

**ALTERNATIVE EDUCATIONAL FUTURES:
PEDAGOGIES FOR EMERGENT WORLDS**

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JAMES DATOR¹

6. UNIVERSITIES WITHOUT ‘QUALITY’ AND QUALITY WITHOUT ‘UNIVERSITIES’

Today I will talk about universities and quality. My title is intended to stress that neither is absolute or eternal. Each changes with changing times, needs, and possibilities. What is deemed poor quality at one place and time might be impossibly high quality at another. Quality has the characteristic that Marshall McLuhan alleged was a saying of the Balinese: “We have no art. We do everything as well as we can” (McLuhan & Fiore, 1967).

Quality is thus a very relative thing, changing according to who ‘we’ are, what ‘everything’ actually is, and what technologies and techniques are available for us to do it at all, and hence to do it as well as we can.

Similarly with education—or rather, with learning, since I would rather focus on how and what people learn which is a much broader topic than is formal education and the professional teacher. People learn constantly. They are only consciously taught (educated) by teachers (educators) some tiny fraction of the time.

So the first thing for us to consider is: What is the purpose—the social function—of education? That usually boils down to determining whether people are educated for *their* own sake, or for the sake of some broader purpose or community. Is the purpose of formal education social development or personal growth, for example? Is education supposed to allow each of us to ‘be all we can be’, or are we educated so we can better serve certain functions required by the church, or by the state, or by business and commerce, or by the military?

Answers to that fundamental question help then determine what is taught, and what is not taught; who ‘teachers’ are and how they are educated; who pays for education, and how much; who decides what is taught, and in what sequence; what the educational ‘delivery system’ is like; and who determines whether what ever is to be taught has been taught “well” or not—its quality.

THE PAST OF LEARNING AND TEACHING

One thing futurists should do before they begin to think about the futures is to reflect on the pasts. So let’s do that for a few brief moments.

And since I believe the present and the futures are strongly influenced by the distant as well as the more recent past, let’s go back to that long stretch of time when humans lived in small, face-to-face, genetically and cosmologically homogeneous hunting and gathering societies. There was plenty of learning going on then, but very few—or is it very many?—teachers, and almost no formal educational structures.

This is the natural and normal way for all of us to learn—continuously and unconsciously, by watching, imitating, playing, and fooling around. We generally don’t even know we are learning, and no one is consciously being a teacher. We are just going about the normal routines of life, as proscribed by our culture, and as

enabled and limited by our language and our technologies. There may be various rites of passage along the way where a kind of formal testing takes place, but for the most part, there is no separation of learning from life. And as for 'quality'? Well, we do everything as well as we can.

What I just said is primarily true for an oral—that is to say, a preliterate—society. Before the invention of writing, almost all learning was direct and informal. With the invention of writing several thousand years ago, formal education eventually became possible for some members of society. I say, 'eventually' because it seems to have taken about 1000 years from the invention and first use of writing as labels and signs for systems of writing and knowledge, and hence formal learning in schools, to emerge (Goody, 1977).

With writing it finally became possible to decontextualise information—to stop it, hold it, look at it, arrange and rearrange it, codify it, and teach it in a decontextualised, rote, boring, drill-based way.

And even though most people—many kings and generals, in fact—in early print-based societies did not know how to read and write, some small number of scholars did, and they were able to accumulate and pass on tried and true information that enabled the elites of print-based societies to dominate, destroy, and/or transform oral societies through the magic of the word alone.

We present-day word-worshippers tend only to focus on the positive aspects of literacy. We tend uncritically to believe that it is better to know how to read and write than to be illiterate. But in fact literacy is destructive as well. Merely forcing members of a preliterate culture to learn how to read and write destroys that culture. Learning through reading and writing is profoundly different from learning through watching, listening, and doing. And the teachers and learners differ as well—never mind the content of what one is forced to learn to read and the insipid stories one is expected eventually to write, compared to the chants, dances, and totems of oral societies (Goody, 1977; Havelock, 1986; Olson & Torrance, 2001; Ong, 1982).

Listen to a portion of "The Song of Lawino" by Okot p'Bitek of Uganda:

Listen, my clansmen,
I cry over my husband
Whose head is lost.
Ocol has lost his head
In the forest of books.

When my husband
Was still wooing me
His eyes were still alive,
His ears were still unblocked,
Ocol had not yet become a fool
My friend was a man then ...
My husband was still a Black man
The son of the Bull
The son of Agik...

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The papers on my husband's desk
Coil threateningly...
They are tightly interlocked
Like the legs of the giant forest climbers
In the impenetrable forest.

My husband's house
Is a mighty forest of books,
Dark it is and very damp,
The steam rising from the ground
Hot thick and poisonous
Mingles with the corrosive dew
And the rain drops
That have collected in the leaves...

O, my clansmen,
Let us all cry together!
Come,
Let us mourn the death of my husband...
For the Prince
The heir to the Stool is lost!
And all the young men
Have perished in the wilderness!
And the fame of this homestead
That once blazed like a wild fire
In a moonless night
Is now like the last breaths
Of a dying old man!

...

Bile burns my inside!
I feel like vomiting!
For all our young men
Were finished in the forest,
Their manhood was finished
In the class-rooms,
Their testicles
Were smashed
With large books!

I rather suspect many a lament like that has been wailed by the native people of this continent as well, as their wisdom and ways of learning have been destroyed by large men bearing large books.

