McDonald's U: Virtual Technology and Humanities Futures in the Corporatized University

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I. Humanities, Technology, and Communication

As we move into the 21st century, it is obvious that our means of global communication is changing—the primary medium of communication is shifting from print to virtual technology. Virtual technology, as Christina Haas and Christine M. Neuwirth argue, is not “transparent” (321); that is, this technology does not merely replicate print culture but rather alters it in ways we are only beginning to comprehend.

This alteration already significantly impacts the humanities, particularly language specialists whether they work in English, communications, foreign languages, linguistics, philosophy, or history. The most fundamental change occurring is a shift in the use of signs from word-based to symbolic or iconic signs, like icons, acronyms, and sound bites. This shift results from the growing relationship among communication, technology, and advertising. Because virtual communication aims for less screen-reading time than one might take to read printed media and for efficient movement between websites, it utilizes more symbolic signs than printed media do. This emphasis on symbolic signs is exacerbated by the increasing role of advertising in virtual and other forms of communication. Advertising requires standardization of communication, typified by symbolic signs (Ohmann Selling vii, 14). This change in communication affects the way language is used and therefore taught.

We speculate that the change in the use of signs will be accompanied by a shift in responsibility for teaching communication from the humanities to computing science departments. This shift will result not only from the movement from print to virtual media but also from the increasing corporatization of higher education, which applies business models to education and relies particularly on streamlining economic activity through standardized practices (Readings 12). In the wake of reduced government funding, as the growing need for computer technology fuels corporatization, corporatized universities increasingly value disciplines based on marketability and therefore fund more marketable departments like computing science at the expense of disciplines like the humanities. The implication of these changes is that at the moment when communication is becoming the tool of the mass culture industry, and when the university is increasingly vulnerable to corporate moguls, those trained to read communication critically are losing viability in the university at large and may even lose control over their own subject matter.

Rather than succumb to the stereotypical inertia humanities departments seem to experience when confronting technology, humanities personnel must reclaim their vital role as “symbolic analysts” (Reich 178) whose critical approach toward language is necessary to shape the development of communications worldwide. One place to begin is in the classroom, by changing the way humanities students are educated. An innovative English course at Humboldt State University may provide a model that addresses relevant issues for the humanities in the corporatized university and the role humanities education may take in shaping humanistic values in the millennium. Employing key theories of Russian educator/psychologist Lev Vygotsky, this model classroom utilizes collaboration and mediation in a technological setting to promote values espoused by the humanities, whose “primary concern is to enlarge our understanding of what it means to be human” (Douglas 17).

II. Shifting Domains

The shift from print to electronic communication represents a movement from word-based signs to symbolic or iconic signs and augurs a movement in the responsibility for teaching communication from
humanities departments to departments like computing science. For professional and humanistic reasons, these changes must be resisted.

Well before technology emerged as a means of communication, language specialists, or those whose interest in language is based on it as an object of study, dominated the field of communication. As language specialists, their control over literacy evolved naturally because oracy and literacy were products of word-based language.

The influence of language specialists over communication is not only natural but also necessary, first of all, because language specialists approach language critically; they focus attention on the process of communication, valuing craft and context as highly as message or content. Craft and context work to create message and content in word-based signs. According to Maurice Merleau-Ponty, all word-based signs are "indirect or allusive," not merely literal (43). The ability of language to convey infinite shades of meaning allows for diversity in process as well as product; in other words, the process and product of word-based language are expandable, promising no set journey or predetermined outcome for the connection between receiver and sender. The process of communication is influenced not only by the language used, but also by the participants and their context (Pratt 63). Because craft and context influence message and content, the language specialist’s perspective is imperative for interpreting word-based signs.

Another reason language specialists should continue to influence communication is because they value the human quality of language, that effective communication represents cooperation among interlocutors that can lead to empowerment and conflict resolution. Because language specialists understand and value the ambiguity of word-based signs, they must continue to take a leading role in global communications, especially as the nature of global communications begins to change.

Regardless of intent, communication that de-emphasizes or discourages human factors of choice and ambiguity is slowly and thoroughly being perpetrated by the producers of mass culture. According to Richard Ohmann, mass culture is comprised of products such as movies, newspapers, and advertising that are voluntary experiences simultaneously produced for profit by the few for the many in relatively identical form and with dependable frequency (Selling 13-14). Although mass culture cannot directly dominate its audience, it can, with audience consent, "shape[] habitual audiences, around common needs or interests" (Ohmann Selling 14, 45). Audience consent is an important concept because, although it confers agency, it also hides the fact that choices that become habit are no longer choices. To rewrite Foucault, the “power [of mass culture] is tolerable only on condition that it mask a substantial part of itself” (86), and mass culture’s power is masked through the concept of choice.

One way mass culture creates the habits that maintain power is through the kind of signs used. As electronic communication increases, word-based signs are losing importance. Replacing language are symbols such as icons, acronyms, and sound bites. Most Americans, for example, know that the “golden arches” signify McDonald’s Restaurants, that T. G. I. F. is “thank God it’s Friday” as well as the name of a national restaurant chain, and that the silly laugh denotes the Pillsbury Dough Boy. Although these particular symbols have existed quite some time, the use of such symbols is increasing. In some cases, the symbol is the only connection an advertisement makes to a company, like, for example, in Nike or Apple commercials.

This change is significant because of the thought processes involved in word-based and symbol-based signs. According to Ferdinand de Saussure, words are signs that derive their meaning from the arbitrary
interaction between *signifier* (sound-image) and *signified* (concept) (67). This arbitrary connection requires those using words to operate critically, selecting words that best express their thoughts and filtering the thoughts engendered by the words of others. Because the connection between signifier and signified is arbitrary, this process requires critical thinking that considers the conventions of the particular language, the particular identity of interlocutors, and the particular context of the communication.

