The Tensions of Transformation in Cross-Institutional Wikibook Projects: Looking Back Twenty Years to Today

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See AERA Paper at:
See http://wiki-riki.wikispaces.com

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Four Theoretical Perspectives Informed this Research

1. Situated Cognition and Creating Cultures and Communities of Learning
2. Participatory Learning
3. Transformative Learning
4. Adult Learning (including adult distance learning)

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1. Situated Cognition and a Culture of Learning (learning in a social context, authentic tasks, apprenticeship, knowledge construction & negotiation)

a. Technical Report from Bolt, Beranek, and Newman (BBN) (1988)
b. Article in the Ed Researcher by Brown, Collins, & Duguid (1989)
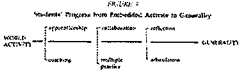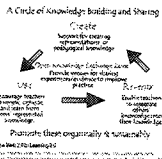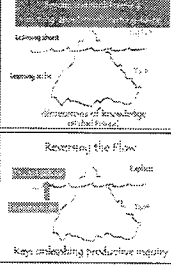
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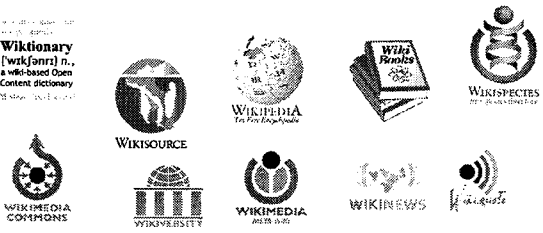
2. Fast Forward to 2008: Participatory Learning (see Minds on Fire by Brown and Adler, Jan-Feb, 2008)

Minds on Fire: Open Education, the long tail, and learning 2.0 by John Seely Brown and Richard Adler, Jan-Feb, 2008, Educause Review.
http://connect.educause.edu/Library/EDUCAUSE+Review/MindsonFireOpenEducationt/45823

Classroom Wiki projects are an example of Participatory Learning...

Visit to WikiMedia Foundation to share our research in March 2008

What did they give me?

Answer: Wikipedia: The Missing Manual

Takeaway: Coordinating wikis is hard and there are many hidden steps and secrets to success!

Wikipedia

John Broughton

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3. Transformative Learning
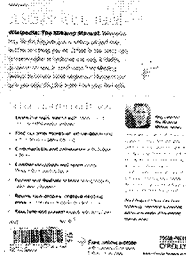(Jack Mezirow; see
http://adulted.about.com/cs/learningtheory/a/mezirow.htm)

- **Involves:**
  - becoming more reflective and critical
  - being more open to the perspectives of others
  - being less defensive and more accepting of new ideas
  - exploring alternative assumptions

  Mezirow states that transformative educators "may help others, and perhaps ourselves, move toward a fuller and more dependable understanding of the meaning of our mutual experience."

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4. Adult Learning Theory
(Knowles, 1984; Rogers, 1981)
## Distance Learning Theorists
(Moore, 1989; Wedemeyer, 1981)

- More choices and self-directed learning opportunities, the more success.
- Learning must be meaningful, interactive, and reflective.
- Activities chosen should foster higher self-esteem, internal motivation, and goal driven opportunities.
- Learning should be open, genuine, inviting, respectful, active, collaborative, and learner driven.

This Research Involved Three Wikibook Projects

Wikibook #1: Spring of 2006: Univ of Houston (UH) and Indiana University (IU) (optional)

Wikibook #2: Fall of 2007: UH and IU (3 part scaffolded project)

Wikibook #3: Fall of 2007: IU, Indiana State University, Beijing Normal University, the Open University of Malaysia, and National Chiao Tung University (5 universities—more open process)
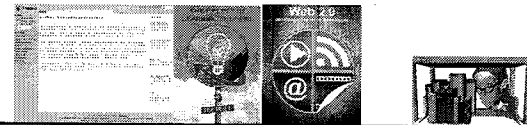
Study Participants

Wikibook #1: 13 surveyed surveyed and 4 interviewed

Wikibook #2: 22 students surveyed (interviews not yet completed)

Wikibook #3: 41 students surveyed (interviews not yet completed)

Interviewed 4 instructors from Wikibook #3 via email plus personal reflections.