Then, with the emergence and proliferation of the printing press only a few hundred years ago, the written word reached a level of power and dominance that continues, more or less, to the present day. Until very recently—and that is the story shortly to be told—all formal knowledge was fixed in and communicated by

reading and writing. Learning to read and write (and reckon) was the basis of all information, knowledge, and wisdom, 'higher' as well as 'lower'. Collecting written records in libraries, and pouring over them so as to produce more written records based upon them became the essence of all learning: the difficult art of turning words into other words without plagiarising.

At my university, we are still totally captivated by the magic of the written word. Not only do we insist that young adults take four or five courses about their native language—in spite of the fact that they have taken similar courses of English every year since they entered school more than a decade earlier—but we also require that those of us who teach courses in other subjects—like physics, or chemistry, or art, or, in my case, political futures studies—to offer so-called 'writing intensive' courses, on the argument that young Americans don't know how properly to read and write their native language after many, many years of the study of English as she is taught and wrote, but seldom as she is spoke or texted (Ming, 2004; Paglia, 2004; "Technology", 2004).

Even though you guys may not believe it, we Americans have been taught 'proper' English incessantly. But we have learned something else. We have learned that English as she is taught is as vital for our expressive lives as Esperanto or 'church' Latin. We have learned to think and communicate by other means, means largely ignored by the formal school system at all levels, high and low. We learn from the data-rich environment around us while our schools still focus on reading and writing in a manner no one does—or should (Sax, 2003).

Now, from a 'quality' point of view much of what we learn from what are called 'the media' may be factually wrong and morally reprehensible. Certainly, as a professor at the International Space University—devoted to educating people who will enable humanity to begin settling the solar system by the mid twenty-first century—I cringe when I look at the 'science' underlying such movies as *The Day After Tomorrow*, or *Armageddon*—much less *The Matrix*, or *Harry Potter*.

And careful public opinion polls do show that the average American and European, at least, indeed have rather horrifying views of the way the world works, in spite of (or is it because of?) years of formal science education.

Polls conducted regularly by the US National Science Foundation and recently by the European Commission show that 60 per cent of Americans and 50 per cent of Europeans believe humans and dinosaurs lived at the same time, whereas barely a majority of either could say how long it takes for the Earth to go around the Sun. Interestingly enough, over 80 per cent of both understood plate tectonics (National Science Foundation, 2004).

Try as we might, the boring science boringly presented in schools and universities does little to dispel folk beliefs, and so people persist in believing the darndest things because of what they see on TV and in the cinema. And, as I shall argue later, more and more young people are learning from interactive electronic games which routinely break even such fundamental natural laws as gravity, and which require behaviour that would be forbidden in any school and university I am aware of.

With the invention of writing and certainly with the invention of the printing press, most of the schools and universities that arose, basing their factual teaching

on the word, also based their moral teaching on the Word—the Word of God. Not only the schools, but the cosmos itself was believed to be based on the Word. The Western God said, “let there be light” and there WAS light. “In the beginning was the Word and the Word was with God and the Word was God”.

And not just Islam, Christianity, and Judaism: all of the so-called Great Religions became great by enshrining their beliefs in sacred texts. These texts—the words in them—often came to be more important and powerful than what the words represented (Andersen, 2005; LaFleur, 1983). For example, merely saying “*Namuyoho, Rengekyo*” is sufficient for salvation. It is not necessary to understand what you are saying, or even to believe it. Just say it.

Seldom has a technology been the subject of more worship than the word is in literate cultures. It is small wonder that my students are expected to take writing intensive courses all their lives long, until they get the words right.

But by mentioning the Word of God I also mean to call attention to the fact that there has been a strong moral, ethical, and/or religious content to most formal education based on reading and writing. The earliest schools, and scholars, typically were bent on learning and commenting on religious texts. This is still the case in many parts of the world.

However, by the nineteenth century, and the emergence of industrialism, colonialism, and the dominance of the nation–state system, a new form of education emerged—state-funded elementary and higher schools. Unlike earlier forms, these modern schools had one overarching purpose—to transform peasants into workers and soldiers, and aristocrats into managers and generals, so that the nation–state could develop, prosper, and conquer. While this is true of all early state universities, nowhere is it made clearer than with the creation of the universities of Tokyo and Kyoto in Japan, and the series of prefectural universities thereafter. During the first heady years of the Meiji Restoration, Japan was bent on becoming a modern nation as soon as possible. They sent their emissaries all over the world and quickly established impressive universities that emulated the essence of German state, and the American land grant, universities. Higher education in Japan was solely put to the service of the modernising state. And boy, were they successful as a result (Lincicome, 1995; Marshall, 1994; Ministry of Education, 1980; Passin, 1982)!

With few if any exceptions, at no time were any of these modern systems of education *per se* focused on ‘the pursuit of truth’ or on ‘knowledge for knowledge’s sake’. Neither were any of them intended primarily to help the individual learner grow and learn for her own sake. The pretence of ‘a liberal education’, focused on elevating and cultivating—truly *liberating* the individual learner from the blinders and shackles of her day–to–day commonsense life—was a wonderful conceit nurtured by some scholars, including myself, but largely a foggy delusion.

