

How does an atmosphere of freedom, openness, and user-ownership really work on a collaborative Web site?

What are the social and organizational characteristics of Wikipedia that contribute to its sense of community, its ability to function effectively, and its success?

**WEB DESIGNS FOR
INTERACTIVE
LEARNING
CONFERENCE**

June 15-18, 2005
Ithaca, New York



wikipedia: social innovation on the web

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<http://www.wikipedia.org>

“The ideal encyclopedia should be radical. It should stop being safe.”

- 1962, Charles van Doren, later a senior editor at Britannica

Wikipedia’s Radical Idea:

Imagine a world in which every single person is given free access to the sum of all human knowledge.

That’s what we’re doing.

How Wikipedia Works

I usually give a lot of talks to technology audiences and with technology audiences, one of the things that I have to sell them on is that Wikipedia is not a technical innovation, it’s a social innovation. From what I’m hearing in this room, you are all well on your way to understanding that already.

In 1962, Charles van Doren, who was later a senior editor at Britannica, said, “The ideal encyclopedia should be radical. It should stop being safe.” But if you know the history of Britannica since 1962, it has been anything but radical. It’s still very, very safe.

Wikipedia, on the other hand, comes from a very radical idea, and that radical idea is for us to all imagine a world in which every single person on the planet is given free access to the sum of all human knowledge. That is what we are doing at Wikipedia.

The Wikimedia Foundation

The Wikimedia Foundation is a 501(c)3 nonprofit organization. Our aim is to distribute a free encyclopedia to every single person on the planet in their own language. Every word of that little mission statement is very important. By “free encyclopedia,” what I mean is freely-licensed. If you’re familiar with the world of free software, all of our work is under free license—the encyclopedia, the software, everything that we do.

By “every single person on the planet,” we basically mean that we are not simply building a cool Web site for people in wealthy Western countries who have broadband Internet access. Everything that we do is geared towards figuring out ways that we can help

What Is the Wikimedia Foundation?

- Nonprofit foundation
- Aims to distribute a free encyclopedia to every single person on the planet in their own language
- Wikipedia and its sister projects
- Funded by public donations
- Partnering with select institutions

wikimediafoundation.org

people everywhere in the world, so we are looking into plans for distributing our work in places that don’t even have good access to clean drinking water, much less broadband Internet. That is a big part of what we’re doing.

“In their own language” is also very important. Wikipedia is in a lot of languages, and I’ll talk about that in a few minutes, but the idea is that what we are doing is a global project, it’s not specific to English.

The foundation is responsible for Wikipedia and all of its sister projects. We’re funded by donations from the public, and we are partnering with select institutions. As an example, we just signed an agreement with Kennisnet, which is the Dutch educational consortium. They are going to supply us with some servers to Amsterdam. And we have a deal with Yahoo, which is going to supply us with servers to South Korea.

About Wikipedia

Wikipedia is a freely licensed encyclopedia written by

thousands of volunteers in many languages. For those of you who have visited Wikipedia but haven't had experience doing any editing on the site, the idea of a wiki is a Web site that anybody can edit. With 99.9% of all of the pages at Wikipedia, when you are reading an article you can just click "Edit this Page." You don't have to log in or anything. You can change a word or two, hit "save," and your changes go live on the site immediately.

What is Wikipedia?

A freely licensed encyclopedia written by thousands of volunteers in many languages

wikipedia.org

It sounds like a recipe for disaster, and what I'm going to tell you about today is why it isn't a recipe for disaster and how it actually works.

How Big is Wikipedia?

- English Wikipedia is largest and has nearly 200 million words
- English Wikipedia is larger than Britannica and Microsoft Encarta combined

English Wikipedia is the largest, and is now over 200 million words. It is bigger than Britannica and Encarta combined. It is now more than twice the size of Britannica. As I said earlier, we are completely global, and though English is the largest, with over 500,000 articles, we have over 100,000 articles each

in German, Japanese and French. German actually has nearly 250,000 at this point. Japanese and French combined are about the size of German. We have over 50,000 articles each in Polish, Dutch, Swedish, Spanish and Portuguese.

In total, we have nearly two million articles across 200 languages. But the 200 languages is really not a fair number. We have 200 Web sites set up, but a lot of those are set up and just waiting for a volunteer to come and translate the interface and so forth. The real measure of how global we are is that we've got twenty-two languages with at least 10,000 articles, and sixty-plus languages with at least 1,000 articles.

When you have 1,000 articles, typically what you have there is four or five people who are regulars on the site who have started to build a community that is at a beginning point. When you have 10,000 articles, you have an actual community that is built up. At around that size they start getting local press attention, reaching out to academics, and really building a community, and it snowballs from there.

Spin-offs: Wikimedia Projects

We have a lot of other projects, most of which are spin-offs. This is important in terms of understanding how we keep the encyclopedia on track. One of the ways we keep it on track is that if we see a social pressure from within the community to start doing things that don't belong in the encyclopedia, we try

How Big is Wikipedia Globally?

- >500,000 - English
- >100,000 - German, Japanese, French
- >50,000 - Polish, Dutch, Swedish, Spanish, Portuguese
- Nearly 2 million across 200 languages
- 22+ with >10,000 60+ with >1,000

Wikimedia Projects

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dog

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From Wikimedia: Beagle picture, 28 April 2004 Red Prince

to find an outlet for people to do whatever it is that they want to do.

Wiktionary

The first example of that is Wiktionary. People who were in the encyclopedia community started having an interest in putting in dictionary definitions, antonyms, synonyms, and etymologies, and we said that's really not an encyclopedia article, that's a dictionary entry. So we spun out the Wiktionary project and there are a whole group of people there working away.

Wiktionary is interesting because it is really just now becoming a major important force. An encyclopedia article is really a stand-alone—you read it, you've gotten what you want, it's useful as is. A dictionary is only really useful once it has lots and lots of words in it. A dictionary with 3,000 words in it doesn't really help anybody, particularly because the first 3,000 words you put in are the easy ones, and who needs to look up "dog"?

The Wiktionary project is getting bigger and bigger, and we've gotten a grant to extend the software to change it into structured data. Right now it's just in raw wiki text, which is not really the best way to do things.

