

CONTINUING EDUCATION:

THE FUTURE 'FLAGSHIP' OF HIGHER EDUCATION?



Professor Jim Dator gave the following presentation to the Region VI Conference of the University Continuing Education Association at the Royal Kona Hotel on October 12, 1996.

Jim Dator

I can't tell you how happy I am to be with you today--you fellow revolutionaries and co-conspirators in the overthrow of the industrial state, and its handmaiden, publicly-funded education. Here you are, double-agents all, pretending to be mere public or private servants laboring in the most forlorn, despised, and neglected of all educational vineyards, the colleges of continuing education; cowering in the towering shadow cast by the mighty flagship campuses of the proud and haughty land-grant universities, with their officious administrators and preening professors--you sit, and work, and wait. Biding your time. Editing a video tape here, going online there, holding a conference in Kona now, and all the while slowly spreading the strong but hidden tentacles of the virtual university everywhere until, as the crew of the flagship sleeps, you rise up with fury long repressed, and strangle all the classroom-bound professors and their sucking administrators, burn all libraries which haven't gone digital, and proclaim for all the world to hear that you, and your colleges of continuing education, are the sole and solely worthy conduits for learning, just-in-time, for the twenty-first century.

As some of you know, even though I am a very happily-tenured professor at the University of Hawaii, at Manoa, and would like to be able to tell you that the UH, in all its diverse parts, will continue surging forever forward, until, indeed, oceans' far horizons shall sing her honored name (which is the last line in the last verse of the UH Alma Mater, in case you are wondering), I just can't promise that. Instead, I might just as well be called the Hunchback of Alma Mater, so burdened down am I by the weight of decades of prophecy and false prophecy about the future, impending demise, and possible transformation of higher (and all) education, here, there, and everywhere.

But now, now is the time. You are the people, and here is the place--as you must very well know by now, having spent four days already discussing, scheming, and plotting. Why you are not all out on the beach at this point, I just can't imagine, though I suspect that a goodly number of your co-conspirators are at this moment hitting the big glasses, as you sit here for yet one more dose of wisdom and light.

So, consider: the modern system of public education is only about a hundred to one hundred and fifty years old. It was created specifically to meet the needs of the emerging industrial state of that time. Formal education was expected, to some extent, to pass on the truths of our tradition (in our American case, Western Civilization--the dead white guys you know so much about). And colleges were also expected to be places where folks like me could attempt to pursue and, mayhap, uncover new truths from time to time. But it is very important to understand that our entire publicly-funded educational system--the reason frugal citizens were, once upon a time, persuaded to part with their hard-earned cash and give it to the likes of people like me--was only so that we would transform farmers and peasants into the workers and managers (and soldiers and generals) needed in the factories and killing fields of the emerging industrial state. At the same time, some of

us were also expected to do the research and development necessary to produce the guns and products of industrialization. No state legislature anywhere has ever created a state university, much less any other part of the educational system, primarily to enable scholars to "pursue truth," you may be sure. Publicly-funded education was established entirely to serve the needs of the industrial state, and "truth" was never ever one of its needs. This has been the source of the underlying inevitable tension between town and gown.

And this is all crashing to an end as some kind of a "post-industrial"-- possibly, "information"--society springs from the putrefying corpse of the malingering industrial state. Moreover, let me remind you that before 100 years ago--indeed before about 50 years ago--only a tiny handful of people had any formal education at all, much less any formal higher education. Formal education was not needed in traditional, slow-moving, agricultural, feudal societies. And it may or may not be needed in the future. Learning will certainly be important, but formal teaching through mandated educational institutions seems very likely to be at an end.

At the very least, it is important to consider that public institutions of education are very new and, I believe, very fragile and ephemeral.

But, even if schooling was necessary for industrialization, why were school buildings built? Or, more interestingly, campuses--collections of school buildings? Why have them all in one particular place? Why have everyone go to school at the same time, change classes when bells ring, and come to an end at a certain time in the afternoon, then to remain vacant most evenings, weekends, and summers? People may have to be taught to be workers, managers, and consumers, instead of peasants, nobility and slaves, but why send them to school buildings regulated by clocks, calendars, and grades?