Neither legislators nor religious congregations nor philanthropists nor parents were willing to pour substantial portions of their wealth into institutions of higher education just so some few pointy-headed intellectuals could ‘pursue truth’. What the funders wanted were obedient, competent *workers* and capable, effective *managers*. And if they were willing to fund research, even research that appeared

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to have no immediate earthly purpose, it was only in the hopes that an earthly purpose would in fact emerge in due time, and the sooner the better. Indeed, after World War II, 'R & D' became a routine, necessary activity of any successful nation-state, expending considerable funds for research in the certain expectation that eventually there would be a true bang for the buck.

As Bertolt Brecht put it very clearly in his poem, "1940":

Out of the libraries come the killers.
Mothers stand despondently waiting,
Hugging their children and searching the sky,
Looking for the latest inventions of professors.
Engineers sit hunched over their drawings:
One figure wrong, and the enemy's cities remain undestroyed!

Now, you need to understand that I am a 'University Brat'. My mother was a professor of humanities at Stetson University, a small liberal arts college in Florida. My stepfather was professor of geography, dean of men, and baseball coach. Before them, my great uncle had been professor of history there. The house in which I spent most of my childhood was so close to the university that it ended up in effect being on the campus itself as the university grew up around it.

Many of the evenings of my childhood were spent listening to my family and their academic colleagues talk about how dumb the students were, how inept the administration was, how venal were the board of trustees, and how the faculty in the regrettable 'college of business'—as though 'business' was a proper subject for a university!—weren't all that swift either.

When I graduated from Stetson, I had the marvellous good fortune of securing a Danforth Fellowship aimed specifically at funding, through a PhD, selected scholars who intend to become university professors. Every summer while I was a graduate student, the Danforth Fellows would gather at Camp Winamonka on the shores of Lake Michigan, and learn what it meant to be a university professor from some of the wisest, most humane, and inspiring scholars in the world.

For the first several years, old man William H. Danforth himself was with us with his little red book, titled, *I Dare You*. He would challenge each of us to be the best teachers we could possibly be. If you made the mistake of replying, "I'll try", he would hit you with the book and thunder: "No! You WILL!" and then lead us in the chant, "good better best, never let it rest, until your good is better, and your better best!!"

That is quality education! Danforth dared us to do everything as well as we can. And we did.

I got my undergraduate degree in three, instead of the normal four years, my MA in one year, and could have gotten my PhD in three more had I not taken the opportunity that the Danforth Foundation then made available—it does not any more—of spending a year studying something completely different from the field of my PhD. Nonetheless, I did obtain my PhD at the tender age of 26, and began teaching fulltime in 1958. It may bemuse some of you to learn that in all that time—from 1958 to the present—I have never gone on sabbatical leave. I have not

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wanted to. I travel a lot as part of my work, and never wanted to be away from my students for a whole semester, much less an entire year.

I have been a university student or professor all of my adult life, and I love it. I have loved every minute of it—except for grades. I just hate grading. I get physically sick every semester around grading time. But other than that, I love all aspects of university life, including the faculty meetings!

I would be very, very happy indeed if my students, the PhD candidates I have helped mentor over my life, could have the kind of life I have had, if they want it. Some few perhaps will, but I expect most of my students will not be able to enjoy the freedom I have enjoyed.

So please understand that as I now offer some alternative futures of higher education. I am not introducing these alternatives because I am disgruntled with colleges as I have known them. To the contrary. But I just don't see that they are easily sustainable. And they may not be all that desirable either, after all. The system of higher education I lived and loved in my lifetime is now just one frail alternative future among many others.

THINKING ABOUT FUTURES OF HIGHER EDUCATION

Futurists use a variety of theories and methods to anticipate, envision, and invent alternative and/or preferred futures (Bell, 1996; Dator, 2002). Today I want to mention briefly only three that I think might be especially useful to you.

One is trend analysis. The second is emerging issue analysis, and the third is alternative futures creation which is a specific kind of scenario writing.

Trend analysis is so well known that I don't need to spend much time on it other than to say the following:

1. Most things that are tracked by trends are already so big and powerful that there is little that decision makers can do with them other than hope to utilise their power effectively. Over the years, I have identified a series of such trends that I call 'tsunamis' to emphasise their size, power, and consequence. They are things that we ought to have identified sooner and begun to develop anticipatory strategies for sooner. But we didn't, and now they are almost upon us. The most that we can hope to do at this late stage of maturity is to 'surf' them—to use their power to go where we want to go, and to have fun, though we will wipe out in the end.
2. The future of a trend cannot be 'predicted'. The best we can do, and we should do it, is to forecast alternative futures of trends. Forecasting is not predicting and while no futurist can predict anything of consequence, she can and should forecast several alternative futures based upon different theoretical and factual assumptions about the structure, environment, and interaction of the trends.
3. Trends do not continue forever. In fact, they seldom continue at all. Looking for and analysing what might cause a trend to alter is also a major task of any futurist.
4. Trends are never alone. They always interact with other trends, continuities, emerging issues, events, and decisions in varying and unpredictable (but fully forecastable) ways. This is where alternative futures scenarios come in.

Scenarios are, in part, bundles of trends moving in varying ways—varying according to varying theories of social change and empirical facts. More will be said of alternative futures scenarios in a moment.

5. Finally trends should be identified *before* they become trends. And this leads us to the second technique I wanted to mention today—emerging issue analysis.

