The Web

The **Web** is a global information network made up of a family of *protocols* and *standards* for *hypermedia*.

Minimum Viable Web - **Web 1.0**

- Protocol for *addressing* documents.
- Standard format for *storing* documents.
- Protocol for *communicating* about documents.
  - **C**reating
  - **R**eading
  - **U**pdating
  - **D**eleting

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Networked information services

The world-wide web

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Abstract

Berners-Lee, T.J., R. Cailliau and J.-F. Groff, The world-wide web, Computer Networks and ISDN Systems 25 (1992) 454–459.

This paper describes the World-Wide Web (W3) global information system initiative, its protocols and data formats, and how it is used in practice. It discusses the plethora of different but similar information systems which exist, and how the web unifies them, creating a single information space.
We describe the difficulties of information sharing between colleagues, and the basic W3 model of hypertext and searchable indexes. We list the protocols used by W3 and describe a new simple search and retrieve protocol (HTTP), and the SGML style document encoding used. We summarize the current status of the X11, NeXTStep, dumb terminal and other clients, and of the available server and gateway software.

Keywords: global information; hypertext; world-wide web; networked information retrieval; application; browser; server.

Introduction

This paper covers material presented or elicited by questions at the JENC92 conference. The dream of global hypertext and its coming to fruition with W3 has been described in [1] which also discusses the relationship with other projects in the field. The practicalities of publishing data on the web are outlined in [2], so these aspects will only be summarized here.

The aim

Much information is available today on the network, but most is not. When an individual enters a new organization, or a new field, it is normally necessary to talk to people, look on bookshelves and nose around for clues about how the place works, what is new, and what he or she needs to know.

When data is available on the net, the average person is not privy to it, but must consult a "guru" who understands the ins and outs of anonymous FTP, telnet, stty, and the command systems of the various information servers.

The aims of the W3 initiative are twofold: firstly to make a single, easy user-interface to all types of information so that all may access it, and secondly to make it so easy to add new information that the quantity and quality of online information will both increase. Already, most information of value exists in some machine-readable form: if we can solve the problems of heterogeneity of platform, data format and access protocol the resulting universe of knowledge will considerably enhance our working together.

The W3 model

This is described at more length in [1] but is basically as follows. At any time, the user is

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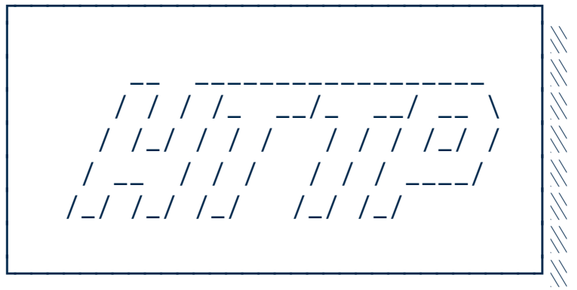
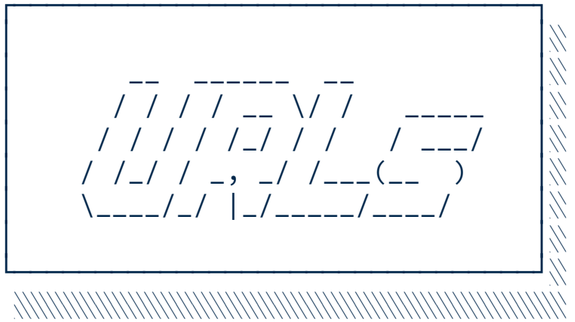
Modern Web - **Web 2.0**

