

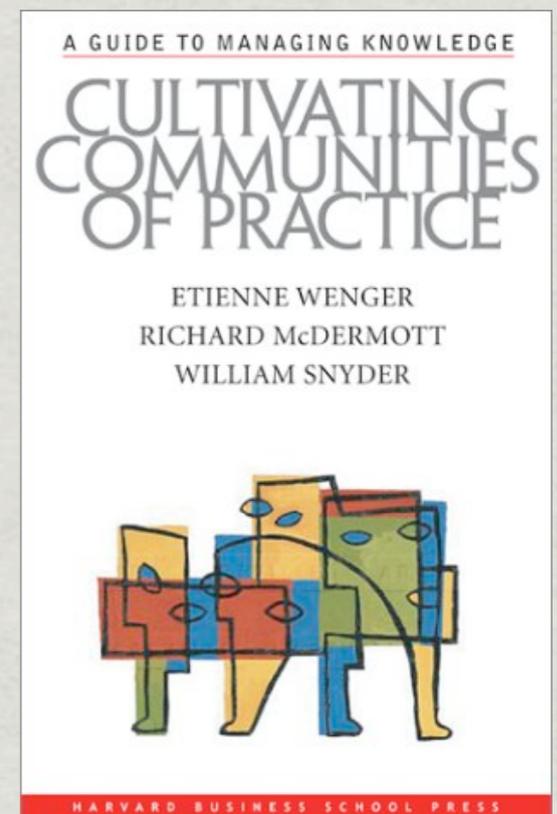
Structuring online discourse to transform teacher professional development

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December 9, 2008

* Seven Principles for Cultivating Communities:

- * 1. Design for evolution
- * 2. Open a dialogue between inside and outside perspectives
- * 3. Invite different levels of participation
- * 4. Develop both public and private community spaces
- * 5. Focus on Value
- * 6. Combine Familiarity and excitement
- * 7. Create a rhythm for the community



WENGER, E., MCDERMOTT, R. A., & SNYDER, W. (2002). *CULTIVATING COMMUNITIES OF PRACTICE : A GUIDE TO MANAGING KNOWLEDGE*. BOSTON: HARVARD BUSINESS SCHOOL PRESS.



HAWAII COMMUNITY FOUNDATION

Schools of the Future

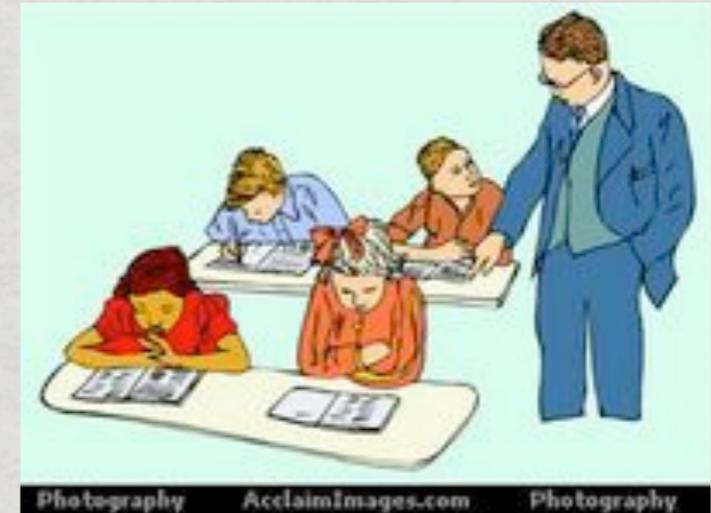
- * The Schools of the Future initiative has been designed in partnership with the Hawaii Association of Independent Schools (HAIS) and in consultation with technology experts and educators from schools across Hawai'i.
- * The purpose of this initiative is to support schools to develop more effective uses of advanced technology tools in support of student-centered and project-based learning.
- * Schools participating in this initiative will be asked to participate in the creation of a professional learning community with numerous opportunities to share what they are learning with each other.
- * Learning will take place virtually, through peer exchanges, site visits and face-to-face meetings.

Literature Review

- * teacher professional growth through social interaction
- * studies on electronic communities and how they build professional dialogue
- * how Web 2.0 tools have created more powerful ways to communicate,
- * the emerging use of video as a tool for professional views into classroom practice
- * summary of some meta-studies that indicate the power of these experiences
- * design characteristics that best support community knowledge building in an online forum.



Teachers and Social Interaction



- * teachers hear ideas, but seldom implement

- * Brown, K. (2004). Technology: Building interaction. *TechTrends: Linking Research & Practice to Improve Learning*, 48(5), 36-38.