Emerging Issue Analysis

Everything that exists now at one time did not exist. Everything that exists now will not exist forever. Everything that exists came into existence at a certain time for a certain reason, grew slowly, and then more rapidly for a while, then reached its limits to growth, and either plateaued, or died, either to stay dead forever, or to lie in slumber until it arose again as a new emerging issue at a later time, and the cycle of growth and death occurred again (Molitor, 1977).

Thus, many futurists attempt to look for what might later become trends in their earliest stage of development as emerging issues—while they are still weak, obscure and fragile, assessing how they might grow, and whether their growth should be encouraged, discouraged, or ignored.

Because emerging issues are weak, obscure, crazy, and fragile, good practical people usually ignore or ridicule them. Since these 'useful' ideas are not part of their commonsense, people conclude they are nonsense. And this fact led me to formulate Dator's Second Law of the Future which you will greet you on the first page of my website, if you were to visit it. Namely, "Any useful idea about the future should appear to be ridiculous".

Good futurists must be willing to appear to be ridiculous by showing people things they cannot otherwise see, and often don't want to see. Perhaps one reason there are so few good futurists is because we want to be loved, like everyone else, and we want to be useful. But it is impossible to be both.

I urge you to judge the 'quality' of my comments today by Dator's Second Law. The more stupid I sound, the more useful I might be. And if you agree with what I say, then either you are crazy or I am wrong.

Be aware that I intend to judge the quality of what you say by the same standard.

Emerging issue analysis requires a further technique called 'scanning' (often 'environmental scanning'). Scanning is basically a way of looking for the very beginning of emerging issues. How to scan is itself a skill that very few people have, and that almost all schools fail to teach—which is yet another story.

So the futurist then combines continuities from the past and present, with trends, emerging issues, and decisions, and, according to different theories of how the world works, frames and forecasts several alternative futures.

Now when I teach my students how to do scanning and emerging issue analysis, one of the things I have them do—before I set them loose on finding some emerging issues—is to have them develop confidence in the technique by taking something that is big, dominant, well-known, and fully established now, and

finding the origin of it—when it first appeared in the world as a crazy idea, or as a flimsy, obscure reality—and then trace its growth up to the present.

When they do that, they discover, almost without exception, that indeed the world around them emerged according to various kinds of ‘S’ curves of growth—from nothing but some crazy idea, to a frail and flimsy emergence, through a slow initial growth and then rapid middle growth, to a hardy omnipresence, to steady prolonged, ‘commonsense’ existence, and/or to eventual decay and death.

Take, for example, the history of universities in England (Graham, 2002). While universities existed earlier in Paris, Bologna, and throughout the Confucian, Indic, and Islamic worlds, the first university in England was Oxford, in roughly 1167, followed shortly thereafter by Cambridge in 1207. Or if you are from Cambridge, then it is the other way around, and Cambridge emerged first, followed by Oxford.

So universities in England would seem to have been around for a long time. But in fact, for most of British history there were only those two universities, Oxford and Cambridge (the story is different for Scotland and Ireland, but never mind for now). Indeed, any sane futurist in, say 1250, or 1350, or even 1750, if asked then to speak about the future of universities in England, would surely have said that universities are interesting but inconsequential things that have no future. They are just one of many minor ideas that somehow got a toehold long ago, never completely died out, but never really caught on either.

But then, in the mid nineteenth century there was a brief flutter of activity when the London University was organised in 1827, followed soon thereafter by King’s in 1831 and Queen’s in 1843, in order to broaden access to higher education somewhat. There were lots of arguments at that time about whether these were really universities, or not, and about the quality of their educational product as well.

While colleges were formed within the London federation, things were then basically quiet for almost half a century until the creation of what came to be called the ‘red brick’ universities in the late nineteenth century. As you know, the red brick universities were controversial and quite different from the previous institutions. They were clearly set up to satisfy the needs of a growing industrial and imperial state in ways the old universities could not, or would not. Arguments about ‘quality’ and authentic education were very prominent at that time as well.

But again, things quieted down for almost a century until the 1960s when the ‘plate glass’ universities were created and the old mechanics’ institutes elevated to ‘polytechnics’ with equal if not even greater furore and controversy. This furore and controversy was renewed again very recently when these polytechnics suddenly were declared universities—thus doubling the number of universities—in the general educational upheaval of neoliberalism in its Thatcher-era version in the late 1980s and early 90s.

So you see a marvellous example of a typical ‘S’ curve in action: from nothing, emerging as barely something with basically no change except monotonic growth for 600 years (that is to say, new faculty and colleges were created within Oxford and Cambridge, but nowhere else), to significant growth and innovation in the

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industrial era, to an explosion of growth in the early postindustrial period, to the uncertainty, diversity, and funding and control controversies of the present.

WHAT'S NEXT IN HIGHER EDUCATION?

So have we reached the end of the line? Is there nothing new under the sun for higher education?

When I reviewed the literature for this presentation, I concluded that most of it—80 per cent if not 90 per cent of it—seems to assume that indeed there is nothing new in higher education. There seem to be only two 'real' alternatives: either continued growth of the present system of higher education—half to three quarters of the literature is focused on very marginal discussions of how—or whether—to arrange the deck chairs on the Titanic, with most of the remaining literature bemoaning the death of quality education because of the decline in the public's willingness or ability to pay for it through taxes, on the one hand, and the insistence of treating students as though they were paying customers and clients, on the other (Blass, 2003; Bok, 2003; Damrosch, 1995; Devlin & Meyerson, 2001; Duderstadt & Womack, 2003; Fish, 2004; Graham, 2002; Hirsch & Weber, 1999; Noguera, 1998, originally published in 1993; Rhodes, 2001; Rich & Merchant, 2003; Scott, 2004; Snyder, Taylor et al., 2002; Williams, 2002).