Wiki Questions

1. How much scaffolding and support is needed in cross-institutional wikibook projects?
2. How can interaction and collaboration be supported?
3. Will students take ownership over the book?
4. Will reception learning give way to participatory learning?

Research/Project Caveats

1. This is an exploratory study.
2. This is a classroom use of a community site (i.e., the Wikibooks Website).
3. We are still analyzing contents of Wikibooks developed, student behaviors and interactions in wikibook participation.
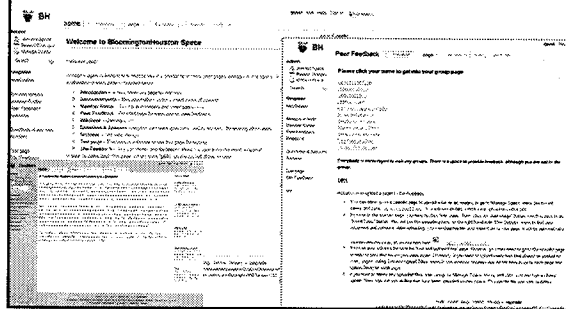4. Still need to interview students and student focus groups.

Wikibooks Site
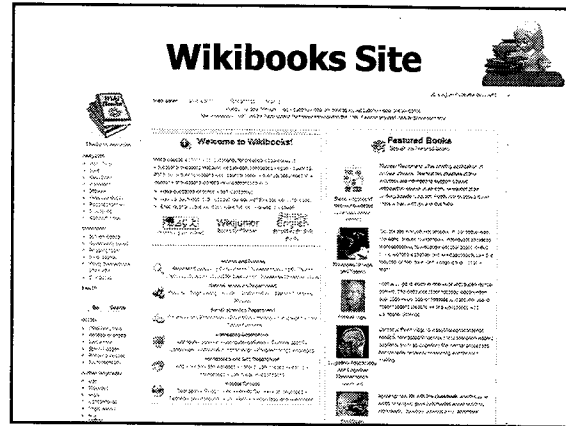
Wikibookian

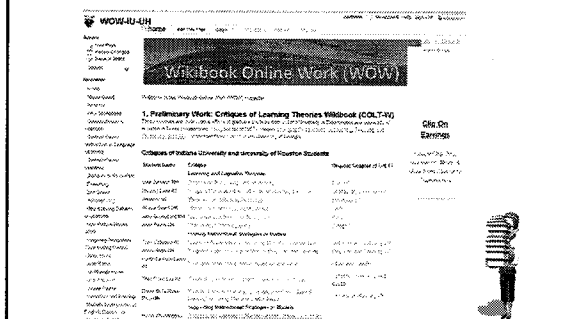A Wikibookian is someone who coordinates, edits, or contributes to a Wikibook project.
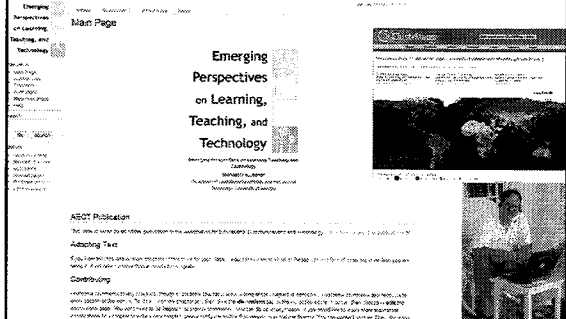

Think free. Learn free.

