**W3C, HTML and CSS**



The **World Wide Web Consortium** (**W3C**) is the main international [standards organization](https://en.wikipedia.org/wiki/Standards_organization) for the [World Wide Web](https://en.wikipedia.org/wiki/World_Wide_Web). Founded in 1994 and currently led by [Tim Berners-Lee](https://en.wikipedia.org/wiki/Tim_Berners-Lee), the [consortium](https://en.wikipedia.org/wiki/Consortium) is made up of member organizations that maintain full-time staff working together in the development of standards for the World Wide Web. As of 21 October 2019, W3C had 443 members. W3C also engages in education and outreach, develops software, and serves as an open forum for discussion about the Web.

**History**

The World Wide Web Consortium (W3C) was founded in 1994 by [Tim Berners-Lee](https://en.wikipedia.org/wiki/Tim_Berners-Lee) after he left the European Organization for Nuclear Research ([CERN](https://en.wikipedia.org/wiki/CERN)) in October, 1994. It was founded at the [Massachusetts Institute of Technology](https://en.wikipedia.org/wiki/Massachusetts_Institute_of_Technology) [Laboratory for Computer Science](https://en.wikipedia.org/wiki/Laboratory_for_Computer_Science) (MIT/LCS) with support from the [European Commission](https://en.wikipedia.org/wiki/European_Commission), the [Defense Advanced Research Projects Agency](https://en.wikipedia.org/wiki/Defense_Advanced_Research_Projects_Agency) (DARPA), which had pioneered the [ARPANET](https://en.wikipedia.org/wiki/ARPANET), one of the predecessors to the [Internet](https://en.wikipedia.org/wiki/Internet). It was located in [Technology Square](https://en.wikipedia.org/wiki/Technology_Square_(Cambridge,_Massachusetts)) until 2004, when it moved, with CSAIL, to the Stata Center.

The organization tries to foster compatibility and agreement among industry members in the adoption of new standards defined by the W3C. Incompatible versions of HTML are offered by different vendors, causing inconsistency in how web pages are displayed. The consortium tries to get all those vendors to implement a set of core principles and components that are chosen by the consortium.

It was originally intended that CERN host the European branch of W3C; however, CERN wished to focus on particle physics, not information technology. In April 1995, the [French Institute for Research in Computer Science and Automation](https://en.wikipedia.org/wiki/French_Institute_for_Research_in_Computer_Science_and_Automation) (INRIA) became the European host of W3C, with [Keio University](https://en.wikipedia.org/wiki/Keio_University) Research Institute at [SFC](https://en.wikipedia.org/wiki/Keio_University_Shonan_Fujisawa_Campus) (KRIS) becoming the Asian host in September 1996. Starting in 1997, W3C created regional offices around the world. As of September 2009, it had eighteen World Offices covering Australia, the Benelux countries (Netherlands, Luxembourg, and Belgium), Brazil, China, Finland, Germany, Austria, Greece, Hong Kong, Hungary, India, Israel, Italy, South Korea, Morocco, South Africa, Spain, Sweden, and, as of 2016, the United Kingdom and Ireland.

In October 2012, W3C convened a community of major web players and publishers to establish a [MediaWiki](https://en.wikipedia.org/wiki/MediaWiki" \o "MediaWiki) wiki that seeks to document open web standards called the [WebPlatform](https://en.wikipedia.org/wiki/WebPlatform" \o "WebPlatform) and WebPlatform Docs.

In January 2013, [Beihang University](https://en.wikipedia.org/wiki/Beihang_University" \o "Beihang University) became the Chinese host.

What is HTML?

[HTML](https://www.w3.org/html/) is the language for describing the structure of Web pages. HTML gives authors the means to:

* Publish online documents with headings, text, tables, lists, photos, etc.
* Retrieve online information via hypertext links, at the click of a button.
* Design forms for conducting transactions with remote services, for use in searching for information, making reservations, ordering products, etc.
* Include spread-sheets, video clips, sound clips, and other applications directly in their documents.

**Hypertext Markup Language** (**HTML**) is the standard [markup language](https://en.wikipedia.org/wiki/Markup_language) for documents designed to be displayed in a [web browser](https://en.wikipedia.org/wiki/Web_browser). It can be assisted by technologies such as [Cascading Style Sheets](https://en.wikipedia.org/wiki/Cascading_Style_Sheets) (CSS) and [scripting languages](https://en.wikipedia.org/wiki/Scripting_language) such as [JavaScript](https://en.wikipedia.org/wiki/JavaScript).

[Web browsers](https://en.wikipedia.org/wiki/Web_browser) receive HTML documents from a [web server](https://en.wikipedia.org/wiki/Web_server) or from local storage and [render](https://en.wikipedia.org/wiki/Browser_engine) the documents into multimedia web pages. HTML describes the structure of a [web page](https://en.wikipedia.org/wiki/Web_page) [semantically](https://en.wikipedia.org/wiki/Semantic_Web) and originally included cues for the appearance of the document.