The answer to that lies in a question which the media philosopher and futurist, Marshall McLuhan, posed thirty years ago. McLuhan asked: "What if television had been invented before the printing press?" If McLuhan had lived a bit longer, he certainly would have added, "and what if personal computers, PDAs and the World Wide Web had existed before the printing press, too?"

Think for a minute. If globally networked communication systems had come into existence in the fifteenth century do you think we would have schools and school buildings and curricula like we have them now--or indeed that we would any thing else that we presently do have?

If the answer is that our world would look much different now if we had not grown so dependent upon the printing press and the necessity of congregating in central locations for everything from education to commerce--and I think that is the only reasonable answer--then why does the world persist in looking like it does now, and how much longer will it-- can it--go on looking like this? More to the point, why do faculty, administrators, and politicians insist on erecting even more buildings and planning even more campuses across the land? It's madness. It's inertia. It's greed.

Now, as I said, this is something I have been thinking about for virtually all of my academic career. And I have been doing more than just thinking about it. I have tried to be as close to the forefront of experimentation

with new communication technologies as possible, because I believe it is only through direct experience, and not through speculation of any kind, that you can come truly to understand the transforming power of any new or emerging technology. Since most of you also use the new communication technologies in your own work and teaching, you know full well the transformation which they bring.

As some of you know, I spent the first six years of my academic career as the only non-Japanese teaching in the College of Law and Politics of Rikkyo University, in Tokyo, Japan. Since few of the students or faculty could speak or understand spoken English, I did my best to conduct my classes, consultations, and research in Japanese. It was during that time that I first became personally aware of the fact that what we think we understand about the world is entirely dependent on the models and media we use to perceive and reconstruct the world. The world to a native English speaker in America is, I can assure you, fundamentally different from the world of a native Japanese speaker in Japan. And while I lived in Japan, speaking Japanese, I came to see the world quite differently from the way I had previously seen the world in English in America, simply as a consequence of seeing it through Japanese grammar, syntax and vocabulary.

It was that experience, more than any other, that set me off exploring the relationship between what we think with and what we think about.

After I left Japan, I went to Virginia Polytechnic Institute, a large school in a tiny town in the mountains of Virginia. But while I was there I had the very good fortune of falling under the influence of a creative bunch of architects and artists with whom I worked producing a variety of nonverbal, non-numerical models and media for political science. We developed and experimented with various prototypes for teaching university political science courses through static, three-dimensional models, instead of relying on textbooks and spoken words.

Then, shortly after coming to the University of Hawaii, I participated in producing, through the UH College of Continuing Education, "Tune to the Future," a university political science televised course which was innovative in its use of comedy, short-takes, and quick editing--methods which are now much more common in educational television material. We also produced a considerable amount of written support material, and I visited all islands and met with student groups while watching and then discussing broadcast segments. This course was awarded a prize for creativity from the National University Extension Association.

Realizing that I needed to know more about tele-education, I took a two-year leave of absence from the UH and went to Toronto where I was director of the Futures Project of the OECA (also known as TV Ontario). There I worked with Marshall McLuhan and others, and wrote and produced many educational television and multimedia programs and support material.

During that time and subsequently, I collaborated with Simon Nicholson of the Open University in England and produced several different things in many different media for his course, "Art and Environment," one of which was a television program, called "Que Sera, Sera", which was shown over the BBC2 TV network for ten years.

When I returned to the University of Hawaii I began teaching a course on media literacy through the Department of Political Science and conducted a semester-long series of symposia, demonstrations and other events which culminated in a three day "Mediacy Fair", all aimed at interesting the university and broader community in using electronic communication technologies for serious, entertaining and effective educational purposes.

I have produced scores of what were once called "multimedia shows" (using multiple slide projectors, motion picture projectors, and integrated music, narration, and sound effects) for conferences of a wide variety of topics. In addition, I also have taught several courses throughout M ed to participate in an NSF-sponsored project, called the "Electronic Information Exchange System" (EIES), run by Murray Turoff of the New Jersey Institute for Technology. When this very successful demonstration project ended (see *Network Nation*, written by Turoff and Roxanne Hiltz), I was unable to get officials at the University to understand the power of that medium for education, especially for a remote and multi-island community like Hawaii.