- * teachers need time for reflection, interaction, adjusting

- * Chalmers, L., & Keown, P. (2006). Communities of practice and professional development. *International Journal of Lifelong Education*, 25(2), 139-156.

- * teachers learn from reflecting on experience

- * Posner. (2005). *Field experiences: A guide to reflective teaching* (6th ed.). New York: Allyn and Bacon.

Electronic Communities

* Online teachers exhibit collaboration

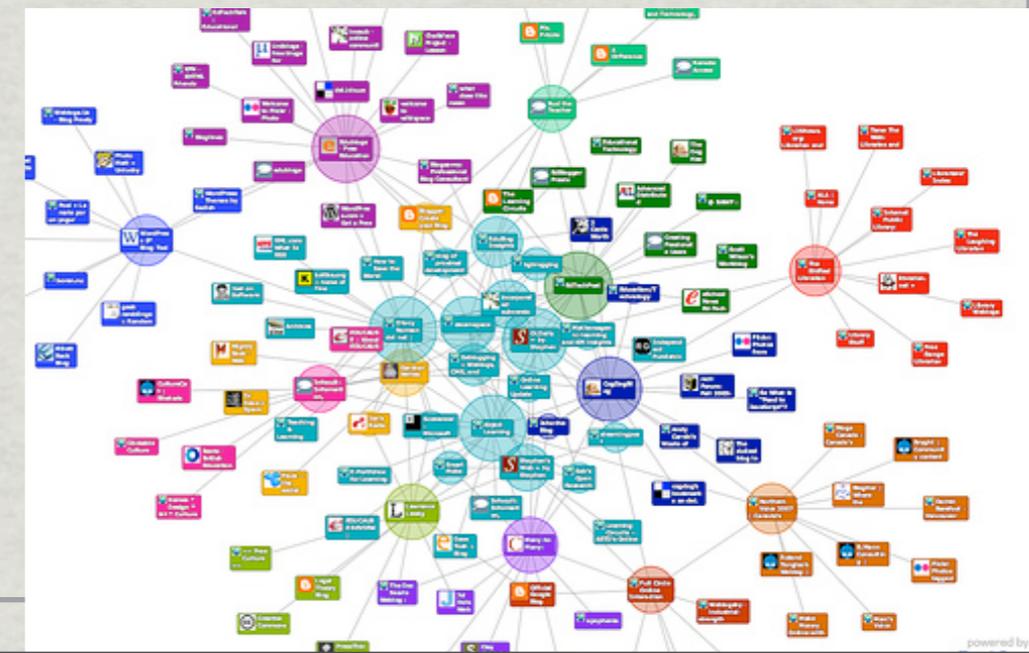
- * Davis, N. E., & Roblyer, M. D. (2005). Preparing teachers for the "Schools That Technology Built": Evaluation of a program to train teachers for virtual schooling. *Journal of Research on Technology in Education*, 37(4), 399-409.

