

1 Beginnings of the Internet

See Hobbes' Internet Timeline [\(URL:http://www.zakon.org/robert/internet/timeline/\)](http://www.zakon.org/robert/internet/timeline/)

2 Early Days

1968 Englebart's demo of the first hypertext system

- See poor quality video at [\(URL:http://sloan.stanford.edu/mousesite/1968Demo.html\)](http://sloan.stanford.edu/mousesite/1968Demo.html)
- The black and white film is much better
- Until about two years ago that system did things that no web browser could!

1969 ARPANET is live

User Population A network for scientists

Apps File sharing, limited discussion

3 Later, but before the WWW

Size Exponential growth of sites and user numbers continues

Users Not just scientists but still mostly Universities and Technology Companies

Apps Discussion has moved beyond e-mail

- But e-mail is still the killer app
- Thousands of mailing lists

More Apps

- relay chats, newsgroups, something like instant messaging
- FTP

Spam Brad Templeton claims first spam came from a DEC marketroid

4 Late 1980s/Early 1990s

Size Exponential growth continues

Users Spreading to middle-class populations of industrialized countries

- Those who pay for access (viz. not students or employees) often pay per packet
- Many dial-up lines

Apps

- E-mail is still killer app
 - Thousands of mailing lists
 - Usenet (newsgroups) are huge
 - Internet relay chat
- ▷ every app had its own interface

Search Engines Archie revolutionizes FTP use

Spam B1FF and Canter & Siegel (knock Oz off 'net)

4.1 'When It All Changed'

- gopher and the information superhighway
 - a view of the Internet as for 'good & proper' purposes
 - * no games or porn
 - * no real notion of e-commerce
 - * great resistance to commercial use of Usenet
 - one interface to rule them all
 - * **gopher** has a menu structure
 - * easier to use (recognition rather than recall)
 - * hides much of the underlying complexity
 - * learn only one interface for everything
 - **Search Engines**: Jughead and Veronica (for gopher)

4.2 A New View Of Commercial Content

1991: WWW announced (by TBL, on `alt.hypertext` etc.) from CERN

Only interested customers pay for access

The WWW extended the single UI concept

22 April 1993: NCSA releases Mosaic

- first publically available graphical browser