The connection between signifier and signified is less arbitrary in symbol-based signs; there is a reason, usually similarity, for the connection (Saussure 68, 73). Because symbol-based signs elicit connections based on patterning, or similarity (Jodi R. Cohen 46), this communication process requires only recognizing the symbol's referent rather than a critical interpretation of what it might mean. Saussure uses the icon of scales meaning justice as an example (68). Excessive use of this kind of sign, to use Roland Barthes's word, "impoverishes" language (118).

An example of how symbolic signs impoverish language occurs in acronyms. Especially popular with technological terminology and other areas of mass culture, acronyms function to encourage the use of complex concepts at the same time as they reduce such intricacies. Acronyms are born as lengthy, word-based signs, like *hypertext mark-up language*. Then, the signifier is reduced from a phrase to a set of letters, *HTML*, each letter representing a word or part of a word. The signifier thereby becomes a symbol of the original phrase, deriving meaning from similarity. Yet, because acronyms function as symbols, requiring only a cognitive connection of similarity and the recognition of predefined contexts, but simultaneously resemble words, displaying the physical and often aural characteristics of words, they become particularly insidious. Eventually, as frequency of use increases, the symbolic connection between the acronym and the original phrase is forgotten; most people know what HTML is, but few know exactly what the original phrase means or even what the letters stand for. In this way, acronyms create their own sign systems; "[s]igns become sign systems when the readers . . . no longer separate beliefs about [object, ideology, and representation]. . . . Sign systems are, in this sense, mythic or ideological" (Jodi R. Cohen 49).

Eliding the connection between word and meaning furthers mass culture in the same way that myth operates in Barthes's *Mythologies*. According to Barthes, myth is "a second-order semiological system," which means that a first-order sign, comprised of signifier and signified, becomes a signifier in the second level (115). This transformation of sign into signifier operates similarly to what occurs with acronyms; as the original or first-order, arbitrary connection between signifier and signified is hidden beneath the acronym, the connection seems essential. Like symbolic signs including acronyms, "... mythical signification is never arbitrary; it is always in part motivated, and unavoidably contains some analogy" (Barthes 126). Although lack of arbitrariness makes the distortion easier to accept, such simplification makes meaning "half-amputated" (Barthes 122). Blurring the connection between word and meaning breeds paucity of critical thinking which furthers the ideological contexts necessary for mass culture to exist. Replacing the necessity for critical thought in interpreting signs with the expectation that signs will always mean exactly what they signify allows language to assume an almost religious quality where belief in a standardized connection between word and meaning overrides understanding of how that connection operates.

When such impoverished signs are used in mass culture, their religious power can influence an uncritical audience in ways that limit choice. Because "a word is a microcosm of human consciousness" (Vygotsky 256), increasing use of symbolic signs has the power to change the way we think. As a communication process reliant on logical rather than arbitrary association, symbolic signs construct thinkers who are uncritical believers of what they see. They cause what Robert Scholes terms "moments of surrender"
when a text overdetermines our beliefs (120). Such moments of surrender make those using language easily manipulated by producers of mass culture. As Toni Morrison writes, “The systematic looting of language can be recognized by the tendency of its users to forgo its nuanced, complex, mid-wifery properties, replacing them with menace and subjugation. Oppressive language does more than represent violence; it is violence; does more than represent the limits of knowledge; it limits knowledge” (15-16). “The result,” as Howard Zinn argues, “is an obedient, acquiescent, passive citizenry--a situation that is deadly to democracy” (5).

This kind of oppressive language is perhaps most evident in advertising where icons, acronyms, and sound bites come to represent not just a product but a whole image associated with that product. As Scholes argues in analyzing a Budweiser commercial where a black umpire is recognized for making a good call, “[t]o accept the pleasure of this text is to believe that America works . . . .” This package of meaning is not meant to be interpreted; rather, it is meant to be swallowed whole without critical thought, resulting in determined patterns of behavior, including consumerism and conformity to ideology (Scholes 124). The fact that children recognize mascots and logos of fast food chains before they can even read evidences the threat of such signs used as weapons. This threat is perpetuated by public schools that invest in such classroom aids as science lesson plans wherein students test the thickness of Prego and Ragu spaghetti sauces, lesson plans sponsored by the company that owns Prego (Hightower 6). Another example of oppressive language occurs on the Internet. The Internet is dominated by advertising and the use of symbolic signs, and the information found there is frequently read as objective despite the fact that anyone with the technology and skills can create a web page. The threat of an uncritical approach to the Internet has resulted in scholars like Esther Grassian at the University of California, Los Angeles posting web sites urging students to read Internet information critically.

Because critical reading falls under the traditional domain of word-based language specialists, the functionaries of mass culture, like computer programmers who specialize in technology, lack the critical perspective on language to recognize the influence of the symbolic signs they use. Therefore, unlike humanities personnel, they lack the skills to remediate the situation. Although computer programmers deal with language constantly in the form of computer languages, this experience does not replicate the study of human language because computer languages operate similarly to iconic signs. While the same operations may be performed by more than one program, these programs, when written correctly, always generate expected operations (Gunter 2). This “fully circumscribed” dependability does not occur with word-based signs where meaning is infinite, deriving not only from multiple word meanings and from the relationships among the words in a phrase (Gunter 4-5) but also from context. Because their specialty focuses on content rather than communication as a process, scholars who specialize in such symbolic forms of communication cannot be expected to take responsibility for remediating the dangers of this sign shift.