Wikibooks

Wikibooks is another example, and one that I'm personally most excited about. The Wikibooks project is an effort to create textbooks from kindergarten all the way through the university level in all topics. If you think about it, that is really a much bigger project than the encyclopedia. It comes from our

core mission, which is to distribute an encyclopedia to everybody, but if I give you an encyclopedia that is written for an educated adult and you can't even read, it doesn't do you much good. People really need literacy materials so that they can get to the point where they can actually use the encyclopedia.

Wikisource

This is another example of how we dealt with a social problem in the community by giving it its own Web site. People started pasting things like the whole text of *Hamlet* into the encyclopedia. Well, *Hamlet* is a nice thing to have online, and it's in the public domain, but it's not an encyclopedia article. We spun out the Wikisource project so that people who were interested in gathering old texts and pages of source material could do that, and it is all public domain source materials.

Wikiquote

Wikiquote is like Bartlett's *Familiar Quotations*. Again, people started putting way too many quotes from famous people into encyclopedia articles. If you've got an article about Colin Powell it's nice to have three or four major things that he said, not a hundred. So we spun that out and put it into a separate project.

Wikimedia Commons

Wikimedia Commons just recently reached 100,000 media files. This is where we gather together all of the media files that are usable across all of the languages. There is a reason why we decided to organize it in this way. It used to be that you would load a picture up into French Wikipedia, English Wikipedia,



Wikipedia: Photographer, Webster (20 Nov 2002)

Dutch Wikipedia, and so forth. So, for example, if you were working in the English Wikipedia and you wanted a picture of the Eiffel Tower, you might think you could find one in the French Wikipedia, and you'd be right. But if you were looking for a picture of something in Thailand, you probably wouldn't think to go and look in the Dutch

Wikipedia. As it turns out, one of the most active Dutch Wikipedians lives in Thailand and is the source for a lot of pictures of Thailand.

That sort of thing made us see that we needed to put all of the media files together in one place. These files could be very interesting to you in building Web sites because they're all freely licensed, and in the Wikimedia Commons we are really strict about free licensing. We not only follow United States standards, we try to follow standards for public domain that are nearly universal, so anything in there should be easily usable for any kind of project.

Wikinews

Wikinews is our latest major project. We saw that Wikipedia does a really fantastic job at covering current news events. We got a lot of media attention about our article about the tsunami because we were supplying all of this excellent background information. One thing that our format does that the mainstream media has a hard time with is filling in background information.

For example, if you turned on CNN three days after

the tsunami, you got to see a whole lot of pictures of people drowning, but you didn't learn a whole lot about who these people are, where they live, what language they speak, what their lives are like, who their leaders are, and so on. You can get all of that information from Wikipedia because we fill in all of the background information.

It's something we've always done a very good job on so we thought, let's try Wikinews and see how that goes. And it's going well. I just heard today that we are launching it in two new languages online soon.

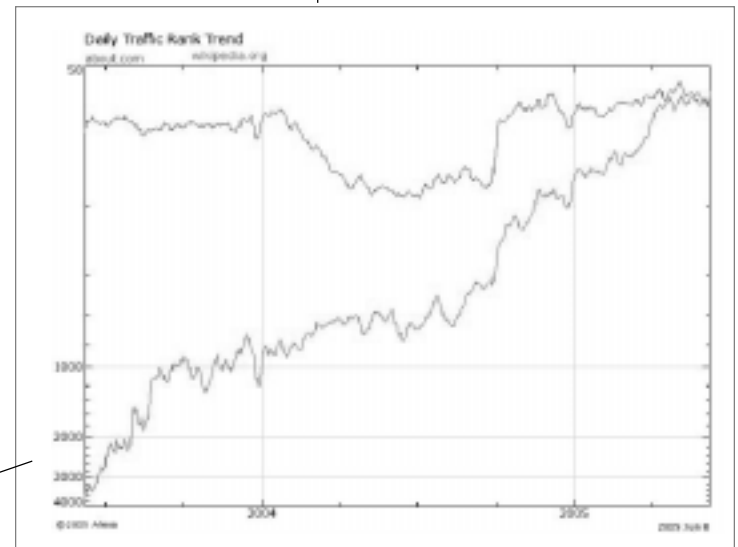
Wikipedia Popularity

Wikipedia is now a top-100 Web site. We're very close to being a top-50 Web site but aren't quite there yet. For a few months I've been saying that we have over 500 million pageviews monthly, but I just had the developers check two or three days ago because I know we've normally been doubling in traffic every three or four months. They said it's now about 1.4 billion per month. I'm still not sure of that number, so let's just say a billion—at any rate, it's a lot.

The graph to the right shows our growth in traffic (bottom line) compared to About.com (top line). The reason that I make this particular comparison is to talk a little bit about

How Popular is Wikipedia?

- Top 100 Web site
- More popular than Excite, Paypal, About.com, *New York Times*
- >500 million pageviews monthly



How the Wikipedia Community Works

There are two views of how the Wikipedia community works—how we can have this kind of Web site and have it actually turn into anything of quality.

Two Views of Wikipedia

- Emergent Phenomenon, pseudo-Darwinian
- Community of thoughtful users

One view is that there is a community of thoughtful users.

Another view is what I would call the emergent phenomenon, or pseudo-Darwinian view. This is actually something like the *Wisdom of Crowds* view. I haven't actually read that book so I don't want to criticize it, but it represents one view. To illustrate this, there is the following quote from a former *Britannica* editor in an article critical of Wikipedia.

A former *Britannica* editor ...

"Some unspecified quasi-Darwinian process will assure that those writings and editings by contributors of greatest expertise will survive; articles will eventually reach a steady state that corresponds to the highest degree of accuracy.

Does someone actually believe this?
Evidently so."

When I read this criticism I thought, that's really in-

teresting because that's not the way we talk about ourselves in the community and it's not the way we think about our work on a day-to-day basis. Sometimes people will say something along these lines, but typically we don't think of it in those terms.

Emergent Phenomenon?

One way to characterize this view is that there are thousands and thousands of individual users who don't know each other and they are each contributing a little bit. Out of this emerges a coherent body of work. This is one view.

