Web Programming

Introduction 2

Zaheer Ahmed

• Lecture 02

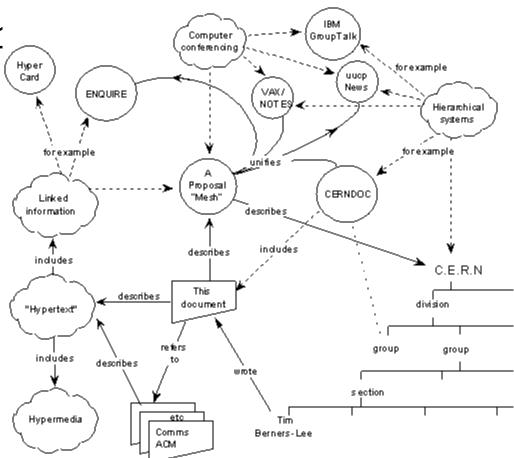
CS406-Web Programming

The Origin of the Web

- Information Management: A Proposal
- Tim Berners-Lee, CERN

May

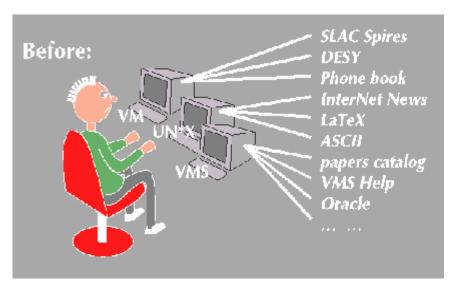
A proposal to build a global hypertext system for CERN



Tim Berners-Lee, CERN

• In 1989, Tim Berners-Lee invented the World Wide Web, an Internet-based hypermedia initiative for global information sharing while at CERN, the European Particle Physics Laboratory. He wrote the first web client and server in 1990. His specifications of URIs, HTTP and HTML were refined as web technology spread. - See more at: http://internethalloffame.org/inductees/tim-berners-lee?gclid=CMrP8rvNrswCFeUyowod4OEPVg#sthash. ZC1X2rEO.dpuf

Universal Readership

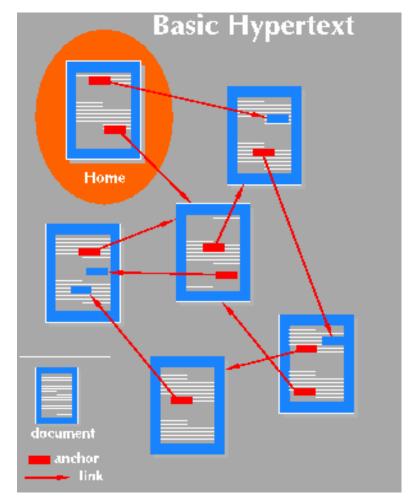




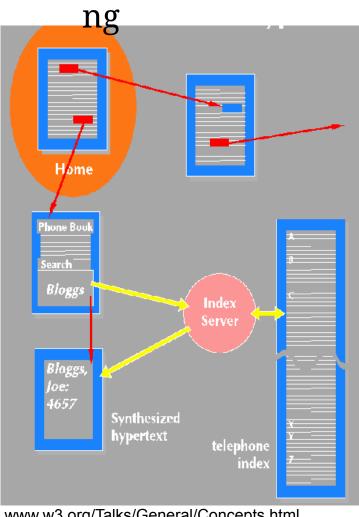
Hyperte xt

- Hypertext is text with links.
- Not a new idea read a book there are links between references (see section 3), footnotes, and between the table of contents or index and the text.
- With hypertext, reader can escape from the sequential organization of the pages to follow pursue a thread of takis neral/Concepts.html

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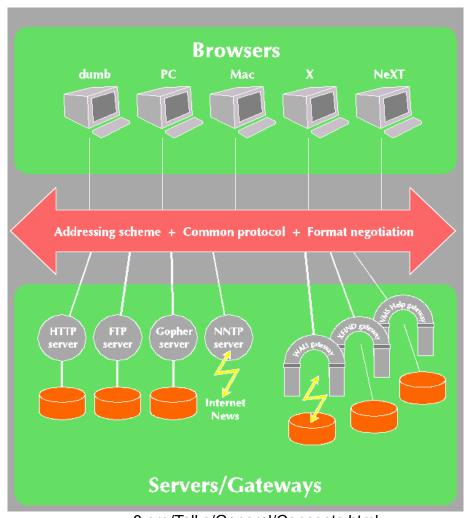


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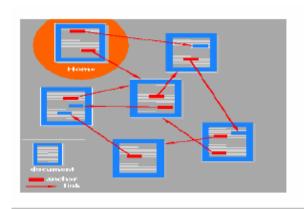
www.w3.org/Talks/General/Concepts.html

Client-Server



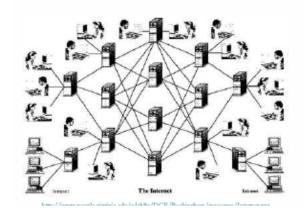
www.w3.org/Talks/General/Concepts.html

Web vs. Internet



Web: A collection of software and protocols for exchanging multimedia data on the Internet

- Protocols: *HTTP*, *HTTPS*, ...
- Addressing: URI (URL)
- Programs: Web browsers, Web servers
- Data Types: HTML, Images, Music, ...