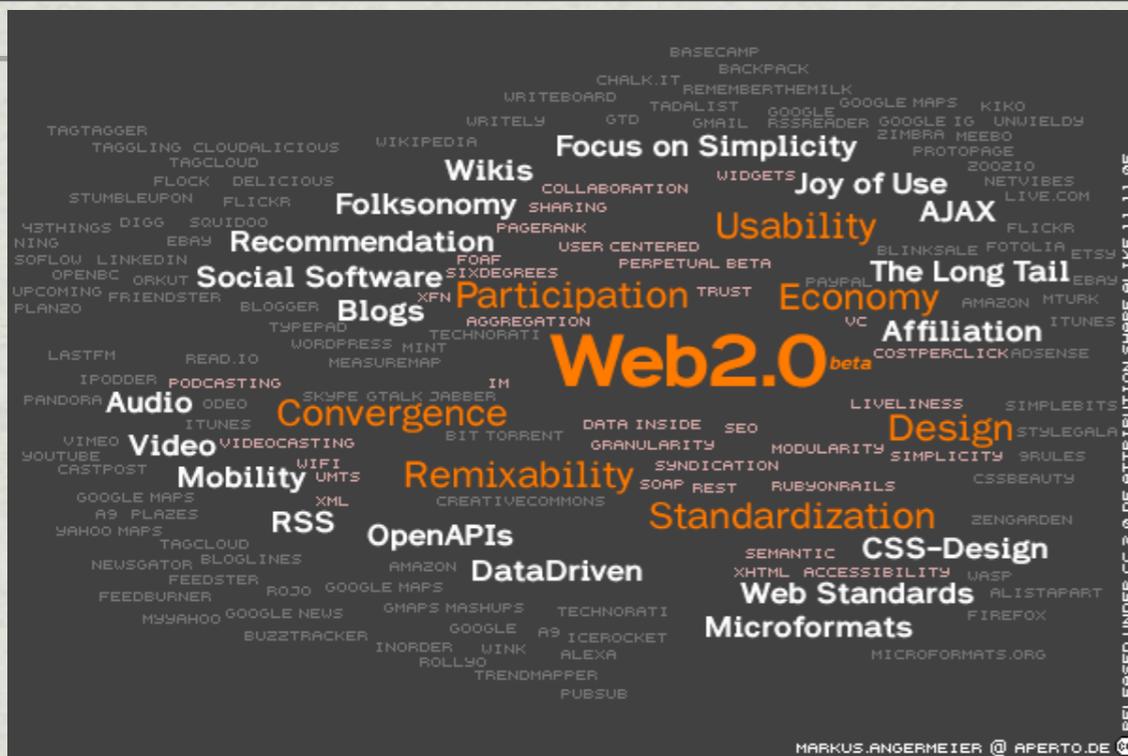
* early studies on list-serves positive

- * Gillespie, K. H. (1998). Using technology in faculty development: Practical examples. *New Directions for Teaching & Learning*(76), 79.

* Assimilation of tools happens as teachers exposed

- * Carneiro, R. (2006). Motivating school teachers to learn: Can ICT add value? *European Journal of Education*, 41(3/4), 415-435.





Emergence of Web 2.0

* CMS design still lags behind open technology

- * Du, H. S., & Wagner, C. (2007). Learning with weblogs: Enhancing cognitive and social knowledge construction. *IEEE TRANSACTIONS ON PROFESSIONAL COMMUNICATION*, 50(1), 1-16.

* Blogs have power to create interactivity

Tapscott, D., & Williams, A. D. (2006). *Wikinomics : how mass collaboration changes everything*. New York: Portfolio.

* mediation is the key to deeper thinking

- * Lavonen, J., Lattu, M., Juuti, K., & Meisalo, V. (2006). Strategy-based development of teacher educators' ICT competence through a co-operative staff development project. *European Journal of Teacher Education*, 29(2), 241-265.

Video as a window into class



* lesson study

- * Stigler, J. W., & Hiebert, J. (1999). *The teaching gap : best ideas from the world's teachers for improving education in the classroom*. New York: Free Press.

* Emerging Studies

- * Nelson, T. H., Slavit, D., Perkins, M., & Hathorn, T. O. M. (Writer) (2008). A Culture of Collaborative Inquiry: Learning to Develop and Support Professional Learning Communities [Article], *Teachers College Record*.
- * Rich, P., & Hannafin, M. (Writer) (2008). Capturing and assessing evidence of student teacher inquiry: A case study [Article], *Teaching & Teacher Education*.
- * Borko, H., Jacobs, J., Eiteljorg, E., & Pittman, M. E. (Writer) (2008). Video as a tool for fostering productive discussions in mathematics professional development [Article], *Teaching & Teacher Education*.
- * L. Rosaen, C., Lundeberg, M., Cooper, M., Fritzen, A., & Terpstra, M. (Writer) (2008). Noticing Noticing: How Does Investigation of Video Records Change How Teachers Reflect on Their Experiences? [Article], *Journal of Teacher Education*.

Online Professional Communities of Practice

- ✱ Seven Principles for Cultivating Communities:
 - ✱ 1. Design for evolution
 - ✱ 2. Open a dialogue between inside and outside perspectives
 - ✱ 3. Invite different levels of participation
 - ✱ 4. Develop both public and private community spaces
 - ✱ 5. Focus on Value
 - ✱ 6. Combine Familiarity and excitement
 - ✱ 7. Create a rhythm for the community

✱ Wenger, E., McDermott, R. A., & Snyder, W. (2002). *Cultivating communities of practice : a guide to managing knowledge*. Boston: Harvard Business School Press.

Research Questions

- * How does community building and social interaction affect teacher flexibility and willingness to address change?
- * How do online professional learning communities act as a vehicle to promote greater social interaction in teachers?

Research Questions

- * Does involvement with emerging social networking tools and strategies lend itself to implementation in the classroom by teachers exposed to it?
- * Does involvement with an inter-school social network create more interaction and partnerships between stakeholders in different schools?



