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**BRIDGE TO, BRIDGE FROM: THE ARTS,
TECHNOLOGY, AND EDUCATION**

Summary

This essay investigates theories and practices, sometimes very much at odds, of contemporary educational involvements in the arts and technology. It is based, in part, on my ongoing involvement with and research on various communities' efforts to use education as just such a bridge.

The idea that education might serve as a bridge between technology and the arts is based on a metaphor, one connoting connection, and at the same time, separation. Following the physical logic of the metaphor, we locate technology on one side of the span, the arts on the other. Each is perceived, in contemporary Western culture, as the antithesis of the other. The implied purpose of the bridge, a piece of technology itself, is to provide a ground upon which ideas from each of these areas of endeavor may travel to the other. A bridge's purpose is to connect. It may also serve, however, to solidify separation. Far from being a stable, fixed entity, education is a highly contested area where the perceived and actual stakes, the forming of the future, are high. Education's purposes and practices may encourage, discourage, or redirect the flow of ideas from one area to another. As individuals, communities, and the ideas they bring with them from either the arts or technology or their vast connected territories, are filtered through the institutional bridges of education, they may be reshaped, thwarted or advanced. What is certain is that some form of mitigation takes place.

This essay investigates theories and practices, sometimes very much at odds, of contemporary educational involvements in the arts and technology. It is based, in part, on my ongoing involvement with and research on various communities' efforts to use education as just such a bridge. What has constituted success or failure in these endeavors, and on what characteristics have various participants based these judgments? How have issues such as gender, ethnicity, class, and race fared in these activities? And most importantly, how have the recipients of these efforts, the students, characterized their involvement?

What must first be recognized, however, is that the metaphor of education as the bridge between art and technology, is one that, like most metaphors, only persists from a particular perspective. One may just as well have envisioned art as the bridge between education and technology, or technology as the bridge between art and education. In this case, the viewpoint I have taken sees education as central and essential to any combined activities of art and technology, indeed, to many areas of practice. Deciding on this viewpoint, then, demands a more thorough explication of what one means when invoking the term "education," for it is a term that is often taken for granted. I have stated above, however, and will demonstrate for purposes germane to this essay the highly contested nature of education. I will confine my remarks to the situation and concerns of the United States because that is where

my experience lies. My hope is that the following discussion, utilizing the United States' current problems as an example, may prove helpful to similar situations elsewhere.

The authors of the GOALS 2000: Educate America Act signed into law by President Clinton March 31, 1994, define this educational reform act as:

... America's blueprint for prosperity and world leadership, and our children's guide to lives filled with productivity and the special rewards that only a quality education can provide. (H.R. 1804, 1994)

This description of the ambitions of Goals 2000 relies heavily on the implementation of setting in place national standards. Admittedly the Goals 2000 Act emphasizes the development of these standards voluntarily and at the local level. The clearly stated goals of these standards, nevertheless, are primarily economic:

Through the development of broadly defined skill standards, the U.S. will be able to set goals for skill achievement, competencies, and performance that will help create a lifelong learning system for all Americans and will drive our nation's economic growth into the next century and beyond. (H.R. 1804, 1994)

Given this institutionalized description for American educational reform, is it any wonder that American theories and practices incorporating the concept of education have become engaged in contentious and what appear as fundamentally irreconcilable battles?

The social and political environment current in the United States today, has led to the formulation and signing of the Goals2000 Act and has also instigated numerous debates by educational theorists concerning issues that have existed for centuries in discussion about educational philosophy. From Plato's discourse on justice in *The Republic* to John Dewey's intricate investigations of the importance of education to democracy in *Democracy and Education*, the question of what counts as education and how education can be distinguished from indoctrination or training emerge repeatedly. These questions popular among the last generation of analytic philosophers (Feinberg, 1995) have necessarily sprouted again in reaction to this program.

One of the best known philosophers of American education and one of the most vocal critics of Goals 2000 is Michael W. Apple, Professor of Curriculum and Instruction and Educational Policy Studies at the University of Wisconsin, Madison. In his review of *National Standards in American Education*, a book funded by the Brookings Institution, a conservative think tank in Washington, DC., he predicts the outcomes of implementing the reforms outlined in Goals 2000. These predictions are instructive for understanding the current American educational climate in which any art and technology collaborations take place:

National Standards in American Education could perform a valuable service if it was read as a set of arguments about what to be very cautious of not doing in our drive to "reform" education. There are valuable issues raised in it. However, I predict it will be put to exactly the opposite use. It will add support to those neo-conservatives who wish to centralize control over "official knowledge" or by neo-liberals who want to

reindustrialize the school by making schools into places whose primary (only?) function is to meet the needs of the economy and who see students not as persons but only as future employees. And this will occur at the very same time as major corporations are shedding thousands upon thousands of workers, most of whom did quite well in school, thank you very much. It will be used once again to export the blame for our economic and social tragedies onto schools, without providing sufficient support to do anything serious about these tragedies. And, finally, it will be used to justify curricula, pedagogic relations, and mechanism of evaluation that will be even less lively and more alienating than those that are in place now (Apple, 1996)

The neo-conservative agenda of a "common culture" is most tellingly epitomized by Newt Gingrich. His tenure as the Speaker of the House, has encompassed an impassioned embrace of virtualized politics, and characterizes these technologies as a force which "decentralizes and transforms all power" (Gingrich, 1995, p.6). Left unstated, though, is exactly what cultural identity will emerge from this decentralization. That the rhetoric involves values that seem to have already been determined not just for the United States, but for the entire human race, prior to the widespread distribution of these technologies is a clue that he and his supporters are extremely conscious of the subterfuge this rhetoric allows. It hides the possibility of other choices, as the rhetoric of Goals 2000's emphasis on national standards of "skill achievement, competencies, and performance" hides the possibility of educational success based on something other than the proliferation of the American market economy.