When Hawaii finally did get satisfactory e-mail and computer conferencing capability, I began requiring my students to use private listservs which I set up for them first on Vax ("Vaxnotes") and now on Unix ("Caucus"). Students in all of my classes have been required for several years now to post all homework on the "Caucus" listserv; to comment on classroom discussions; and to reply to what others write. Within a few sessions, the course is no longer "mine" but rather is "owned" by all class members themselves. Most importantly, class is literally in session twenty-four hours a day, seven days a week. Involvement and participation is extremely high, continuous, and effective. Moreover, since "Caucus" is distance-insensitive, whenever I am (or any class member is) off-island, we can and do continue the course anyway, via our portable computers wherever in the world we might be.

I should also add that while I was a member of the UHM Library Committee I stood alone in objecting to a new annex being built for Hamilton Library. I argued that the already-excellent work in remote access and digital storage underway should be more fully funded thus allowing, for example, every UH student to have a personal computer and a computer account; increasing the ease of their cabled or microwave access via the Internet; converting all library material except the rarest of rare books to digital form; ridding all library buildings of books, magazines, and stacks; and installing beds and blankets so that the students one finds now typically sleeping in the library could sleep on in greater air-conditioned comfort. Needless to say, I am no longer a member of the UH Manoa Library Committee. And, needless to say, efforts to build the new annex have recently been redoubled.

Chris Dede is a fellow-futurist who has been tracking the metamorphosis of education for almost as long as I have. Last year he made the following observations, using the then-popular term "NII--National Information Infrastructure" to describe the underlying communication technology which is occasioning the transformation:

"The National Information Infrastructure (NII) is a vehicle for virtual communities, a conduit for knowledge utilities, and a synthetic environment with new frontiers to explore and experience. During the next decade, these emerging capabilities will leverage more change in education than has occurred over the past two centuries.

"High-performance computing and wide-area, broad-bandwidth networking, the newest technological

advances, empower the NII to become a ubiquitous, enormous channel for data. Different from prior evolutions, NII is fusing together the radio, television, telephone, copier, fax, scanner, printer, and computer, all of which will eventually co-exist in a single box. In two decades, the ecology of information technologies will have only a few super-species remaining ("teleputers?" "compuvisions?") that synthesize the capabilities of all devices.

"Beyond ease of use from a consumer's perspective, this fusion has enormous implications for information technology vendors. Merging technologies mean merging markets. Tens of thousands of current organizations (e.g., telephone companies, computer corporations, radio stations, television broadcasters, cable narrowcasters, publishers, on-line databases, newspapers, and libraries) will ally, acquire, and expire into just three or four partnership that will be the core information providers for our society.

"What does all this mean for education? The evolution of information technology is restructuring American business: eliminating jobs, recasting traditional roles, creating both expanded markets and new competitors by transcending barriers of distance and time. Similarly, the educational implications of the NII go beyond enabling the transportation of data anywhere, on-demand, to empowering new delivery systems for learning.

"Ubiquitous access to sophisticated information undermines the campus-based, classroom-centered structure of academic learning environments. Virtual communities can complement face-to-face relationships among students and faculty. In higher education, presented with the alternative of technology-mediated interaction such as telephone registration or video-based classes, an ever increasing number of part-time students appreciate the convenience despite the loss of opportunities for spontaneous, face-to-face socializing.

"In the NII, broad-band networking coupled with collaborative tools, will empower "telepresence," shared social environments without physical proximity. As education incorporates opportunities for telepresence in remote access to libraries, computer labs, on-line advising, and video-based classes, the convenience of just-in-time, anyplace service will shift academic interactions increasingly--but not completely--into virtual communities and classrooms with electronic walls.

"As the NII matures, education outside the classroom may supplement video-based instruction with immersion in synthetic, virtual environments made possible by distributed simulation, a training technique developed by the U.S. military. The shift to interpersonal and interactive instruction, a shift toward shared collaboration, mirrors the evolution of crucial workplace skills, as well as satisfying many of the social needs students bring to higher education.

