International Seminar e-Learning Around the World: Achievements, Challenges and Broken Promises

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Getting The Mix Right

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Values

- We can (and must) continuously improve the quality, effectiveness, appeal, cost and time efficiency of the learning experience.
- Student control and freedom is integral to 21st century life-long education and learning.
- Continuing education opportunity is a basic human right.



Drivers for Change

- New demands of knowledge society
- New expectations of students
- New Technology Opportunity

Same Institutional Models, Less public resources



Interaction

- Definition (Wagner, 1994, p. 8)
- "reciprocal events that require at least two objects and two actions. Interactions occur when these objects and events mutually influence each other."





- "More than anything else, being an educated person means being able to see connections that allow one to make sense of the world and act within it in creative ways." (Cronon, 1998)
- "Learning may reside in non-human appliances" George Siemens – Connectivism

Cronon, W. (1998). "Only Connect": The goals of a liberal education. *The American Scholar,* 67(4). http://www.williamcronon.net/writing/Cronon_Only_Connect.pdf. 6

"Three Types of Interaction" model (Moore, 1989)

- Learner-Content
- Learner-Instructor
- Learner-Learner



MOORE, M. (1989). Editorial: Three types of interaction. *The American Journal of Distance Education*, *3*(2), 1-7.

"Modes of Interaction" model Anderson and Garrison (1998)



Anderson, T., & Garrison, R. (1998). Learning in a networked world: New roles and responsibilities. In C. Gibson (Ed.), Distance learners in higher education (pp. 97–112). Madison, WI: Atwood Publishing.

Daniel, J., & Marquis, C. (1977). Interaction and independence: Getting the mixture right. *Teaching at a Distance*, 14, 29–44.



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October - 2003

Getting the Mix Right Again: An updated and theoretical rationale for interaction

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No topic raises more contentious debate among educators than the role of interaction as a crucial component of the education process. This debate is fueled by surface problems of definition and vested interests of professional educators, but is more deeply marked by epistemological assumptions relative to the role of humans and human interaction in education and learning. The seminal article by Daniel and Marquis (1979) challenged distance educators to get the mixture right between independent study and interactive learning strategies and activities. They quite rightly pointed out that these two primary forms of education have differing economic, pedagogical, and social characteristics, and that we are unlikely to find a "perfect" mix that meets all learner and institutional needs across all curricula and content. Nonetheless, hard decisions have to be made.

Even more than in 1979, the development of newer, cost effective technologies and the nearly ubiquitous (in developed countries) Net-based telecommunications system is transforming, at least, the cost and access implications of getting the mix right. Further, developments in social cognitive based learning theories are providing increased evidence of the importance of collaborative activity as a component of all forms of education – including those delivered at a distance. Finally, the context in which distance education is developed and delivered is changing in response to the capacity of the semantic Web (Berners-Lee, 1999) to support interaction, not only amongst humans, but also between and among autonomous agents and human beings.

Thus, the landscape and challenges of "getting the mix right" have not lessened in the past 25 years, and, in fact, have become even more complicated. This paper attempts to provide a theoretical rationale and guide for instructional designers and teachers interested in developing distance education systems that are both effective and efficient in meeting diverse student learning needs.



Anderson, T. (2003). Getting the mix right again: An updated and theoretical rationale for interaction. *The International Review of Research in Open and Distance Learning*, 4(2)

The EQuiv

- Thesis 1. Deep and meaningful formal learning is supported as long as one of the three forms of interaction (student-teacher; student-student; student-content) is at a high level. The other two may be offered at minimal levels, or even eliminated, without degrading the educational experience.
- Thesis 2. High levels of more than one of these three modes will likely provide a more satisfying educational experience, although these experiences may not be as cost- or time-effective as less interactive learning sequences.



Interaction design...



Student-Content Student-Teacher Student-Student

(Miyazoe & Anderson)

EQuiv Visualization



If it is at a high level and quality, it will suffice for effective learning.

Thesis 2: Quantity



Increased interaction leads to higher satisfaction, but is it

costly and time efficient?

Cost/Time issues



= 1 block dollar

Cost/Time issues

*SC: Student-Content, ST: Student-Teacher, SS: Student-Student

3\$s

6\$s

7\$s



MOOCs

Classroom Model



EQuiv in OER and informal learning



= 1 block dollar



= 1 clock dollar

EQuiv in OER and informal learning



External vectors of mega-universities



Modes of Interaction in OERs and Informal Learning Era



Tutors, Co-Workers, Subject experts, Teachers, relatives, mentors Meetups, online communities, Immersive worlds, P2P, Col.work groups



Tutors, Co-Workers, Subject experts, Teachers, relatives, mentors Classrooms, Meetups, online communities, Immersive worlds, P2P, Col.work groups



The Interaction Equivalency (EQuiv) Website

The Equivalency Theorem information sharing space



Home

This website is designed to share information on the <u>Interaction Equivalency Theorem</u> posited by Terry Anderson (2003).

In a nutshell the theory posits that if any one of student-student, student-teacher or student-content interaction is of a high quality, the other two can be reduced or even elliminated without impairing the learning experience-thus creating means of developing and delivering education that is cost affordable for all of us.

CC NC SA

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The Interaction Equivalency (EQuiv) Website

Proudly powered by WordPress.

"Only connect! That was the whole of her sermon.

- Only connect the prose and the passion, and both will be exalted,
- And human love will be seen at its height. Live in fragments no longer. Only connect..."

• --E.M. Forster, (1910) Howards End

Thank you for listening! For questions/suggestions: <u>terrya@athabascau.ca</u> <u>t.miyazoe@mail.dendai.ac.jp</u>

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