The idea of a common culture veils the neo-conservative program of "official knowledge," one set into motion, as Apple points out, by putting in place national standards and then national performance testing. This neo-conservative agenda is linked to the neo-liberal agenda of reindustrializing education by delineating its function as primarily economic and seeing students as future employees. What I see, as does Apple, as the outcome of these agendas is the continuing harm it will inflict on those segments of the American population already suffering from little if any links to economic, social or cultural power. Additionally, I see these agendas contributing to a future for America that is devoid of purposes and goals that are based on anything but the requirements of life in a market culture.

Arts organizations and schools of art, two principal environments consistently involved in American arts education, and I might add, two of the only institutionalized arts environments in the heavily anti-arts environment of the United States, both at the K-12 and university levels, have become examples of the influences of the neo-conservative and neo-liberal agendas Apple refers to above. Certainly not exempt from the exigencies of the economic and political climate current in the United States and struggling with a not unrealistic anxiety concerning their own future, both groups have become involved increasingly in the last ten years in partnerships developed ostensibly for the expansion of educational goals. These partnerships, usually involving corporate funding of some kind, have offered to the beleaguered arts organizations, including museums of art, and schools and departments of art, the possibility of financial wherewithal to become involved in projects involving computer technology.

At face value this scenario, partnerships between business, the arts, education, and computer technology, seems ideal. It

is a scenario that I myself do not, in principle, see as negative. In fact, I have written extensively on the necessity of becoming involved in these partnerships and the importance of collaborative activity across disciplines. My reasons for advocating this course of action, however, have been based on my belief that as artists and art educators, we have a responsibility to become involved in the development of computer technology. This responsibility is central to the ongoing evolution of an emerging aesthetic of interactivity that links ethical and aesthetic goals from the perspective of care both for the contextualized individual and the larger economic, political, ecological, social, and spiritual circumstances which define those contexts. Additionally, this aesthetic encourages participants to take responsibility for their actions and their world. (Gigliotti, 1996, in press, 1995a, 1995b).

No one, least of all me, ever thought of this as an easy undertaking. In fact, much of the impetus behind the construction of the theoretical framework of this aesthetic was overwhelming evidence for the absolute necessity of subverting, transforming, redirecting, and creating methods for the development of computer technologies supporting the goals of this aesthetic. I expected and have encountered enormous resistance towards this emerging aesthetic from within the art world. Both arts administrators and curators, as well as members of the academic art world, have voiced strong negative reactions to this aesthetic. I did not clearly foresee, however, the particular ways in which these reactions would reinforce the combination of current political and economic factors in the United States to build an attitude so resistant to the goals of this aesthetic.

Much of the resistance of the art world towards this aesthetic centers on the continuing insistence on the importance and autonomy of the individual artist. This idea lingers from modernist aesthetics where it began as a reaction to the dearth of spiritual values in both capitalist and totalitarian societies of the 1920's and 30's (Gablick, 1984), but continues to find favor for reasons that have to do with the marketability of name artists. True, the canon of white, male artists has become somewhat abridged by artists of "other" genders and colors, but even these artists must in some way produce products controlled or contained within the monetarily defined art world system.

In terms of technologically mediated art, this has meant most museums, galleries and curators have chosen to view these developments as a means to continuing the established hierarchy of the art world, a hierarchy based on marketable products. Rather than opening doors to artists whose work is integrally involved in the development of an interactive aesthetic, one that encourages the participation of the viewer in the process of creation, most curators have preferred to commission already well-known artists whose work is proven to be profitable, to develop, most for the first time, what might pass as an interactive work.

Additionally, World Wide Web sites, though written into museum educational grants as an opportunity for public education, appear on-line as offering little if any educational material. They provide a one way access to information about the programs, exhibits, and sales opportunities available to the public on-site. Some truly entrepreneurial museums, like the Metropolitan Museum of Art, offer the viewer on-line purchase power, which, for most visitors to museum WWW sites, as well as many actual sites, is the only interactive opportunity.

During these times of decreasing public funding for the arts, the temptation on the part of museums and art centers to increase visibility through the use of the WWW and, perhaps because of that visibility, increase the number and amount of funding sources, is understandable. But will these short term

objectives concerning the WWW support or erode the long term stated goals of museums and art centers. What are those goals? Are they simply about passing on official art knowledge in order to generate more art consumers?

Not asking these questions plays straight into the neo-conservative agenda of "official knowledge." The neo-liberal agenda of the reindustrialization of schools, which in its original configuration grew out of the perceived and actual need for educational methods meaningful to the vast majority of working class and impoverished population of the United States, has worked to support the "official knowledge" of the market. Schools and departments of art, desperately attempting to support the growing demand for computer hardware and software have partnered with arts organizations, corporations, industry, and the government, often under the umbrella of an educational goal, in order to fill these needs. Often, students and faculty have emerged from these involvements either feeling taken advantage of, or that the unstated educational goal of their involvement with these projects has been to prepare them for future employment in "officially sanctioned," ie. market-driven, computer technological production.

Again, these partnerships are not in themselves negative, and they are necessary if we are committed to change, but they ultimately will be a mixed blessing, and perhaps a very negative one (Faust comes to mind here) unless we have a clear vision of what education means to us and in what ways we can best practice that vision.

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