In his informative and influential book *Dancing with the Devil: Information Technology and the New Competition in Higher Education*, Richard Katz pointed out: “Traditional revenue sources for U.S. higher education are, and will continue to be, under downward pressure. When faced with such pressure, colleges and universities have a limited set of responses. They can cut costs (with or without cutting quality), raise prices, exit existing markets, pursue new markets, create new products, or pursue any combination of these strategies.”

Katz’s use of market rhetoric to describe the challenges facing higher education is calculated to provoke his readers to analyze and respond to the extraordinary changes occurring in the world around them. We are undeniably living in a moment of extraordinary social, cultural, political, and economic transition. As we move from an industrial to an information economy or from modern to postmodern culture, new socioeconomic structures and institutions are transforming all aspects of life. What is emerging might best be described as network culture. The conditions for network culture have been created not only by the remarkable technological innovations of the past several decades but also by the decentralization and deregulation of the telecommunications and financial industries during the 1970s and 1980s. These changes, which occurred and are continuing to occur at warp speed, are posing enormous threats and unprecedented opportunities for higher education. Unfortunately, educators tend to see threats where businessmen recognize opportunities. What are the opportunities, and where are the threats?
In a recent article in The Economist, Mark Getty, the grandson of J. Paul Getty, observed: "Intelectual property is the oil of the 21st century. Look at the richest men a hundred years ago: they made all of their money extracting natural resources or moving them around. Today's richest men have made their money out of intellectual property. If information is the oil of the twenty-first century, colleges and universities are sitting on very valuable reserves. A Merrill Lynch research document entitled The Book of Knowledge: Investing in the Growing Education and Training Industry, published in April 1999, estimated the value of these reserves to be $2 trillion worldwide and $740 billion in the United States. Yet many educators and educational institutions remain reluctant to tap these profitable reserves. What the business world understands and the academic world is reluctant to admit is that education is a very valuable commodity. In network culture, profits are going to be generated not only by selling things online but, more important, by marketing commodities that are distributable through new technologies. Having connected the market on entertainment, sports, and news, entrepreneurs are taking aim at education. For higher education, this situation poses two alternatives, which might or might not be a zero-sum game: competition or cooperation. If companies and investors are in the same business as colleges and universities, they are going to be much less willing to contribute freely to potential competitors. When Michael Lewis, the author of the brilliant and controversial book, Money is Making Money (an account of investment bankers), wrote, "You guys are in trouble and we are going to eat your lunch," he was really describing their work, not by the hippie era people put down the idea of business—they'd say, "Money is the root of all evil" and "Working is bad," but by the idea of making money is art and working is art and good business is the best art.1 Lewis and Warhol are suggesting that businesses are becoming artists and artists are becoming businesses. How might this insight help us to understand what is going on in higher education? An answer to this question begins to emerge when we realize that not only hippies but also many educators deem money to be bad and business the work of the devil. Indeed, about the only thing left and the right in the academy seem to agree about is that money is dirty and that capitalism—not communism—is the evil empire. The roots of this attitude can be traced to the origin of the modern university. The first modern university was the University of Berlin, founded in 1810. Immured Kant developed the blueprint for the modern university in a work entitled The Conflict of the Faculties, published in 1798. Kant began his analysis by arguing:

Whatever it was that first hit on the notion of a university and proposed that a public institution of this kind be established. This is not a bad idea to handle the entire content of learning really, the thinkers devoted to this mass production, so to speak—by a division of labor, so that for every branch of the sciences there would be a public teacher or professor appointed as its master, and all of these together would form a kind of learned community called a university (or higher school). The university would have a certain autonomy (since only scholars can pass judgment on scholars as such) and accordingly it would be authorized to perform certain functions through its faculties.

In this remarkably prescient passage, Kant asserted, higher education is mass production and, by extension, with what eventually becomes the logic of Fordism. In addition to his well-known contributions to pop art, Warhol was one of the most astute interpreters of the new media culture and telecommunications technologies. In his provocative book The Philosophy of Andy Warhol, he underscored the intersection of business and art: business art is the step that comes after art. I started as a commercial artist, and I want to finish as a business artist. After I did the thing called 'art' or whatever it's called, I went into business art. I wanted to be an Art Businessman or a Business Artist. Being good in business is the most fascinating kind of art. During the hippie era people put down the idea of business—they'd say, "Money is the root of all evil" and "Working is bad," but by the idea of making money is art and working is art and good business is the best art.4 In his provocative book The Philosophy of Andy Warhol, he underscored the intersection of business and art: business art is the step that comes after art. I started as a commercial artist, and I want to finish as a business artist. After I did the thing called ‘art’ or whatever it’s called, I went into business art. I wanted to be an Art Businessman or a Business Artist. Being good in business is the most fascinating kind of art. During the hippie era people put down the idea of business—they’d say, ‘Money is the root of all evil’ and ‘Working is bad,’ but by the idea of making money is art and working is art and good business is the best art.4