But you know very well that there are more than these two alternatives for higher education even today.

The story that I told above about the emergence and growth of higher education in England failed to mention one significant feature, the Open University. The OU can be said either to herald the emergence of universities without walls as the dominant form of higher education in the future—now exemplified most clearly by the University of Phoenix in all its worldwide virtual and shopping mall manifestations (Blumenstyck, 2003; Symonds, 2003). Or else the Open University is just a flash in the pan (as Phoenix itself eventually might become), striving to be just another brick and mortar, tenure- and research money-obsessed university yearning for respect and ranking equal to Oxbridge; desiring to be perfectly normal, and nothing weird or startling at all.

There does seem to be something very rock-steady, long-lasting, and appealing about place-based education—the dream of you on one end of a log and Plato (if not Mark Hopkins) on the other; or at least of a gaggle of robed scholars 'peripateting' around after Aristotle in search of an open classroom.

ALTERNATIVE FUTURES

Just as it is important to realise that *the* Future cannot be 'predicted', so also is it important to understand that 'alternative' futures can and should be forecast, and the consequences of the alternatives considered before 'preferred' futures are envisioned and created.

While the concept 'Alternative Futures' is similar to that of scenarios, the particular feature of alternative futures is that they are indeed substantially different from one another, in terms of theories of social stability and change, what the

major trends and emerging issues are, and how they should be monitored. When people consider different scenarios, they most frequently just contemplate variations around a common theme. For example, population scenarios, and economic, energy, resource and similar scenarios typically show high, medium and low growth (or decline) based on identical theories but differing data assumptions.

Alternative futures are different. Long ago, I concluded that there are basically four generic futures facing all institutions and society:

- Continuation (in the modern case, Continued Economic Growth).
- Collapse (from one or more reasons).
- Disciplined Society (since ‘continuation’ is not possible and ‘collapse’ is not desirable, then we need to organise societies or institutions around a set of guiding values in order to survive).
- Transformational Society (the assumption that fundamental changes are taking place similar to the phase change from ice, to water, to steam; or the butterfly that emerges from the cocoon that the caterpillar spun) (Dator, 2002).

Whenever I work with groups who wish to think usefully about their futures, I insist that they contemplate at least these four generic possibilities in ways specific to their situation.

Thus, in the case of higher education, both in general and for each part of it, one should develop alternative futures based first of all on the continuation of what we currently have, modified only slightly to cope with things that do not fundamentally alter the substance, structure, and mission of higher education today. As I previously noted, most people thinking about futures of higher education are very good at doing this.

But they strongly avoid looking collapse fairly in the face. And yet various collapse scenarios should be envisioned as a consequence of a profound and prolonged global economic depression, for example; or a population- or terror-induced cultural shift away from the dominance of Western science and rationality to different knowledge bases and systems; or environmental challenges and failures of response that bring on a new kind of dark ages; or students voting with their feet and simply leaving the old brick and mortar universities empty. You can think of more reasons for collapse, I am sure. Or at least you should!

I will consider some disciplined and a possible transformational response later—at the end of my talk—which is coming. Hang in there a while longer.

There are many other formulations of alternative futures of higher education. For example, in Inayatullah and Gidley’s book *The University in Transformation*, Peter Manicas (2000) writes that:

... one must take very seriously the new taxonomy of higher education offered by the National Center for Postsecondary Improvement, based at Stanford. Instead of the Carnegie schema (with ‘Research I’ institutions, community colleges, and so on), we have ‘brand name,’ ‘mass provider,’ and ‘convenience institutions’ ... ‘Convenience institutions’ are on the cutting edge of both the new technologies and new markets for education. They are

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user-friendly, operate fully as businesses ... and serve 'job-minded students for whom liberal-arts degrees hold scant appeal'.

By contrast, as Chester Finn writes, "Brand name campuses are selective, high-status places where market power comes from their very status and selectivity. They cater to mostly full-time students from traditional age groups and have a commitment to traditional academic values." In the US, the Ivy League schools such as Harvard, Princeton, and Yale are obvious examples.

The best-known state universities will strive to be in this select group but most will fall into the third category, 'mass provider' institutions. Mass provider institutions, beholden to legislators, with obligations to educate as best they can the citizens of their states, try to be all things to all people, but ultimately fail. (p. 34ff)

More recently, the National Education Association (NEA) of the US developed a set of alternative futures for higher education based on two clusters, one said to be quality-driven and the other market-driven.

According to the quality-driven cluster, higher education is a public good, an important investment in societal well being. In the market-driven cluster, higher education is no longer primarily the government's responsibility or for the public's good. It is something that allows each individual consumer to get the kind of higher education she wants for whatever private purposes she wants it.

