**DYNAMIC WEB PAGE**

A **dynamic web page** is a [hypertext](http://en.wikipedia.org/wiki/Hypertext) document rendered to a [World Wide Web](http://en.wikipedia.org/wiki/World_Wide_Web) user presenting content that has been customized or actualized for each individual viewing or rendition or that continually updates information as the page is displayed to the user.

Classical web page design using only [HTML](http://en.wikipedia.org/wiki/HTML) or [XHTML](http://en.wikipedia.org/wiki/XHTML), provides static content, meaning that a page retrieved by different users at different times is always the same.

However, a web page can also provide a *live* user experience. Content (text, images, form fields, etc.) on a [web page](http://en.wikipedia.org/wiki/Web_page) can change, in response to different contexts or conditions. There are two ways to create this kind of effect:

Using [client-side scripting](http://en.wikipedia.org/wiki/Client-side_scripting) to change interface behaviors *within* a specific [web page](http://en.wikipedia.org/wiki/Web_page), in response to mouse or keyboard actions or at specified timing events. In this case the dynamic behavior occurs within the [presentation](http://en.wikipedia.org/wiki/Look_and_feel).

* Using [server-side scripting](http://en.wikipedia.org/wiki/Server-side_scripting) to change the supplied page source *between* pages, adjusting the sequence or reload of the [web pages](http://en.wikipedia.org/wiki/Web_page) or [web content](http://en.wikipedia.org/wiki/Web_content) supplied to the browser. Server responses may be determined by such conditions as data in a posted [HTML form](http://en.wikipedia.org/wiki/HTML_form), parameters in the [URL](http://en.wikipedia.org/wiki/Uniform_Resource_Locator), the type of browser being used, the passage of time, or a database or server[state](http://en.wikipedia.org/wiki/State_(computer_science)).

Web pages that use the first method must use presentation technology called, in a broader sense, [rich interfaced pages](http://en.wikipedia.org/wiki/Rich_Internet_application#Methods_and_techniques). [Client-side](http://en.wikipedia.org/wiki/Client-side) [scripting languages](http://en.wikipedia.org/wiki/Scripting_language) like [JavaScript](http://en.wikipedia.org/wiki/JavaScript) or [ActionScript](http://en.wikipedia.org/wiki/ActionScript" \o "ActionScript), used for [Dynamic HTML](http://en.wikipedia.org/wiki/Dynamic_HTML) (DHTML) and [Flash](http://en.wikipedia.org/wiki/Adobe_Flash) technologies respectively, are frequently used to orchestrate media types (sound, animations, changing text, etc.) of the presentation. The scripting also allows use of [remote scripting](http://en.wikipedia.org/wiki/Remote_Scripting), a technique by which the DHTML page requests additional information from a server, using a [hidden Frame](http://en.wikipedia.org/wiki/IFrame), [XMLHttpRequests](http://en.wikipedia.org/wiki/XMLHttpRequest" \o "XMLHttpRequest), or a [Web service](http://en.wikipedia.org/wiki/Web_service).

Web pages that use to the second method are often created with the help of [server-side](http://en.wikipedia.org/wiki/Server-side) languages such as [PHP](http://en.wikipedia.org/wiki/PHP), [Perl](http://en.wikipedia.org/wiki/Perl), [ASP](http://en.wikipedia.org/wiki/Active_Server_Pages), [ASP.NET](http://en.wikipedia.org/wiki/ASP.NET), [JSP](http://en.wikipedia.org/wiki/JavaServer_Pages), [ColdFusion](http://en.wikipedia.org/wiki/ColdFusion) and other languages. These server-side languages typically use the [Common Gateway Interface](http://en.wikipedia.org/wiki/Common_Gateway_Interface) (CGI) to produce *dynamic web pages*. These kinds of pages can also use, on the client-side, the first kind (DHTML, etc.).

Dynamic web sites

In dynamic sites page content and page layout are created separately. The content is retrieved from a database and is placed on a webpage only when needed or asked. The benefit of this is that it allows for quicker page loading and it allows just about anyone, with limited or no web design experience, to update their own website via an administrative tool. This set-up is ideal for those who wish to make frequent changes to their websites including text and image updates. Dynamic sites are also great for image galleries, online calendars or e-commerce, etc.

[[edit](http://en.wikipedia.org/w/index.php?title=Dynamic_web_page&action=edit&section=2)]Client-side content generation

The [Client-side](http://en.wikipedia.org/wiki/Client-side) content is generated on the user's computer. The web browser retrieves a page from the server, then processes the code embedded in the page (often written in [JavaScript](http://en.wikipedia.org/wiki/JavaScript)) and displays the retrieved page's content to the user.

The innerHTML property (or write command) can illustrate the client-side dynamic page generation: two distinct pages, A and B, can be regenerated as document.innerHTML = A anddocument.innerHTML = B; or "on load dynamic" by document.write(A) and document.write(B).

[[edit](http://en.wikipedia.org/w/index.php?title=Dynamic_web_page&action=edit&section=3)]Server-side generation

Server-side dynamic content is more complicated.

* The client sends the server the request.
* The server receives the request and processes the server-side script such as [PHP] based on the [query string](http://en.wikipedia.org/wiki/Query_string), HTTP POST data, cookies, etc.

[[edit](http://en.wikipedia.org/w/index.php?title=Dynamic_web_page&action=edit&section=4)]Combined client and server content generation

[Ajax](http://en.wikipedia.org/wiki/Ajax_(programming)) is a newer web development technique for dynamically interchanging content with the server-side, without reloading the web page. [Google Maps](http://en.wikipedia.org/wiki/Google_Maps) is an example of a [web application](http://en.wikipedia.org/wiki/Web_application)that uses Ajax techniques and database.

[[edit](http://en.wikipedia.org/w/index.php?title=Dynamic_web_page&action=edit&section=5)]History

It is difficult to be precise about "dynamic web page beginnings" or chronology, because the precise concept makes sense only after the "widespread development of web pages". Context and dates of the "web beginnings":

* [HTTP](http://en.wikipedia.org/wiki/HTTP) protocol has been in use by the Web since 1990, [HTML](http://en.wikipedia.org/wiki/HTML), as standard, since 1996.
* The [web browsers](http://en.wikipedia.org/wiki/Web_browser) explosion started with 1993's [Mosaic](http://en.wikipedia.org/wiki/Mosaic_(web_browser)).

For server-side dynamic pages:

* The dynamic page generation was made possible by the [Common Gateway Interface](http://en.wikipedia.org/wiki/Common_Gateway_Interface), stable in 1993.
* Then [Server Side Includes](http://en.wikipedia.org/wiki/Server_Side_Includes) pointed a more direct way to deal with server-side scripts, at the [web servers](http://en.wikipedia.org/wiki/Web_server).

For client-side:The first "widespread used" version of [JavaScript](http://en.wikipedia.org/wiki/Client-side_JavaScript) was 1996 (with [Netscape 3](http://en.wikipedia.org/wiki/Netscape) an [ECMAscript](http://en.wikipedia.org/wiki/ECMAscript" \o "ECMAscript) standard).