



**W3C** WORLD WIDE WEB  
CONSORTIUM

World Wide Web:  
Sharing Knowledge on the Internet

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October 2019



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### 1849 The Gold Rush



Miners vs. Merchants

« How Global Trade Made Men Wealthy during the California Gold Rush »

### « Gov Stanford »: communications for the 1900's

1824-1893



First Transcontinental Railroad completed in 1869: « Last Spike »




Leland Stanford Junior University founded in 1885: « Main Quad »

### 1945 Vannevar Bush: « As we may think »

1890-1974

Invention of the transistor 1947



As Director of the Office of Scientific Research and Development, Dr. Vannevar Bush urges that men of science should turn to the massive task of making more accessible our bewildering store of knowledge.


For years inventions have extended man's physical powers rather than the powers of his mind. Trip hammers that multiply the fists, microscopes that sharpen the eye, and engines of destruction and detection are new results, but not the end results, of modern science.

Now, says Dr. Bush, instruments are at hand which, if properly developed, will give man access to and command over the inherited knowledge of the ages.

The perfection of these pacific instruments should be the first objective of our scientists as they emerge from their war work.

Like Emerson's famous address of 1837 on « The American Scholar, » this paper by Dr. Bush calls for a new relationship between thinking man and the sum of our knowledge.

**1951 Frederick Terman: engineer, educator, administrator**  
 1900-1982  
 Hewlett-Packard founded 1939



**Doctoral Advisor**  
 Vannevar Bush


**Reference book**  
 Electronic and Radio Engineering

**Doctoral Students**  
 Bill Hewlett & David Packard  
 Russell & Sigurd Varian

**Founder**  
 Stanford Research Institute 1946  
 Stanford Research Park 1951

« Father of Silicon Valley »

**1968 Doug Engelbart: « The Mother of all Demos »**  
 1925-2013  
 San Francisco 9 December 1968



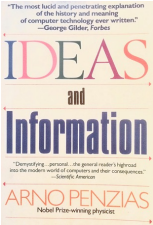
**Augmentation Research Center**  
 130 scientists  
 Stanford Research Institute

**NLS: oN-Line System**  
 Personal Computer  
 Structured Documents  
 Text, Graphics & HyperText  
 Cooperative Work  
 Videoconference

**NIC: Network Information Center**  
 ARPANET four-nodes 1969

**Xerox PARC**  
 Alto 1972

**1989 Arno Penzias: « Ideas and Information »**  
 1933-



**Nobel Prize in Physics**  
 Radio astronomy  
 VP Research Bell Labs

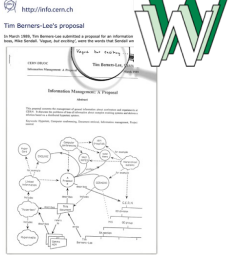
Emphasize the capabilities of  
 signal processing, operations research, knowledge management, ...

Reflects on the cooperation between humans and machines  
 « If you don't want to be replaced by a machine, don't act like one.»

Envisioned the need for networking  
 but could not see then that efficient answers will be available within a few years

As users formulate requirements,  
 information systems can be designed for the benefit of society.

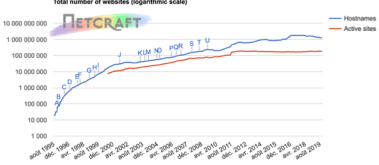
**1989 Tim Berners-Lee: « Information Management »**  
 1955-  
 CERN, MIT, W3C, Web Foundation, Inrupt



In the **October 2019** survey, we received responses from  
**1,300,884,420** sites across **241,553,033** unique domain names.

This reflects a gain of 9.71 million sites, 421,000 domains from last month.

<https://news.netcraft.com/archives/category/web-server-survey/>



1994 **W3C** WORLD WIDE WEB CONSORTIUM URI, HTTP, HTML, CSS, XML, RDF, OWL, WCAG, ....

- Hosted by
  - 1994 MIT
  - 1995 INRIA -> ERCIM
  - 1996 KEIO
  - 2008 BEIHANG
- > 450 members
- > 300 Recommendations
- Accessibility: WAI
- Internationalization
- Verticals
  - Payments
  - Automotive
  - Digital Publishing

- Decentralisation**
  - No permission is needed from a central authority to post anything on the web, there is no central controlling node, and so no single point of failure
- Net Neutrality**
  - If you connect to the internet with a certain quality of service, and you pay to connect with that or a greater quality of service, then we can both communicate at the same level
- Bottom-up design**
  - Instead of code being written and controlled by a small group of experts, it was developed in full view of everyone, encouraging maximum participation and experimentation.
- Universality**
  - For anyone to be able to publish anything on the web, all the computers involved have to speak the same languages to each other, no matter what different hardware people are using, where they live, or what cultural and political beliefs they have
- Consensus**
  - For universal standards to work, everyone had to agree to use them. Tim and others achieved this consensus by giving everyone a say in creating the standards, through a transparent, participatory process at W3C.

<https://w3cfoundation.org/about/vision/history-of-the-web/>

1998 Sergey Brin & Larry Page: Discovery

1973- 1973-

4,336,569,351 Google Searches today

	Nombre de requêtes par jour
Décembre 1998	10 000
Février 1999	500 000
Août 1999	3 000 000

30 000 milliards de documents

2001 « The ultimate crowdsourced Knowledge tool »

Jimmy Wales 1966-

**HomePage**  
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 You can edit [this page right now!](#) It's a free, community project.

**Welcome to Wikipedia!** We're writing a complete encyclopedia from scratch, collaboratively. We started work in January 2001. We've got over 3,000 pages already. We want to make over 1,000,000. So, let's get to work! Write a little (or a lot) about what you know! Read our welcome message here. [Welcome, newcomer!](#)

Some questions you might have are answered below, but why not first explore a few links?

(Wikipedia's homepage in 2001).

In 2018:

- 40 millions articles
- 299 languages

2020 Elizabeth Blackburn: « new ways in science »

1948-

Home Goals Discussion Spread the Word

Join The Discussion On The Science Of Tomorrow.

PARTICIPATE