## Web Browser and their need

A **web browser** is an <u>application</u> for accessing <u>websites</u>. When a <u>user</u> requests a <u>web page</u> from a particular website, the browser retrieves its <u>files</u> from a <u>web server</u> and then displays the page on the user's screen. Browsers are used on a range of devices, including <u>desktops</u>, <u>laptops</u>, <u>tablets</u>, and <u>smartphones</u>. In 2020, an estimated 4.9 billion people have used a browser. The <u>most used</u> browser is <u>Google Chrome</u>, with a 65% global market share on all devices, followed by <u>Safari</u> with 18%.

A web browser is not the same thing as a <u>search engine</u>, though the two are often confused. A search engine is a website that provides <u>links</u> to other websites. However, to connect to a website's server and display its web pages, a user must have a web browser installed. In some technical contexts, browsers are referred to as <u>user agents</u>.

## **Function**

## Navigating to **English Wikipedia** using a web browser (Firefox)

The purpose of a web browser is to fetch content from the <u>World Wide Web</u> or from local storage and display it on a user's device. This process begins when the user inputs a <u>Uniform Resource Locator</u> (URL), such

as <a href="https://en.\*\*\*\*\*\*\*.org/">https://en.\*\*\*\*\*\*\*.org/</a>, into the browser. Virtually all URLs are retrieved using the <a href="https://en.\*\*\*\*\*\*\*.org/">Hypertext Transfer Protocol</a> (HTTP), a set of rules for the transfer of data. If the URL uses the <a href="mailto:secure mode">secure mode</a> of HTTP (HTTPS), the connection between the browser and the <a href="mailto:security">web server</a> is <a href="mailto:encrypted">encrypted</a> for the purposes of <a href="mailto:communications">communications</a> <a href="mailto:security">security</a> and <a href="mailto:information privacy">information privacy</a>. [7]

Web pages usually contain <a href="https://hyperlinks">hyperlinks</a> to other pages and resources. Each link contains a URL, and when it is <a href="clicked">clicked</a> or <a href="tapped">tapped</a>, the browser navigates to the new resource. Most browsers use an internal <a href="cache">cache</a> of web page resources to improve loading times for subsequent visits to the same page. The cache can store many items, such as large images, so they do not need to be downloaded from the server again. Cached items are usually only stored for as long as the web server stipulates in its HTTP response messages.

## **Privacy**

During the course of browsing, <u>cookies</u> received from various <u>websites</u> are stored by the browser. Some of them contain login credentials or site preferences. However, others are used for <u>tracking user behavior</u> over long periods of time, so browsers typically provide a section in the menu for deleting cookies. Finer-grained management of cookies usually requires a <u>browser extension</u>.