

# The Medium is the Message: Implications for Teaching in Cyberspace

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My journey of learning how to use innovative technologies to build online learning environments began with a summer workshop. The workshop prompted me to search for answers to questions about the dialectic between pedagogy and information technologies. In my search for answers, a red flag appeared regarding the role of context to communicate meaning through online instruction. Review of the literature and discussions with fellow adult educators lead me to believe that the full implications of this subtle yet powerful tool to communicate meaning are not readily understood. Gundling (1999) describes context as the 'core intercultural issue when using communication technologies' (p. 30). Over three decades ago the renowned anthropologist, Dr. Edward Hall, coined the term 'contexting' to describe the perceptual and cognitive process of recognizing, giving significance to and incorporating contextual cues in order to interpret the meaning of a situation (Hall, 1983; see also 1966, 1977). Hall argues that information, context and meaning are bound together in a balanced, functional relationship. This paper attempts to provide some basic insight into this relationship.

## The Medium is the Message

People communicate through a variety of contextual mediums. This requires that we analyse the amount of contextual information needed to communicate meaning and select the appropriate instructional method that supports this contextual level. Table 1 illustrates the amount of contextual information afforded by different communication modes and identifies contextual mediums for communicating meaning: words, control over format, voice tone, immediate feedback, nonverbal cues (e.g. facial expressions and gestures), environmental cues (both social and physical), direct physical exchange (e.g., a handshake), and informal contact (e.g., incidental meeting in the hallway). Contextual mediums provide information about the learning environment at the conscious and subconscious level. These contextual mediums are cues that facilitate meaning so that the uses of the language can be understood (both verbal and nonverbal) along with the particular situation and circumstances (Hall, 1966, 1983; see also Heath, 1983; Schein, 1992; Weaver, 1986). The learning environment fails to communicate if the learner does not decode these cues.

**Table A: The context of various communications by E. Gundling (1999), cited in How to Communicate Globally, Training and Development, p. 30.**

|                |                   | DEGREE OF CONTEXT |                     |            |                    |                |                    |                      |                   |
|----------------|-------------------|-------------------|---------------------|------------|--------------------|----------------|--------------------|----------------------|-------------------|
|                |                   | Words             | Control Over Format | Voice Tone | Immediate Feedback | Nonverbal Cues | Environmental Cues | Direct Physical Cues | Informal Contacts |
| COMMUNICATIONS | Person-to-Person  |                   |                     |            |                    |                |                    |                      |                   |
|                | Videoconferencing |                   |                     |            |                    |                |                    |                      |                   |
|                | Phone             |                   |                     |            |                    |                |                    |                      |                   |
|                | Voicemail         |                   |                     |            |                    |                |                    |                      |                   |
|                | Fax and Groupware |                   |                     |            |                    |                |                    |                      |                   |
|                | Email             |                   |                     |            |                    |                |                    |                      |                   |

While I do not necessarily agree with how Table 1 represents different communication technologies in their entirety, I believe the table illustrates the many contextual mediums we use to communicate meaning. Person-to-person communication through in-classroom instruction provides the instructor and student with the highest degree of context for learning. Online instruction provides a very low contextual form of communication, which is why it cannot replace the person-to-person classroom environment. This is not to say that high context forms of communication are always better; rather, it is essential to select the communication mode most appropriate for the learning situation.

Misleading assertions about the role of context for learning frequently appear in arguments that online resources offer a greater contextual environment for learning than the in-classroom experience (see for example Gillespie, 1998; Kearsley & Shneiderman, 1998; Petraglia, 1998). These generalizations confuse the contextual role of information resources (e.g., the Internet and the World Wide Web) with the contextual level of instruction needed to communicate meaning. The question is not just the real world context that students have ready access to, but also, in what social and physical context is learning being delivered? Online communication is through the computer, which lacks the context of a person-to-person classroom experience. The vast amount of information offered online and the ease by which technology brings real world information into our classrooms are mind-boggling. Nevertheless, the contextual role of these information resources should not be confused with the contextual level of instruction needed to communicate meaning.

My workshop class discussed the power of contextual mediums to support or impede instruction. One of my classmates gave an example of technology problems with context to communicate meaning in an online course. She explained that two cyberspace student teams participated in a project, one team located in the Netherlands and one team located in the United States. Both teams communicated extensively through e-mail during project development. When the teams were asked, at completion, how often they talked to each other during the project, both teams responded that they never talked to each other during the project, but often had wanted to 'pick up the phone and just talk to each other.' Findings by

Crook and Webster (1999) provide further insight into communication experiences with e-mail. Their study revealed that contextual properties of e-mail poorly match practices of interaction for undergraduate learners.

Another classmate described to us a course he teaches on images of Jesus—complex, value-laden and evocative. Students are exposed to new ways of thinking about their values, which can be explosive. The instructor needs all the contextual mediums at his disposal to communicate meaning and provide a steady hand as students explore their values. This classmate reflected upon those times in his course that a hush comes over the classroom as students experience the ‘ah-ha’ of recognition when affective learning occurs. The instructor recognized that his subject matter requires a high contextual level of instruction to communicate the meaning of subjective knowledge—knowledge that is not absolute and is value-laden (see Rescher, 1977). Technology is better suited as a compliment to in-classroom instruction for his course.

