**World Wide Web**

Source: wikipedia

The **World Wide Web** (abbreviated **WWW** or **the Web**) is an [information space](https://en.wikipedia.org/wiki/Information_space) where documents and other [web resources](https://en.wikipedia.org/wiki/Web_resource) are identified by [Uniform Resource Locators](https://en.wikipedia.org/wiki/Uniform_Resource_Locator) (URLs), interlinked by [hypertext](https://en.wikipedia.org/wiki/Hypertext) links, and can be accessed via the [Internet](https://en.wikipedia.org/wiki/Internet). English scientist [Tim Berners-Lee](https://en.wikipedia.org/wiki/Tim_Berners-Lee) invented the World Wide Web in 1989. He wrote the first web browser [computer program](https://en.wikipedia.org/wiki/Computer_program) in 1990 while employed at [CERN](https://en.wikipedia.org/wiki/CERN) in Switzerland.

The World Wide Web has been central to the development of the [Information Age](https://en.wikipedia.org/wiki/Information_Age) and is the primary tool billions of people use to interact on the Internet.[Web pages](https://en.wikipedia.org/wiki/Web_page) are primarily [text](https://en.wikipedia.org/wiki/Plain_text) documents [formatted](https://en.wikipedia.org/wiki/Formatted_text) and annotated with [Hypertext Markup Language](https://en.wikipedia.org/wiki/HTML) (HTML). In addition to formatted text, web pages may contain [images](https://en.wikipedia.org/wiki/Image), [video](https://en.wikipedia.org/wiki/Video), [audio](https://en.wikipedia.org/wiki/Audio_signal), and software components that are rendered in the user's [web browser](https://en.wikipedia.org/wiki/Web_browser) as coherent pages of [multimedia](https://en.wikipedia.org/wiki/Multimedia) content. Embedded [hyperlinks](https://en.wikipedia.org/wiki/Hyperlink) permit users to [navigate](https://en.wikipedia.org/wiki/Web_navigation) between web pages. Multiple web pages with a common theme, a common [domain name](https://en.wikipedia.org/wiki/Domain_name), or both, make up a [website](https://en.wikipedia.org/wiki/Website). Website content can largely be provided by the publisher, or interactive where users contribute content or the content depends upon the user or their actions. Websites may be mostly informative, primarily for entertainment, or largely for commercial, governmental, or non-governmental organizational purposes. In the 2006 Great British Design Quest organized by the [BBC](https://en.wikipedia.org/wiki/BBC) and the [Design Museum](https://en.wikipedia.org/wiki/Design_Museum), the World Wide Web was voted among the top 10 British design icons.

**Brief History of the Internet**

Source: internetsociety

**History of the Future**

On October 24, 1995, the FNC unanimously passed a resolution defining the term Internet. This definition was developed in consultation with members of the internet and intellectual property rights communities. RESOLUTION: The Federal Networking Council (FNC) agrees that the following language reflects our definition of the term "Internet". "Internet" refers to the global information system that -- (i) is logically linked together by a globally unique address space based on the Internet Protocol (IP) or its subsequent extensions/follow-ons; (ii) is able to support communications using the Transmission Control Protocol/Internet Protocol (TCP/IP) suite or its subsequent extensions/follow-ons, and/or other IP-compatible protocols; and (iii) provides, uses or makes accessible, either publicly or privately, high level services layered on the communications and related infrastructure described herein.

The Internet has changed much in the two decades since it came into existence. It was conceived in the era of time-sharing, but has survived into the era of personal computers, client-server and peer-to-peer computing, and the network computer. It was designed before LANs existed, but has accommodated that new network technology, as well as the more recent ATM and frame switched services. It was envisioned as supporting a range of functions from file sharing and remote login to resource sharing and collaboration, and has spawned electronic mail and more recently the World Wide Web. But most important, it started as the creation of a small band of dedicated researchers, and has grown to be a commercial success with billions of dollars of annual investment.

One should not conclude that the Internet has now finished changing. The Internet, although a network in name and geography, is a creature of the computer, not the traditional network of the telephone or television industry. It will, indeed it must, continue to change and evolve at the speed of the computer industry if it is to remain relevant. It is now changing to provide new services such as real time transport, in order to support, for example, audio and video streams.

The availability of pervasive networking (i.e., the Internet) along with powerful affordable computing and communications in portable form (i.e., laptop computers, two-way pagers, PDAs, cellular phones), is making possible a new paradigm of nomadic computing and communications. This evolution will bring us new applications - Internet telephone and, slightly further out, Internet television. It is evolving to permit more sophisticated forms of pricing and cost recovery, a perhaps painful requirement in this commercial world. It is changing to accommodate yet another generation of underlying network technologies with different characteristics and requirements, e.g. broadband residential access and satellites. New modes of access and new forms of service will spawn new applications, which in turn will drive further evolution of the net itself.

The most pressing question for the future of the Internet is not how the technology will change, but how the process of change and evolution itself will be managed. As this paper describes, the architecture of the Internet has always been driven by a core group of designers, but the form of that group has changed as the number of interested parties has grown. With the success of the Internet has come a proliferation of stakeholders - stakeholders now with an economic as well as an intellectual investment in the network.