Now, I think labelling public education 'quality-driven' is really very biased, showing clearly the preferences of the NEA, while at the same time certainly no markets are truly 'free'; they are all rigged by some policy preference or another. Nonetheless, under the 'market-driven' label, the NEA outlines five different types of universities:

- McUniversity: which is a cheap and cheerful franchise of community colleges;
- Educational Maintenance Org: where higher education is owned or strongly guided by the needs of major corporations;
- Outsourced U: whereby all services—libraries, food, sports, dormitories, and education—are provided by outside contractors, according to student demand, with only a handful of fulltime administrators;
- Warehouse U: established to deal with rising unemployment, and the decline for the need of mental as well as manual labour, as a way to keep youth, and the not-so-young, in schools and out of the job market studying fun but harmless things as long as possible; and finally
- Wired U: featuring media-based delivery by star faculty performers, specialising in 'edutainment' with high production values.

In contrast, the 'quality-based' cluster assumes that the US Congress passes the *Universal Access Act* (UAA) in 2006, guaranteeing each resident of the nation the right to the equivalent of two years of higher education paid for by the government. The states then create a seamless articulation between their secondary and

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postsecondary systems. They also establish a system of two year and then four year community-based colleges that maintain a residential orientation, but with the students less homogenous in age because they leave school intermittently to complete external service. As part of the UAA, students can extend their access to free public education by two years through participation in concentrated community service activities. Sports are largely intramural and co-ed, with an emphasis on team development and sportsmanship. The young adult energy that once went into sport spectacles and subsequent celebrations is channelled into the construction of community gardens.

Finally, in the quality-based scenario, consortia of universities eventually link into a global system of education at the graduate level. Most classes are conducted as seminars held by video-conferencing, although campuses remain, and students are expected to complete a residence requirement. Upper-level students are assigned faculty mentors and, themselves serve as mentors to lower-level students. As workers find their jobs changing, they increasingly turn to distance learning to update their skills. Each student is provided with a faculty tutor who functions much like a graduate advisor and whose responsibility is to seek out new materials to challenge the adult learners.

SOME PREFERRED FUTURES OF HIGHER EDUCATION

If the first universities in Asia, the Middle East, Europe and North and South America served the needs of the religious and political elites of the time, and if early modern universities served the needs of the protestant clergy and democratising bourgeois elite of their time, while the great modern universities of Europe, Asia, Oceania and the Americas served the needs of the industrialising and militarising nation–state, what needs might universities of the futures serve?

Again, the answer found in almost all of the literature on the futures of higher education says we will continue to serve the industrial, military, and increasingly commercial needs of the modern nation–state, in an increasingly globalised system, in place-based forms and consumer-based ways; we will reform and tweak what we already have to deliver whatever is needed new, and to continue whatever is tried and true.

However, at this point it is not clear that globalisation—based on neoliberal economic and political theories which dominated the world since the Second World War—is quite the wave of the future it was a few short years ago. Until 11 September, 2001, it was a safe bet that at least one of the major alternative futures was education and research for the continued globalisation and dominance of neoliberal institutions and values. Now, with ‘terrorism’ and the American-led ‘war on terror’ in full voice, both neoliberalism and globalisation are in retreat.

Of course, it could be that the next national elections, in this country [Australia] as well as mine, will throw the state terrorists out and bring the neoliberal globalisers back in. Time will tell.

It is also entirely possible that America, Australia and the UK will continue to be successful in ruling the world by force, might, and narrowly-defined national interest, and not only get away with it, but find more converts to—or at least semi-

loyal spear-bearers in—their neoimperial Coalition of the Willing. The next US presidential election will perhaps make that aspect of the futures a bit clearer.

But for now, don't count on globalised neoliberalism being restored to its place of pride any time soon. Defending national borders and confining most activities inside them might triumph, as many people fervently desire.

But old time nation-based protective industrialism, the more recent globalised neoliberal postindustrialism, and Anglo neoimperialism are all alike in their overwhelming focus on economic growth and disdain for the environment and traditional values and ways of life.

As I said before, all major universities in all countries of the world have had but one purpose since modern times: to create an industrially and militarily strong nation-state-based, and then global, economic system. While some universities may tolerate some effete faculty members who fret about sustainability or indigenous cultures, the universities *per se* strive for only one future—continued economic growth.

But this could change. It could change because younger cohorts are more environmentally aware and concerned than are the older generations and will want the change. Or formal education may be forced to become focused on sustainability when the current economic house of cards collapses, based, as it is, entirely on consumer, corporate, and national debt, and not on anything remotely approaching the supply and demand of a 'free market'.

In his recent book, *Beyond the Modern University: Toward a Constructive Postmodern University*, Marcus Peter Ford writes that “the world is on the verge of an ecological and social catastrophe ... virtually unimaginable in its scope”. A total restructuring of the modern university is necessary to prevent this. Instead of focusing on “the acquisition of job-related skills characterised by intellectual and moral relativism”, and a structure “based on independent academic units with each discipline having its own foundational principles and notions of reality”, Ford argues that higher education should “provide students an awareness of the value of all things in nature”. The modern university must “abandon its attachment to philosophical materialism and ‘economism’—the faith that infinite economic growth is both possible and desirable”. The “artificial boundaries separating disciplines” would be eliminated and “problem-based learning, directly embracing the teaching of human values” should be offered instead (based on a review by Barbara Beigun Kaplan in *Thought & Action*, Winter 2004, p. 123ff.)

Now if you can recall the four generic futures that I mentioned briefly earlier, you can see that Ford puts forth a 'Disciplined Society' future: he believes that there are basic fundamental values that should be taught rather than ignored (if not actively destroyed). Moreover, it should be the task of higher education to do the research and teaching that will produce a sustainable, humane, and just world, and not the ruinous, cancerous, greedy, dog-eat-dog world (though perhaps dog-eat-dog *films*) of the present.

