

WHAT IS THE INTERNET?

More than half of Americans are online everyday; surfing the web, supporting e-commerce with prolific Internet spending, swearing by each daily e-mail, and even entrusting financial account information to virtual banking institutions. In this new millennium, we find ourselves living in an "Internet-Friendly" world, and this extraordinary technology is becoming more widespread by the minute. Each day, approximately 50% of Americans spend hours exploring the Internet. So what exactly is this virtual world?

Confusion about this widespread, virtually unavoidable technology is

often the cause of fear and suspicion in the minds of legions of Internet newbies. What Web-surfing, cookie sending, e-consumer *hasn't* wondered about online security and privacy issues? To some, the land of virtual connectivity is synonymous to a new millennium Big Brother, and his eyes are everywhere.

Not to fear, however. With a little understanding of the WWW, you too can let go of your suspicion and have fun while you surf. You may even discover what millions of individuals already have—that the Internet, with its myriad of capabilities and enor-

mous e-commerce potential, is an electronic realm filled with infinite opportunity.

A NETWORK IS BORN

Contrary to popular belief, the driving force behind the development of the Internet was to provide an economical way to connect costly computer resources, not to create a network that would survive potential disasters like nuclear war. Defense measures were actually a small component. According to the Computer Museum History Center, in the 1960s before the word "Internet" was coined, there were

INTERNET GROWTH

DATE	HOSTS	DATE	HOSTS	NETWORKS	DOMAINS
12/69	4	07/89	130,000	650	3,900
06/70	9	10/89	159,000	837	
10/70	11	10/90	313,000	2,063	9,300
12/70	13	01/91	376,000	2,338	
04/71	23	07/91	535,000	3,086	16,000
10/72	31	10/91	617,000	3,556	18,000
01/73	35	01/92	727,000	4,526	
06/74	62	04/92	890,000	5,291	20,000
03/77	111	07/92	992,000	6,569	16,300
12/79	188	10/92	1,136,000	7,505	18,100
08/81	213	01/93	1,313,000	8,258	21,000
05/82	235	04/93	1,486,000	9,722	22,000
08/83	562	07/93	1,776,000	13,767	26,000
10/84	1,024	10/93	2,056,000	16,533	28,000
10/85	1,961	01/94	2,217,000	20,539	30,000
02/86	2,308	07/94	3,212,000	25,210	46,000
11/86	5,089	10/94	3,864,000	37,022	56,000
12/87	28,174	01/95	4,852,000	39,410	71,000
07/88	33,000	07/95	6,642,000	61,538	120,000
10/88	56,000	01/96	9,472,000	93,671	240,000
01/89	80,000	07/96	12,881,000	134,365	488,000
		01/97	16,146,000		828,000
		07/97	19,540,000		1,301,000

Information provided by Computer Museum History Center

Table 1. The table above lists the amount of hosts, networks, and domains that existed between December 1969 and July 1997.

only about 10,000 computers in the entire world. They were primitive and difficult to program, contained just a few thousand words of magnetic core memory, and were priced in the hundreds of thousands of dollars. This first large-scale network provided a way to connect these computers.

Although there are conflicting theories regarding the actual date the Internet was invented, October 29, 1969 is most commonly referenced as the birthday of the Internet. This first network component grew out of funding by the U.S. Advanced Research Projects Agency (ARPA), later named the Defense Advanced Research Projects Agency (DARPA), to develop a communications system among government and academic computer research laboratories.

In 1985, the National Science Foundation (NSF) created NSFNET, a series of networks that would facilitate research and education communications. Based on ARPANET protocols, the NSFNET was responsible for the creation of a national backbone service that was provided free of charge to any U.S. research and educational institution. Regional networks were simultaneously constructed to link individual institutions with the national backbone service.

As people began to realize the potential of this network, NSFNET grew rapidly and new software applications were created to make access easier. Corporations like Sprint and MCI began to build their own networks, which they linked to NSFNET. Today, commercial firms and other regional network providers have taken over most of the operation of the Internet, and the National Science Foundation has withdrawn from the backbone industry.