We now see, in the debates over control of the domain name space and the form of the next generation IP addresses, a struggle to find the next social structure that will guide the Internet in the future. The form of that structure will be harder to find, given the large number of concerned stakeholders. At the same time, the industry struggles to find the economic rationale for the large investment needed for the future growth, for example to upgrade residential access to a more suitable technology. If the Internet stumbles, it will not be because we lack for technology, vision, or motivation. It will be because we cannot set a direction and march collectively into the future.

**Gopher (Protocol)**

Source: wikipedia

The **Gopher** protocol [/ˈɡoʊfər/](https://en.wikipedia.org/wiki/Help:IPA_for_English) is a [TCP/IP](https://en.wikipedia.org/wiki/TCP/IP) [application layer](https://en.wikipedia.org/wiki/Application_layer) [protocol](https://en.wikipedia.org/wiki/Communications_protocol) designed for distributing, searching, and retrieving documents over the Internet. The Gopher protocol was strongly oriented towards a menu-document design and presented an alternative to the [World Wide Web](https://en.wikipedia.org/wiki/World_Wide_Web) in [its early stages](https://en.wikipedia.org/wiki/History_of_the_World_Wide_Web), but ultimately [HTTP](https://en.wikipedia.org/wiki/HTTP) became the dominant protocol. The Gopher ecosystem is often regarded as the effective predecessor of the World Wide Web.

The protocol was invented by a team led by [Mark P. McCahill](https://en.wikipedia.org/wiki/Mark_P._McCahill) at the [University of Minnesota](https://en.wikipedia.org/wiki/University_of_Minnesota). It offers some features not natively supported by the Web and imposes a much stronger hierarchy on information stored on it. Its text menu interface is well-suited to computing environments that rely heavily on remote [text-oriented computer terminals](https://en.wikipedia.org/wiki/Text_terminal), which were still common at the time of its creation in 1991, and the simplicity of its protocol facilitated a wide variety of client implementations. More recent Gopher revisions and graphical clients added support for multimedia. Gopher was preferred by many network administrators for using fewer network resources than Web services.

Gopher's hierarchical structure provided a platform for the first large-scale electronic library connections. Gopher has been described by some enthusiasts as "faster and more efficient and so much more organised" than today's Web services. The Gopher protocol is still in use by enthusiasts, and although it has been almost entirely supplanted by the Web, a small population of actively maintained servers remains.

**Usenet**

Source: wikipedia

**Usenet** is a worldwide distributed discussion system available on computers. It was developed from the general-purpose [UUCP](https://en.wikipedia.org/wiki/UUCP) [dial-up](https://en.wikipedia.org/wiki/Dial-up) network architecture. [Tom Truscott](https://en.wikipedia.org/wiki/Tom_Truscott) and [Jim Ellis](https://en.wikipedia.org/wiki/Jim_Ellis_(computing)) conceived the idea in 1979, and it was established in 1980. Users read and post messages (called *articles* or *posts*, and collectively termed *news*) to one or more categories, known as [newsgroups](https://en.wikipedia.org/wiki/Usenet_newsgroup). Usenet resembles a [bulletin board system](https://en.wikipedia.org/wiki/Bulletin_board_system) (BBS) in many respects and is the precursor to [Internet forums](https://en.wikipedia.org/wiki/Internet_forum) that are widely used today. Discussions are [threaded](https://en.wikipedia.org/wiki/Threaded_discussion), as with web forums and BBSs, though posts are stored on the server sequentially. The name comes from the term "users network".

One notable difference between a BBS or web forum and Usenet is the absence of a central server and dedicated administrator. Usenet is distributed among a large, constantly changing conglomeration of servers that store and forward messages to one another in so-called news feeds. Individual users may read messages from and post messages to a local server operated by a commercial usenet provider, their [Internet service provider](https://en.wikipedia.org/wiki/Internet_service_provider), university, employer, or their own server.

Usenet has significant cultural importance in the networked world, having given rise to, or popularized, many widely recognized concepts and terms such as "[FAQ](https://en.wikipedia.org/wiki/FAQ)", "[flame](https://en.wikipedia.org/wiki/Flaming_(Internet))", and "[spam](https://en.wikipedia.org/wiki/Spam_(electronic))".

**TIMELINE**

**1969**

-Internet

-ARPANET

-DARPA

-Packet Switch

**1972**

-email

**1982**

-Windows

-WWW

-WAIS

**DEFINITION OF TERMS:**

**INTERNET/INTERNETWORK -** a global computer network providing a variety of information and communication facilities, consisting of interconnected networks using standardized communication protocols.

**INTRANET -** a local or restricted communications network, especially a private network created using World Wide Web software.

**NETWORK -** a group or system of interconnected people or things.

**NODES -** a redistribution point (e.g. data communications equipment), or a communication endpoint (e.g. data terminal equipment).

**PROTOCOLS -** OSI (Open Systems Interconnection), a set of guidelines for implementing networking communications between computers.

**ISP -** a company that provides subscribers with access to the Internet.

**IPAddress -** numerical label assigned to each device (e.g., computer, printer) participating in a computer network that uses the Internet Protocol for communication.

**IPv4 -** uses 32-[bit](https://en.wikipedia.org/wiki/Bit) (four-[byte](https://en.wikipedia.org/wiki/Byte)) addresses, which limits the [address space](https://en.wikipedia.org/wiki/Address_space) to 4294967296 (232) addresses.

**IPv6 -** uses 64-[bit](https://en.wikipedia.org/wiki/Bit) addresses, provides an identification and location system for computers on networks and routes traffic across the [Internet](https://en.wikipedia.org/wiki/Internet).