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Members of the higher faculties, then, are “businessmen” and “technicians of learning” who are the “tools of the government” (and, we might now add, in a more general sense, of the public) and the professional (or vocational) class. The distinction between the critical and the vocational is its uselessness. High art is its uselessness. High art is understood in this way: high and low art are thought of as opposite poles on a continuum. In low art, producers of knowledge for knowledge’s sake. The higher faculties is its uselessness. High art, by contrast, is useful. The natural organism finds cultural expression in the beautiful work of art. In Kant’s aesthetic theory, true or fine art is art that is created for the sake of the artist’s, the value of fine art is intrinsic. The value of low art is extrinsic. Fine art, by contrast, does not grow out of economic logics. The economic logic of the art market is obvious. The value of art is determined by the market. Nowhere is the danger more evident than in the practice of fine art. The modern university structure: Kant’s polarities

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The Modern University Structure: Kant’s Polarities

Stranger: Take music in general, and painting and marionette playing, and many other things, which are purchased in one city, and carried away and sold in another—inwares of the soul which are hawked about for the sake of instruction or amusement. May not he who takes them about and sells them be quite as truly called a merchant as he who sells meats and drinks?

Hesiod: To be sure he may.

Stranger: And would you not call him by the same name him who buys up knowledge and goes about from city to city exchanging his wares for money?

Hesiod: Certainly I should.

Stranger: Of this merchandise of the soul, may not one part be fairly termed the art of display?

Knowledge and art are for sale: merchandise of the soul, wares peddled by itinerant artists and intellectuals in the marketplace. Plato labels this art of display “Sophistry”—appearance not reality, semblance not substance, illusion not truth. Here as elsewhere, the source of corruption is money. For those with ears to hear, echoes of Plato and Kant can be detected in the words of contemporary critics of the growing cooperation between higher education institutions and the corporate world. In a recent cover story in Atlantic Monthly entitled “The Kept University,” Eyal Press and Jennifer Senior asked the question about what they label “the academic-industrial complex” and “the model market university.” They concluded their article with a Foucauldian echoed from the histori-
This understanding of the philosophical principles underlying the college and university clarifies some of the reasons for the differing responses to the use of technology and the development of business ventures. Where technology and commercialization have made greatest inroads in postsecondary education are on the low and high ends: practical education and training on the one hand and graduate professional schools (law, business, and medicine) on the other. Where the so-called work of the devil has been most resisted is in faculties of arts and sciences—especially humanities and arts.

But this situation is changing rapidly. The university as we have known it for two centuries is a thing of the past. This does not mean that it will disappear in the near future. To the contrary, resistance to its passing will increase as the far-reaching implications of the convergence of education, technology, and the market become clear. The hierarchies that Kant defined were never as secure as they appeared and now are being overturned more rapidly than anyone could have predicted. In place of traditional colleges and universities, different kinds of institutions and organizations are emerging. There are undoubtedly certain dangers involved with subjecting all of the activities of higher education to market discipline. Educators and educational institutions must retain control over what they produce. Furthermore, basic research and education whose practical value is not immediately evident should continue to be supported. But this important work can continue only if additional revenue streams are created.

The corporatization of the college and university and the commercialization of higher education will accelerate in coming years. Too many educators live with the illusion that they have a choice about whether or not these changes will occur. The only choice we face is who will shape this new educational environment and who will profit from it. I believe it is the universities to thrive in the twenty-first century, for mediated and decision-making structure of colleges and universities will result in the erosion of tenure. This is, of course, already occurring, with the increasing use of part-time faculty. This trend will accelerate in the near future. But tenure will also be compromised by a new era of “free agency” in which corporations will maintain minimal affiliation with established educational institutions. This tendency will not be limited to faculty but will extend to staff members whose skills in information, communications, and media technologies are highly marketable. Colleges and universities already face major problems when they must compete with business for talented workers.

