

The Challenges and Successes of Wikibookian Experts and Want-To-Bees


*Suthiporn Sajjapanroj, Indiana University
ssajjapa@indiana.edu*

Curt Bonk, Indiana University

Mimi Lee, University of Houston

Grace Lin, University of Houston

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INFORMATION TECHNOLOGY

Can WIKIPEDIA Ever Make the Grade?


By the author of *Can Wikipedia Ever Make the Grade?*

As the world's largest encyclopedia, Wikipedia has become a leading source of information for students and researchers alike. But can it ever make the grade as a reliable source of information?





Folksonomy
(Bruns & Humphreys, 2005; Wikipedia, 2007)

- "Folksonomy" is an internet-based collaborative environment and information retrieval methodology created from within the user community. It consists of open-ended labels that categorize content such as Web pages, online photographs, and Web links. A folksonomy is most notably contrasted from a taxonomy in that the authors of the labeling system are often the main users (and sometimes originators) of the content to which the labels are applied.




**Wikis in Teaching and Assessment:
The *M/Cycloped* Project**
(Drs. Axal Bruns & Sal Humphreys, 2005, Queensland University of Technology)

Wikis present themselves as an interesting tool for enhancing social constructivist learning environments. As non-linear, evolving, complex and networked texts with multiple authors, they can provide a great opportunity for student collaboration, co-production of texts, argument, and interaction.




**Wikis in Teaching and Assessment:
The *M/Cycloped* Project**
(Bruns & Humphreys, 2005)

Most existing wiki systems are also flexible enough to support a variety of approaches for employing them in teaching, research, and academic administration and information settings (and even in all three at the same time); however, this flexibility and openness can also present significant problems and challenges to students and academics encountering the wiki environment.



**Wikis in Teaching and Assessment:
The *M/Cycloped* Project**
(Bruns & Humphreys, 2005)

- Predominate linear approaches to learning are unsuitable for some programs (need more flexible approaches)
- Students need digital learning, critical and creative thinking, and collaboration skills
- Authentic learning and work requires compromise and consensus building
- Knowledge is dynamic and also being refined, discussed, and altered



What is Wikipedia?

Pnina Shachaf & Noriko Hara (2006)

- Started in 2001
- An online encyclopedia that solicits free contributions and allows edits from the general public
- More than 4,600,000 articles in over 250 languages
 - The largest is the English-language version, which alone has 1,447,377 articles as of October 23, 2006



Wikipedia in News Media

- Accuracy of the content (e.g., Giles, 2005)
 - *Nature* compared 42 entries in both the online Britannica Encyclopedia and the Wikipedia
- Use by politicians (e.g., Blakely, 2006; Davis, 2006)
 - Rewrite entries in order to favor certain candidates



Research on Wikipedia

- Evaluation of Wikipedia
 - Accuracy of the content (e.g., Lih, 2004; Rosenzweig, 2006)
 - Formality of language use (Emigh & Herring, 2005)
 - Hackers and trolls (Shachaf & Hara, 2006)
 - Contributions in collaborative authoring environments (Korfiatis, Poulous, & Bokos, 2006)
 - Difference between novices (LPPs) and experts (i.e., Wikipedians) (Bryant, Forte, & Bruckman, 2005)
 - Contributors desire to identify and publish facts about the world in de facto-collective setting (= ~ similar to scientific community) (Forte & Bruckman, 2006)
 - Cultural differences (e.g., Power distance (hierarchies), collectivism vs. individualism, femininity vs. masculinity, etc.) (Pfeil, Zaphiris, & Ang, 2006)



What is a Troll?

Pnina Shachaf & Noriko Hara (2006)

- A troll is a horrific creature from Norse mythology
- An Internet troll is someone who is destructive within online communities; they post inflammatory, rude, repetitive or offensive messages (e.g., Herring, et al., 2003)
- Behavior: repetitive harmful actions, ignoring policies, active at community levels, virtual identity, work in isolation, ignore policies, intentionality
- Motivated by: boredom, seek attention, revenge, fun, thrills, excitement, computer talents, ease of execution, curiosity, harmful intentions, destroy community, provocative examination of freedom of expression, etc.