## **The Efficacy of Technology to Communicate Meaning**

Technology does not make communication necessarily more efficient, even across international borders. Gundling (1999) argues that technology tools can be counterproductive in cross-cultural business environments. For example, an American firm installed videoconferencing facilities in its Thailand subsidiary. The firm believed that the new facilities would enable communication with other sites worldwide and would increase productivity of the Thai employees by eliminating the need for unnecessary travel to another location for meetings. The American firm soon discovered that the local managers were conducting the videoconference for the firm’s benefit and still travelling to the other location to have face-to-face meetings afterwards. The Thai managers explained that they wanted to be able to meet in person to gauge the reaction of others. Electronic delivery can approximate but not duplicate face-to-face interaction even when supported by two-way audio and video (see Wiesner, 1998).

The need for face-to-face interaction to communicate also can depend upon the particular situation and needs of the individual or group. Levi, cited in Smith & McCoy (1999), examined American worker perceptions of virtual offices, asking whether the physical space was relevant any longer. Findings determined that preferences for different communication modes used for receiving important organizational information reflected different group beliefs about management. Groups that trusted management wanted their information via e-mail or written. Groups that did not trust management preferred face-to-face interaction. Levi concluded that ‘creative and collaborative work can be supported by communication technologies, but the physical environment also is needed for building social relationships, providing training and support, and dealing with communication problems’ (p. 12). This finding emphasizes the need to understand the role of context to communicate meaning in all learning environments. The process of instructional design requires careful attention to the power and subtleties of contextual mediums to communicate meaning.

## **Some Final Thoughts**

My workshop experience left me with the feeling that I had left the hard ground and had entered a swampy terrain searching for answers with no absolutes and no fixed realities about the appropriateness of new technologies for all learning situations. Information technology is changing so rapidly that we are behind in developing pedagogy to guide our experiences with

technology. Gaver (1996) astutely points out that ‘new technologies seldom simply support old working practices with additional efficiency or flexibility. Instead they tend to undermine existing practices and to demand new ones’ (p. 112).

The growing army of competitors from public, virtual and commercial institutions are not bound by our pedagogy or traditions. As stewards of learning, we need to be asking the right questions, the difficult questions. I believe that one question we must not overlook is how meaning is communicated through online instruction. As teachers, we struggle with the same practical issues of how to ration our time to learn the new technologies, adopt new approaches to teaching and learning, keep up with all that is required of us in scholarship and service, and somehow make a difference in students’ lives and learning. Yet we need to preserve the essence of our valued traditions and still change. We owe this to our students and to ourselves who must live and learn in an electronic world.

## References

- Crook, C. & Webster, D.S. (1999). *Designing for Informal Undergraduate Computer Mediated Communication*.  
URL: <<http://www.cti.ac.uk/publ/actlea/al7pdf/crook.pdf>>.
- Gaver, W. (1996). *Situating Action III: Affordances for Interaction: The Social is Material for Design*. *Ecological Psychology*, 8, 111–130.
- Gillespie, F. (1998). *Instructional Design for the New Technologies*. In the Impact of Technology on faculty development, life, and work. New directions for teaching and learning no. 76. K.H. Gillespie (Ed.), pp. 39–52. San Francisco: Jossey-Bass.
- Gundling, E. (1999). *How to Communicate Globally*. *Training and Development*, (June), 28–31.
- Hall, E. T. (1966). *The Hidden Dimension*. New York: Doubleday.
- Hall, E.T. (1977). *Beyond Culture*. New York: Doubleday.
- Hall, E.T. (1983). *The Dance of Life: The Other dimension of time*. New York: Doubleday.
- Heath, S.B. (1983). *Ways with Words: Language, Life, and Work in Communities and Classrooms*. New York: The Press Syndicate of the University of Cambridge.
- Kearsley, G. & Schneiderman, B. (1998). Engagement theory: A framework for technology-based teaching and learning, *Educational Technology Research and Development*, 46 (3), 20–23.
- Petraglia, J. (1998). The real world on a short leash: The (mis)application of constructivism to the design of educational technology. *Educational Technology Research and Development*, 46, (3), 53–65.
- Rescher, N. (1977). *Methodological Pragmatism: A Systems-theoretic Approach to the Theory of Knowledge*. New York: New York University Press.
- Schein, E.H. (1992). *Corporate Culture and Leadership*. San Francisco: Jossey-Bass, Inc.
- Smith, P. & McCoy, J. (1999). Imaginative thinking needed: Where's the power of workplace design? *Design Research News*, 3, 12.
- Weaver, (1986). Understanding and coping with cross-cultural adjustment stress. In R.M. Paige (Ed.) *Cross-cultural Orientation: New Conceptualizations and Applications*. Lanham, MD: University Press of America.
- Wiesner, P. (1998). Web delivery of training and education for industry: Some thoughts. *Educational Technology & Society*, 1(1), 30–31.  
URL: <<http://ifets.ieee.org/periodical/issues.html>>.
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