Because this sign shift encourages the proliferation of symbolic signs at the same time that it erases the influence of humanities personnel over communication, placing no one more capable in charge, this transfer of authority threatens the future of global communication more seriously than does the stereotypical fear of dehumanization often associated with technology. But perhaps more immediately important, the domain shift threatens the marketability and eventual viability of humanities personnel, who possess the critical skills necessary to ensure communication operates effectively but who have also traditionally resisted contact with technology. In a worst-case scenario, these scholars may become the McDonald’s restaurant workers, the least valued, in Richard Ohmann’s hierarchy of computerized jobs (683; see also Noble “Digital”). They have enough technical skill and responsibility to push the buttons—buttons which, significantly, have devolved from words, “numbers and letters,” to symbols,
"pictures of food items" (Ohmann 683)—but they have been shut out of influence over the crafting of communications, which has become the design of communication software. Such a devaluing of the humanities may thereby result in including the disciplines in the university merely as an afterthought, a gesture toward the antiquated humanist notions of past centuries. For the success of future global communications, as well as the existence of our own profession, this scenario must be resisted. Unfortunately, the difficulty of resistance is compounded as higher education becomes the next recruit into the corporate village.

III. The Corporatized University

The program for a recent meeting of the North American Society of Sports Historians listed a panel on “Representations and Images in Sport.” Presiding, the program indicated, would be “Jim Coates, North Carolina AT&T.”


Much scholarship on both sides of the issue of the corporatized university is motivated by fear. Those arguing against the corporatized university express the legitimate fear of conflict of interest, aroused especially by the potential for biased research reports to be published in favor of products owned by companies funding the research. Those arguing for the corporatized university express the equally legitimate fear that corporate competition will put non-profit universities out of business. However, the common responses to these two fears do not seem equally legitimate, especially when considered from the humanities perspective. While those arguing against the corporatized university urge a critical approach toward economically motivated education, a stance that we feel is appropriate, those arguing for the corporatized university propound a non-critical stance based on the assumption that corporatization is our only option. Even if this latter assumption were true, it would not necessitate a non-critical stance on the issue. Such a stance represents capitulation to the vagaries of mass culture. Instead, even if the university must enter an increasingly for-profit, global education market, a critical stance toward such entrance would at least make an effort toward protecting what economics may not—our humanistic values, including our ability to think critically about language and technology and to apply that thinking to mass culture.

The increasing corporatization of the university exacerbates the problem for global communication and humanities futures caused by the shift in communication domain discussed in Section II. Not only do signs appear to be shifting from word-based to symbolic signs, with the responsibility for teaching and interpreting such signs potentially moving away from the humanities disciplines, but also the funding for the humanities that guarantees viability seems to be increasingly threatened by the growing tendency for the university to act and be treated like a corporation rather than like a non-profit organization.

Three profiles characterize corporatized universities, some of which overlap: the corporate-sponsored university, the corporate-model university, and the for-profit university. All of these models favor the financial model of good business (Newfield 69). The corporate-sponsored university, a university that receives corporate funding often for scientific research, became increasingly common in the 1970s and 1980s as federal funding dropped and, today, is probably the most common form of corporatized university. Increasingly common are the corporate-model universities, universities that adapt corporate terminology and ideas to structure university-wide operations and respond increasingly to market pressures rather than to traditional educational values. One sign of such structure is the movement to
year-round operation, which began, for example, at some California State University campuses this academic year. Year-round operation eliminates some of the most evident differences between universities and corporations—the inefficient use of labor and physical plant. The rise of corporate-model universities is most likely related to growth in competition from for-profit universities in which the product, education, is determined by its ability to generate profit. One such for-profit university is the "University of Phoenix, headquartered in Phoenix, Arizona, but operating with on-site campuses in 12 states and Puerto Rico" (Raphael and Tobias 46). Run by the Apollo Group, which is attracting significant interest on the stock exchange, the University of Phoenix offers associate, bachelor's and master's degrees especially designed for working adults (Strosnider).

As universities increasingly become or behave like corporations, they are more vulnerable to economics, not only market forces but also takeovers by other corporations. Eventually, as corporatized universities lose “their implicit contract with society” for altruistic service, they may be held accountable, like corporations, for “business failure [and] product liability” (Slaughter and Leslie 206, 202). This vulnerability is underscored by the fact that universities have little experience operating in the global marketplace. They are the weaklings of the corporate world. This means that not only will the universities as entities be vulnerable but so will the research, curricula, and pedagogies of the individual disciplines and teachers they house. Corporatization already threatens autonomy in the sciences in particular through research funding and across disciplines through the issue of advertising (Ehrlich; Kolodny 13; Slaughter and Leslie 59; Soley 5-7). “Selling a college curriculum to the highest bidder,” writes Thomas Ehrlich, “subverts the very purpose of a college education.” Evidence of the threat to autonomy posed by corporatization is demonstrated by universities who are creating conglomerates to protect themselves (see David Cohen, for example).

One of the main factors in the move to corporatize the university is technology. Although some of the race to improve technology in education is a product of the fear of falling behind and of the implicit faith in what David F. Noble calls “the religion of technology” (Religion), there is no question now that the university must have technology to retain viability in the higher education market. However, remaining technologically current often requires more money than universities can afford without corporate assistance. In his letter to the editor of The Chronicle of Higher Education, California State University of Los Angeles president James M. Rosser describes the funding situation that led to the controversial California Educational Technology Initiative (CETI):

If augmented budgets were available, and this is not likely, the state would place a higher priority on the other funding gaps facing C. S. U. [such as faculty salaries] than it would on technology; and the technology gap was the only one that could be addressed by a partnership with the private sector . . .