A Community?

The other view, and you can see my bias here, is that it is a community. This is the view that there is a dedicated group of a few hundred volunteers who know each other and work to guarantee the quality and integrity of the content.



During an earlier discussion at this conference, someone was making the distinction between community and collaboration. I wouldn't put it that way, but it's the question of whether these visitors are coming to your site to interact with each other, or whether they are there to interact with your Web site.



Implications

Reputation

Emergent Model:
Need reputation mechanisms like Ebay, Slashdot

Community Model:
Reputation is a natural outgrowth of human interactions

Users

Emergent Model:
Users are tiny, have no power

Community Model:
Users are powerful, must be respected

The Implications

When I thought about this I said to myself, well, that's very interesting because my mission in life is to give a free encyclopedia to everybody on the planet. The community model that we use is really secondary to that goal. The question I had was, which of these models is actually true because there are some implications for how I run the Web site.

If it is this emergent model, and the actual work being done on the site is being done by thousands and thousands of people who don't know each other, then we probably need some kind of reputation mechanism or point system. Ebay has a point system in which, when you do a transaction with somebody, you can rate them as good or bad. Then, over time, individuals trading on Ebay develop a set of ratings. The reason they have to have a points mechanism, which works fine for their environment, is because they are not a community. When I go on to Ebay and I want to buy an Elvis figurine or whatever, I don't know you and I don't know anybody who does know you. We're not part of the same community. But I can look at your rating and see that a lot of people say this person is okay.

On the other hand, in a community, reputation is a natural outgrowth of human interactions. Just as in any organization or firm, you know people, you work with them, and you can say, "This guy is really smart, but he's a jerk." Or, "This person knows a lot about this, but he doesn't know anything about that." You sort of have this very complex web of reputation within a community—who trusts whom, and things like that—and it's really impossible to capture it technologically.

Another implication is that in the emergent model, all of these individual users are tiny and have no power. They are like ants—you can step on a few ants and it doesn't hurt the colony. If there is a community, and it is a tight knit community, then these users are powerful and you have to respect that community.

In my case, for example, I spend most of my time interacting with the community. I thought, maybe these people I'm talking to all of the time are just people who like to talk about Wikipedia and they're not actually doing the work. Who is actually building the Web site? So I did some research into the edit history. After I did this initial research and gave a few talks about it, some of our developers changed our statistics search system so that now the research is done automatically all of the time on who is doing what on the site.

I thought there would be an eighty-twenty rule, just because that pops up all of the time—twenty percent of the people doing eighty percent of the work. It turns out it's much, much tighter than that.

80-20 Rule?

In actuality:

- >50% of all edits done by just 0.7% of all users (524 people)
- The most active 2% (1,474 people) have done 73.4% of all edits

It turns out that over half of all edits are done by just .7% of all users. In the English Wikipedia, that is 524

people who have done over half of all the edits in the whole English Wikipedia. The most active 2% have done 73.4% of all edits. This is just looking at raw edits, this is not looking at what percentage of edits actually survive.

First-time and Anonymous Users

I think it would be even tighter than this if we looked at the edits that survived because a lot of times you get people who come in, particularly first time users, who see an edit box and click on it and say, "Hi mom!" We don't call this vandalism, we call it "sandboxing," like learning how to play in a sandbox.

Then they usually write me a letter and apologize, saying, "I'm sorry I wrecked your site. You should lock it, you've got a security problem." We get those letters every day.

Edits by Anonymous Users

- Anonymous ip numbers can edit Wikipedia without logging in, and do.
- These edits make up a total of around 18% of all edits, with some evidence of a downward trend over time.

So we do allow edits by anonymous users. It's controversial, it's intriguing, and the first thing most people learn about the site is that anybody can edit it, and it just kind of blows their mind. You don't even have to log in to edit.

But it turns out that although anonymous users can edit Wikipedia, and they do, they only make up a to-

tal of around 18% of all edits, and there has been a downward trend over time. What that means is that edits by anonymous users are actually a form of marketing for us. It's a way to get people involved. We make it really easy to come to Wikipedia.

Most active Wikipedians will report that the way they got started was by reading an article and seeing a sentence that bothered them, or seeing a mistake or a spelling error. They click on "edit" and save the change and feel good about that. Then they come back again and again, and pretty soon they decide to sign up and get an account to start getting a reputation in this community. And then they get to know each other.

Anecdotally, many regular users report sometimes editing anonymously by accident, or as a quiet form of "sock puppeting."

Quality Control

So how does this community ensure quality, and how does the software empower people to do good work? This is really the key, and there are a lot of features to the software so I'm only going to go over a couple of them to try to give you an idea of how it actually works.

This is a page history that shows the differences in two versions of the same page. A lot of wikis have this. Our software, I think, does the best job of making it

Color distinctions aren't visible in this grayscale rendition below. To see editing in action, check out Wikipedia online.

Page History

Flat Earth

From Wikipedia, the free encyclopedia.
(Difference between revisions)

Revision as of 22:40, 12 Feb 2003

[[User:Talk:1 user]]

(view | discuss | edit | history)

Revision as of 22:42, 12 Feb 2003

[[User:Talk:1 user]]

(view | discuss | edit | history)

<p>Like 1:</p> <p>The "flat earth" theory is the idea that the earth is flat, as opposed to the view of modern science that the earth is spherical.</p> <p>People from early antiquity generally believed the world was flat, as that is how it looks when from a high mountain. Some ancient Greek philosophers began to discuss the idea of a spherical earth, and early Christians and Muslims.</p> <p>During the period between the fall of the Roman Empire and the Renaissance of science several centuries later, some Christian writers questioned and even opposed the earth's sphericity, although it is not clear when how influential their views were. Before the Renaissance began, the flat earth theory had pretty much died out, giving by the 1600s or 1700s to the idea that the earth is a globe.</p> <p>Some Christians in England and America tried to revive flat earth thinking in the 19th century, and a few others had got to the sea to see if flat earth was right.</p> <p>see Flat Earth theories of Antiquity or</p>	<p>Like 2:</p> <p>The "flat earth" theory is the idea that the earth is flat, as opposed to the view of modern science that the earth is spherical.</p> <p>People from early antiquity generally believed the world was flat, as that is how it looks when from a high mountain. By the time of [[Herodotus]], however, the spherical shape was generally acknowledged. [[Ptolemy]] derived his model from a curved globe and developed the system of [[latitude]] and [[longitude]].</p> <p>During the period between the fall of the Roman Empire and the Renaissance of science several centuries later, some Christian writers questioned and even opposed the earth's sphericity, although it is not clear when how influential their views were. Even before the Renaissance began, the flat earth theory had almost died out, giving by the 1600s or 1700s to the idea that the earth is a globe.</p> <p>Some Christians in England and America tried to revive flat earth thinking in the 19th century, and a few others had got to the sea to see if flat earth was right.</p> <p>see Flat Earth theories of Antiquity or</p>
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Quality Control

How does this community ensure quality?

