

JOHN SEELEY BROWN (JSB) PRESENTATION

“Learning in the Digital Age (21<sup>st</sup> Century):

Catalyzing Creativity by Artful Making &

by Honoring the Vernacular of Today’s Students”

(18 January 2005)

I. Some challenges:

1. Today’s digitally experienced students have a different vernacular and learn differently (than ...? Us? Than in the past? Than digitally inexperienced people?)
2. Education is more important and costly yet the public is less willing to invest in it
3. Institutions of higher learning need to be learning institutions (evolutionary), yet institutional change is very difficult

II. Emerging expectations:

1. Experiential
2. Interactive
3. Visual
4. Collaborative
5. Social life seamless with academic life
6. Early engagement in research

III. Emerging needs

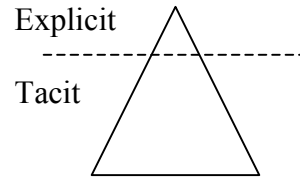
1. Systemic thinking
2. Career trajectories (vs. a career)
3. Multiple ways of knowing—interdisciplinary skills (to listen with humility)
4. Judgment (beyond Google)
5. How to make a difference—social entrepreneurialism
6. Communication and collaboration skills (the ability to communicate complexity in simple ways)

IV. The architecture studio:

1. An *atelier* form of learning (a powerful social learning environment)
2. Work in progress is made public to all the other students
3. Work is publicly critiqued in a context of having seen the work throughout its construction, embedded in a thicker description of the *process*
4. Learning as enculturation into a practice (learning the sensibilities of thinking like an architect)
5. Moving seamlessly between lecture, experiment, & discussion and addressing the drop out rate

V. Dimensions of knowledge (Polanyi):

1. Learning about/explicit/content
2. Learning to be/tacit/procedural
3. Every “piece” of knowledge has both facets
4. Robustness and adaptability is generated from the situated roots
5. Enculturating into a practice: sensibility, what constitutes an answer, what is an interesting problem—an elegant solution, etc.)
6. Learning to be connected through the doing rather than “knowing” is perhaps a definition of the achievement of spirituality



VI. The open source movement as exemplar of apprenticeship:

1. Writing code to be read
2. Engagement through useful additions
3. Social capital matters
4. Cognitive collective situated apprenticeship learning in a community of practice
5. The coin of the realm is social capital as useful practice; what have you contributed to the community
6. As capital appreciates, the student’s identity appreciates
7. Open system (e.g., open community discussion)

VII. Classrooms with students IM’ing and Googling:

1. Teacher more of an entertainer, and/or
2. Teacher becomes more of an orchestrator and Socratic challenger
3. An important 21<sup>st</sup> century skill will be media literacy in the form of thinking critically about what is on the internet
4. Recontextualizing the role of the teacher as a mentor to critical thinking
5. This is simple and cost-effective because it relies on a free resource—the www

VIII. Web as a flexible and transformative learning technology: Honoring:

1. Multiple forms of intelligence
2. The vernacular of today’s student
3. Niche learning/doing communities
4. The rise of the amateur class
5. New media creates new genres
6. New genres alter new media

IX. Today’s kids: Moving beyond just twitch speed:

1. Multi-processing: email, IM, SMS chat room, cell phone, ripping music, watching video
2. Limited attention span—great peripheral processing but limited focused attention (i.e., attending vs. attuning)
3. Ability to “context-shift” is excellent (adaptability, subconscious peripheral awareness)
4. Video/computer gaming generation: “I don’t want to study Rome; I build Rome every day in my online community,” “It’s not ADD, I’m just not listening”

- X. Emerging vernacular: the challenge of fostering multi-media literacy rich, immersive media:
1. Screen language of cinema (cuts, montage, flashbacks)
  2. Screen language of interactivity, entrainment and persistence—game ecologies
  3. Navigation skills over the web
  4. how do we use image, text, media, & presentation to achieve multi-media literacy
  5. e.g., see the *Everquest* online environment; kids are learning leadership skills, networking skills, organizational skills, recruitment skills, persuasion skills, cultural adaptability skills (since these games know no cultural or national boundaries)
  6. Note: being exposed to new media is not the same as doing new media
  7. If you are educating students such that they know more about Hemingway than about Hitchcock, maybe you are not educating them
  8. Narrative, story-telling, use of visual space and image, self-reflection, in the process of constructing concepts
- XI. Evolving forms of literacy in the USC multimedia literacy program: The structure of visual arguments
1. Integrating a critical understanding of media through cinema and visual studies
  2. Hands on authorship by students, GTA's and faculty
  3. Being able to read and write in emerging forms of media
  4. Faculty must create multi-media projects, so that they can require their students to turn in a multi-media project/assignment
  5. e.g., story-boarding, community practice, visual argument, motivation to learn on their own, how to "hold an audience's attention,"
- XII. Some digital age shifts:
1. Text → **literacy** → text + image → **literacy** → information navigation
  2. Being told (authority based) → **learning** → discovery, experiential
  3. Deductive → **reasoning** → judgment + *bricolage* (lateral)
  4. Don't know, won't try → **action** → don't know link, lurk, & try
  5. Trust through triangulation—a new competency? A basis for democracy?
  6. Deconstruct multi-media messages and re-construct the semiotic principles underlying it
  7. When you "re-purpose" something (*bricolage*), it is yours, as you have found a way of judging it, evaluating its relevance to your life, and reconstructing it in situ
  8. e.g., the uselessness of a manual for the new generation, since they learn through tinkering, exploration, and focused (non-random) trial-and-error, and the process of tinkering enhances pattern recognition, social (open-source) software (e.g., Wiki-pedia)
- XIII. The "digital divide" is less between rich and poor, or those with and those without access to new media, but between today's gen-digital students and their gen-analog faculty