Cultural Diff's in Collab Authoring in Wikipedia (Pfeil, Zaphiris, & Ang, 2006, CMC)

- Investigated cultural diff's in article in Wikipedia "game" page for French, German, Japanese, and Dutch
- High-Power Distance countries (like France), less deletions
- The higher the individualization, the fewer the number of contributions
- Adding information was correlated with masculinity index
- Need to look at do structures of articles vary across cultures? Are there diff's in the content of articles on the same topic? Etc.

Becoming Wikipedian: Transformation of Participation in a Collaborative Online Encyclopedia (Bryant, Forte, & Bruckman, 2005)

- Novices (or LPP):
 - Initial edits tend to be focused on individual articles.
 - Fix omissions and weaknesses.
 - See themselves as consumers of information provided at the site.
 - Most important feature for novices is the search box.
 - Drawn into Wikipedia by ease of editing, removal or barriers to participation, and contributing something.



Becoming Wikipedian: Transformation of Participation in a Collaborative Online Encyclopedia (Bryant, Forte, & Bruckman, 2005)

– Novices (or LPP):

- Wikipedia looked at more as a collection of articles with random people adding information here and there, than as “a *collection of people* talking about, editing, and protecting their efforts to author good work.” (i.e., no strong sense of community)
- Not aware of rules associated with division of labor.
- Focus on technical elements or edits.



Becoming Wikipedian: Transformation of Participation in a Collaborative Online Encyclopedia (Bryant, Forte, & Bruckman, 2005)

– Experts or Wikipedians:

- Wikipedia is not some random collection of articles but a “community of co-authors who play distinct roles and have distinct talents as they build a resource” (p. 9).
- Wikipedia as a whole becomes more important than any single article or set of articles.



Becoming Wikipedian: Transformation of Participation in a Collaborative Online Encyclopedia (Bryant, Forte, & Bruckman, 2005)

– Experts or Wikipedians:

- Once become Wikipedians, the goals expand.
- Perceive work contributing to the greater good.
- See themselves as managers or creators.
- Want to build a sound information resource.
- Want to improve the overall quality and character of the site.



Becoming Wikipedian: Transformation of Participation in a Collaborative Online Encyclopedia (Bryant, Forte, & Bruckman, 2005)

– Experts or Wikipedians:

- Shift from role of reader to editor.
- Realize the host of rules and guidelines (articulated on edit pages)
- Strong sense of community—participation related to membership in that community.
- Tools support a more robust set of activities than for novices (extends ZPD to accomplish new tasks could not do individually).



Becoming Wikipedian: Transformation of Participation in a Collaborative Online Encyclopedia (Bryant, Forte, & Bruckman, 2005)

– Experts or Wikipedians:

- Have a “watchlist” of pages for surveillance (among primary tasks)
- As moved from periphery, they assume responsibility for integrity of some set of pages
- Use discussion pages to confer about aspects of articles



Becoming Wikipedian: Transformation of Participation in a Collaborative Online Encyclopedia (Bryant, Forte, & Bruckman, 2005)

– Experts or Wikipedians:

- Adhere to certain rules or elements of etiquette, assuming good faith of others, avoiding deletions and reverts if possible, politeness, signing discussions but not articles, working toward agreement—coop behaviors!
- Some are arbitrators and system administrators



Becoming Wikipedian: Transformation of Participation in a Collaborative Online Encyclopedia (Bryant, Forte, & Bruckman, 2005)

- Experts or Wikipedians:

- Appreciate recognitions and diversity of authorship since it increases article quality and chance it is cited in the media.
- Recognize exemplary work with featured articles; nominate articles for featured article



What is Wikibooks?



- Wikibooks, previously called Wikimedia Free Textbook Project and Wikimedia-Textbooks, is a wiki for the creation of free content books. It is a Wikimedia Foundation project.
- Started on July 10, 2003, the project is a collection of free textbooks and annotated texts that are written collaboratively on the website. The site is a wiki, meaning that anyone can edit book modules without their contributions being subject to review before modifications are accepted.
- Wikibooks is a Wikimedia project for collaboratively writing textbooks and related non-fiction books (with supporting books and booklets; such as annotated literary and other classics) about different subjects.