. . . The alternative to involvement with corporations is to do nothing. . . ."10

The pressure of funding technology makes a convenient corporate tool. As Noble argues, the corporatization of education

is not really about education at all. That’s just the name of the market. The foremost promoters of this transformation are rather the vendors of the network hardware, software, and “content”—Apple, IBM, Bell, the cable companies, Microsoft, and the entertainment and publishing companies Disney, Simon and Schuster, Prentice-Hall, et al.—who view education as a market for their wares, a market estimated by the Lehman Brothers investment firm potentially to be worth several hundred billion dollars. (“Digital”)
Likening this technological market to "a dance with the devil" ("Preface" xiii), Richard N. Katz calls universities to enter that dance ("Competitive" 37). What he overlooks is that it is not the need for technology that drives the technology market but rather corporate entities utilizing the need for technology as a device to amass further wealth and control. Through this need, corporate moguls have driven the cost of education up and forced the university to turn to corporate partnerships to pay that cost. If educators then praise corporatization for the benefits it offers to higher education, they are validating the system under which they have been forced into submission.

IV. Implications for the Humanities in the Corporatized University

Combined with the domain shift discussed in Section II, corporatization presents unique problems for humanities disciplines' role in global communications: under corporatization, control over communication studies becomes an issue of marketability. Not all fields are suited for capitalism (Slaughter and Leslie 212). In the corporate marketplace, the humanities seem less marketable than other disciplines for a number of reasons.

First of all, the humanities do not seem valuable to global prosperity in the same way that the sciences are valuable or to students in the same way that the field of accounting, for example, is valuable. Namely, because it is difficult to show what we do and why it is important, humanities coursework seems necessary neither for gross national products nor for entry into the job market. Even if the benefits of humanities courses were clear-cut, measuring instructional success in the humanities presents another problem in an outcome-focused economic model. Humanities skills, such as critical thinking skills, cannot be easily measured by establishing proficiency through standardized testing. In English, for example, the skills of writing and reading cannot easily and consistently be measured through essay exams or essays written outside class, let alone multiple-choice tests. Grammar is the only subject with clear outcomes, and even there, the rules change constantly.11 If the trend toward corporatization becomes ubiquitous, humanities departments that cannot materialize standardized commodities for their corporate owners to sell will find no active, if indeed any, role in a for-profit setting. Furthermore, even if humanities' products easily measured and thereby valued in the for-profit setting, the humanities might have difficulty competing with other disciplines because the very skills taught, such as critical thinking, represent a threat to mass culture and corporate capitalism.

This devaluing of the discipline is furthered in the corporate-supplemented university by the comparison between the sciences and the humanities in terms of corporate donations and highly publicized corporate partnerships—the sciences get them; the humanities do not (Rhoades and Slaughter 47; Slaughter and Leslie 61; Soley 146). Because funding not only represents money available for use but also university prestige (Slaughter and Leslie 137), such inequality in corporate funding undermines humanities departments by reducing their institutional viability in contrast with departments that can and choose to attract corporate sponsorship.12 Humanities departments respond to this inequality by emphasizing research and publication to demonstrate they can compete with their more scientific peers (Soley 146-47).

One might argue that this funding inequality existed prior to the 1970s and 1980s increase in corporate funding because the defense department, in the wake of Sputnik, poured money into the sciences. The difference between defense-department funding and corporate funding, however, is that corporate funding has changed operations and perceptions of universities from non-profit to corporate models. Where the defense department might support the sciences, other government funding supported the
humanities, and neither discipline earned profits from government-funded products. Corporate models allow such profits and cause competition for funding among disciplines, creating a class distinction between the sciences and the humanities; "[t]his not only produces two classes of faculty--the haves and the have nots--but also two classes of students" (Soley 146; see also Hogan). The fact that the public fails to see this situation as problematic illustrates that public interest has concurrently shifted from protecting educational values to allowing the free market to establish those values (Slaughter and Leslie 73). When universities become partners with industry, only disciplines that enter into this economic model remain viable.

In the corporate-model and for-profit universities where courses that do not pay their own way can be cut, the humanities disciplines' failure to draw outside funding is compounded when consumers (students) opt for courses in disciplines other than the humanities. Because student fees represent an increasing portion of university revenues, students are becoming more powerful stakeholders in their own education (Slaughter and Leslie 237). If these stakeholders see the humanities as unrelated to their job interests or even obsolete, they will tend not to take humanities courses and, in not taking them, will decrease the economic worth of such courses to the university. While humanities courses in corporate-model universities remain degree requirements, they are not required in the for-profit setting beyond the minimum necessary for certification in particular fields. Consumer choice, therefore, may eventually further reduce the funding necessary to keep the humanities viable in the corporatized university.

This shift of funds away from the humanities exacerbates the ability of humanities disciplines to gain the technological skills necessary to participate in the shaping of global communications because humanities departments lack up-to-date computer hardware and software. As computing science departments leave the humanities behind, they may take over direction of communication studies. Not only do computing science departments lack the skills for such an endeavor, as discussed in Section II, but also they are biased by the very funding they receive. The technological donations that keep computing science departments up-to-date, and thereby raise their campus presence, also buy favors from universities, including influencing curriculum to meet corporate labor and market needs. As Lawrence C. Soley writes, "... university computer science departments [are] in bed with Big Blue and a few high-tech chip makers" (5). This situation further removes electronic communication from the humanities personnel who have the skills to read it and teach it critically. In order to retain viability and integrity, and for humanities to retain their influence over communication, humanities personnel must infiltrate the technological dialogue, participate in it with humanistic values, and simultaneously stay abreast of technology's rapid change.