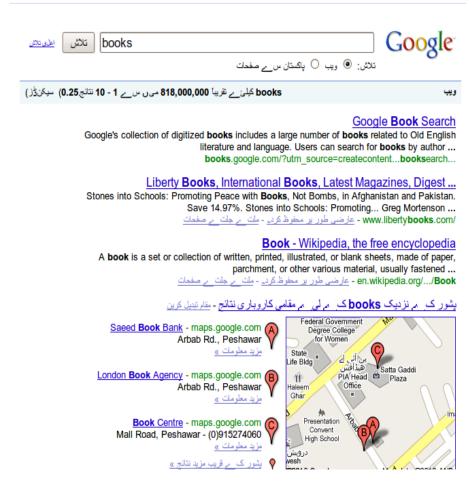
Internet: A collection of computers connected in a communications network

- Protocols: TCP/IP (Transmission Control Protocol / Internet Protocol)
- Addressing: Domain names, IP addrs
- Naming server: DNS
- Applications: *SMTP*, *FTP*, *Telnet*,...

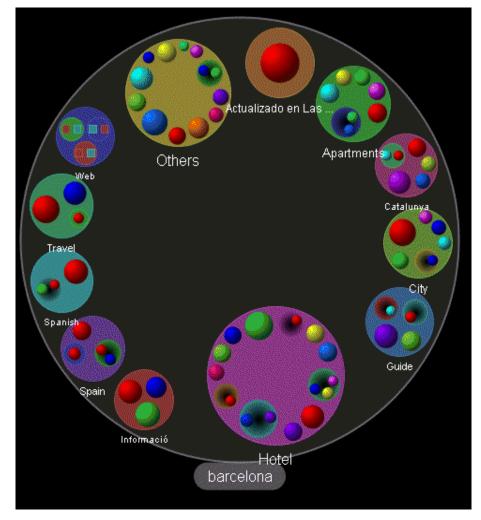
SMTP stands for **Simple Mail Transfer Protocol**. **SMTP** is used when email is delivered from an email client, such as Outlook Express, to an email server or when email is delivered from one email server to another. **SMTP** uses port 25.

Textual vs. Graphical

ب تصاویر <u>دُاتریک ٹرویس Gmail</u> برجی<u>حک استن ان کری ر</u>



google.com. pk



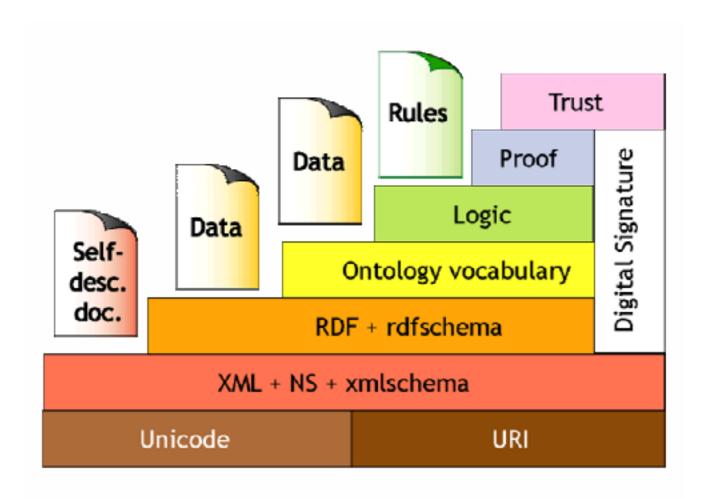
Grokker.com

Semantic Web

• The **Semantic Web** is an extension of the <u>World Wide Web</u> through standards by the <u>World Wide Web Consortium</u> (W3C). The standards promote common data formats and exchange protocols on the Web, most fundamentally the <u>Resource Description Framework</u> (RDF). According to the W3C, "The Semantic Web provides a common framework that allows data to be shared and reused across application, enterprise, and community boundaries".

[2] The Semantic Web is therefore regarded as an integrator across different content, information applications and systems.

Semantic Web



• The Resource Description Framework (**RDF**) is a family of World Wide Web Consortium (W3C) specifications originally designed as a metadata data model.

Past & Future of the Web

Past

- Broadcast of read-only materials
- Exchange information for human consumption

Future

- More interactions
- Machine-readable information
- Mobile Web

The Future of the Web

Mobile Web

 enables users to access the Web from their mobile devices such as cell phones and PDAs (Personal Digital Assistants)

Service-Oriented Web

 makes various services accessible via the Web using the standard Web Services protocols

Semantic Web

makes machine understandable (processable) information available on the Web

Client-side Information Presentation

- Introduction to Internet
- HTTP (Hypertext Transfer Protocol)
- HTML (Hypertext Markup Language)
- CSS (Cascading Style Sheets)
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