1. Academia: The defining characteristic of network culture is speed; only the quick survive. The current organization and decision-making structure of colleges and universities cannot respond quickly enough to today’s environment. Different administrative procedures will have to be developed that will allow for timely responses to constantly changing situations. In many cases, deliberative processes will have to be streamlined and decision-making responsibility delegated to individuals with the necessary expertise. This will inevitably result in the decline of on-campus faculty power.

2. Employes: It is clear that the university work force is undergoing major transformations. The increasingly competitive market in higher education makes many of these changes unavoidable. For institutions to survive, their staffs must be flexible, adaptive, and competitive. Growing pressures will result in the erosion of tenure. This is, of course, already occurring, with the increasing use of part-time faculty. This trend will accelerate in the near future. But tenure will also be compromised by a new era of “free agency” in which corporations will maintain minimal affiliation with established educational institutions. This tendency will not be limited to faculty but will extend to staff members whose skills in information, communications, and media technologies are highly marketable. Colleges and universities already face major problems when they must compete with business for talented workers.

3. Curriculum: New technologies are changing the product that colleges and universities produce and sell. The structure and the content of knowledge are conditioned by the forms of production and reproduction in a society. As technologies change, knowledge changes and vice versa. With the movement from mass production to mass customization, the uniformity of coursework offerings will decrease. Students will have a greater impact on the content of their courses. Furthermore, the curriculum will become less fixed and more flexible. Chairs and courses of study will begin to look more like nonlinear hypertexts than linear trajectories with clear beginnings, middles, and ends. As these changes occur, divisions and departments will be reconfigured or abolished. Traditional disciplinary boundaries will not be too often function to protect entrenched power and discourage innovative research and teaching. Many schools and especially graduate programs are producing products for which there is no demand and are cultivating skills for which there is a need. This cannot and should not continue.

4. Students: The composition of the student body is rapidly changing. As the time and place of instruction become irrelevant, new markets open. College and university courses are now available to anyone anywhere in the world. Higher education is rapidly becoming as global as the economy. One of the most significant opportunities for growth is the lifelong learning market. With the acceleration of technological change, continuing education becomes a necessity. In addition to practical and technical training required in the workplace, the growing retired population will create a significant market for education that is not directed to practical ends. For many aging baby boomers, education will become entertainment.

Like all other significant change, these developments—and others that cannot be anticipated—involve both losses and gains. I completely disagree with Kant’s Polarieties Updated: New Conflicts

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| IVORY TOWER | REAL WORLD |

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Educators must earn the lesson Warhol tried to teach artists: being good in business is the most fascinating kind of education.
with people who see only danger ahead and insist that we must resolutely resist the changes that are taking place. There are enormous opportunities for educators who have the vision and conviction to take the initiative. The new education is no more going to displace the old education than the new economy is going to replace the old economy. For the foreseeable future, old and new will coexist in a relationship that can become mutually beneficial. With the cooperation and support of businesses and corporations, e-Ed can provide resources to support many of the traditional activities of colleges and universities. But it is no longer enough to remain committed to a university model that originated in the eighteenth century; nor is it possible. Whether we like it or not, the restructuring that corporations underwent as they moved from an industrial to a postindustrial or information economy is now occurring in higher education. Without denying possible problems, we must try to imagine creative opportunities. New technologies create possibilities for radically novel ways of thinking, reading, writing, and teaching. It is our responsibility to prepare our students for the world in which they are going to live and work. We might begin by creating opportunities for students from around the world to sit at a virtual table with teachers from anywhere in the world to discuss issues of intellectual, cultural, and social significance. I am naive enough to think that the world would be a better place if we could create such global classrooms. But it will not happen if educators do not enter into partnerships with businesspeople and technicians.

Change is never easy and always threatening. Yet change is what keeps institutions as well as people alive. Unfortunately, no institution is more resistant to change than the college and university. Perhaps it has always been so, but now time seems to be running out. If colleges and universities do not overcome their smug satisfaction with how they do business, the Michael Milkens of the world will indeed eat their lunch. The challenge that educators face is to turn the useful devils of business and technology to their own ends. If usefulness is a devil, it’s a devil we must learn to dance with or educational institutions will become more obsolete than they already are. This is neither a threat nor an ultimatum; it is just a fact—a brute fact. And it’s time to face this fact directly and honestly.

Notes

This article is based on a presentation delivered at the Northeast Regional Computing Conference (NERCOMP) conference, Sturbridge, Massachusetts, March 21, 2000.