V. Infiltrating the Technological Dialogue: Vygotsky in the Collaborative Computer Classroom

For humanities educators, a chief entryway into the technological dialogue is through the humanities computer classroom. The goals of such a classroom are: 1) to educate humanities students in using technology in humanities disciplines, 2) to teach critical skills necessary for negotiating mass culture, and 3) to revitalize the values humanities disciplines bring to communication. To accomplish these goals, such a classroom must not only teach computer skills applied to humanities subjects and evolve each semester to reflect technology's current developments but also encourage students to learn by active thought rather than passive absorption, to build successful interpersonal communities through which this active learning can occur, and to honor ethical values of process in the craft of language and of human relations in communication. Further, such a classroom must accomplish these goals even under adverse conditions, utilizing sometimes substandard technical facilities relegated to humanities departments in the university system. Success despite substandard conditions can be accomplished by relying on the classroom
community for ideas and troubleshooting.

Structure of the Model

This kind of classroom model has been operating successfully under the guidance of Dr. Tom Gage since 1994 at Humboldt State University. Theory of Composition (English 406) and the attached computer lab section Technology in English (English 406L), required upper-division courses for English majors and applicants to the teacher preparation program, meet twice a week for a lecture followed immediately by 80 minutes in a computer lab. The students are each assigned to two collaborative teams based on diversity in factors such as gender and self-assessed computer competency. Each team is led by a member of the instruction unit, comprised of the instructor of record and approximately four graduate teaching assistants who each teach his or her team a technological skill. Such skills have included desktop publishing (PageMaker), digitized video production (Adobe Premiere), HTML (Hypertext Mark-up Language), MOOs (Multi-User Oriented Computer Language), e-mail discussion lists, and Internet job search skills. Once the team masters the skill, team members collaborate to teach the entire class. Progress in computer competency is assessed through timed examinations taken collaboratively. This course blends technology with humanities subject matter and humanistic values.

The lab section of the course, especially, embodies the theories of Russian educator/psychologist Lev Vygotsky’s developmental model which values socially constructed learning. Vygotsky depicts the social dynamic of learning as “the movement from the learner’s actual level of development to a new level of potential development,” naming the distance the learner journeys between levels as the zone of proximal development (ZPD) (Mind 86-87). Because actual levels of development and the requirements to achieve potential development vary individually, instructors must collaborate with each student, or encourage student collaboration, in order to scaffold development (Vygotsky Thought 149; Mind 86). Optimal scaffolding begins close enough to actual development so the student can succeed yet far enough from it that potential development reaches its highest level; “It must be aimed . . . at the ripening functions” (Vygotsky Thought 188). Such scaffolding occurs through instructor mediation, or dialogue, as part of a meaningful social context (Ashton 114-15).

Mediation functions in the Vygotsky model as the methods instructors choose to guide students toward the creation of meaning. Effective mediation can take many forms, but it must be able to meet each student at his or her unique level of development to cross the ZPD efficiently. Personalized mediation from the instruction unit opens the dialogue with students. Expansive and flexible, this type of mediation guides students to create their own dialogues, as each assumes at various times during the course the role of Vygotsky’s more capable peer (Mind 86) within the community setting of his or her team. These two types of human mediation encourage students to challenge their technological skills with the ultimate mediator, the computer.

Relevance of the Model

The Vygotsky model teaches humanities students technology using methods that address the course’s other two goals—teaching critical thinking and humanistic values. By accomplishing these three goals, the model not only prepares humanities students to join the technological dialogue as more than obeisant button-pushers but also honors and encourages the unique skills humanities personnel can bring to this dialogue.

Humanities personnel continue to represent a technologically disadvantaged group, perhaps due to their
preference for human, as opposed to mechanized, communication. Since the inception of the Vygotsky model, this seeming stereotype has remained a consistent characteristic of students who begin the course. Therefore, the fact that these students gain experience with virtual technology is immensely important. However, even more important is the fact that the Vygotsky model produces technology users who become more than consumers of technology, victims of the vagaries of software and always rushing to keep up. Rather, the model's structure of mediation, where groups of students teach their peers specific skills, reinforces the need for even disadvantaged users to take an active role in using, troubleshooting, selecting, and developing computer software. Through teaching each other, the students become confident not only in their newly learned skills but also in their ability to understand and address issues that arise surrounding those skills. At this point, they are eager to apply these skills to personal projects, adapting the technology to suit their needs and seeking more capable peers in or outside the classroom to further their knowledge. For example, following the course, the same student who reported on a survey that she "was a little afraid to learn the new technology" enrolled in further computer classes and even "consider[ed] getting a minor in multi-media, both for the gain in personal knowledge as well as to make myself a more marketable teacher." In another instance, an intern has even gone on to design writing software for K-12 language arts classrooms. These humanities students are not merely consumers of technology, driven by the fear of falling behind. Rather, they move into a cutting-edge position where they can teach technology, represent their disciplines in discussions about technology, and even create technology.

This technological education emerges from mediation that encourages critical thinking by means of semiotic flexibility. Semiotic flexibility refers to the shifts in speech an adult employs to guide a child to an understanding of the task and how that task may be completed (Wertsch qtd. in Dixon-Krauss 15). This guidance may assume forms ranging from "abbreviated" to "non-abbreviated" directives (Wertsch 178), also termed "vague hints" and "explicit directives" respectively (Dixon-Krauss 15). Explicit directives may be defined as instructions a learner could follow without personal interpretation. Conversely, in the computer classroom setting, vague hints take the form of open-ended questions. They ask the learner to apply existing knowledge in order to perform "implicit subsets" (Wertsch 182) that lead to problem solving. Where explicit directives demand the student take only small steps from present knowledge, vague hints encourage larger leaps. Instructor guidance employs this semiotic flexibility to scaffold student learning, employing less explicit guidance when students can reach for understanding themselves and more explicit guidance when students need assistance. Use of semiotic flexibility never treats students as empty vessels waiting to be filled with information but rather assumes students take responsibility for developing understanding. This system teaches and encourages critical thought processes. Moreover, such instruction models the semiotic flexibility students learn to use among themselves.