Quality education in Ford's future seems to be almost the opposite of what it is now since he aims at instilling the values and skills necessary to preserve the world rather than to 'develop' it (see also Nandy, 2000).

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There is much in this view that is appealing to me. We are facing ecological and social collapse and our universities are current contributing to both, full bore. Our current academic departments are historical accidents and not reflections of the way the world actually works. These disciplines do prevent universities from contributing to the solution of many environmental and social problems.

I believe a very good example of what a true transdisciplinary and global university should be can be seen in the International Space University(ISU) (<http://www.isunet.edu/>), where I also teach. ISU offers a Masters degree in Space Studies through its headquarters in Strasbourg, France, but it also holds what it provincially calls ‘summer sessions’ annually somewhere else. It just so happens that the ISU has recently convened an eight-week session here in Adelaide, hosted by the University of South Australia, the University of Adelaide and Flinders University. I urge you to find out something about it while you, and it, are here. Not only does ISU have as its goal helping humanity get out of its cradle—Earth—and find its proper place among the nooks and crannies of the solar system and beyond, but also it intends to see that humanity does so in peace and unity. The ISU staff and students literally come from all academic and economic backgrounds and ways of life from every part of the world. And the curriculum is firmly based on the Three I’s: It is Interdisciplinary, Intercultural, and International. Nothing is taught unless it fully embodies the three I’s. Engineering is not more important than ethics. Science is not more important than policy and law. All activities embrace all disciplines and cultures. Space must be in the service of all humanity—indeed, all life—and not for one country or set of elites. Though certainly not flawless, ISU is a very impressive futures-oriented institution in many ways.

Similarly, I am in full sympathy with those small number of individuals, such as Rodrigo Carazo, former president of Costa Rica and founder of the University of Peace there (Kittrie, 2003), and Glenn Paige of the University of Hawaii (Paige, 2002), who seek to turn our universities away from the builders of perfect bombs and bombers, as Brecht evoked in his poem I read earlier, and become true learners and creators of peace. Peace is not a negative thing, the mere absence of war. It is a condition and skill that needs to be taught and learned. What a wonderful world it would be, Paige has said, “if academia funded peace makers as fully as they do war makers, and if the Department of Defense had to have a bake sale every time they wanted a new aircraft carrier”.

However, neither Ford, nor ISU, nor Carazo, nor Paige fully captures my preferred future.

I long have argued that it is too late to save the world from ecological collapse. Nature is dead and dying everywhere. Our challenge now is, to use the title of a book by Walter Truett Anderson, *To Govern Evolution*. We need to learn that we live in a largely, and increasingly, artificial world, a world that does not need to be ‘saved’ but invented.

Moreover, given developments in electronics, robotics, artificial intelligence, artificial life, genetic engineering, nanotechnology, space exploration and settlement, and the rest, humans are no longer the only (more or less) rational entities on the planet—and inner solar system. More and more work, including

mental and imaginative work, is being done and increasingly will be done by the myriad of intelligent and adept entities increasingly working for and eventually working with or instead of humans over the twenty-first century and beyond.

It is often said we live in an 'information age' and that universities need to prepare their students for it. Recently, some people have begun to ask what kind of a world might lie ahead, after the information age has matured and run its course.

For example, Ernest Sternberg (1999) calls it *The Economy of Icons*:

It is still widely believed that we live in an information society in which the most valued raw material is data, production consists of its processing into information, efficiency depends on computing and scientific reasoning, knowledge and rational calculation underlie wealth, and society is dominated by an educated elite. These were revealing ideas when they were proposed almost thirty years ago, but as we begin the twenty-first century, the concept of the information economy has become a kind of collective wisdom, obscuring another economic transformation that has already overtaken us. The driving force in this newer economy is not information but image. Now the decisive material is meaning, production occurs through the insertion of commodities into stories and events, efficiency consists in the timely conveyance of meaning, celebrity underlies wealth, and economic influence emanates from the controllers of content.

Similarly, Rolf Jensen (1999) wrote:

The sun is setting on the Information Society—even before we have fully adjusted to its demands as individuals and as companies. We have lived as hunters and as farmers, we have worked in factories, and now we live in an information-based society whose icon is the computer: We stand facing the fifth type of society: the Dream Society. (p. vii)¹¹

Very importantly, Jensen sees society finally moving from a dependence on writing to the dominance of audiovisual images: "Today, knowledge is stored as letters; we learn through the alphabet—this is the medium of the Information Society. Most likely, the medium of the Dream Society will be the picture" (p. 40). Jensen concludes that Henry Ford was the icon of the Industrial Age while Bill Gates is the icon of the Information Age.

The icon of the Dream Society has probably been born, but she or he is most likely still at school and is probably not the best pupil in the class. Today, the best pupil is the one who makes a first-rate symbolic analyst. In the future, it may be the student who gives the teacher a hard time—an imaginative pupil who is always staging new games that put things into new perspectives ... He or she will be the great storyteller of the twenty-first century. (Jensen, 1999, p. 121)

With help from a colleague at the University of Hawaii, Yongseok Seo, I have come to see that South Korea may be the first country to take seriously the transition from an 'information society' to a 'dream society' of icons and aesthetic experience. Korean movies, TV dramas, pop music bands, and electronic games

are sweeping Asia. But unlike similar and earlier products from Hollywood or even Bollywood and Hong Kong, those from Korea are all products developed and exported as a consequence of official governmental policy. Korea seems to be consciously leading the global transition to a Dream Society. We have convincing evidence that top Korean governmental leaders—including the recently impeached and then overwhelmingly re-elected President Moo-hyun Roh—are furthering this. Korean institutions of education at all levels are also being challenged by the government to assist in this transformation.