Methodology

- ✦ The qualitative research tradition provides and opportunity to investigate not just **if** professional knowledge growth is taking place, but just as importantly **how** it is taking place.
- ✦ Social Learning Theory - based on constructivist work by Vygotsky and Wenger amongst others

Methodology

Experimental Design

- ✱ Main Data collection: Online discourse and Video submissions
- ✱ Triangulate with interviews and surveys

Code		Description	Example
Main	Sub		
TC	G	All statements with (a) a choice with no reference to time, the group or individuals; (b) coordination, but time nor activity, is indicated; (c) asking for a reaction but the object is unclear; (d) request a life sign from group members; (e) information on contextual factors that affects individual contributions to group work.	Why is nobody responding? Please give your ideas.
TC	TU	All types of statements regarding coordination in time, where time is indicated unspecifically.	I will be in touch again soon.
TC	TS	All types of statements regarding coordination in time, where time is indicated specifically.	I will be on holiday from June 8 until June 26.
TC	AU	All types of statements regarding coordination on activity, where the activity is (to be or was) performed by the group.	Who will make an inventory of all pressure groups involved?
TC	AS	All types of statements regarding coordination on activities or division of activities, where is indicated specifically who will perform that activity (i.e., by persons or by a (sub) group).	As far as I know, John Doe will perform the PERS analysis.
TC	TAU	All types of statements regarding coordination in time and activities or division of activities, where either time, division or both are indicated unspecifically.	I would like to know who will send me their comments on our report before Wednesday.
TC	TAS	All types of statements regarding coordination in time and activities or division of activities, where time and division are both indicated specifically.	As agreed I expect that John Doe will send the analysis on Thursday.
TN	G	All types of statements that concern the general goal, or assessment criteria regarding the group assignment.	The assignment is about the public transport in Amsterdam.
TN	S	All types of statements that concern the content of the task (i.e., analysis of a policy problem) such as questions, comments, requests, providing information, information sources, content issues, discussion of that content, and so forth.	I believe that we have a different opinion about the interpretation of the analysis.
TN	R	All statements that concern the layout, structure and revision of the policy report.	We should delete section two and check for typing errors in three.

Methodology

Data Analysis Approach

* Discourse Analysis

- * De Wever, B., Schellens, T., Valcke, M., & Van Keer, H. (2006). Content analysis schemes to analyze transcripts of online asynchronous discussion groups: A review. *Computers & Education, 46*(1), 6-28.
- * Garrison, D. R., & Cleveland-Innes, M. (2005). Facilitating Cognitive Presence in Online Learning: Interaction Is Not Enough. *American Journal of Distance Education, 19*, 133-148.
- * Gunawardena, C., Ortegano-Layne, L., Carabajal, K., Frechette, C., Lindemann, K., & Jennings, B. (2006). New Model, New Strategies: Instructional design for building online wisdom communities. *Distance Education, 27*, 217-232.
- * Schrire, S. (2006). Knowledge building in asynchronous discussion groups: Going beyond quantitative analysis. *Computers & Education, 46*(1), 49-70.
- * Thomson, R., Reeves-Lipscombe, D., Stuckey, B., & Mentis, M. (2008). Discourse Analysis and Role Adoption in a Community of Practice. Unpublished Manuscript.