Wikibookian

A Wikibookian is someone who coordinates a Wikibook project.



Think free. Learn free.

Wikibooks Mainpage
http://en.wikibooks.org/wiki/Main_Page

Sample Book (Learning Theories)
http://en.wikibooks.org/wiki/Main_Page

Sample Book (Learning Theories)
http://en.wikibooks.org/wiki/Main_Page


Our Basic Study

Survey of more than 80 Wikibookians about the creation and coordination of a Wikibook. Issues addressed include ownership, problems encountered, tools to facilitate online collaboration.



Finding Wikibookians

Thomas Strohmann



bio name: Thomas Strohmann and I am a PhD student of Seth Clifton in the Department of Chemistry in Boulder. My research area is Molecular Learning which is a subfield of Artificial Intelligence

Contact information

- 2005-10-21, Department of Chemistry, Campus Box 139, University of Colorado, Boulder, Colorado 80509-1390
- (303)432-8376
- Thomas.Strohmann@colorado.edu

News

- How are the kids of my *Pharm Project*? [Pharm project](#) (2005)
- How to get more out of my *Pharm project* (2005)

Books

Referenced Papers

- T. B. Strohmann, A. Belding, G. F. Ornduff, and D. M. DeGroot. *Search Through Molecular Properties: Molecular Classification*. *JCPSP* 2010. [doi:10.1002/jcp.10000](#)
- T. B. Strohmann and G. F. Ornduff. *A Framework for Molecular Property Molecular Regression*. *JCPSP* 2010. [doi:10.1002/jcp.10000](#)

Objective and Design

- Explore the potential to use Wikibooks as a new instructional strategy to promote learning collaboration and social interaction across classrooms
- Find the success factors in the development of Wikibooks at the Wikibooks web site in order to improve the implementation of Wikibook projects



Objective and Design

Two-part study:

I. Wikibook project among 3 classrooms in 3 locations

II. Wikibooks web site -

http://en.wikibooks.org/wiki/Main_Page



Methodology

- **Two Surveys for each group**
 - 13 participants of cross-institutional Wikibook project
 - 80 participants of Wikibookians
- **Follow-up questions were sent via email to:**
 - Three people of the Wikibook project
 - Eight people of the Wikibookian group



Findings from Surveys

- **Topic Selection Issue:**
 - Students were hesitant to share their rough ideas in Wikibooks environment
 - Selecting topic is a 'class task' in Wikibook projects.
 - Wikibookians do not need to select the topic.



Findings from Surveys

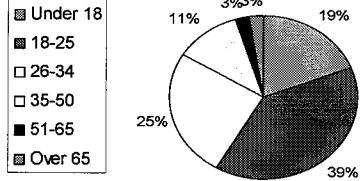
- **Part-time vs Full time**
 - Most participants in the Wikibook projects were part-time graduate students, their interactions within the Wikibook-project site were not extensive as expected.



Findings from Surveys (cont.)

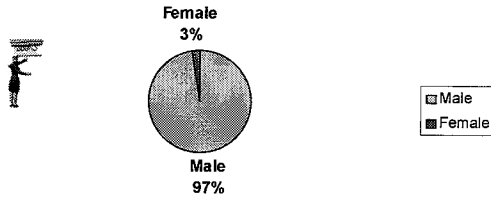
- **Demographical data: 58% of Wikibookians were younger than 25 years old.**

Age of Wikibookians



Demographical data: more than 97% were male

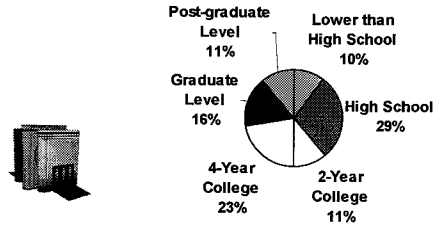
Gender of Wikibookians



Findings from Surveys (cont.)