[HTML elements](https://en.wikipedia.org/wiki/HTML_element) are the building blocks of HTML pages. With HTML constructs, [images](https://en.wikipedia.org/wiki/HTML_element#Images_and_objects) and other objects such as [interactive forms](https://en.wikipedia.org/wiki/Fieldset) may be embedded into the rendered page. HTML provides a means to create [structured documents](https://en.wikipedia.org/wiki/Structured_document) by denoting structural [semantics](https://en.wikipedia.org/wiki/Semantics) for text such as headings, paragraphs, lists, [links](https://en.wikipedia.org/wiki/Hyperlink), quotes and other items. HTML elements are delineated by *tags*, written using [angle brackets](https://en.wikipedia.org/wiki/Bracket#Angle_brackets). Tags such as <**img** /> and <**input** /> directly introduce content into the page. Other tags such as <**p**> surround and provide information about document text and may include other tags as sub-elements. Browsers do not display the HTML tags, but use them to interpret the content of the page.

HTML can embed programs written in a [scripting language](https://en.wikipedia.org/wiki/Scripting_language) such as [JavaScript](https://en.wikipedia.org/wiki/JavaScript), which affects the behavior and content of web pages. Inclusion of CSS defines the look and layout of content. The [World Wide Web Consortium](https://en.wikipedia.org/wiki/World_Wide_Web_Consortium) (W3C), former maintainer of the HTML and current maintainer of the CSS standards, has encouraged the use of CSS over explicit presentational HTML since 1997.

What is XHTML?

XHTML is a variant of HTML that uses the syntax of [XML](https://www.w3.org/standards/xml/core), the Extensible Markup Language. XHTML has all the same elements (for paragraphs, etc.) as the HTML variant, but the syntax is slightly different. Because XHTML is an XML application, you can use other XML tools with it (such as [XSLT,](https://www.w3.org/standards/xml/transformation) a language for transforming XML content).

What is CSS?

**Cascading Style Sheets** (**CSS**) is a [style sheet language](https://en.wikipedia.org/wiki/Style_sheet_language) used for describing the [presentation](https://en.wikipedia.org/wiki/Presentation_semantics) of a document written in a [markup language](https://en.wikipedia.org/wiki/Markup_language) such as [HTML](https://en.wikipedia.org/wiki/HTML). CSS is a cornerstone technology of the [World Wide Web](https://en.wikipedia.org/wiki/World_Wide_Web), alongside HTML and [JavaScript](https://en.wikipedia.org/wiki/JavaScript).

CSS is designed to enable the separation of presentation and content, including [layout](https://en.wikipedia.org/wiki/Page_layout), [colors](https://en.wikipedia.org/wiki/Color), and [fonts](https://en.wikipedia.org/wiki/Typeface). This separation can improve content [accessibility](https://en.wikipedia.org/wiki/Accessibility), provide more flexibility and control in the specification of presentation characteristics, enable multiple [web pages](https://en.wikipedia.org/wiki/Web_page) to share formatting by specifying the relevant CSS in a separate .css file which reduces complexity and repetition in the structural content as well as enabling the .css file to be [cached](https://en.wikipedia.org/wiki/Cache_(computing)) to improve the page load speed between the pages that share the file and its formatting.

Separation of formatting and content also makes it feasible to present the same markup page in different styles for different rendering methods, such as on-screen, in print, by voice (via speech-based browser or [screen reader](https://en.wikipedia.org/wiki/Screen_reader)), and on [Braille-based](https://en.wikipedia.org/wiki/Braille_display) tactile devices. CSS also has rules for alternate formatting if the content is accessed on a [mobile device](https://en.wikipedia.org/wiki/Mobile_device).

The name *cascading* comes from the specified priority scheme to determine which style rule applies if more than one rule matches a particular element. This cascading priority scheme is predictable.

The CSS specifications are maintained by the [World Wide Web Consortium](https://en.wikipedia.org/wiki/World_Wide_Web_Consortium) (W3C). Internet media type ([MIME type](https://en.wikipedia.org/wiki/MIME_media_type)) text/css is registered for use with CSS by [RFC 2318](https://tools.ietf.org/html/rfc2318) (March 1998). The W3C operates a free [CSS validation service](https://en.wikipedia.org/wiki/W3C_Markup_Validation_Service#CSS_validation) for CSS documents.[.](https://en.wikipedia.org/wiki/CSS#cite_note-5)

In addition to HTML, other markup languages support the use of CSS including [XHTML](https://en.wikipedia.org/wiki/XHTML), [plain XML](https://en.wikipedia.org/wiki/Plain_Old_XML), [SVG](https://en.wikipedia.org/wiki/Scalable_Vector_Graphics), and [XUL](https://en.wikipedia.org/wiki/XUL).

What is WebFonts?

WebFonts is a technology that enables people to use fonts on demand over the Web without requiring installation in the operating system. W3C has experience in downloadable fonts through HTML, CSS2, and SVG. Until recently, downloadable fonts have not been common on the Web due to the lack of an interoperable font format. The WebFonts effort plans to address that through the creation of an industry-supported, open font format for the Web (called "WOFF").

Examples

The following very simple example of a portion of an HTML document illustrates how to create a link within a paragraph. When rendered on the screen (or by a speech synthesizer), the link text will be “final report”; when somebody activates the link, the browser will retrieve the resource identified by “http://www.example.com/report”:

<p class="moreinfo">For more information see the

<a href="http://www.example.com/report">final report</a>.</p>

The class attribute on the paragraph's start tag (“<p>”) can be used, among other thing, to add style. For instance, to italicize the text of all paragraphs with a class of “moreinfo,” one could write, in CSS:

p.moreinfo { font-style: italic }

By placing that rule in a separate file, the style may be shared by any number of HTML documents.