Selected Post-Presentation Group Discussion Points:

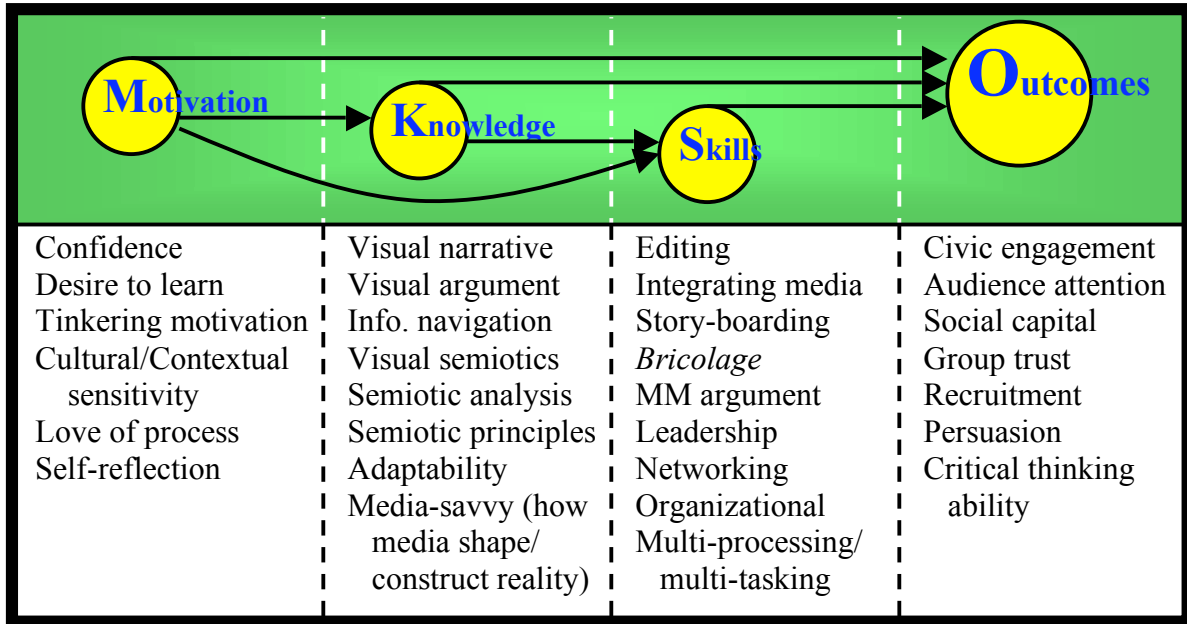
How should general education (specifically RWS 100 and COMM 103) be structured such that core media literacies are being integrated as part of a strategic approach? For Qualcomm, can some of this plan be available for start-up by the Fall? How can the curriculum architecture be changed so that what is learned in one course (and in the beginning, a 9-unit cluster) has comprehensible relationships to the larger architecture, such that it is immediately understandable what the key literacies are and how they interrelate.

- 9-unit cluster (communication and critical thinking, RWS 100 & 200, COMM 103)
- Steering Committee – Task Force – Advisory Committee structure for ICT

Action Steps:

- Conduct a large sample survey of students and faculty to ascertain what our population is currently doing in terms of multiple media. We need to know where we are in order to know where we need to go
- Deconstruct the Student Learning Outcomes (SLO's) of the current RWS and COMM 103 courses are, and intend to be, so that we have a frame of reference for where we are, what we are missing, and where we may need to go
- Immediate next steps for the task force: identify the learning outcomes of the current 9-unit competencies, analyze the learning outcomes identified as needed or the “new” Information and Critical Thinking competencies, and figure out an architecture for the curriculum that integrates and communicates these competencies through a more multi-media environment
  1. Themes/Content: (e.g., critical thinking about media constructionism & manipulation), SLO's (i.e., student learning outcomes), strategies (i.e., pedagogy), implementation, resources
  2. Actions/Strategies: how can current SLO's contribute to current GE curriculum?