"Through such teleapprenticeship approaches, a widely distributed group of students can engage in simulated, real-time experiences (e.g. virtual hospitals, factories). Their ability to apply abstract knowledge is enhanced by situating education in mentored, virtual contexts similar to the environments in which skills will be used. Moreover, knowledge taught just-in-time to resolve a problem is mastered more readily than when taught just-in-case as part of covering material. Interdisciplinary, learning-by-doing experiences in artificial environments made possible by the NII will likely supplement discipline-centered, campus-based teaching-by-telling.

"Where will educational organizations find the resources to implement these alternative models of learning? Those schools and colleges with innovative alternatives to "talking heads" distance education must seek out vendors happy to share the costs in exchange for help with the regulators, legislators, and judges who are determining which coalitions will manage the NII. As with business, the evolution of technology will create new markets and expanded competitors.

"With sufficient economies of scale, the NII may result in lower costs than our present system of similar standard courses duplicated at every institution. State legislatures may see this model as an attractive way to cut expenditures for higher education--applicable to every course for which a substantial textbook market exists. In this scenario, higher education would be reshaped as profoundly as American business has been altered by technologies enabling the global marketplace.

"The NII is a meta-medium that synthesizes all prior media into a fusion greater than the sum of its parts. At present, most faculty and administrators are coping with its first impact: shifting from foraging for data to filtering a plethora of incoming information. Educational leaders in the next decade must develop a comprehension of how to use this new medium to empower new messages and mission, and how to collaborate with and/or outperform competitors." (From: "Beyond the Information 'Superhighway,'" By Christopher Dede, George Mason University)

More iconoclastically, Eli Noam, director of Columbia's University's Institute for Tel-Information, wrote an article on the future of the university which was published several months ago in Science magazine, certainly the most widely read and respected journal of the American scientific community. Professor Noam also made it clear that, in his words, "many of the physical mega-universities of the present are not sustainable, certainly not in their present duplicative variations." Noam expects that "ten years from now a significant share of conventional mass education will be offered commercially and electronically."

More recently, an editorial appeared in Science (June 21, 1996) written by Donald Langenberg, former deputy director of the National Science Foundation, former Chancellor of the University of Illinois, and presently the Chancellor of the gigantic University of Maryland System. The title of the editorial was "Power Plants or Candle Factories." Chancellor Langenberg states that

"...[M]any universities may die or may change beyond recognition as a result of the IT [Information Technology] revolution. When asked what his light bulb would mean for the candle industry, Thomas Edison reportedly replied, 'We will make electricity so cheap that only the rich will burn candles.' We are entering an era in which most colleges and universities must decide whether to change a little (and thus remain in the academic candle industry) or a lot (and launch themselves into the academic electrical business). Barring a catastrophic reduction in the nation's commitment to research, the 100 or so major research universities probably will persist in recognizable form. Several hundred institutions whose primary focus is liberal education of full-time, campus-resident, recent high-school graduates will persist as well. That leaves about 3000 institutions of higher education serving the vast majority of the nation's 14,400,000 college and university students in ways that will inevitably be profoundly transformed by IT.

"...Resistance to radical change will probably be substantial within academe, many of whose members will

argue that IT is a threat to the essential traditional values of real education and that its pervasive use can result only in pervasive mediocrity. I anticipate that much of higher education's clientele will decide otherwise. I expect that we will see academic examples of the phenomenon reported by a bank official who, when visiting a branch office, observed several unoccupied human tellers idly watching the progress of a long line of customers at the ATM."

I agree with much of what Chancellor Langenberg says, but please note there is one huge assumption embedded in his forecast. He says that the one hundred major research universities in the US will persist, in his words, "barring a catastrophic reduction in the nation's commitment to research." But of course, one of the major things that is happening is that the nation is engaged in a catastrophic reduction of financial commitment to research-- especially basic research. Indeed, we have never had any national commitment to research at all unless there was a direct military payoff to it, and then, perhaps, a direct commercial spin off.

But the Cold War has unfortunately come to an end, and despite frantic efforts to keep the military-welfare state going, federal money for defense-related research and development is substantially down, and getting lower, while money for purely academic research and development, especially, but not only, in the humanities and social sciences, is--or soon will be--virtually at an end.

