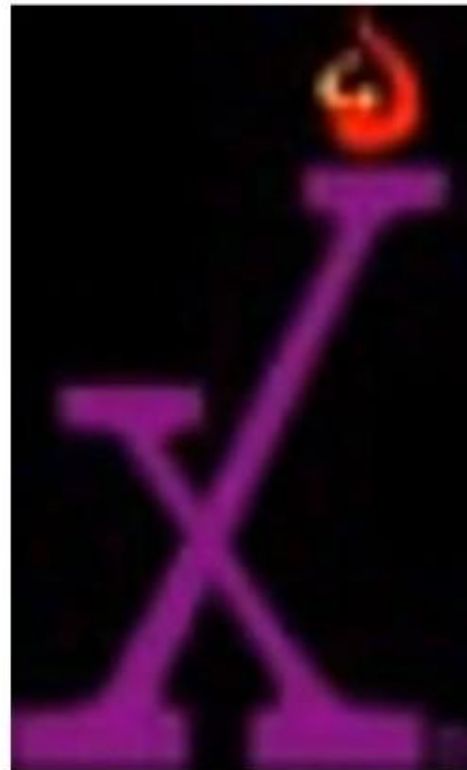
- ◆ Inventor of the term “hypertext”
- ◆ Inventor of the term “hypermedia”

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# Ted Nelson: 1967

◆ Xanadu



## Xanadu focal points:



- 1. Xanadu is a system for the network sale of documents with automatic royalty on every byte.*
- 2. The transclusion feature allows quotation of fragments of any size with royalty to the original publisher.*
- 3. This is an implementation of a connected literature.*

## Ted Nelson: 1967



- ◆ → Micropayments
- ◆ Only recently they have been introduced as a «novel» model...
- ◆ Amazon, Google, per-click, Iphone store / Google play store, etc etc





# Ted Nelson: transclusion



- ◆ Inglobe/reuse other content, maintaining the rights (and possibly paying with micropayments)
- ◆ Slowly taking place (Google AMP ad model, Creative Commons), but the world is still behind...



## More on Xanadu:



- ◆ In the docuverse (universal document database) we can connect every part, even single strings

## Xanadu (cont.)



- ◆ More: we keep every version of a document via a versioning system
- ◆ → *no more **broken links**!!*

## Xanadu (cont.)



- ◆ Moreover, the links have the properties of ***bivisibility*** and ***bifollowability***



## Ted Nelson

- ◆ What happened to Xanadu then?
- ◆ Beautiful readings on the web...
- ◆ In a nutshell: project patented, announced a thousand times, and never realized



## Moral...

- ◆ Sometimes revolutionary ideas are not enough, we need someone to build them up (just because they are revolutionary...)