Once, Korea was the isolated ‘Hermit Kingdom’. Then it became a source of raw products for industrial development elsewhere. Then it began to manufacture basic industrial products and soon began producing world-class automobiles. Next, Korea moved into high tech electronics and biotechnology. Now, their leaders say, the future world economy lies in the production of globally-appealing icons and dreams: movies, anime, soap operas, pop music groups, and especially electronic games. South Korea may become the first nation consciously to move from measuring its wealth by its GNP (Gross National Product) and begin to measure it by that true indicator of a dream society of icons and aesthetic experience: the GNC (its Gross National Cool) (Dator & Seo, 2004).

If other nations wish to follow suit, then their educational institutions, too, will need to change in many ways, not least of which is by shifting from learning via reading and writing, to learning via interactive electronic games.

The Massachusetts Institute of Technology (MIT) has already risen to the challenge. MIT:

recently launched the Education Arcade initiative aimed at exploiting the educational benefits of videogames. The project plans to harness the talents of scholars, international game designers, publishers, educators and policy makers to develop videogames that would be fully incorporated into existing curricula. ‘We want to lead the change in the way the world learns through computer and video games,’ says MIT professor Henry Jenkins. ‘Our mission is to demonstrate the social, cultural and educational potential of games by initiating game development projects. We will also begin informal public conversations about the broader and sometimes unexpected uses of this emerging art form in education’. (“Education”, 2003)

Keith Devlin, Executive Director, Center for the Study of Language and Information, Stanford University, also observed:

The digital revolution has led to major changes in the way [many of us] organise our societies and live our lives ... A consequence of being digital is that the word, both spoken and written, is no longer the sole primary glue of society or its culture ... [T]he word has become just one medium among several for expression and communication ... Being digital ... has given rise to an even more significant development: being interactive ... What will it mean to be an ‘educated person’ in the being interactive world? What will constitute the core curriculum in the new liberal arts of the twenty-first century and beyond? ... The being interactive world is so different from the

world of the word that there are as yet no agreed norms and metrics as to what is 'good'. (Devlin, 2002, p. 15)

But Marc Prensky (2002) thinks he may know, and I agree:

We live in a time when long-range goals and promised rewards are a whole lot less certain and therefore less motivating than they used to be ... In the world of education, providing motivation has been one of the teacher's traditional roles ... (but) How motivating is the process of higher education in today's environment? Mostly, the 'curricular' part of college is painful, and often drudgery ... Most college teachers—and administrators—would not only agree, but think that this is a good thing. But is it? (p. 5)

College students devote a huge proportion of their time to playing computer and video games ... One college student recently confided to me he had skipped an exam because he was so close to 'beating' a video game ... The reason computer games are so engaging is because the primary objective of the game designer is to keep the user engaged ... The true twenty-first century learning revolution is that learning is finally throwing off the shackles of pain and suffering that have accompanied it for so long. I am certain that within most of our lifetimes pretty much all learning will become infinitely more learner-centered and fun: fun for students, for teachers, for parents, and even for supervisors and administrators. The huge wall separating learning and fun, work and play for the last few hundred years is beginning to tremble and will soon come tumbling down ... When it finally does fall, there will be a huge stampede to freedom. (p. 6ff)

Prensky quotes Marshall McLuhan as saying, "anyone who makes a distinction between education and entertainment doesn't know the first thing about either." (p. 8, citing Eric McLuhan)

The most important thing that educators can learn from game designers is how they keep the player engaged ... One basic rule of good gameplay, for example, is to always provide the player with clear, short term goals. Another is to make the game easy to learn, but hard to master. (p. 9)

As soon as individual course accreditation happens, the marketplace will take over. And academic institutions, I predict, will start having a really hard time. A student will no longer have to enroll in any institution to major in, say, chemistry. He or she will merely go to the standardised curriculum online, and choose his or her e-course ... from among the highest rated ones in the world, regardless of institution, just like a gamer selects his or her games regardless of publishers ... Sure, the academic world—which today accredits institutions, not courses—will resist, raising great cries about 'brands', 'learning communities' and 'standards' ... But as the barrier crumbles, professors, publishers and institutions will rush in to ... create the learning experiences rated 'five stars' by the reviewers. (p. 10f)

As a not-so-distant future student will put it, 'Show me the fun'. (p. 11)ⁱⁱⁱ

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Or, to modify what I said earlier, quality education in my preferred future will strive to raise the gross individual cool and not the gross national product. Performance and shtick will replace labour and product, and ‘the Word is out!’

Or maybe not.

Let’s see what we can do for quality education over our next few days together. And let’s do everything as well as we can.

Thank you.

ⁱ Paper presented to the Australian Universities Quality Forum 2004, Wednesday 7 July, 2004, Adelaide, Australia.

ⁱⁱ See also Pine & Gilmore (1999); Pink (2004); Postel (2003).

ⁱⁱⁱ See also Prensky (2001); “Special issue” (2004).

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