

{Diamond 3: Bates. 1995}. As it progressed. ARPANET divided into two networks:

military communications on MILNET and computer researchers on ARPANET.

In June 1990 ARPANET was decommissioned—"a happy victim of its own over-

whelming success" (Sterling. 1993). Significantly, almost all of the current networks

use the TCP/IP suite of protocols. Vince Cerf, a pioneer on the use and development

of the Internet for decades, and who also had a tee-shirt made that said IP on everything.

"I told ComputerWorld in 1995. "I take great pride in the fact that the Internet has been able to migrate itself on top of every communications capability invented in

the past twenty years . . . I think that's not a bad achievement"

{Diamond & Bates,1995}.

The Internet has evolved into an unstructured network of millions of computers throughout the world. Today most of us access the Net through the use of a suite of

programs known as the World Wide Web (WWW) that operate at the application

level above TCP/IP. The original concept of the Web and the first server and Web

browser software were developed in the early 1990s by an Englishman. Tim Berners-

Lee. Modern Web browsers are computer-based graphical programs that allow the

user to interface or browse through the Web. Browsers are menu-driven and icon-

based software that provide a user-friendly tool for accessing the Web.

Currently, the

two most common Web browsers are Internet Explorer and Netscape Communicator;

both function through a hyperlinked platform. The term hyperlink is generally used to

describe the electronic representation of text and graphics that uses the random access

capabilities of computers to overcome the sequential medium of print on paper {Marchionini,1998}.

Hypertext has two key elements: nodes and links. The documents or units of information are called nodes; the electronic connections to and from the units

of information are called links; the electronic (in Marchionini) points out that "links: are the

essence of hypertext since they facilitate jumping from node to node in non-linear

Fashion" (p.8).

The original concept of hypertext can be traced to an American named Vannevar

Bush. Bush described his vision for a device to help the human mind organize information

in a landmark article called "As We May Think" in the July 1945 issue of the Atlantic Monthly (December, 1994). This device, the memex machine, would allow scientists to systematize and access their related information through an individualized

associative structure instead of the traditional catalogue and index cards (Jackson,

1997). In Bush's vision, the memex machine would be a tool for the organization of

information for scientists. Had the memex machine been built, it would have had an

interconnected structure that would permit scientists to coordinate and organize their

increasing information.

In 1967, Ted Nelson developed a vision of hypertext similar to that of Bush's.

Unlike Bush's vision, however, Nelson envisioned a machine that would be more of a

tool for the expression and development of ideas than an organizational tool for scientists

(Jackson, 1997, Nelson, 1967). Nelson's vision included linking information from

a variety of media such as text, images, and sound. Nelson (in Jackson) also saw:

[H]ypertext as removing the constraints of linearity imposed on ideas by existing media.

In hyper-textual expression, ideas may branch in several directions, and paths through