How does the software empower good work?

really easy to read. You can look at this and at a glance you can probably figure out what's going on. The colored paragraphs are paragraphs that have changed, and the words in red are the words that have changed, so some of the paragraphs have gone away and some new words have come in.

If "flat earth" is a word that you have on your personal watch list, when you log in you'll see an alert that there's been a change. You can click and immediately see this page, take a look and see what's been changed, and then judge for yourself if the changes are good or bad.

For example, if those of you who work here at the Cornell Lab of Ornithology participated in Wikipedia, you might have edited a couple of hundred articles about birds. In your watch list you'll have all of those articles so that when you log in, you'll see five or six changes that have happened to your bird articles. You can go through them quickly and say, "Oh, that's interesting, somebody fixed a grammar mistake." Or, "Oh, here's somebody that did something stupid. I'll just reverse it and click it and revert it back."

So we make it really easy for the users of the site to monitor what is going on. When we talk about design of social software, one of the biggest mistakes I think people make is what I call "a priori thinking." People think about all of the bad things that other people might do, and then they design the software to prevent that. So you sit around and you think, well what if somebody does this, or what if somebody does that?

I think this is like designing a restaurant and saying, in this restaurant there is going to be steak, and there are going to be steak knives, and people might

stab each other, so we are going to put cages around all of the tables. What does that do to your civil society? What does that do to your community? Is that going to be a fun restaurant?

Actually, a restaurant like that might be kind of cool, but that is not the way to generate a community. It is really important to have a sense of openness and trust. In fact, within the community there was a little movement afoot. A couple of users started campaigning, saying, "We should lock all of the user pages. I'm going to edit my user page. I don't see why other people should be allowed to edit it."

Almost unanimously, all of the old-time Wikipedians, including me, edited our user page to say, "Yes, you can edit my user page. I trust you." So even my user page, which gets vandalized quite a bit as you might imagine, is something that you can go and change right now. You can write something awful about me, and people do. When they do it gets reverted very quickly but the point is, by having that kind of trust, it builds a sense of community in which people care about each other and look out for each other.

So we always try to design the software in such a way that, as much as possible, we leave all of the social rules out of the software and let them be truly social rules.

There is an example below. As you can imagine, sometimes people come in and type "aspfaspf," which creates a new article that needs to be deleted—if it's just random letters we'll delete it immediately, at will. But there are other cases where it is borderline and if it is a borderline topic, then we have to have a community process to decide. Other-

wise, people are going to start to lose prominent articles. So this grew up organically in the community. This is a “votes for deletion” page. It is just a wiki page where people can come and comment and offer suggested edits and say “delete” or “keep.”

Organization by the Community

The free-form nature of the wiki software lets the community determine how it wants to interact.

- Example: *Votes for Deletion*

2:27 Twisted Issues [H4]

This is supposed to be an underground punk film from 1988, but it miserably fails the Google test(2) , suggesting that its fame is doubtful. JFW | 15:53, 18 Nov 2004 (UTC)

- Delete please JFW | 15:53, 18 Nov 2004 (UTC)
- Delete. Non-notable. JFB | 18:29, 18 Nov 2004 (UTC)
- ~~Twisted-wank Keep.~~ It's this 1989 Charles Pinson film Twisted Issues - a psycho-punk splatter-comedy which Film Threat Video Guide named to its list of Twenty Underground Films You Must See! - its notability is at worst debatable. Sumatan 19:45, 18 Nov 2004 (UTC)
- Clear Up: It needs a lot of work, but it's possible. (N.b. we're going to be in rough shape if we try to replicate the Psychotronic book or Film Threat.) George 20:43, 18 Nov 2004 (UTC)
- Keep, real movie - <http://www.imdb.com/title/tt0249205/combined> - but cleanup. RickK 21:28, Nov 18, 2004 (UTC)
- Keep and cleanup. DCEdward1966 03:48, Nov 20, 2004 (UTC)
- Keep it. Rob Man (talk) 19:31, 20 Nov 2004 (UTC)

The discussion above is about a film that was pretty much not notable. Somebody says, “It failed the Google test, so maybe it doesn’t even exist.”

The next couple of people say “delete.”

But then the next person says, “Wait a minute, I found it. It’s in the *Film Threat Video Guide* list of ‘Twenty Films You Must See!’”

So the next couple of people came in and said, “okay, yeah, clean it up and keep it.” One says, “Keep, real movie,” and includes the imdb link to it. So this ended up being kept and expanded a little bit.

What is important here is that people sometimes suggest, “We have these votes for deletion and it’s a lot of work. Why don’t we just have a system where, when you run the article, you can just vote to delete or vote to keep and then the software automatically tallies the votes?”

What you would lose if you did that is this human process of interaction and discourse about whether it should stay or go. By having this free-form system that the software doesn’t enforce, you enable people to do whatever they want to do.

In fact, there are many cases like this where the vote could be twenty-five to three but if, in the last three, somebody says—“Wait a minute, I found some new information. I’m going to go right now and check on the article. Please don’t delete it. Give me a couple of days to dig up some information.”—the administrator comes through, reads this, and sees that the author of the last note is RickK. RickK is a very famous Wikipedian and is very trusted. So the administrator would think, RickK says he’s going to work on it, so we’ll just leave it alone. That’s the kind of thing you can’t get if you try to legislate everything in the software.