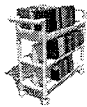
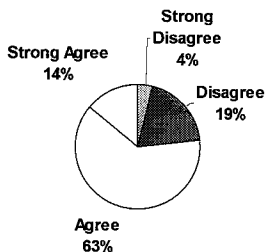
- **Demographical data: many without a college education**

Highest Year of Schooling



Findings from Surveys (cont.)

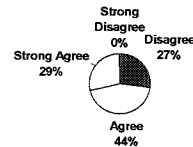
- **77% of Wikibookians agree that their recent Wikibook project was successful.**



Findings from Surveys (cont.)

- **76% of Wikibookians agree that Wikibooks promote communication between writers and readers.**

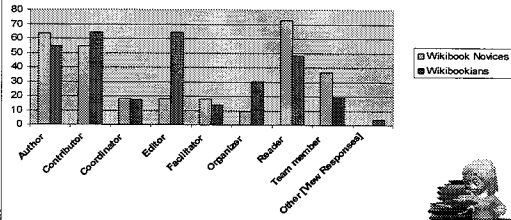
Wikibooks promote communication between writers and readers?



Findings from Surveys (cont.)

• **Sense of community***

What were your primary roles in developing a Wikibook?

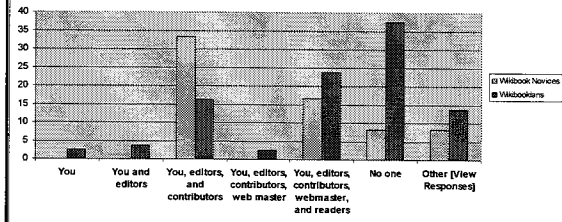


*Data is displayed by ratio

Findings from Surveys (cont.)

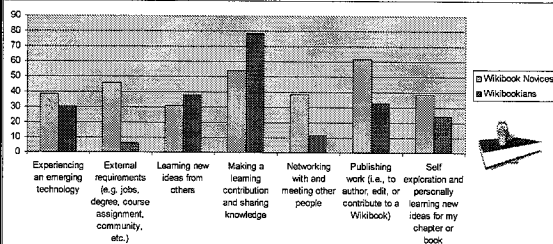
• **Control and ownership**

Who are the owners of a Wikibook?



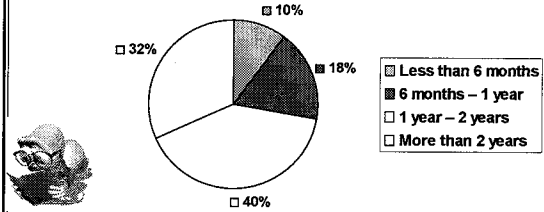
Findings from Surveys (cont.)

• **Inspiration to work on Wikibooks**



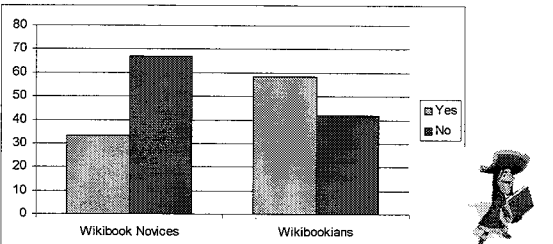
Findings from Surveys (cont.)

How long been involved in designing or contributing to a Wiki of any kind?

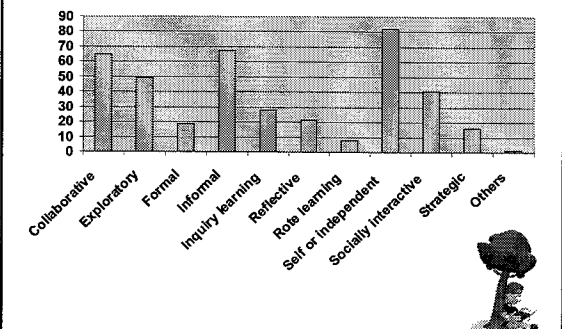


Findings from Surveys (cont.)

• **Question: Can a Wikibook ever be completed?**



What type of learning does a Wikibook foster?



Qualitative Themes from Email Interviews



Theme #1: Introduction to Wikibook



1. How did you know about Wikibooks? Who, if anyone, initially showed you them or recommended Wikibooks and what did they say? (Wikibookian)

– I helped found Wikibooks when I started writing an Organic Chemistry textbook on Wikipedia. Jimmy Wales agreed to start another site where we could write textbooks.



