The World-Wide-Web has revolutionized the availability and access to information. Billions of web pages may be reached through search engines, and this is only a fraction of what is hidden in searchable databases.

Memex: The first Hypertext system
- Dreamed up by Vanevar Bush: “Memory Extension”
- "As we may think" [1945]
- Photo-electrico-mechanical desk
  - Storage for knowledge
  - Computing device
  - With user interface
  - With powerful search

...but he did not call it “Hypertext”...
- Term coined by Ted Nelson [1965]
- Xanadu
  - Distributed network of documents
  - Two-way hyperlinks
  - Version management
  - Annotation
  - Elaborate copyright management system
  - Far more powerful than the web but it did not succeed!
- Why did it fail?
Before the Web

- Citation
  - Reference to other text
  - Powerful
  - Examples
    - The Bible etc religious texts
    - Encyclopedias
    - Dictionaries

- Hypertext
  - Text + Links + Click!
  - Ease of citation use, really

- Hypermedia
  - (text/image/video/audio/etc) + links + click!

World-wide-web

- Tim Berners-Lee implements his childhood Enquire "2.0"
- It took off because...
  - a
  - b
  - c
- 3 crucial components:
  - _______ _______ _______
  - A global documentation system at CERN [1990]
  - As a way of justifying the purchase of a NeXT!

The early days of the Web: # HTTP hits at CERN grows by 1000 (1991-1994)

- The early days of the Web: # HTTP hits at CERN grows by 1000 (1991-1994)
The early days of the Web: # servers grows from a 100’s to 1M (1991 – 1997)

Browsers
- Erwise and Viola [1992] were demo systems for s/w
- Lynx [??] text-based browser
- Mosaic [1993] popularized the web
  "It is on Mosaic ..."
  Confusion between
  - The browser?
  - The web?
  - The internet?

1994: A landmark year
- Mark Andeson split from NCSA to form "Mosaic Comm. Corp., forced to rename "Netscape"
- First WWW conference at CERN
- Dertouzos (MIT) and Berners-Lee (CERN) set up the WWW Consortium (W3C) at MIT’s LCS

Listing of Directories and Search Engines
- Bing (www.bing.com) (2009-) MS’s better version
- Baidu (2000-) Chinese-language search engine
- Yandex (2012-) Russian-language search engine