Core Principles that Hold the Community Together

There are several core principles that hold the community together.

Free Knowledge

One of the core principles is free knowledge. Everything is freely licensed, which means that everything

Core Principle: Free Knowledge

- Remains nonproprietary
- Decreases individual sense of ownership
- Increases a sense of shared ownership
- Enhances the popularity of Wikipedia
- Attribution requirement extends name recognition

“Giving everything away is the best way to become popular.”

remains nonproprietary. What this means is that when people contribute to the Web site, they don't have to trust me, and they don't have to trust the foundation—that someday we're not going to just lock it all up and refuse to let people use it.

Everything is under a free license, so if I do a poor job of managing the community, the community can actually leave. They can go set up their own Web site, they can do whatever. That is really important in terms of empowering people to feel that it's okay to contribute. They know they're not contributing to the “make Jimbo rich” fund, they're contributing to the store of human knowledge.

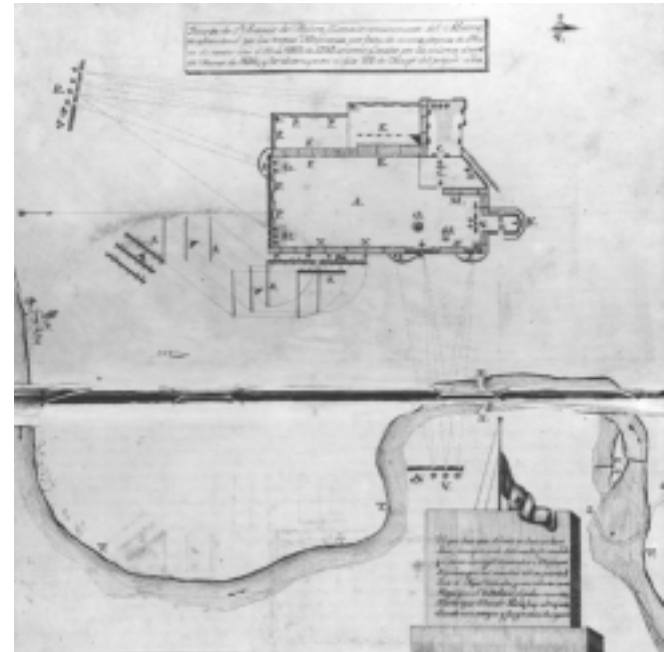
Another factor is that by having the free license, it decreases people's individual sense of ownership. That's a big problem in a lot of online communities in which you're trying to do collaborative writing. People come on and write something and then feel, this is my essay and I really don't want people messing with it. By having the free license, we tell people right up front that other people are going to edit what they write and can modify it or whatever.

It also increases the sense of shared ownership in that, within the community, we've got this free body of knowledge and the job that we've chosen for ourselves is to take care of it and hold it in trust for the world and help expand it and grow it.

Another thing that is interesting and counter-intuitive is that free licensing really strongly enhances the popularity of Wikipedia. There are two aspects to that. There are over 200 Web sites out there now that just take the content of Wikipedia and put it on their sites. They often put Google ads on there as well and make a little money. But all of those sites

link back to us, and this drives a lot of traffic to us.

A lot of you are here from museum contexts. You might really like to have some background information on such-and-such a topic (say the Alamo). You could hire people to write it, or you could license the content, or you could go on Wikipedia and take what we've got and adapt it to your local needs.



From Wikipedia: Alamo plans by José Juan Sánchez-Navarro, 1836

If you did that, you could take our pictures and our text. You might identify the fact that the text is aimed at college students, while you're trying to reach middle-school students, so you may decide to rewrite it. But then what you're going to do is lead back to us, and you've got good quality Web sites, so you're going to drive traffic to us. And not only that,

you're going to drive up our Google ranking.

This is the type of thing that drives an enormous amount of traffic to Wikipedia. It's very counter-intuitive for people at big media companies who think the only way they're going to get their Web sites to be popular is by having unique content that no one else has. The Web just doesn't work that way, that isn't the way it functions. That might make sense if you're HBO—to have a boxing match that nobody else has so people sign up and pay—but on the Web it just doesn't work that way. Giving everything away is the best way to become popular.

Neutral Point of View Policy

Another core principle that makes a huge difference in how we do things is our neutral point of view policy. Wikipedians come from very diverse political, religious, and cultural backgrounds. One of the things that we all know about is that if you're in a community, it's very easy to have flamers and so on. We actually do a pretty good job of keeping everybody on focus. One of the reasons is our rule that Wikipedia should never take a stand on any sort of controversial topic. Wikipedia is neutral.

Core Principle: Neutral Point of View Policy

- NPOV - Neutral Point of View
- Diverse political, religious, cultural backgrounds
 - Kept together by our NPOV policy
- NPOV is a social concept of cooperation, avoids some philosophical issues

It turns out that, in practice, even people who have very diverse viewpoints can understand this about neutrality and can find a way to work together. They can understand that while I may think X is true and you think not-X is true, Wikipedia can't accept X or not-X. What Wikipedia can do is describe X and not-X. It can tell you that the Catholic church believes this and Planned Parenthood believes that. We can describe the controversy, and that is the right thing for an encyclopedia to do—educate people about the controversy and let people make up their own minds.

It is also a social concept of cooperation that enables us to actually get work done. If somebody set up a Web site like Wikipedia and said, this is going to be the Catholic encyclopedia, it would run into a lot of trouble doing that because people would be coming in with views that are counter to the Catholic church. And it may be a very fine project, but you'd automatically be cutting out all of the volunteers who might be willing to work on something neutral.

So our neutral point of view policy is something that has really helped add to the quality of the site.

Free Software

Everything we do is all free software. This has been really important for quality because it means that we are able to get patches and improvements to the software from all kinds of different people.

I was just talking to someone up in the library here at the Cornell Lab of Ornithology who, with some funding, had built this half-finished application of all of the topics in the library. She said, "Unfortunately, we ran out of funding and couldn't get funding again to complete it."