1. How did you know about Wikibooks? Who, if anyone, initially showed you them or recommended Wikibooks and what did they say? (Wikibookian)

– I found Wikibooks about Wikipedia, after I realised that my project on which I was working got to long for Wikipedia. I was also recommended that for such projects Wikibooks would be better.



1. How did you know about Wikibooks? Who, if anyone, initially showed you them or recommended Wikibooks and what did they say? (Wikibookian)

– I was exposed to wikipedia and was looking for a place to host my book. However, I found wikibooks wasn't interested in original pieces. So I eventually moved it to wikireason.



1. How did you know about Wikibooks? Who, if anyone, initially showed you them or recommended Wikibooks and what did they say? (Wikibookian)

– I discovered WIKIBOOKS through WIKIPEDIA- some Wikipedia articles refer to articles on WikiBooks, saying "WikiBooks has more on the subject" and include a link.



1. How did you know about Wikibooks? Who, if anyone, initially showed you them or recommended Wikibooks and what did they say? (Wikibookian)

- I found out about Wikibooks, because I was active on the Dutch Wikipedia, and one of the active users quit Wikipedia to work on Wikibooks. I wanted to know what project he was working on etc. Further, I am active on the Dutch Wikimedia-chapter, so it was logical for me to explore as well the other Dutch language wikimedia-projects.

Theme #2: Initial Expectations about Wikibook



2. What was (were) your expectation(s) before using Wiki? (Wikibookian)

- I expected it to be for whatever kind of book. So also fun-books etc. It appeared to be only for school-books, what is nice :) Then I expected it to be not very effective, as it's hard to let people work together at all, especially on this large amounts, and even more when it's spread over multiple pages with a specialistic subject. You should need at least two specialists, as both have to understand the subject very good. That appeared to be hard indeed.

2. What was (were) your expectation(s) before using Wiki? (Wikibookian)

- My expectation was to help create a free, collaboratively written textbook. At this point I have done almost all of the work on the book. Admittedly, word about the book hasn't gotten out, but hopefully once it does others will begin to contribute. Until that happens, my expectations will not, technically, have been met.

2. What was (were) your expectation(s) before using Wiki? (Wikibookian)

- I anticipated having more time than I do to working on this project. Development has been slower than I expected, by about a factor of two. I originally expected to be able to finish the book I'm working on in about two years....I also hoped that collaborators would take an interest in the book as it developed. Although there have been isolated contributions, no one else has taken an interest in making a real investment in the book. I still hope this will eventually happen.

Theme #3: Previous Experiences with Other Online Learning Environments

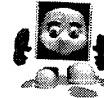


3. Please describe 1-2 online collaborative environments, other than the Wikibook, wherein you have worked in or learned from in the past (e.g., program, activities, important features, etc.).

– I worked on a couple of other projects of the Wikimedia Foundation. For example I spend much time on Wikipedia and Wikimedia Commons.



Theme #4: Important Features and Activities Necessary for Collaborative Environments from a Wikibookian's Perspective



4. What are important features, mechanism, and/or activities that an online collaborative environment should have?

– The ability to track the contributions and changes of each contributor. It should also make contributing easy. Wikibooks does an admirable job of that...

4. What are important features, mechanism, and/or activities that an online collaborative environment should have?

– A way for people to communicate with each other, a way to track the contributions of each person, a way to make the information accessible to newcomers, a simple interface that an average person can learn very quickly or even use intuitively.

4. What are important features, mechanism, and/or activities that an online collaborative environment should have?

– Message boards (Wikipedia's "Talk" section) is one of the most important sections that needs to be included. Besides that, the "open editor" should be included, as well as the ability for Administrators to monitor the content of articles and who has been updating them.

9. Which activities or tools would you suggest to include in Wikibooks environment in order to promote learning collaboration?

– Make a special area where one set group of people can take over a book for a time, for example, to enable one class or one group of professors develop materials in a protected environment where, at least for a time, they have the final authority of whatever happens in that area.