Wikibook #1 (Spring 2006): Sociocultural Aspects of Instructional Technology (Univ of Houston and Indiana University)

Wikibook #2: Fall 2007 Wikibook Online Work (WOW)

WOW Part 1: Critique a Wikibook on Learning Theory

WOW Part 1: Critique a Wikibook on Learning Theory

WOW Part 2: Edit a Wikibook on Learning Theory

WOW Part 2: Edit a Wikibook on Learning Theory

Part 3: Write a Wikibook (Wikibook #2 on the Practice of Learning Theories, Fall, 2007)

Part 3: Write a Wikibook (Wikibook #2 on the Practice of Learning Theories, Fall, 2007)

Wikibook #3 (Fall 2007): The Web 2.0 and Emerging Learning Technologies (The WELT)

Five Themes or Key Areas of Tension in Wikibook Development

1. Instruction
2. Collaboration
3. Wikibook
4. Constructivism and Sense of Community
5. Technology

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1. Instructional Issues

a. Status (part-time or full-time), backgrounds, expectations
b. Student control over posting
c. Coordinating peer interaction
d. The degree of scaffolding/structure
e. Timing of collab, feedback, interaction
f. Coordinating schedules across institutions
g. What is learning? How assess it?
h. Instructor control and risk taking
i. Reusability of wikibook
j. Meta-reflection about wikibook principles
k. Motivational techniques

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1. Instructional Issues: 1d. Degree of Structure and Task Structuring Important

Guidelines and instructional supports helped me think critically about my Wikibook project

- Strong Disagree
- Disagree
- Undecided
- Agree
- Strong Agree

13.6%
50.0%

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1. Instructional Issues: 1d. Degree of Structure and Task Structuring Important

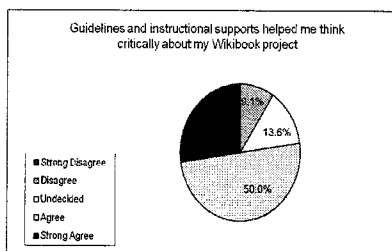"Provide sufficient online support. For instance, I tried stay online more than 6-8 hours a day, in order to chat with my students via MSN, or provide instant feedbacks to their emails or online discussions." (Taiwanese instructor)

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1. Instructional Issues: 1d. Degree of Structure and Task Structuring Important

"Students followed the schedule and completed their projects on time. Students discussed their chapter outlines in class and when their first drafts were done, students did peer critiquing to help improve each other's chapter writing. Students liked those class activities because they learned from other students' presentations and class discussion on how to improve their chapters." (Indiana State instructor)

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1. Instructional Issues: 1e. Timing of collaboration, feedback, interaction

"Extend the "edits and comments" weeks. I believe edits a valuable part of this project, however, unfortunately, my students had only a few days responding to others' chapters, and they had to rush into another class assignments during their finals." (Taiwanese instructor)

Instructional Issues: 1h. Control Over Learning and Risk Taking (The WELT)

Wikibooks represent a significant change from traditional lecture-based teaching approaches

3.0% 3.0%

66.7%

- Strong Disagree
- Disagree
- Undecided
- Agree
- Strong Agree
- No Response
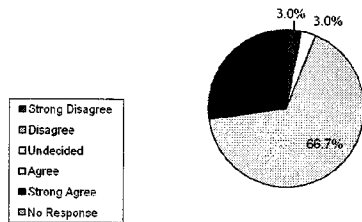
1. Instructional Issues: 1h. Motivational techniques

"The certification activity cheered them up at the end of the semester." (Indiana State instructor)

"I have received your package containing the certificates, books and gifts about two weeks ago. I have signed my name on the certificates and given them to students. They were surprised but very happy to receive the beautiful certificates. It was a valuable and new learning experience for them, although they felt quite difficult because of the language requirement. Anyway, I am very proud of them to finish this project, and thank you for offering such a wonderful learning activity for my students." (Taiwanese instructor)
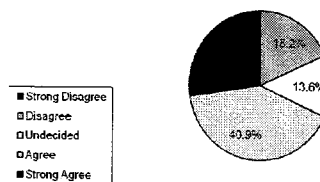
2. Collaboration Issues

a. Students' perceptions of cross-institutional collaboration
b. Perspective taking
c. Instructor collaboration and feedback
d. Language skills
e. Other constraints (e.g., time, partner selection, etc.)