Discourse analysis

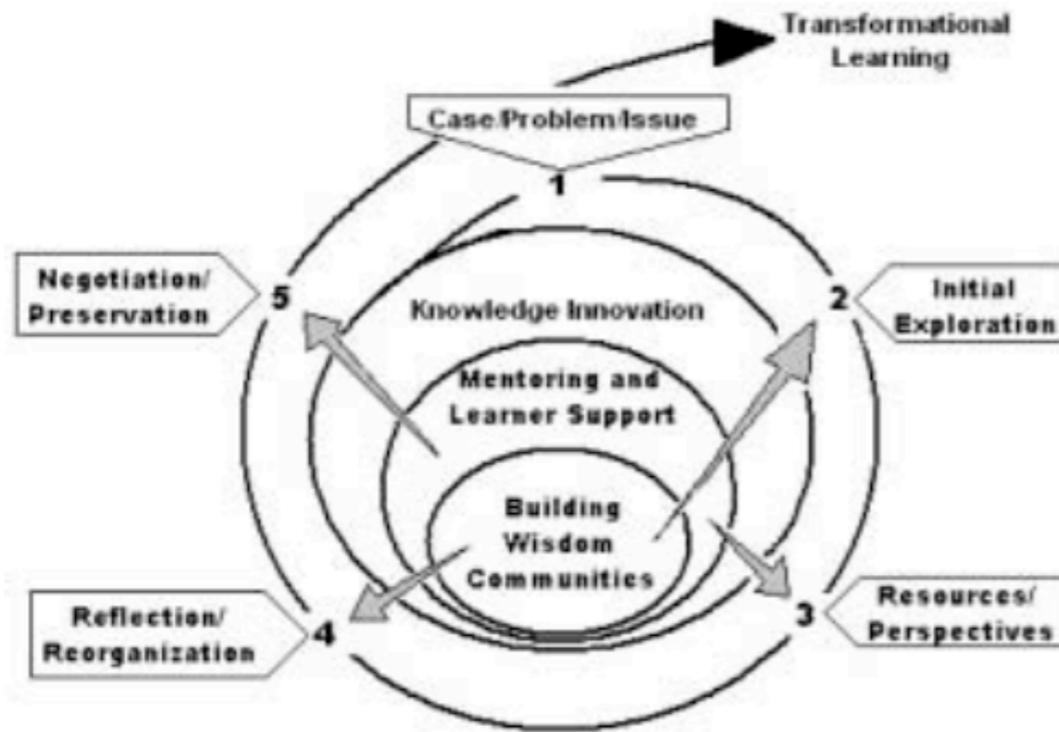
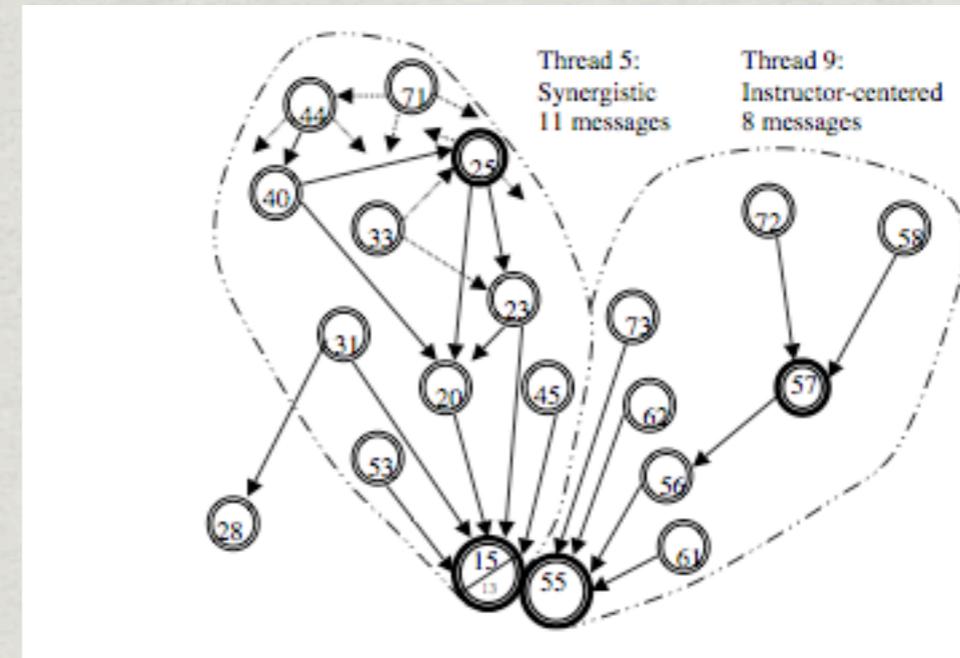


Figure 1. WisCom *Cycle of Inquiry* module design



SCHRIRE, S. (2006). KNOWLEDGE BUILDING IN ASYNCHRONOUS DISCUSSION GROUPS: GOING BEYOND QUANTITATIVE ANALYSIS. *COMPUTERS & EDUCATION*, 46(1), 49-70.

GUNAWARDENA, C., ORTEGANO-LAYNE, L., CARABAJAL, K., FRECHETTE, C., LINDEMANN, K., & JENNINGS, B. (2006). NEW MODEL, NEW STRATEGIES: INSTRUCTIONAL DESIGN FOR BUILDING ONLINE WISDOM COMMUNITIES. *DISTANCE EDUCATION*, 27, 217-232.

Table 1
Community of inquiry coding scheme

Elements	Categories	Indicators (examples only)
Cognitive presence	Triggering event	Sense of puzzlement
	Exploration	Information exchange
	Integration	Connecting ideas
	Resolution	Apply new ideas
Social presence	Affective	Expressing emotions
	Open communication	Risk-free expression
	Group cohesion	Encouraging collaboration
Teaching presence	Design and organization	Setting curriculum and methods
	Facilitating discourse	Sharing personal meaning
	Direct instruction	Focusing discussion

GARRISON, D. R., CLEVELAND-INNES, M., KOOLE, M., & KAPPELMAN, J. (2006). REVISITING METHODOLOGICAL ISSUES IN TRANSCRIPT ANALYSIS: NEGOTIATED CODING AND RELIABILITY. *THE INTERNET AND HIGHER EDUCATION*, 9(1), 1-8.

Slides at:

*<http://mhines.edublogs.org>