Theme #5: Differences Between the Wikibook Environment and Other Collaborative Environments Online



5. Are there situations in a Wikibook environment that are unique or different from other collaborative environments you have encountered? If so, what are they?

- *"There is not one person in charge..."*
- *"An open-source attitude"*



5. Are there situations in a Wikibook environment that are unique or different from other collaborative environments you have encountered? If so, what are they?

- *"Working with people I've never met...Typically, the people I collaborate with at Wikibooks differ from my perspective more than people I would collaborate with in a more traditional context."*



5. Are there situations in a Wikibook environment that are unique or different from other collaborative environments you have encountered? If so, what are they?

- *The difference is that I'm usually working with people I've never met, and with the sort of people I wouldn't ordinarily work with in writing. It's much more challenging to see where someone is coming from if you haven't had a chance to meet her or talk with her....Typically, the people I collaborate with at Wikibooks differ from my perspective more than people I would collaborate with in a more traditional context. Sometimes, the new perspective is very interesting. At other times, the other person can be way off base.*



Theme #6: The Notion of Wikibook Not as a Product but a Process



6. Explain whether a Wikibook is ever complete? Why or why not?

- *"I think a Wikibook becomes complete when the participants loose interest in the topic."*



6. Explain whether a Wikibook is ever complete? Why or why not?

- No wiki is ever complete, because it is ever evolving. That's one of the best things about wiki's. I personally think that paper is dead and in many ways the ideas contained within them too. I want my ideas and thought evolved and allowing others to improve them makes the work alive.

6. Explain whether a Wikibook is ever complete? Why or why not?

- Theoretically a wikibook could be complete, depending on the subject. If, for instance, the book is about the Iran/Contra scandal and all of the information relevant to it has been made public and summarized in a wikibook, I could see it as been "complete." But that is not likely the case for "most" wikibooks.

Theme #7: Toward Collaborative Knowledge Construction: Issues of Ownership and Disputes over Editing



7. What would happen if someone edited or changed a section of your Wikibook but you did not agree with the change? Has this ever happened to you? If so, what did you do?

- So revert it :) It's a Wiki, so everybody can edit it. When s.o.'s edit doesn't apply to my standards, I can revert it. And that person can revert me too. When we both find it important, we can start talking through the talkpage, and in the end, maybe get a mediator, or ask the community what they think about it.

7. What would happen if someone edited or changed a section of your Wikibook but you did not agree with the change? Has this ever happened to you? If so, what did you do?

- Sure it has happened and usually I challenge the changes and or clarify my points and will revert the changes after I have posted a discussion section and got others opinions.

7. What would happen if someone edited or changed a section of your Wikibook but you did not agree with the change? Has this ever happened to you? If so, what did you do?

- This happens frequently. I usually either talk to them via the "Talk" pages or send them a private message regarding the change(s) if they are not an anonymous user. I leave or qualify their changes if they are correct, but if not I may revert them back to their original form.

7. What would happen if someone edited or changed a section of your Wikibook but you did not agree with the change? Has this ever happened to you? If so, what did you do?

– This has happened to me. In my experience, changing the material back is pointless, and will just cause dispute. It's best to write your reactions on the Talk page and work it out there. I've had very good luck with this approach.

7. What would happen if someone edited or changed a section of your Wikibook but you did not agree with the change? Has this ever happened to you? If so, what did you do?

– It didn't happen yet so that I don't know how I would react. I think I would revert the changes and ask the contributor to discuss them with me.

Theme #8: Suggestions for Promoting Learning Collaboration in Wikibook Environments



9. Which activities or tools would you suggest to include in Wikibooks environment in order to promote learning collaboration?

– Use it. That activity will promote it the most. When one single school starts using it, even besides the current books, and has positive experiences, it will become more a success.



9. Which activities or tools would you suggest to include in Wikibooks environment in order to promote learning collaboration?

– I would suggest a better organized starting of books. I think authors have to make concepts before they write a book and think about it, because it's not only an article like in Wikipedia.



Theme #9: Skills Needed to Complete Wikibook Such as Planning, Negotiation, Communication, and Coordination



10. Are there any concerns, suggestions, and/or recommendations to someone creating a Wikibook or for someone wanting to become a Wikibook author or editor?