Core Principle: Free Software

- MediaWiki is GPL
- We use all free software on the Web site
 - GNU/Linux
 - Apache
 - MySQL
 - Php

Wikipedia Governance

A confusing but workable mix of:

- Consensus
- Democracy
- Aristocracy
- Monarchy

Wikipedians are flexible about social methodology; results over process

I said, “Well, is it under free license? Because I know some people who would love to work on that.” Unfortunately, it’s not under free license so she can’t do anything with it and it’s just a dead project.

Whenever you have funding for a software project, if you can put it under a free license it means you’re going to get a lot of feedback and a lot of improvements. In our context, it is also another element of community trust. People can trust that if I screw up in running the community, they actually can take everything away. It’s not like we have some core piece of technology that they can’t duplicate. This is something that keeps me and the whole community on our toes. We need to make sure that if there is any large faction within the community that is dissatisfied, we need to find a way to accommodate them and to reasonably find some middle ground if we can.

Wikipedia Governance

So how is this community governed? You’ve heard that it is all volunteers. There is something that commonly happens when people talk about community. I was consulting at the BBC for two weeks and in talking to the people who worked there, I found that they really believed in more community on their Web site. But they had a really hard time breaking out of the mind set: We’re here, we’re the employees, and the community is out there and they’re a little dangerous and scary, and community government involves figuring out how to stop them from doing bad things.

At Wikipedia it’s very different. In our governance, we are a community and everyone is a part of the community, so our governance model is a very con-

fusing but workable mix. We use consensus, which means we try really hard not to vote on the contents of our articles. The reason for that is, if you want neutrality voting is not a really great way to get neutrality. Voting is a great way to take a part in an argument; it’s a really great way to look around the room and say, “It looks like I’ve got about eighty percent, so let’s take a vote and the twenty percent can just go to hell—I don’t care.”

It’s much better if we can say, “There are twenty percent who have one idea or approach, and that is a reasonably sized faction of people. I know some of those people, and they are reasonable people. We have to find a way to accommodate them by saying, ‘And the Catholic church believes this ...,’ or something like that.”

But we do have some democracy. We have some voting. In a lot of cases, as you saw in the “votes for deletion” page, we are voting but the voting mechanism is kind of fluid and fuzzy, it’s not a very formal voting process. But sometimes we vote on things like whether we should use one picture or another with an article. It isn’t that one is better than the other, they’re just different, but we can’t use both because it would be too cluttered. We have to decide somehow, so we just take a poll and normally, whichever gets the most votes wins.

There is also a little bit of aristocracy. I mentioned RickK earlier, who came in and said “keep it” during the discussion on the sample “votes for deletion” page. He is a very respected user, so people will listen to him. This is also very informal.

Angela is one of the most respected Wikipedians. She was elected to the board of the Wikimedia founda-

tion from the community by more than twice the votes of the second runner-up. I like to give this talk with her in the room. It always embarrasses her because I say, “Angela can do anything in English Wikipedia and get away with it because she is so beloved and so powerful.” But the irony is, she is so beloved and so powerful because she is the one person who would never, ever break any of the rules on Wikipedia. In fact, she’s the only person who knows all of the rules.

And then there is monarchy, and that is my role in the community. I gave this talk in Germany and the headline in the paper the next day had me saying “I Am the Queen of England.” That’s not exactly what I said. There was a little translation difficulty there.

Within the free software community, there is a long tradition of the benevolent dictator. If you look at Linux, it’s Linus Torvalds, at Perl there is Larry Wall. There are these central figures who are benevolent dictators, and there is a reason for that. It’s not that these guys are evil tyrants, it’s that when you’re trying to run a project on rough consensus with a lack of formal decision making processes, you don’t want to get bogged down in hierarchical relationships and you don’t want to get bogged down on voting on everything. It turns out to be a very useful mechanism to have one trusted person with the right personality who will be the final arbiter of disputes.

I don’t like the term “benevolent dictator.” Some people say that’s because I don’t want to be a dictator, and others say it’s because I’m not benevolent. I don’t like the term because my role, particularly with respect to the content of the encyclopedia, is not to dictate the content. This isn’t my view of the world.

In fact, I have hardly ever edited the encyclopedia at all. My political views, my religious views, really have no business being in the encyclopedia, and I don’t want to have that kind of influence over it. But my role in the very early days, when it was just a small group of people, was kind of like this benevolent dictator role.

We are moving more and more to institutions within the community so that it really is, in a sense, like the British system. We have this very complicated system of governance, there is no constitution that is written. If you want to ask how certain decisions are made, we are not even really sure how they are made or what the rule is. And my power is decreasing over time, so in a few years I will just wave at parades and things like that—and then I will be like the Queen of England.

The final point is that Wikipedia is flexible about social methodology. We value results over process. It’s not about this *a priori* system of voting, we focus intensely on the quality of the work and how to make that work better. And whatever the social processes are that help us get to that, that’s what we do.

News Update:
“Jimmy Wales is *Not* the Queen of England”



Queen Elizabeth I

From Wikipedia:
Nicholas Hilliard, 1585



Jimmy Wales

The Costs to Keep It Running

- I'm interested in the economics. You've done an incredible job of reducing that core cost to the absolute minimum, but you still have seventy servers. And you're a volunteer—do you have a day job? • Dan Barstow, Director, Center for Science Teaching and Learning, TERC

- It is all very inexpensive—our budget for the first quarter of this year was \$125,000, and the budget for this entire year should stay at basically that level. We're getting server resources now from Yahoo, and other things like that, and that's taking some of the financial pressure off.

The way we raise money is through donations on-site. A few months ago we had a fund drive on the site and were trying to raise \$75,000 in three weeks. We had to take all of the notices down off the site after two weeks because we had accidentally raised \$95,000 in two weeks. It was enormously successful with the public. It's pretty easy to raise that kind of money if you've got a billion page views a month, so we haven't had any problems raising money to keep it going.

As for me personally, I have enough money to live and don't need a job, so this is what I do with my life. • Jimmy Wales

Questions & Answers

Evaluation

How Do You Evaluate Without Establishing Desired Outcomes?

