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## Reflexivity and Arts Informatics

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**A**rts Informatics is a recently introduced cross-disciplinary program at the University of Sydney. Students in this undergraduate degree take a major in the Faculty of Arts, and a major in Information Systems in the Department of Information Science in the Faculty of Science. This paper reports on the pedagogical and theoretical questions we are facing in building this program. As an academic unit operating as the intermediary between two faculties, we are the articulation point between two different academic worlds. Our approach is to read the Humanities as (cultural) technologies, and to unpack the humanity (and social construction) of information systems.

The Humanities has always been technological, even if that hasn't always been acknowledged. Arts Informatics draws heavily from the parts of the humanities tradition that do address these questions, from Plato's famous critique of writing, to Derrida's deconstruction and Marshall McLuhan's Gutenberg galaxy. The recent literature in new media studies directly addresses the implications of computers for knowledge and cultural practices (Manovich; Barret and Redmond; Everett and Caldwell; Wardrupp-Fruin and Montford).

In the other direction, social studies of technology offer the Arts Informatics program resources to analyse the ways that information technologies are embedded in wider cultural and societal processes. Actor network theory's adaptation of post-structural semiotics to technological change is particularly useful in offering a symmetrical approach to the human and non-human components in sociotechnical assemblages.

One of our central themes is the question of reflexivity. Anywhere computer technologies participate in traditional humanities practices (research, interpretation, textual production, communication, teaching), necessarily means qualitative transformations in that practice. The day-to-day materiality of work itself changes. Knowledge is acquired, handled, produced and communicated in different ways. As Michael Heim's analysis of word processing (1987, 1993) shows, computers are an additional component in daily practices, not simply a potentially intelligent opponent. While some of the claims behind the avante-garde experiments of 1990s hypertext theorists (Landow) seem somewhat overblown, the growing role of the Internet in everyday teaching, publishing and research over the past decade is incontrovertible.

Of course this recent experience of technocultural change is not exclusive to Humanities scholars and students. Our students have recent experience with the web, electronic mail, multiplayer computer games, DVD, SMS, digital television, and new cinematic paradigms. Their familiarity with such developments equips them to begin to understand the interweaving of technological and cultural transformations.

Students are not as well equipped to deal with the cultural differences between computer science and the humanities. The Humanities critiques of science and technology (Heidegger; Virilio; Coyne) are difficult to reconcile with scientific conceptions of humanities practices (Holtzman). Each of these areas places quite different, and often directly conflicting discourses, techniques and systems of value. It is important to acknowledge and investigate these differences. Even within the Humanities, there are very contrasting models for integrating new media technologies into teaching, theory and research.

Even outside these conflicts, teaching in this area seems to demand constant revision and updating. The only thing that changes more quickly than new media technologies themselves are the concepts used to describe them. Terminology seems to go in and out of fashion more quickly than new standards for data storage. Terms such as virtual reality, multimedia, hypertext, telepresence and artificial intelligence have controversial histories. The conflicts surrounding these terms have served to establish a vocabulary for discussing some of the key cultural changes associated with technological change.

The challenge is to remain open to interdisciplinary and transdisciplinary paradigms, while offering students a strong enough grounding in traditional disciplines to have some historical and epistemological orientation.

## Bibliography

- Barrett, Edward, and Marie Redmond. *Contextual media*. Cambridge, Mass: MIT Press, 1997.
- Coyne, Richard. *Technoromanticism. Digital narrative, holism, and the romance of the real*. Cambridge, Mass: MIT Press, 1999.
- Everett, Anna, and John T. Caldwell. *New media: theories and practices of digitextuality*. New York and London: Routledge, 2003.
- Heidegger, Martin. *The question concerning technology, and other essays*. New York: Garland Pub, 1977.
- Heim, Michael. *Electric language: a philosophical study of word processing*. New Haven and London: Yale University Press, 1987.

- Heim, Michael. *The metaphysics of virtual reality*. New York and Oxford: Oxford University Press, 1999.
- Holtzman, Steven R. *Digital mantras. The languages of abstract and virtual worlds*. Cambridge, Mass. & London: MIT Press, 1994.
- Landow, George P. *Hypertext. the convergence of contemporary critical theory and technology*. Baltimore & London: The John Hopkins University Press, 1992.
- Lister, Martin, Jon Dovey, Seth Giddings, Iain Grant, and Kieran Kelly. *New media: a critical introduction*. London: Routledge, 2003.
- Manovich, Lev. *The language of New Media*. Cambridge, Mass.: MIT Press, 2001.
- McLuhan, Marshall. *The Gutenberg galaxy*. Toronto Buffalo London: University of Toronto Press, 1962.
- Poster, Mark. *The second media age*. Cambridge: Polity Press, 1995.
- Virilio, Paul. *Lost dimension*. New York: Semiotext(e) (Autonomedia), 1991.
- Wardrip-Fruin, Noah, and Nick Montfort, eds. *The New Media Reader*. Boston: The MIT Press, 2003.