– Start with planning, and work on existing books rather than create a new one.



Theme #10: Advantages and Disadvantages of Wikibooks



8. What are the advantages and disadvantages of Wikibooks mechanisms?

– Advantages: Openness, accountability, record of changes and attributions, easiness of use, free license, formatting buttons, levels of permissions, automated features like the Infobox, formatting shortcuts, templates, and navigation, ...



8. What are the advantages and disadvantages of Wikibooks mechanisms?

– Disadvantages: People have not seen it work enough for them to believe in it, and there are not mechanisms in place that convince educators of the value of Wikibooks as a teaching or learning tool. No way to upload many images at once or to modify meta data of multiple images or pages at once. No structured way to lead groups by the hand through the collaborative book-writing process.



Theme #11: Wikibook Recommendations



10. Are there any concerns, suggestions, and/or recommendations to someone creating a Wikibook or for someone wanting to become a Wikibook author or editor?

– Get help. Don't try to do it on your own, it's a too big amount of work and you will definitely loose the overview.



10. Are there any concerns, suggestions, and/or recommendations to someone creating a Wikibook or for someone wanting to become a Wikibook author or editor?

- Be aware of copyright
- Be patient. "A little bit is better than nothing, it can always be improved later."



10. Are there any concerns, suggestions, and/or recommendations to someone creating a Wikibook or for someone wanting to become a Wikibook author or editor?

- I'd suggest getting several co-authors from the get go and deciding on a template for the book chapters so it is uniform from the beginning. It's bound to change over time, but you may as well start with a plan. Also, I'd mention that, for the most part, they shouldn't expect many people to contribute to the book. Writing a book is challenging; most people will never attempt it.

Theme #12: The Future of Wikibooks and Other Comments



11. What do you see in the future in terms of Wikibooks?

- *I don't know. It might go two ways:
*Become a success, people will use it.
*Die a silent death, people won't use it.
There is no "some people will use it".
Because when you want your book to become used, it has to be used by a large amount of people, not by a few.*



11. What do you see in the future in terms of Wikibooks?

- Community-written textbooks in every American classroom as well as around the world, students and teachers involved in the production of textbooks on occasion as a part of the development process, better textbooks than we have ever had before, teaching materials shared for free in many languages all over the globe, the end or dramatic change of much of the the textbook industry (cartel) as it currently exists.



11. What do you see in the future in terms of Wikibooks?

- I don't think the concept will catch on except among small niches until there are some very well-developed textbooks available on the site. If academics turn to using it regularly for free introductory textbooks, wikibooks could explode with interest. But we aren't there yet. Maybe in the next 5 years or so.



12. Do you have any other comments about Wikibooks or the Wikibook process?

- I think WikiBooks is an excellent environment, but not enough people seem to know about it. Additionally, the method of creation would be a bit better if the tutorials were better written (more clear) and if their interface was a bit better. Still, all-in-all it is an excellent environment.



12. Do you have any other comments about Wikibooks or the Wikibook process?

-Go rockin' on!



Conclusions

- **Key to success for Wikibooks**
 - Features of Wikibooks; e.g. tracking contributions
 - Precise goals and concepts
 - Coordination and communications
 - Achieve challenge of social issues; e.g., talk first b4 revert



Huge Gap in Use as Class Project or Community Project

- **Classroom:**
 - Forced (even optional) activities do not work well.
 - Need to rethink incentives, collab structures, and final products.
 - Cannot be completed.
 - Do it for reward and publication—externally motivated.
 - Publish or perish structures outweigh general knowledge sharing opportunities.
 - Yes, they own it.
 - Reader and author.



Huge Gap in Use as Class Project or Community Project

- **Community**
 - Internally motivated to do book.
 - Still needing help from others (do not do this alone).
 - Takes time.
 - Do it to make contributed.
 - Perhaps a Wikibook project cannot be designed but can only be formed voluntarily.
 - No one owns.
 - Editor and contributor.



Conclusions

"I love wikis they're truly the closet example of the purest form of democracy."