- One of my major roles in all of this is to think about evaluation, and there are a few other people in the room who think about issues of evaluation. I'm just thinking about how this could turn that completely upside down because when we talk about evaluation, we are comparing something against something; we're trying to come up with some kind of outcome. Whereas, if we have a completely community-generated Web site, then we also have no *a priori* conception of what's going to be in that Web site, so we don't have any way of saying what we are going to compare this against to see if what we're doing is right or wrong. • Rick Bonney, Director, Program Development and Evaluation, Cornell Lab of Ornithology

Common Understanding and Well-Defined Focus for Collaboration

- When I think about why Wikipedia has been successful (and I'm the first to admit that it could have been unsuccessful and that I'm not a great genius who figured out this perfect project), one of the reasons that it's successful is that if I say to you, "an encyclopedia article about Cornell University," everybody in this room has more or less the same idea of what that should look like. It should have a couple of pictures of prominent landmarks, it should tell the history, it should tell about the current governance of the university, and so on.

So it is really easy for us to collaborate because we

can stay on focus and we know that an encyclopedia article about Cornell shouldn't lead off with your own personal poetry about the trees here. There are a lot of things that we know as a group that are *a priori*. We know the end product, and we know what the largest encyclopedia in the world should look like, more or less.

That is actually one of the difficulties with Wikibooks. If I say "a physics textbook," or "physics 301," you kind of know what topics you're going to cover, but there are a lot of choices about the order in which those topics should be and how you structure it, so it's a little harder for people to figure out how to work together.

So if you're thinking about adding a wiki-style component to a museum Web site, I think if you just throw it out there and say, "Here's a wiki and it's supposed to be about stuff in the museum," people won't know what to do. But if you say, "We've got a project and we're going to document the entire history of the Alamo, including the impact on the community and so forth," then you've got a really well-defined thing that people can actually collaborate on. • Jimmy Wales

Incorporating the Newest, Cutting-Edge Wisdom

- Can I ask a Kuhnian question, which is about textbooks and encyclopedias? I study the cerebellum, and I just looked at the Wikipedia "cerebellum" entry. It reflects thinking about the cerebellum from ten or twelve years ago. In other words, it's sort of the commonly accepted understanding of what the

structure is. But, in fact, the thinking about the structure is undergoing a revolution, which makes most of this basically incorrect.

You have a mechanism for correcting it as it goes on, and I understand that. But the question I'm asking is about the common wisdom about or understanding of a topic, as compared to the cutting-edge, leading, changing, varying, paradigm-shifting wisdom. I'm sure you've been asked this before, and I'm curious about your answer. • Jim Bower, Chairman of the Board & CEO, Numedea, Inc. (Founders of Whyville.net)

- There are a couple of aspects to that. First of all, we have a very firm rule of "no original research." That's not exactly what you're asking about, but it's a factor in what you're talking about. We originally came up with the "no original research" rule because it turns out that on the Internet, there are tons and tons of physics crackpots who love to pose their own personal theory of magnetism.

We came up with the "no original research" rule—which is similar to the neutrality rule in this sense—because, first of all, it's the right thing to do for an encyclopedia. We're not qualified to evaluate original research. That is a job for peer-review scientific journals.

It is also a wonderful social rule. We don't have to say to someone, "You're a lunatic, leave us alone." We can say, "Thank you for your wonderful theory. Get it published somewhere and we'll cover it."

That's not really what you're asking about, but

the point is, there is that point at the cutting edge which is really not appropriate in terms of inclusion in an encyclopedia. If it has been reported in *Science* or *Nature*, we should report on that. And we should do so in a fairly conservative and cautious way of course. And if there is any particular encyclopedia article in which we are not doing that, I would hope that we would do it soon and do it better.

But it is a matter of getting the right people involved. If you came in and you just started to write the new information, and everybody checks the book on their shelves and refers to information that is ten years old, they would say, "What is this?" If you cited sources that people could look up, they would go and look them up, and you could lead that process. If you just came in and said, "I'm an expert and I'm going to change this because I know better than you," it's not going to fly.

We have a very strong community ethos towards citing sources and making reasoned arguments, and a very strong bias against credentials as the answer. As a result, sometimes people who are experts in a field get frustrated because they come in and say, "I'm professor so-and-so and I'm changing this." We say, where are your cites, where are your arguments?

But there will always be a gap between the time when new information comes out and the time when it makes it into any encyclopedia. I think it will make it faster into ours than in it would into any traditional model. • Jimmy Wales

How Do Others Use or Repurpose Wikipedia?

- I'm curious whether you know how many cultural institutions have taken the Wikipedia content and repurposed it for their site. And do you know whether they're leaving it on their site as a little wiki that can then be updated? • Diane Andolsek, Vice President, WEATHERHEAD Experience Design Group, Inc.
- I have no idea. I've seen a few cases of it and typically, in the cases I've seen (with museums for example), they are just taking an article and including a link back to us. But they are doing a static Web site, they are not necessarily letting it evolve on their own site. They could, of course, but typically the uses people have needed it for haven't encompassed that type of use.

Because of the free license, people don't have to ask us for permission to do anything, which is really wonderful because there is all kinds of amazing stuff going on all over the world that I only hear about after the fact. There is a guy in Mali who just got a grant from some EU organization and is paying local people to translate articles from French into the local language of Bambara. I just got a video from him showing him and a lot of the local people working in a computer lab translating Wikipedia. This is part of what happens in terms of getting content out to people, and it happens without my knowledge. • Jimmy Wales

Collaborating on Wikinews?

- I was looking at Wikinews, which is pretty cool by the way. I was wondering what you think of Guerrilla News Network (gnn.tv), which operates out of New York, and whether you see opportunities for collaboration.
- Kevin von Appen, Associate Director, Digital Media and Publications, Ontario Science Centre
- I've never heard of them so I can't comment on that specifically. People have proposed collaboration between us and, for example, Indymedia (indymedia.org). The problem with them is that they're very ideological and there's a real culture clash between their style and the dry, boring Wikipedia style. There's also Ohmy News (ohmynews.com). In the citizen journals of the world, there are a lot of interesting experiments going on. I have no idea what's going to succeed. • Jimmy Wales

Reaching a Tipping Point in Creating an Online Community

- A lot of us are wondering how to get our newborn online communities past that tipping point where it takes on a life of its own. It's very difficult to get that ball rolling. Do you have any suggestions?
 - Greg Delisle, Cornell Lab of Ornithology
- You have to be really, really nice. I think that's really important. When people come in and you're trying to build a community, you have to make them feel like it is their community, it's their home, that their input is welcome. If they get this vibe that "we're the organization and you'd better behave yourself" it kind of puts a damper on things.