And not only in the United States. All nations of the world say they are too poor and debt-ridden to support publicly funded research any more. Research funding is to be left to the private corporation which, we all know, is certainly not going to support any research that does not have an immediate and proprietary pay off to the funding corporation. Yet corporations themselves don't exist long enough any more to be willing to fund anything that might last longer than three months into the future. So who is going to fund research that will keep our Titanic universities afloat?

Indeed, in the same edition of Science that contained Chancellor Langenberg's bold assumption about research funding, there was a letter from twenty famous French scientists bemoaning the "financial chaos" of French science, especially the humanities and social sciences, because of substantial funding cuts in France. This is a story being repeated virtually everywhere in the world. Governments are getting out of the business of education and research, and no one is assuming the burden of the latter.

So, in my opinion, Chancellor Langenberg's bold prophecy about the future of education is timid indeed, and all his university power plants are more likely to be revealed to be nothing but candles burning from both ends. So what will become of universities and schools in such a world? My guess is that many of them will become shelters for the homeless--the vast number of unemployed teachers and professors--and the unemployed graduates of all our academic programs too, whether campus-based, distributed, or virtual.

But a "2020World" column in the Seattle Times a year or so ago had a much more interesting suggestion.

"It's the year 2020. [A] favorite place to vacation is the newest, hottest attraction in Boston: "Harvard, Class of 1925." Just three years ago Bill Gates rescued the shuttered campus from condo developers by turning it into a "re-creation" of a bygone era, a theme park. Now Harvard looks as it had in 1925, with lectures of the

period, too: Marxism, physics (Einstein's relativity was the new thing), motion pictures, etc.

"If it could happen to Harvard, it could happen to your organization! Which of today's organizations do you think will become theme parks in 2020World? I think the typical liberal arts universities are good candidates; so are retailers and banks. Try this simple test:

"1. Is your organization primarily in the information business? (If yes, go to 2.)

"2. Does your organization "communicate" existing information to its customers without really adding value? (If yes, go to 3.) \

"3. Does your organization require a physical location in order to "communicate" the information to its customers? (If yes, a theme park is in your future!)

"If your organization is based upon passing existing information (without adding value) to customers who come to your site to receive it, then you are in trouble, because that's what the information superhighway will do best -- transmit information, but without the expense of a physical plant.

"Look at a liberal arts college. Students gather at a specific location to hear teachers transmit existing information. But in 2020World, the info superhighway will let the best teachers come to you, wherever you are. Why then would we need a campus? And without a campus, does a college really exist?

I am sure you all heard the discussion here a few days ago about the imminent development of the virtual educational venture now called "The Western Governor's University." I assume you also know about the IBM decision to set up its own global virtual university network as well. Many of you are no doubt active in creating both of those in one capacity or another. I also sit on the Virtual University committee for the State of Hawaii and believe that, in some ways, what is being created portends to fulfill all my lifelong dreams, and in other ways threatens to create a new lifetime of horrors.

I certainly deeply regret not being able to assure my best graduate students now that they will be able to enjoy the kind of life in academia I have had. I have loved every minute of my professional life--well, except for the charade of giving grades. Not only do I wish I could be sure that the kind of life I had was likely to continue robustly into the future, I wish all teachers at all levels had it--indeed, more importantly, I wish all humans could have the kind of free, inquiring, and intellectually- stimulating environment which the University of Hawaii has always provided me. It has been absolutely wonderful, and everyone deserves to be able to live the kind of life I have enjoyed, if they want it.

There clearly is much that will be lost--or extremely difficult to maintain-- as the transformation continues. I

love reading and writing--why else would I be reading to you from a manuscript that I rather carefully wrote beforehand (though I must also confess that every single quotation in this paper came to me, and thence to you, from cyberspace, and not from a printed book or journal)?

But the biggest challenge the future brings to what I think is the most valuable aspect of higher education in America is one which has always been fragile and threatened, but has, until now, been comparatively easy to hide and protect--namely "academic freedom."