The Internet wasn't always a vast mecca of Web sites and business advertisements. It was originally designed for electronic mail, file transfer using ftp (file transfer protocol), bulletin boards, and newsgroups. The World Wide Web, which is one component of the Internet, enables simple navigation of Web sites through a graphical interface. During the 1990s, people started using Web sites to advertise and to create a new form of business—e-commerce. Today, the "Web" is the most important part of the Internet.

"In the Beginning,
ARPA created the ARPANET.

And the ARPANET
was without form and void.

And darkness was upon the deep.
And the spirit of ARPA
moved upon the face of the
network and ARPA said, 'Let there
be a protocol,' and
there was a protocol.

And ARPA saw that it was good.
And ARPA said, 'Let there be more
protocols,' and it was so.
And ARPA saw that it was good.

And ARPA said, 'Let there be more
networks,' and it was so."

— Danny Cohen

Although some may picture the Internet as a force unto itself lurking somewhere in the vast reaches of cyberspace, the reality is not nearly as intriguing. Simply put, the Internet is an interconnected network of computers. It's not just any network, though. It is *The Network* to beat all others, and it's growing larger and more complex by the second. This super-network is based on a common addressing system called TCP/IP (Transmission Control Protocol/Internet Protocol). Transmission Control Protocol splits large files into numerous small files, or packets, and assigns each with sequencing and addressing information. Upon arrival at their final destination, the packets are reassembled into their original file. Internet Protocol consists of a hierarchical addressing system that controls the routing of these packets.

COMMON TERMS

For people who were not born with a silver mouse in one hand, it is easy to confuse certain terms and products with the Internet itself. In fact, it is not beyond many "experienced" cyber-travelers to misunderstand how particular aspects of the Internet fit together. Before you hook up your modem and connect with the rest of the world, it is important to understand the basic facets of the Net. The more you know about it, the smoother your ride and the clearer your vision will be of where

you want to go. Here are some common internet terms and a brief description of each.

- **Internet Service Provider:** An Internet Service Provider (ISP) is not the Internet. It is a company that provides access to the Internet, like an on-ramp leads to a highway. For most ISPs, there is a monthly fee ranging from \$9.00-\$20.00, and for this we get access to the Internet. There are innumerable companies that provide Internet access. Some include major telecommunications firms like AT&T, or local telephone companies. A company such as Earthlink, which provides just online access, not telephone service, can also connect you to the Internet. One of the faster ways to surf the Web is through your local cable company, which provides access over cable lines (much faster link than telephone connections). Whichever you choose, just remember that your ISP is not the Internet—just the door that will take you inside the Web.
 - **Online Service Provider:** An online service provider, which offers much more than just access to the Internet, is like an ISP but with a kick. AOL (America Online) is one such example. AOL provides proprietary content like games, access to sports, news and research and chat rooms. These little extras are meant to be used with the online service and are usually not available to the general users of the Internet.
 - **Web Browser:** Like a vehicle on a superhighway, the browser is the transmission that propels us on our journey throughout the Web. For your computer to view the information and documents found on the Internet, you first need to load a browser. While various navigational tools are available, the two most popular are Netscape Navigator (Netscape Communications), and Internet Explorer (Microsoft Corporation). Both enable the Web surfer to view Web pages, and both support Java (high level programming language developed by Sun Microsystems), JavaScript, (a sim
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ple programming language developed by Netscape to enable Web authors and designers to create interactive sites), and Active X. Browsers can be downloaded free on the Internet and are provided free of charge by ISPs.

