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How Wikis Work

by [Marshall Brain](#)


Chances are that you have heard of Wikis by now -- they seem to be popping up everywhere. For example, The most famous wiki is called [Wikipedia](#), a massive online encyclopedia. Wikipedia has become so large (more than a million articles) that you run across it all the time in Google. It is so popular that it is now one of the [Top 100](#) web sites in the world!



Despite their popularity, Wikis seem very strange to many people. Where does all the information come from? Is it reliable? What stops people from vandalizing a wiki until it dies? These questions and many others will be answered as we dive into the world of wikis...



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What is a Wiki?

Wikis are growing because, at their core, they are about as simple as can be. That simplicity means that people find them easy to use, just like [e-mail](#) and [blogs](#). Like e-mail and blogs, wikis also perform a very useful service in a simple way. A wiki allows a group of people to enter and communally edit bits of text. These bits of text can be viewed and edited by anyone who visits the wiki.

That's it. What it means is that, when you come to a wiki, you are able to read what the wiki's community has written. By clicking an "edit" button on an article, you are able to edit the article's text. You can add or change anything you like in the article you are reading.

This simplicity and the utter openness of a wiki cause many people to instantly reject the idea. They assume that because anyone can edit a wiki at any time, the wiki must be flawed. But wiki supporters claim this is an incorrect assumption. Let's look at a real wiki to understand what is actually going on.

The First Wiki

Ward Cunningham created the first wiki in 1995. His "WikiWikiWeb" lets software developers create a library of "software patterns." The name "Wiki" was inspired by the Hawaiian word *wiki* or *wiki-wiki*, which means "quick" and is often used as a term for taxis and airport shuttles. The WikiWikiWeb still exists and can be found [here](#).

Understanding Wikipedia

Because Wikipedia is the largest and most popular wiki on the planet, we will use it as an example to understand how wikis work in practice.

If you go to [Wikipedia.org](#) and look at the home page, you'll see a welcome screen that shows

you how to access different versions of Wikipedia, along with a search box.



Wikipedia.org home page

Type "wing warping" into the search box, and you will arrive at a typical Wikipedia article. The "Wing warping" page offers a brief description of wing warping, links to several related articles inside Wikipedia and several external links.

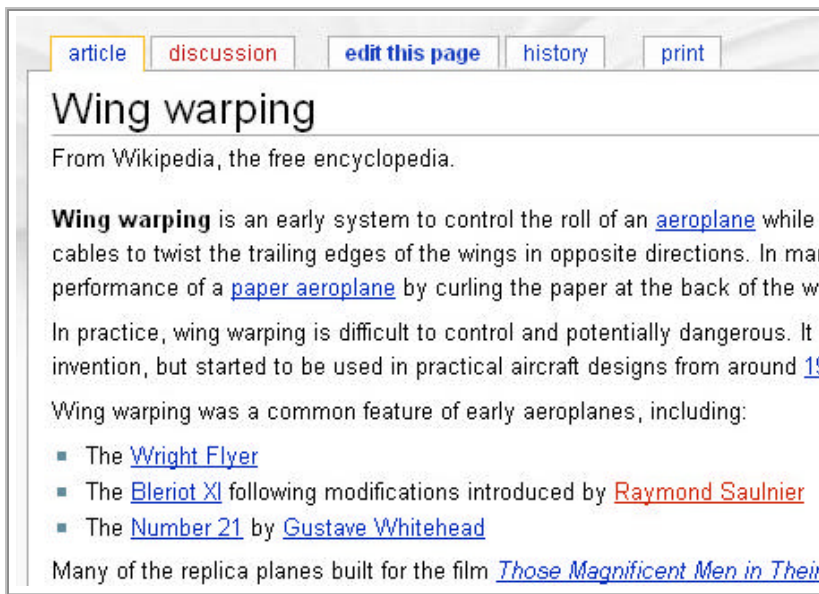
This is normal for any wiki -- a wiki is nothing but a collection of Web pages interconnected with each other through internal links. In Wikipedia, there are more than a million pages like this in the English version.

If you read the article, you will find that it is a useful source of information. It simply tells you what wing warping is and directs you to other resources. Despite the fact that anyone can edit the page (even you), there is no pornography, profanity or Nazi slogans on the page. All the material is completely on-topic.

Now we can ask the key question when it comes to Wikis -- where did this page on wing warping come from? Who wrote it? With any "normal" encyclopedia, the answer to that question is simple -- the encyclopedia paid someone to write the article. With Wikipedia, the answer to that question is completely different.

The Creation of Wikipedia Pages

At the top of the "Wing warping" page in Wikipedia, you see a tab that says, "Edit this page." That is a wide-open invitation to anyone -- any visitor to Wikipedia (including you) can edit any page. If you have something to say about wing warping that you feel should be on the page, or if you have an external link that you believe would be helpful to other readers who are reading about wing warping, or if you're compelled to write something completely unrelated, then you can add whatever you have to say to the page. Simply click on the "Edit this page" tab and type away.