This kind of dialogic instruction values the individual as part of a learning community, thereby modeling humanistic values such as cooperation, responsibility, and respect. Because instruction flows not only from teachers to students but also among students and from students back to teachers, all members of the community benefit from the diversity of expertise each individual brings to the classroom; in troubleshooting, even students who lack computer skills may have other knowledge or perspectives that can be helpful. In teaching computer skills to humanities majors, therefore, English 406 does more than merely deliver skills. Rather, because the Vygotskian classroom model values the individual as part of the learning community, it resists the standardizing influence of corporatization on education, and it does this in a space, the computer classroom, stereotypically seen as dehumanizing.

This emphasis on the human side of education is exactly what the for-profit university eliminates;
"[s]tandardization, a way of life in both manufacturing and service industries, is likely to become more evident as institutions implement for-profit projects" (Stallings 276). For-profit settings like the University of Phoenix plan curriculum more directly through administration than non-profit higher education does:

... an administrator at the main campus takes the content that the assistant chairs have provided, and puts it into a standardized format.

In Phoenix's regimented curriculum, the teaching of every course is guided by a "course module." These are highly detailed syllabi produced at the flagship campus that lay out the objectives of a course, prescribe assignments, delineate how the instructor should spend class time—in some cases down to 15 minutes. (Leatherman)

As one critic says, "'They are literally given a script and told to adhere to it'" (Leatherman). This standardized structure allows courses to be replicated easily. Teachers are worth more for their field expertise than their teaching excellence; quips one instructor; "'We're not professional teachers; we're professionals who teach'" (Leatherman). In this system, if the material is covered, then it is assumed that the students learn it. While students may be able to gain new concepts through rote memorization or through discussion in study groups, without careful, individualized instructor mediation that provides the appropriate scaffolding for building new understanding, how will they understand what they have learned? Moreover, understanding gained in such circumstances fails to encourage critical thinking or to reinforce humanistic values.

In contrast to the University of Phoenix for-profit model, which is an adult education model that provides a glimpse of what higher education might be in the future, the Vygotsky classroom model stresses interpersonal learning by making students teachers as well as learners. In addition, by involving all members of the computer classroom in instruction, individualized learning occurs without unusual expenditures of faculty time that cost the university money. Similarly, by utilizing a team of instructors, the Vygotsky model generates group energy and creativity to discover opportunities to expand an otherwise often limited palette of technology resources allocated for humanities disciplines. This aspect particularly teaches real-world resourcefulness and a positive approach to problem-solving.

The advantages of teaching technology to humanities majors through collaboration multiply further when these humanities majors are future teachers. Students who emerge from this training not only use technology in their classrooms but also employ collaborative learning techniques to individualize the learning that occurs there. For example, a student once resistant to learning technology skills has continued her computer training after English 406 and remarks, "'When I teach, I plan to use computers on some level.'" Another former student, now a middle-school teacher herself, reports, "'I use team-building in my classroom because of this class and the networking skills that developed from it.'" In recreating their own experiences for future classrooms of students, these teachers combat the corporatized classroom in education by reinforcing the value of the humanities to global, electronic communication and the importance of individualized learning to creating active, critical learners and ethical communicators.

VI. Humanities Futures: Who Decides?

Educating humanities students and future teachers to influence technological dialogue begins a vital, long-term movement in retaining humanities’ relevance in the millennium, but such education alone will not prevent corporatization’s rapid encroachment on higher education.
If corporatization of the university proliferates, multinational corporations can legally purchase the right to direct the course of higher education. Corporate bottom lines indicate that unnecessary components, like the role humanities may assume in the corporate model, represent a drain on productivity and are usually eliminated. And, those humanities disciplines allowed to remain as part of the new curricular infrastructure would be reduced by the new mythologies of the corporate line; just as myth replaces the essence of its object with a symbol, humanities may be relegated to the role of figurehead, which, to rewrite Barthes, "[is frozen] into an eternal reference meant to establish [humanities’ irrelevance]" (124). Existing only in iconic representation, humanities would never be permitted to evolve and retain a relevant role within the corporate framework. Moreover, in trading its long-standing values for those extended by the producers of mass culture, higher education in general not only acquiesces in the ascendancy of corporatization but becomes victim in a hopeless game of financial and technological catch-up.

However, this victimization need not occur. First of all, most degree-granting institutions of higher learning still carry coveted, authoritative reputations in our society. As one student notes of his choice of to enroll in a virtual university program only loosely affiliated with the University of California, Los Angeles, "... the name recognition doesn’t hurt ..." (Confessore 28). But universities and colleges have more than reputations to bring to the bargaining table; they have valuable resources in knowledgeable, reputable faculty and staff, in student populations invested in learning, in communities which benefit from and can benefit local campuses, and in the physical facilities of those campuses themselves. These resources, undervalued in making corporate deals, can result in relationships that funnel money from campus to corporation, money that the campus could retain. Such undervaluing of campus resources is epitomized by the California Education Technology Initiative package (CETI), a proposed privatization of the California State University system’s computer and communications network in partnership with Microsoft, GTE, Fujitsu, and Hughes Satellite corporations. As Robert Daniels, Professor of Accounting at California State University, San Francisco, illustrates in his detailed financial analysis of CETI, much of the deal involved selling CSU resources back to the CSU system. He uses an analogy to illustrate this fact: "Suppose you want a fence painted. You hire your neighbor to paint it and agree to pay your neighbor $100. Your neighbor then hires you as a ‘subcontractor’ to paint your own fence for $70. Nice work if you can get it" (“Emperor’s”). By recognizing, appropriately valuing, and effectively deploying campus assets, universities can empower themselves in the corporate market or even remain outside that market.