2. Collaboration Issues: a. Student Perceptions of Cross-Institutional Collaboration (The POLT)

The Wikibook project promoted communication within and across institutions.

18.2%

13.6%

40.9%

- Strong Disagree
- Disagree
- Undecided
- Agree
- Strong Agree

2. Collaboration Issues: a. Language Issues

"Some cultural issues and unequal collaborations – Asian students usually are shy of expressing themselves in the public. Besides, because of their language barriers, I observed some of my students tended to agree on what their American peers had commented, especially with those master students of limited English competencies." (Taiwanese instructor)

2. Collaboration Issues: a. Perspective Taking (The POLT)

The Wikibook project encouraged learners to see multiple perspectives

4.5%

13.6% 4.5%

50.0%

- Strong Disagree
- Disagree
- Undecided
- Agree
- Strong Agree
- No Response
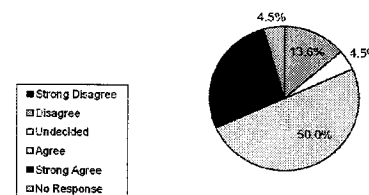
3. Wikibook Issues

a. Rules and procedures
b. Copyright
c. Choice of topics
d. Editing control

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3. Wikibook Issues:
a. Rules and Procedures

"Prepare students, such as providing a brief orientation of the features of wikibook and sufficient readings on collaborative writing. Students need to be well-informed that their writings will be read and edited by any authors in the public area."(Taiwanese instructor)

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3. Wikibook Issues:
b. Copyright

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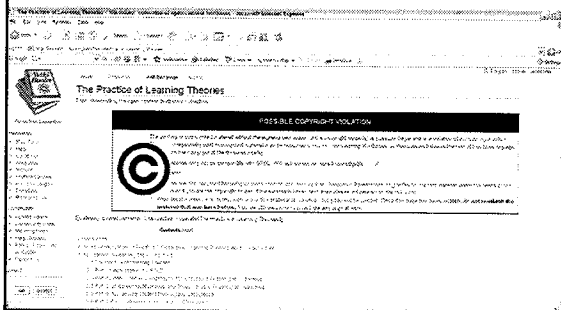
3. Wikibook Issues: c. Choice of Topics (here instructor selected topic for students)

"(1)   As for the concept of "PLE", most student can not make connection to their practice , most of us get the concept is from literature, not from practice. They can not deeply feel the exist of PLE from their practice.
(2)   Even from literature, it mainly from English literature ,not from Chinese literature, so what the student can do in this chapter PLE, is in the level of just listing the literature material , while can not give some owner point of view of PLE , the real reason is lack deep practice." (Chinese instructor)

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4. Knowledge Construction and Sense of Community Issues

a. Acceptance of knowledge construction
b. Communities in bounded courses
c. Community building tactics

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4. Knowledge Construction and Sense of Community Issues: a. Acceptance of Knowledge Construction

My name is...a Chinese student. I major in education technology and study social network in Miss W's class in Beijing Normal University. In her class I know your wiki program. Before this , I have never written wiki, just use it to look for some useful information for me. At the beginning I was a little fear, I was afraid of making mistakes. But with the writing of wiki, I understand that I was wrong. The more you write, the more you get, wiki is not so hard as I thought. From this program, I see the power of the masses, and I know that everyone can write, everyone can join, everyone can contribute their own strength. Thank you for your program, from this I learn more and make more friends. Thank you! (Chinese student)

4. Knowledge Construction and Sense of Community Issues: a. Acceptance of Knowledge Construction

"I really enjoyed the Wikibook project. It allowed for a certain amount of autonomy that was measurable. I particularly enjoyed how we could edit each others' works. I think these types of open systems are beneficial because our class was creating this wonderful collection of knowledge and data that was fluid and constant in our quest to be accurate...I also enjoyed how we were able to collaborate and provide instant feedback to our classmates that were apart of creating our Wikibook." (Indiana student)