To many people who have never spent any time with an active wiki before, that last sentence is uncomfortable. The idea that *anyone* can come to Wikipedia and edit *any page* at *any time* and do so with complete *anonymity* is extremely disconcerting. Obvious questions arise immediately:

- What if the person doing the typing has no idea what he/she is talking about?
- What if the person is a vandal and inserts profanity?
- What if the person is a vandal and either completely erases the page or corrupts it?
- What if the person is a spammer from a porn site who adds porn links and pictures to the page?

Editing in Wikipedia

When you edit Wikipedia, you do so using something called "Wikitext." For normal paragraphs of text, you simply insert the text. For special features like headings, lists, italics, etc., you use special character combinations. For example, if you place two equals signs at the beginning of a line ("=="), it means that you want to create a heading. To learn the symbols, looked at [the page on editing](#).

While it does happen, that kind of thing is relatively rare. The key thing that makes a wiki work is its **community**. Using a variety of tools, the community sees to it that vandals, dummies and spammers do not corrupt the encyclopedia.

Let's learn more about this community.

Understanding a Wiki Community

The heart of any wiki is its community. Literally millions of people visit Wikipedia every month, and together they form Wikipedia's community. Each person who arrives is able to play one or more roles on the site. For example:

- The large majority of people who visit Wikipedia are readers. They arrive at Wikipedia for whatever reason and read one or more articles.
- Some people who visit Wikipedia become writers. They add a new section to an existing article or create a brand new article.
- Many people act as editors. If they see an error on a page they are reading, they correct it. If they can make a small addition that is helpful, they will do it on the spot.
- Several hundred visitors who have been contributing to Wikipedia for a period of time are granted administrator privileges. These privileges give them the right to do things like deleting and un-deleting pages, blocking and unblocking [IP addresses](#), etc.

Wikipedia's Hardware

Wikipedia is so popular that it takes hundreds of machines to handle the load. For a description of how all of these machines fit together (including a very nice architecture diagram), see [Wikimedia.org: Wikimedia servers](#).

Writers, editors and admins work together to solve almost all of the problems that you would expect to arise in an open platform like Wikipedia. They also work collaboratively create some really well-written and in-depth articles.

The best way to understand how the community works is to add something to Wikipedia and see

what happens.

Working on Wikipedia

The only reason that a wiki works is because the community of people who work on it make it work. The community adds all of the content, edits everything and polices the content to root out problems. When the community is functioning well, it can produce a tremendous amount of content that gets better and better over time.

If you are so inclined, you can become a member of the Wikipedia community (or any other wiki community). You can contribute either as a writer or an editor. If you would like to get actively involved, you should first look at the [Wikipedia FAQ](#), and especially the [Contributing FAQ](#), to learn about the editing tools and conventions of Wikipedia.

Experiment: Changing a Page

The very best way to understand how a wiki community works is to go to a place like Wikipedia and add something. Here is an experiment for you to try:

- Go to Wikipedia and find a topic that you know something about.
- Search for and read the page about that topic on Wikipedia.
- Find something that you feel is missing in the article, or find something that you disagree with.
- Edit the page and add/change a sentence or two in the article. Simply click on "Edit this page" at the top of the article, and make your changes.
- Submit your change.
- Come back in a day or two and see what has happened to your change.

What will happen is that the Wikipedia community will react to your change in some way. If the community has no problem with what you wrote, then your change may still be there completely unaltered one day later. If what you entered was wrong or vandalistic, you will find that it has been removed. If you make a typo or two (try it), chances are that someone will come along and fix your typos. If you format your entries incorrectly or speak in the wrong voice, someone will edit your addition. In other words, your change will be either accepted, altered or rejected by the community. In that way, pages on Wikipedia are expanding and changing all the time.

How did the community know that you made the change? There are several tools available in most wikis that help the community to see what is changing.

Community Tools

After making your change, look up at the tabs at the top of the article and click "History." What you will find is that your entry on the page (including your IP address if you made the submission anonymously) has been recorded in the system. In other words, each page in Wikipedia has a **revision history** that anyone can see.

[article](#)
[discussion](#)
[edit this page](#)
[history](#)

Wing warping

From Wikipedia, the free encyclopedia.
[Revision history](#)

View ([previous 50](#)) ([next 50](#)) ([20](#) | [50](#) | [100](#) | [250](#) | [500](#)).

Legend: (cur) = difference with current version, (last) = difference with previous version

<input type="checkbox"/>	(cur)	<input type="checkbox"/>	(last)	<input checked="" type="radio"/>	12 June 2005 08:05	Solipsist	<i>(expanded stub)</i>
<input type="checkbox"/>	(cur)	<input type="checkbox"/>	(last)	<input checked="" type="radio"/>	25 April 2005 16:12	Liftarn	
<input type="checkbox"/>	(cur)	<input type="checkbox"/>	(last)	<input type="radio"/>	25 March 2005 23:55	TONy	<i>(Fixed a spelling mistake)</i>
<input type="checkbox"/>	(cur)	<input type="checkbox"/>	(last)	<input type="radio"/>	25 March 2005 18:21	DialUp	<i>m (cat and aerostub)</i>
<input type="checkbox"/>	(cur)	<input type="checkbox"/>	(last)	<input type="radio"/>	25 March 2005 16:54	TONy	

View ([previous 50](#)) ([next 50](#)) ([20](#) | [50](#) | [100](#) | [250](#) | [500](#)).