In "Intellectual Freedom in the Virtual University," William Morey, Bart Binning, Paul Combs observe that

"The walls of the academy that previously sheltered the concepts of intellectual freedom are becoming electronic tentacles that extend into the home and the global workplace. The free exchange of ideas and artistic expressions that have traditionally been acceptable inside the classroom may not be so acceptable when other stakeholders in education can view only portions of the educational process. The messages that are part of the give and take of the college classroom processes of synthesis and evaluation may seem different when being delivered over the information highway. The Internet allows educational stakeholders to glimpse classroom 'sound-bites' that may take on entirely different meanings when viewed outside the context of intellectual give and take."

"The idea of t copyright laws are of particular concern. How many times has a student made rash and irresponsible statements in a classroom environment that would lead to potential legal liability were the same statements seen in a public television broadcast?"

Moreover, the Telecommunications Act of 1996 contains many provisions which certainly will have a chilling effect on much of what goes on intellectually in the protective confines of the old Ivory Tower. And while even a Federal Court had the wisdom recently to strike down some of the provisions of the 1996 law as unconstitutional, the broader business community, in its mad, mad desire to commodify and make a profit off of everything, seems sure to end the one thing about my old Alma Mater that I believe is truly worth saving, and the only thing the public doesn't give a damn about--because they aren't allowed to have it for themselves in their places of work--namely, intellectual freedom.

And with the new president of Chaminade University of Honolulu announcing to the prestigious Social Science Association recently that "faculty tenure may be on its way out" (at least according to the headline to an article written by Bud Smyser [Honolulu Star Bulletin, June 4, 1996])--and I am certain that faculty tenure is on the way out--we can be even more certain that academic freedom won't be far behind.

Sob!

Well, I was going to add some things about the substantive focus of education in and for the future, but I have already greatly exceeded your patience and seat time tolerance, so I will conclude only by stating, and not

attempting to substantiate, the following three points:

First, Western culture will not be the dominant culture of the twenty-first century and beyond. Instead, Western culture will be Number Four behind Confucian, Hindic, and Islamic cultures, and, in Hawaii, behind the revitalized Hawaii cultures. And all cultures will themselves be transformed and changed by the forces I have been discussing, and many I have not. So the future of Confucian--or Hawaiian--or Western--culture, and all the rest is not likely to be a linear extension of the past or present. Curricula of and for the future should recognize this more manifestly, and celebrate it.

Second, while established academic disciplines will have a role in the future, they will not, and they cannot, continue to play the rock bottom central core role they play at present. That role was OK in the good old days when many believed that "nature" and "truth" lay "out there" somewhere to be discovered. Even if that was a reasonable assumption "then" it is not tenable "now", much less for tomorrow.

The reason is this. For good or ill, humans have acted in their past so as to have essentially destroyed "nature". It is now humanity's challenge to invent, create, and sustain life, if we wish life, especially humanity, to persist into the future. And so it is the task of all education to help us learn how to "govern evolution." That is a task which probably exceeds the capabilities, not only of any educational system conceivable, but the capability of humanity per se. But that, nonetheless, is where we are at present, and the challenge which lies ahead, ready or not.

And so, thirdly, it goes without saying that we do not have a sustainable environment for the future. But neither do we have a sustainable economic system or political system. We clearly must do the very creative and hard work of envisioning, inventing, building, and sustaining a new political-economy as well as a new environment during the twenty-first century if we think humans should exist in the twenty-second. And, of course, I can't think of any good reason why humans should continue to exist, but maybe you can come up with some.

So I think you've got some great opportunities and challenges ahead of you, and I don't know of any folks in the current education business who are better prepared to surf the tsunamis of change than you wild and flexible guys in continuing education. In contrast to the mighty university flagships, surging ahead mindlessly on to the shoals of time, you are like so many PT boats, or, to update it a bit, so many darting mini-spaceships nipping at the buds of doom.

Or, as a modern Maxi-dude might put it::

Sail on, sail on, universities of state!

Sail on, blind faculties so great!

Humanity with all its fears

With all its hope for future years
Is drowning in your turgid wake.

So, fellow sailors on life's mighty main, arise, and set sail! Fellow travelers! Now is the moment of decision.
Pee, or get off the pot.

And the rest of you. Well, have a nice day.

Then get out of the way: Here comes the future, ready or not.

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