Part of empowerment also resides in acknowledging that higher education does not function like a business. As Daniels writes, "... strategies that would make sense in the business world (incentives to increase sales, pricing adjusted to demand) either worsen its losses or are politically out of bounds” (“Corporate”). For this reason, defending public funding of higher education is vital. The more universities capitulate to corporate pressures, the less they are perceived as altruistic institutions serving community and nation, and therefore the more the public will resist allocating public money to and valuing government safeguards (such as accreditation standards) of higher education.

Universities already wield their individual reputations and collective memberships in a respected community of accredited colleges; if owning a piece of higher education is irresistible to global corporations, why can we not make it equally attractive to its previous benefactors, federal and state governments?

The answer to this question may be rooted in the nature of a capitalistic economy and the power it has to
usurp democracy from the governing body which protects and encourages it. Commerce has saturated societal structure on a global level; the world’s food supply, most global natural resources, and all major communication media from television to publishing houses are owned by a small handful of behemoth transnational corporations. Higher education remains one of corporatization’s last conquests: the ownership and control of knowledge in the making. In controlling how knowledge is gained, distributed, and sold, vested corporations will ensure their control of an eager consumer market and success in both short-term and long-term profit.

Should corporatization of higher education ultimately prevail, formal learning becomes global commerce, and global commerce falls under the domain of the World Trade Organization (WTO), the international organization established in 1995 that enforces trade rules such as the General Agreement on Tariffs and Trade (GATT), among others. Any remaining safeguards to assure quality in our nation’s higher education system fall prey to the WTO’s “comprehensive system of corporate-managed trade,” in which

... economic efficiency, reflected in short-run corporate profits, dominates other values. Decisions affecting the economy are to be confined to the private sector, while social and environmental costs are borne by the public.

... The WTO also guarantees corporate access to foreign markets without requiring that transnational corporations respect countries’ domestic priorities. (Working 1-2)

This system assumes that any national policy, law, or domestic standards for higher education, such as accreditation standards, would be subject to revision by WTO rulings should they interfere with free trade and global commerce. Implications for deregulation of higher education standards place the integrity of all academic disciplines at risk.

Given the threat to higher education in general, how can the humanities disciplines survive; let alone resist the onslaught of corporatization? Apart from educating humanities students and future teachers to work in community and impart their own influence over the technological dialogue, humanities personnel can also take extracurricular measures to slow or even halt corporate takeovers of their institutions outside the classroom.

Action begins with awareness of current policies regarding corporatization. Educators can stay abreast of the issues, learn to read them critically, and take action en masse when necessary. At the political level, faculty and staff can voice opinions on corporatization to elected officials in state and federal government. Support of faculty and staff unions further strengthen individual action.

At the campus level, collegial discussion about corporatized intervention stimulates awareness, which, in turn, stimulates action. In taking a stand on corporatization and technology issues affecting higher education, educators teach and model social responsibility to students as faculty at York University did during their two-month strike. Their strike secured a union contract ensuring “that the new technology, if and when used, will contribute to a genuine enhancement rather than a degradation of the quality of education, while at the same time preserving their positions, their autonomy, and their academic freedom” (Noble “Digital”). Similar awareness of CETI issues at the California State University system prompted both faculty and students to post updates, news, and critical essays regarding the proposal, which led to the organization of public information meetings and demonstrations at administration offices. Ultimately, the CETI proposal failed.

Besides taking action on important issues related to corporatization, humanities educators can continue to
demonstrate the relevance of the humanities to those outside the disciplines, thereby resisting corporatization’s specific threat to the humanities. Knowledge of technology’s new role in communication is an especially important aspect of this demonstration. Rather than just pushing the buttons, humanities educators need to become more than just technology consumers; they can gain a foothold in influencing technology’s role in communication by remaining adaptable and aware of current developments to share with students, administrators, and the educational community at large. In doing so, they model the relevancy and remain in a position to teach critical thinking about technology and the iconic signs used for communication in mass culture. Such personal responsibility for awareness combined with grassroots action may be a simple yet effective method to slow corporatization and combat the myths of its power structure.

Ultimately, the fundamental awareness necessary to resisting the corporatization of higher education is understanding that power is not a centralized point but rather a “multiplicity of force relations” (Foucault 92). Therefore, the very consumers, including educators, who are the victims of mass culture also generate and so possess the influence necessary to change mass culture. As Foucault writes, “Where there is power, there is resistance . . .” (95). Because of this resistance, even as the myths of mass culture function to “mask a substantial part of itself” (Foucault 86), teachers and shapers of language can empower students to think critically about their daily communication experiences, training which includes learning how to shift among sign systems (Myers 189-90) and recognize subliminal messages. It may well be that resistance against oppressive language, the technology that drives it, and the corporate base that manipulates it, will find its greatest strength through a realignment of social perspective. “Mass culture reflects, or expresses, or at most reinforces the core values of a society; it plays a part in shaping the consensus around which society coheres, but a secondary part. The choices of news and entertainment that people make are real choices; people hold more sovereignty over the producers of culture than vice versa” (Ohmann Selling 41). Humanities futures, at least in part, will rely on convincing society that this is true.