Revision history for "Wing warping" entry

A list of all changed pages is also compiled on a [Recent Changes](#) page. Anyone can go to this page at any time to see all of the pages that are changing in Wikipedia.

On a big wiki like Wikipedia, the recent changes page is impressive. Thousands of pages change every day. During peak hours, there can be 50 or more pages changing every minute. Therefore, Wikipedia has a more personal tool called a [watchlist](#). Here's how it works:

Let's say that you create a new article topic on Wikipedia, or you make some additions and modifications to an article. Once you do that, chances are that you have a certain attachment to the page -- a certain interest in it -- and you would like to know when other people change the page. By adding that page to your watchlist, you will get notified every time that page changes.

Now you can see why a change that you make will not go unnoticed for very long. After you make the change, many people in the Wikipedia community will see what you have done. Some of them may have a strong attachment to the page that you have changed. If they do not like the changes you make, they will remove or modify them. If they do like the changes you make, they will leave them alone or add to them.

Vandalism

It is easy for a person to vandalize Wikipedia. Since anyone can edit any page, the possibility is always there. The vandal might add profanity or inappropriate images to a page, might erase all the content of a page, etc.

As you can see in the previous section, however, there are tools that make it easy for the community to find and remove vandalism. There are also other tools available on Wikipedia to help corral users who are persistently destructive. For example:

- It is easy for anyone who sees vandalism to revert pages back to a pre-vandalism state.
- It is easy for any user to alert the rest of the Wikipedia community to vandalism that is in progress.
- It is possible for an admin to block or ban users (or IP addresses) who are persistently destructive.
- It is possible for an admin to protect a page temporarily to keep people from changing it.
- It is possible for an admin to delete an inappropriate page.

Tools like these make it easy for members of the community to quickly eliminate vandalism and prevent vandals from coming back.

A more subtle, less intentional form of vandalism, called an "edit war," can also occur on a wiki. In an edit war, two or more people edit or revert pages over and over again in order to express their

point of view. We'll examine this wiki hallmark in the next section.

Edit Wars

Edit wars can happen on any wiki, but on a large wiki like Wikipedia, they can reach epic proportions. The best way to understand an edit war is to look at a battleground page and use it as an example -- Wikipedia's page about [George W. Bush](#), for example.

It is easy to understand why the George W. Bush page might be a battleground. There are many, many people who love George W. Bush, and there are many, many people who despise him. Those who love him naturally want to emphasize things about George Bush that match their view of the man. In the same way, so do those who despise him. Thus, you can get dozens of people editing and re-editing the article to express their point of view.

The interesting thing about an edit war like this is that, with a controversial topic, it is completely natural and to be expected.

Both sides have their unique point of view, and those views are incompatible. However, the outcome of the conflict is interesting, and you can see it if you read the George W. Bush page.

Wikis Aren't Perfect

Edit wars demonstrate one type of problem that is unique to wikis. Usually the community can work it out, but sometimes it can't.

Wikis, like anything else, have advantages and disadvantages, strengths and weaknesses. The article [The Faith-Based Encyclopedia](#), written by the CEO of Britannica, discusses some of the problems, as does [Why Wikipedia Must Jettison Its Anti-Elitism](#), written by one of Wikipedia's founders.



Wikipedia's "George W. Bush" entry

Both parties have to reach consensus on the page, and that eventually causes the page to achieve a neutrality and objectivity that satisfies both parties. Controversial topics, like Bush's National Guard service, move to separate pages so they can be dealt with separately. In general (and excluding cases of [lame edit wars](#)), the process actually works.

Many Topics, Many Wikis

There are thousands of other wikis on the Internet now. As a genre, wiki sites are growing rapidly. Here are several examples:

- [WikiTravel](#)
- [WikiHow](#)
- [Wiktionary](#)
- [SwitchWiki](#) - a large directory of wikis

Virtually any topic with any sort of active community can, in theory, support a wiki. A wiki gives the community a way to gather information together and modify it as things change.

For this reason, it is now common to see wikis used inside corporations and organizations. Imagine the following scenario: There is a large corporation using an internally developed software application to manage its accounts. Two-thousand people inside the corporation use this

application to enter and access data. The program is 25 years old, has never been documented very well and drives people nuts. Training is done by word of mouth.

An environment like this is perfect for a wiki. The 2,000 people using the program can build their own documentation a little bit at a time. Each time someone learns something, they can toss a sentence or two into the wiki to let other people understand how to use the feature. Over time, the 2,000 users will build complete documentation for the entire application.

It is quite likely that wikis and other community-based efforts will grow rapidly as people become familiar and more comfortable with the concept.

For more information on wikis and related topics, check out the links on the next page.

Lots More Information

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Sources

- [Wikipedia.org](#)