4. Knowledge Construction and Sense of Community Issues: a. Acceptance of Knowledge Construction

"1) some students did not like other people's editing. They believed that their writing was better; and 2) they were not very happy when their names were removed from the site. They spent time on the project and would like to see their names with their chapters." (Indiana State instructor)

4. Knowledge Construction and Sense of Community Issues: c. Community Building Tactics (videoconferencing between sites)
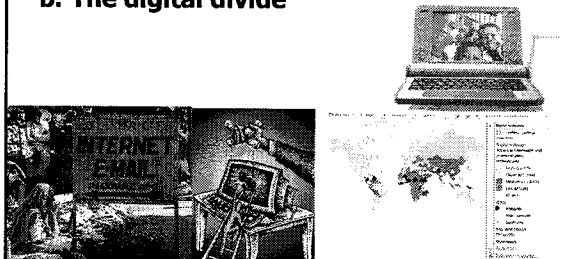

4. Knowledge Construction and Sense of Community: c. Community Building Tactics (The POLT)

I have enjoyed being a member of the Wikibook learning community

4.5%
13.6%
31.8%

- Strong Disagree
- Disagree
- Undecided
- Agree
- Strong Agree
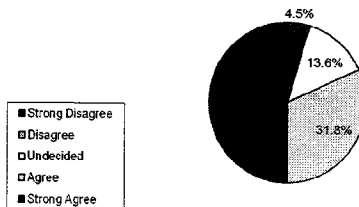
5. Technology Issues

a. Use of multiple technologies
b. The digital divide

5. Technology Issues: a. The Digital Divide

"My students (though not that active) seemingly asked questions about unable to access the Wiki though they had password. So I'm really not sure here, what the issue was." (Open University of Malaysia instructor)

Sometimes Chinese students had to use proxy server.

20 Tensions of Cross-Institutional Wikibooks and Suggestions

Sample Tensions
1. Experimentation vs. impact
2. Global ed impt vs. time
3. New benefits of tech and wikis vs. frustrations
4. Open ended vs. guided learning
5. Inclusive projects vs. realities of schedules
6. Intrinsically valuable vs. external rewards

Ideas and Suggestions
- Modeling, archive prior work
- Plan, check calendars
- Test Technologies, ask students what they use
- More participants, more open-ended
- Check schedules, get written commitments
- Experiment with rewards; more participants > interaction

20 Tensions of Cross-Institutional Wikibooks and Suggestions

Sample Tensions
7. How is learning assessed vs. excited by wikibook product & process
8. Constructivist ideals vs. receptive learning expect
9. Transformative learning vs. bounded courses
10. Individual owns text vs. group owns
11. Instructor vs. student control

Ideas and Suggestions
- Be clear on assessment policy, note exemplary work
- Scaffold students thru editing process, have reflect on learning
- Hold class discussion on transformative learning
- Assign students to edit Wikipedia page
- Create blogs or reflection journals on this issue

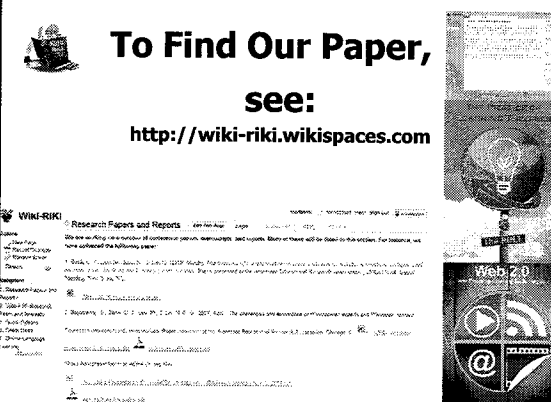## Project Limitations

1. Data still being collected and analyzed.
2. Many variations of wikibook collaborations possible.
   a. One change could significantly impact our results.
3. Overview of 3 projects as opposed to in-depth analyses of one or more of them.
4. Survey data limited to a few classes.

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