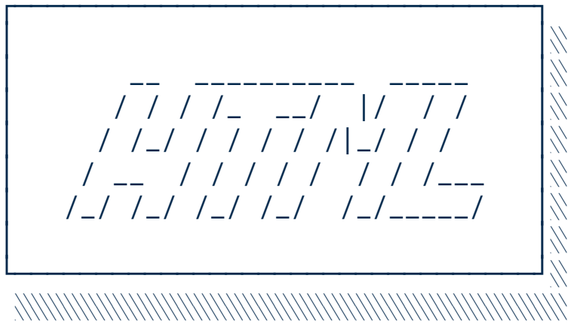
Web 1.0 + **Interactivity**

- Two More Standards:
  - A Programming Language
  - Style Sheets
- Web Apps

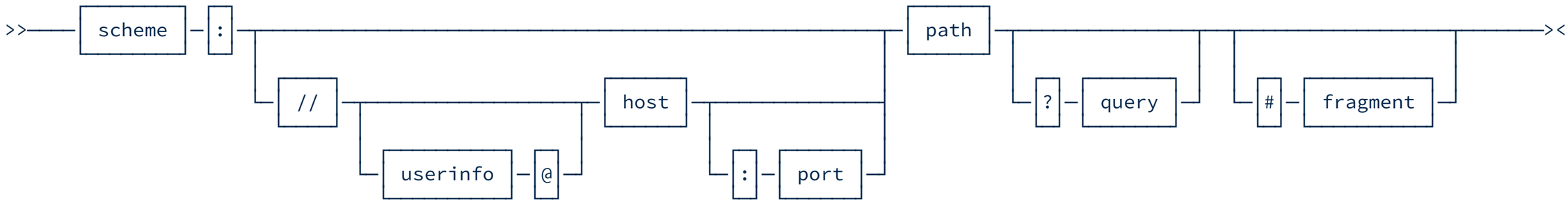
Web Protocols







URLs



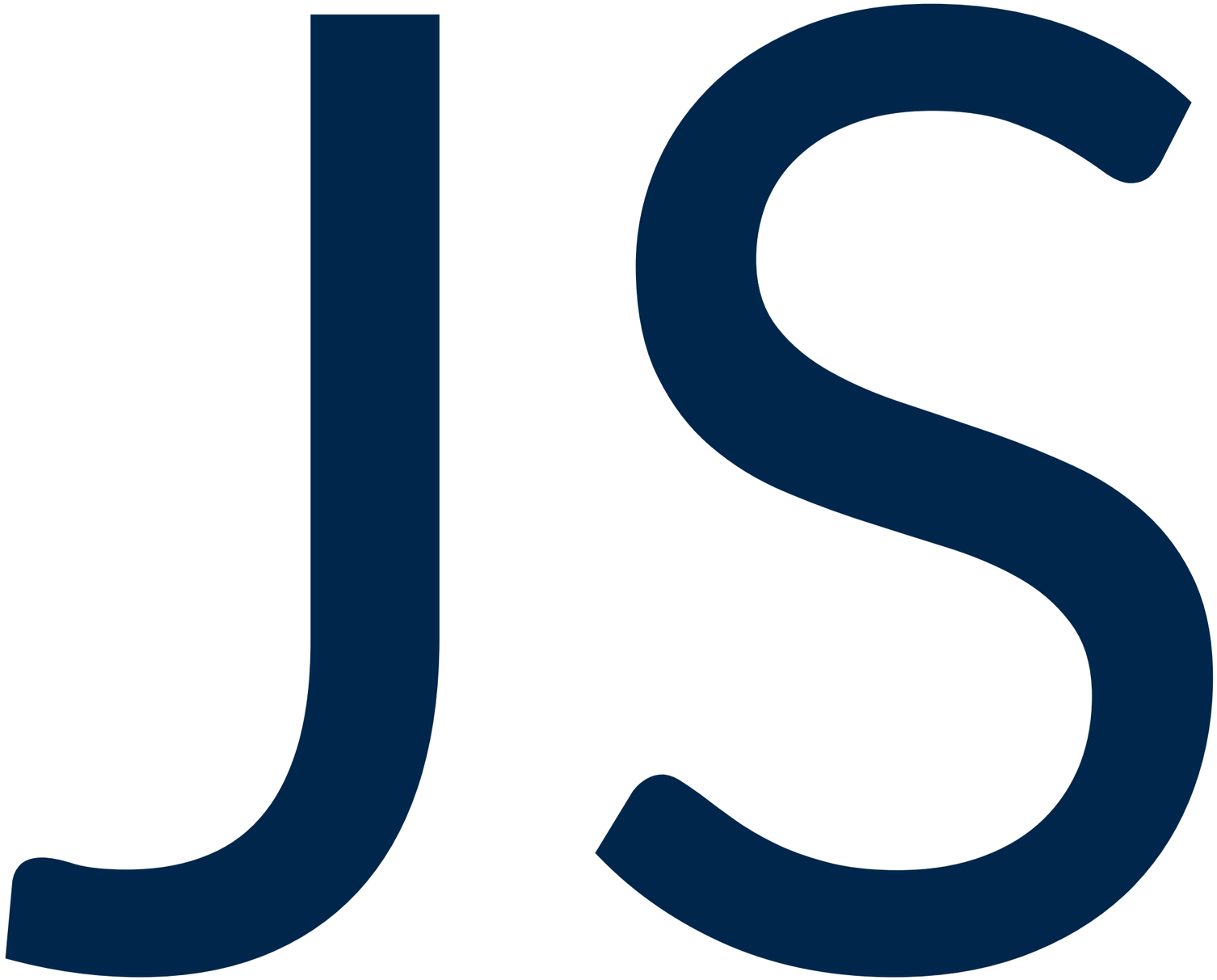
http://myname:mypass@example.com:8888/patients/123/labs/456?result=2&units=g#page5

https://en.wikipedia.org/wiki/Uniform_Resource_Identifier#/media/File:URI_syntax_diagram.png

HTTP

HTTPS

HTML


JS

CSS

XML & JSON

Semantic Web