In our case, we solved this problem by accident before Wikipedia. I had the idea for the freely licensed encyclopedia two years before Wikipedia and founded Newpedia. I hired a Ph.D. in philosophy and a couple of programmers, and we did everything wrong. We designed it very top-down, and we thought of all of the ways people could stab each other and tried to prevent it.

But what we did was put out the word that we were going to build this free encyclopedia for everybody on the planet, and that signature vision really gets a lot of people, a lot of academics. For anybody who is involved in education, this is a beautiful thing. So we had this core group of users who were struggling and fighting against our software which wasn't letting them get their work done. As soon as we opened the wiki it just took off immediately. There were about a hundred

people on there, very active, working, working, working. So we crossed it that way.

There are probably a lot of other ways that people could cross it institutionally. If you already have people on message boards, if you have people who are casually interested, if you're doing something like the Cornell Lab of Ornithology's Next Box Cams, there are already a group of people who are into your site. Getting those people to do some more stuff and to start building some more things is probably going to be pretty easy to do because you've already got that community involved. Starting from scratch with just one person on a Web site is tough I think. • Jimmy Wales

Creating Wiki Entries as an Educational Experience

- I'm wondering how this is being used in schools. One of the issues that you talked about before was backing away from a sense of ownership of content. I could imagine teachers tasking students with a collaborative-type research project that references definitions or entries in your materials. Do you see the application more as a platform or framework for education on which to build things—things that would be separate from the content that you have, or that would link to it, or that would perhaps dive right in and become part of Wikipedia? • Rob Rothfarb, Director of Web Development, Center for Learning and Teaching, Exploratorium
- I think that a lot of school students, depending on their age and their ability, can definitely be consumers of the content. A very small percentage of

the Wikipedian community is very young. I was just in Germany at a Wikipedia meet-up, and we were all sitting around drinking beer. I noticed one guy wasn't drinking beer and looked a little young. It turned out that the lady sitting nearby was his mom and he was thirteen. He's one of the most respected Wikipedians in that community because he's smart and does a lot of work, so he can fit right in with all the adults.

A lot of times when young people come to Wikipedia they get blocked because they don't behave very well (as you can imagine). So in terms of participating directly in the community, we sort of discourage teachers from having their students attack Wikipedia with hundreds of edits all at once. You're liable to get your school blocked if they don't behave themselves.

The idea of using the wiki technology inside a classroom is something that I think would be a fantastic teaching tool. Those of us who have worked in the medium know that it really teaches you a lot about critical thinking, reasoning, conflict resolution, and the idea that we may disagree, but we're going to come up with a statement of the problem. All of this is really important stuff for students to learn, so I think it could be very valuable for student projects within a school.

And then, if a group of students is working locally to do something like document a local community, and what they come up with is really good, it would be fantastic to import that. And they could have a lot of pride in the fact

that their work gets imported wholesale into Wikipedia proper. That would be great. • Jimmy Wales

Points or Rewards vs. Respect and a Real Human Community

- Some of the other Web sites that made presentations during this conference talked about using points, rewards, or incentives to build their communities. I haven't heard you mention incentives. Do think they're important? • Tina Phillips, Project Leader, Cornell Lab of Ornithology
- We are very strongly biased against points and incentives. Maybe we're wrong about that, and I'm not dogmatic about it because it may depend on the type of Web site and on the context. But for our context, the incentives that people have are about real human recognition in the community, and we do a lot of work as a community.

If you go home and sign on to Wikipedia and get a user name and take a topic you're interested in and start editing, by the time you make five to ten edits, somebody is going to show up on your user talk page and leave you a message. The message will say something like, "Hey, I saw your editing. Welcome, newcomer. Here are some things you might want to look at."

At times, people have suggested that we automate that so that as soon as a person makes their tenth edit, they would get an automatic welcome message. The reason we don't do that

Status of Wikispecies?

- I know a group of us here work with and care about biodiversity information. I'm wondering about Wikispecies. Where is that headed? • Anon
- Some biologists approached us with the idea for Wikispecies. The rationale is that there are something like 180 million named species, and there are some 500,000-plus articles in Wikipedia, so we didn't want people to take databases of species names, dump them into Wikipedia, and pollute the whole main space. It might be fun if we could say we have two-and-a-half million articles, most of which are one-sentence long, but we didn't want that.

It is also another structured data problem. Gathering data on species is structured data and you should be able to search it in a different way; it's not just free-form text.

What happened was, a proposal was made, we approved the project, and now discussions are going on about how to do it. It has kind of stalled, in my opinion, and I haven't really pursued it. One of the reasons it stalled is that there is a really active Tree of Life project within Wikipedia itself. That's where all of our biologists are. They're really into that and are sort of boycotting Wikispecies at the moment. I consider that an example of a project we launched that doesn't have traction yet. • Jimmy Wales

is because it's about humans, it's personal. It's much nicer if you get a message saying, "I saw you editing 'Kauai' and really like those pictures you put on there. Thanks. Here's some other pictures you might want to look at."

Then you say, "Hey, wow, this is great. I've met somebody and they like what I did."

As you get more and more involved in the community, it's a lot like the peer community in science. You're doing good work and people respect it, and you know that you can make changes without people questioning it because you've proven yourself over time. That kind of real, human community can't be replicated with a point system. • Jimmy Wales



Jimmy Wales



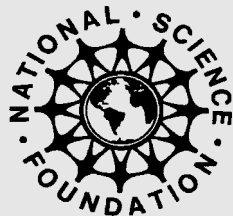
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In some sections, participant comments have been paraphrased. These are not exact quotes, rather they are an attempt to capture the content and meaning of the ideas presented.



This material is based upon work supported by the
National Science Foundation

Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author and do not necessarily reflect the views of the National Science Foundation.



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