An MKS (Spitzberg, 2000; Spitzberg & Cupach, 1984, 2002) reconceptualization of some of the new media literacy terms and concepts cited by JSB:



Matrix of Competencies by COMM 103 Assignments

Compe- As- signment	Oral Competency	Critical Thinking	Writing Competency	Group/Team Competency	New Media Competency
Extempora- neous Speech	✓				
Group Project Presentation	✓	✓	✓	✓	✓
Class Wiki		✓	✓	✓	✓
Blackboard/ Blogging			✓	✓	✓
Speech Outlining		✓	✓		
Exams		✓			

Miscellany

BS: Isolated Notions: Have ed-tech offer senior “academic internships” for working with faculty on a one-on-one basis to implement multi-media activities/assessments into their course(s).

BS: A Nascent Higher-Level Typology of Cognitive Media Competencies:

- **Media Appreciation:** Develop minimal comfort level with adopting new media and cross-adapting messages and media
- **Media Selection:** Understand the rhetorical (social, strategic, constructionist) implications of media (i.e., channels) selection for message transmission.
- **Message Content (Production/Design):** Understand the rhetorical (social, strategic, constructionist) implications of message content as it relates to its media of transmission.
- **Message Form (Aesthetics):** Understand rhetorical (social, strategic, constructionist) principles of aesthetic and analogic design (narrative argument, timing, form, etc.) as it relates to media of transmission.
- **Message Reception:** Understand rhetorical (social, strategic, constructionist) principles of audience segmentation and interpretation as it relates to media of transmission.

BS: A beginning heuristic for a “multiple ways of knowing” course?

- KNOWING WHERE WE’VE BEEN: History Of the Academy, University, Disciplines, Professions, etc.
- KNOWING WHERE WE ARE: Current Paradigms, Disciplines; Overview of “Ways of Knowing” (intuition, experience, culturally constructed knowledge—superstition-religion-stereotypes-etc., science, etc.)
- KNOWING WHAT WE (ALREADY) KNOW: Library & Web-Based Research, historical research, etc.
- DISCIPLINARY WAYS OF KNOWING: Discovery/Scientific paradigm (experiments, measurement, probability/inference, hypothesis testing/deduction, etc.)
- DISCIPLINARY WAYS OF KNOWING: Constructionist & Critical/Interpretive paradigms
- DISCIPLINARY WAYS OF KNOWING: Artistic-Visual-Narrative Aesthetic paradigms
- DISCIPLINARY WAYS OF KNOWING: Being Digital: The Medium Is The Message-Massage: The Analog (the visual “Ghost”) In The Digital (“Machine”)
- KNOWING HOW TO GET KNOWN: Publication Politics, Review Processes, & Intellectual Property
- KNOWING WHY WE SHOULDN’T KNOW EVERYTHING: Research and Publication Ethics, morality, & knowledge: plagiarism, IRB’s, etc.

BS: A preliminary suggestion of a multi-media assignment for COMM 103:

1. Overview: In addition to the other individual assignments, the *class* is assigned the requirement of producing a class “Communication Context Wisdom-Wiki.” The students select no fewer than X and no more than X “chapters” or units-within-chapters. Every student must
  - a. Include “major contributions” to no fewer than X chapters,
  - b. Be primary or co-author of a minimum of 1 chapter,
  - c. No “claim” can be made without a potential scholarly source as a reference,
  - d. No fewer than X edits and/or addenda to other chapters,
  - e. At least 1 powerpoint module with at least X slides X% of which must have at least X animations
2. This activity promotes literacies in multiple-media application, group dynamics of organization and leadership, and the “rhetoric” of media presentation
3. Exemplary holistic assessment criteria:
  - a. Integrated useful visual, audio, interactive content or links
  - b. Integrated scholarly research
  - c. Employed appropriate rhetorical construction (e.g., grammar, semantics)
  - d. Arguments (visual, narrative, logical, etc.) are sound/persuasive
  - e. Cross-fertilization valuable (i.e., contributed significantly to other chapters)
  - f. Originality (based on plagiarism or “Insite” cross-check?)
  - g. Relevance and value of examples/illustrations
4. For example, the class might decide to construct a wiki on interviewing, and thereby access the scholarly research interviewing, formulate the basic “topics” of their wiki, author these topics/units, and integrate the multi-media content of the units, and then present it as a finished product
5. Top-of-the-head notions:
  - a. A public speaking wiki would need speech video clips
  - b. Audio clips illustrating prosody, vocal tone, sarcasm, etc.
  - c. Video clips illustrating facial expressions, etc.
  - d. Clips from movies to illustrate interpersonal communication and relationship concepts
  - e. Etc.