- **Search Engines:** No, we're not talking about V-8s, but just one more helpful tool to make life on the Web easier. A search engine consists of software that was created to help people seeking information find what they need. Similar to the card catalogue in your local library, but infinitely faster, search engines make it possible to find information on virtually any topic—instantaneously. Some of the most popular search engines include Excite, HotBot, Yahoo, AltaVista, and Google.
- **E-mail:** The most common use, and main source of mystery regarding the Internet, is in the Internet application of Electronic mail, better known as e-mail. When pressing that send button, have you ever wondered where your letter is going

before it reaches your Aunt Mildred? According to Kathy Hendershot, President of Virtual Impax.com, E-mail is "...an application, something we do online. When you address an e-mail, it's a lot like addressing a snail-mail letter. It works like this: Your e-mail is sent out via the computer that is connected to the Internet. The ISP sees the information as a message for someone at another computer by looking at the second part of the email. This is the @yourdomain.com part. The computer in your office or home can call the computer where your mail server lives and ask it to "deliver" your new e-mail." The route that your e-mail takes is similar to a road map; there are hundreds of paths and just as many roadblocks. Just like you may encounter a detour on the way to work, your e-mail can run across a cyber-block and be forced to go a different way. For a quick way to find out the path your messages took before reaching your inbox, go to the "File" tab, click on "Properties" and then "Details". This will show you exactly where your e-mail has been.

- **Web Sites:** Have you ever wondered where your Web site

"lives"? Don't be embarrassed; you are not alone. Web sites reside in servers—a computer that "serves" files. Each server has its own IP address, an identifier for a computer or device on a TCP/IP network. For example, if your IP address is 209.15.41.225, the numbers 209.15 stand for the network to which it is connected. The last numbers act as a secondary address—kind of like a "back door." Some servers are so busy that they have 3-4 "other doors." A domain name is an easy way for people to remember IP addresses. It is much easier to remember www.yourdomain.com than it is to remember 209.15. 41.225. When you type in a domain name at the top of your computer screen, look at the bottom of your browser and you will see it searching for the IP address.

THE WEB AWAITS YOU

When you understand all the components of the Internet, this virtual land becomes a much more user-friendly place. Although this knowledge isn't necessary to surf the Net, those who take the time to learn will find that the Web becomes much less mysterious and a lot more fun. P

SCIENCE: FACT OR FICTION

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and others. E-Systems was subsequently bought out by Raytheon, one of the world's largest defense contractors.

Viktor Schauberger, one of Germany's most ingenious scientists was brought over during WWII to work with scientists at the National Atomic Research Laboratory, known today as the Brookhaven Labs, located in eastern Long Island, New York. By 1972, the Brookhaven scientists were fully immersed in the Montauk Project—understanding how the mind works, learning to control the mind, and in turn, using the mind to control time. Schauberger's patents, inventions, and ideas, were signed over to those working on the Montauk Project; and the U.S. military has incorporated

THE PLAYERS AND CRITICS

The official home page for HAARP, www.haarp.alaska.edu is jointly managed by the U.S. military and the University of Alaska, Fairbanks. A typical site put out by the project managers, it boasts positive results and gives encouraging information. Text includes such topics as Data From the Site, Research Activity, and the Ionosphere.

For a site beaming information from the opposite side of the spectrum, visit www.enrtpulse.com Providing articles entitled, "Vandalism in the Sky," "Ground Based Star Wars," and "Killing Politely," it also has information on related materials such as Nikola Tesla and flash points. Other Web sites can be found with more fuel for the conspiracy theories, along with information applauding or condemning

HAARP

Angel's Don't Play This HAARP: Advances In Tesla Technology is a book that gives information on the conspiracy and further connects the work of Nikola Tesla to the project. In the text, authors Jeane Manning and Dr. Nick Begich attempt to uncover the veil of secrecy enveloping the HAARP program

Peter Moon is an author who has written a series of books on the Montauk Project, tracing it though time and into the present. His collaboration with people directly linked to Brookhaven and Montauk gives astonishing insight into the inner workings of the project, along with historical reference to others. The complete series is published by Sky Books, Box 769, Westbury, New York, 11590-0104.

them into different projects, one of which is HAARP.

With so much hidden activity and high-powered involvement, questions arise as to the final applications of this new technology and the hands that will

operate it. More than a hundred years of ideas and work have been incorporated into HAARP, with the ability to indirectly trace it back as far as Tesla's Magnifying Transmitter and Aleister Crowley's interdimensional travel. P