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Endnotes

1 McDonald's Corporation operates a Hamburger University to train its personnel (*Hamburger*), but this training center has no relevance to our discussion other than, perhaps, as a metaphor for the systematized, for-profit university (see also Leatherman). The term *corporatized universities* is used in Leonard Minsky's preface to Lawrence C. Soley's *Leasing the Ivory Tower: The Corporate Takeover of Academia* (iii). The discussion there focuses only on what we are terming *corporate-supplemented* universities. This limited definition resembles Sheila Slaughter and Larry L. Leslie's definition of *academic capitalism* as the business of external funding (8).

2 Our use of the term *technology* means virtual technology throughout.

3 Although scholars like Jodi R. Cohen (33) often define *language* broadly to include such signs as colors, images, and gestures, we mean primarily word-based language. However, we do think our argument may also address language in its broadest definition. For example, we assert that other signs, such as visual
images, employ arbitrary connections similar to word-based signs.

4 Umberto Eco argues that the difference between word-based ("symbolic") and symbolic ("iconic") signs is culturally constructed rather than constructed by meaning intrinsic to the signs themselves. However, he agrees that symbolic signs are not arbitrary (191). Saussure's and Eco's classification of signs is an abstraction necessary for analysis but different from what actually occurs in spoken or written language; as Jodi R. Cohen writes, "[a]ny signifier may be simultaneously symbolic, iconic, and indexical" (46).

5 For general concern over academic freedom, see Kolodny. For concerns with conflict of interest in research, see Cho, McCollum, Slaughter (223-24), Soley. Powers and Powers raise the question of conflict of interest but do not answer it ("Making"). Regarding the testimony of university presidents before Congress about corporate-university partnerships, Slaughter observes that none of them addressed corporate profit from federally funded research or conflict of interest (124-25); Soley notes that corporate CEOs often become university administrators and vice versa (i). See Ehrlich, and Slaughter and Leslie (59) about corporate influence over curriculum. For concerns about how federal and corporate funding connects universities to oppression in Central America, see Feldman. Hogan discusses how corporate-sponsored research creates class divisions between researchers and teachers (see also Rhoades and Slaughter 63). See Stallings for a middle-of-the-road discussion.

6 See Blustain, Goldstein, and Lazier (52); Denning (22), Duderstadt (15-16); Katz (37 "Competitive"); and Sharp and Sharp (2). Non-critical scholarship that sees economic education models as wholly advantageous, failing even to mention economic fear as an incentive for overcoming the problems of such models, includes Bower, Garber, Jasso, Leavy and Wallace, Levine and Trachtman, Myerson, Northeast-Midwest Institute, Raphael and Tobias, Sperling and Tucker, and Swenson. Of these writers, some are affiliated with or published by organizations that encourage corporatized education: Blustain et al., Denning, Duderstadt, and Katz with Educause (previously Educom); Levine and Trachtman with the Committee for Economic Development; and Sperling and Tucker, and Swenson with the University of Phoenix. The Sharps both approach education from the business side, Arthur G. Sharp as business faculty and Elizabeth O. Sharp having degrees in business administration and economics. Myerson's book is part of a series funded by the Forum for the Future of Higher Education, which includes businesses such as Morgan Stanley and IBM (Myerson x). One article in Myerson reveals the bias of the collection: the title of "Why Can't a College Be More Like a Firm?" by Gordon C. Winston plays on Rex Harrison's song from My Fair Lady "Why Can't a Woman Be More Like a Man?" In titling his text thus, Winston aligns colleges with women and finns with men, inadvertently implying marginalization of the college and its values in a patriarchal economic model.

7 Christopher Newfeld argues that more than one model of good business exists. Higher education uses the financial model, which focuses on the short-term bottom-line (69-70). This model does not work for education where most products are non-quantifiable (80, 82). Instead, he argues, higher education should use a human-relations model that "traces productivity to relationships, collaboration, and creativity rather than to sheer efficiency and economy" (82).

8 Corporate partnerships with land-grant institutions have a history dating back to the 1862 Morrill Act (Powers and Powers xvi-xvii). Slaughter dates the movement toward business partnerships from the 1960s on. However, it is more common to date the surge of business-university partnerships as starting in the 1970s, because of the growing realization that global supremacy depends on intellectual capital (Noble "Digital"; Rhoades and Slaughter 52), and sharply increasing in the
1980s, primarily because of legislation during that period that encouraged such partnerships, like the Bayh-Dole Act (PL 65-517) of 1980, which allowed universities to profit by retaining title to government-funded research (Duderstadt 3; Kolodny 12; Noble “Digital”; Powers and Powers “Preface” xiv-xy; Rhoades and Slaughter 52; Slaughter and Leslie 5, 45; Soley 10).

Sheila Slaughter and Larry L. Leslie term universities’ responding to market pressures academic capitalism (8-11).

Under heavy pressure, CETI was dropped (Beimiller and Young), but later the CSU system entered into a stripped-down agreement with Microsoft, one of four original corporate partners (Guernsey). For more information on CETI, see articles by Daniels, Hauser, Wood, and Young.

See, for example, the recent discussion in The Chronicle of Higher Education about the word none as plural (“Marginalia” 17 Sept. 1999 A10).

This does not mean that the humanities discipline requires more opportunities for corporate partnerships; conflict of interest is one significant reason to avoid such funding. What is important is that the free-market system victimizes disciplines that teach human values. Therefore, the system needs to be resisted.

For those reading this paper prior to the conference, we shall present a more detailed discussion of the Vygotsky classroom model in an earlier panel, 390 “Technology and the Teaching of Writing: Possibilities and Challenges,” scheduled for Tuesday, 28 December 7:15-8:30 p.m. in the Acapulco Room.