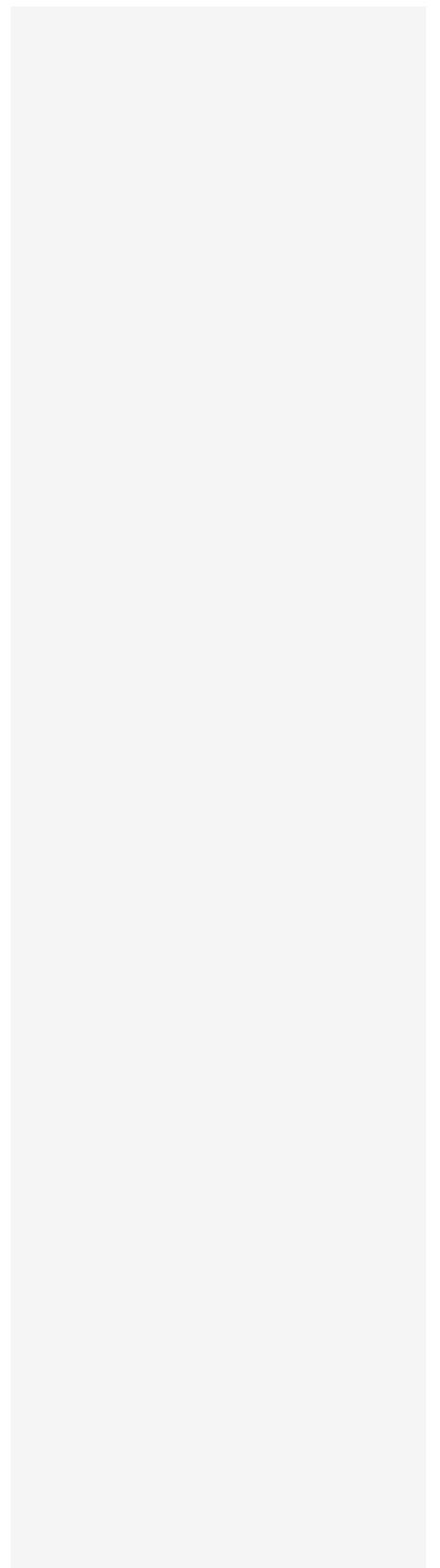


**The Futures of Information, Literacy and Lifetime Learning:  
A Symphonic Meditation**



Published in *Reference Services Review*, " Vol. 34, No. 4, 2006,

### **Abstract**

**Purpose** – The purpose of this paper is to encourage librarians and others to think about the futures of libraries (and everything else) in terms of "alternative futures" and then "preferred futures", and not "THE future." "The Future" cannot be predicted but preferred futures can and should be invented. Four different alternative futures of libraries are presented here following the form of the four movements of a symphony. The first movement suggests that because librarians anticipated the consequences of electronic communications sooner than did most other professionals, the futures of libraries as currently manifested is very bright. The second movement presents arguments against literacy *per se* and in favor of pre- or post-literate knowledge fluidity. The third movement suggests that the futures of communication, including conceiving and communicating scholarly knowledge, can be found in the present of interactive electronic games and the transformation from an Information Society to a Dream Society. The fourth movement presents ideological and ecological challenges to either an Information or Dream Society, and ends with a plea for inventing preferred futures of libraries and society.

**Keywords** –Literacy, Games, Future, Libraries

**Paper Type** – Viewpoint

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### **Recent Publications**

*Fairness, Globalization and Public Institutions: East Asia and Beyond* (with Dick Pratt and Yongseok Seo). Honolulu: University of Hawaii Press, 2006.

*Advancing Futures: Futures Studies in Higher Education*. New York: Praeger, 2002.

"Korea as the wave of a future: The emerging Dream Society of icons and aesthetic experience" (with Yongseok Seo), *Papers of the British Association for Korean Studies*, Vol. 10. 2005, pp. 1-21. Also in *Journal of Futures Studies*, Vol. 9, No. 1, August 2004, pp. 31-44.

"Universities without 'quality' and quality without 'universities,'" *On the Horizon*, Vol. 13, No. 4, 2005, pp. 199-215. (Voted the outstanding paper for 2006)

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## The Futures of Information, Literacy and Lifetime Learning: A Symphonic Meditation

Jim Dator  
June 10, 2006  
LOEX of the West 2006  
Fairmont Orchid Hotel,  
Kona, Hawaii

Jim Dator 1/7/07 10:03 AM

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### Tuning Up.

Jim Dator 1/7/07 10:03 AM

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I want to thank my good friends and colleagues, David Brier and Vicky Lebbin (and Jade), for inviting me to talk with you this morning. I have been a futurist for a very long time, and within the members of the academic community, librarians were among my earliest clients, if I may use that term. Librarians seemed to know how to interpret the writing on the wall well before most teachers or administrators were even aware that there was a wall, much less that there were some strange writings on it. Thirty years ago, many librarians realized that electronic communication technologies were already changing and soon would revolutionize the way they had done things for a very long time.

As a consequence, many librarians now are well ahead of most teachers and administrators in surfing the surging tsunami of electronic communications, and there is no reason to assume, with that lead, you will fall behind.

So, what does the future hold for you folks? No one can answer that question, and no ethical person should try. It is absolutely impossible for any one to predict with certainty what *will* lie ahead. So instead I will explore briefly with you some alternative futures.

That is a very important point: THE future cannot be predicted, in the sense of being foretold accurately before it occurs. If you come away with nothing else from my talk please remember that you should never believe a prediction of something called "the future" or even "the most likely future". We no longer live in a world where it is even helpful, much less accurate, to assume that there is a "most likely" future lying ahead somewhere that someone can accurately foretell.

That was so once upon a time, long, long ago (and it was true long, long ago for a very long time). But it is no longer the case in any important way.

So it is absolutely essential that you think of the futures as open, multiple, and all equally possible. Anticipate and plan for futureS, in the plural, not for a single future.

That is one of the most important things for you to carry away from this talk.

My second introductory point is related to this. If THE future cannot be predicted but if alternative futures can be forecasted, then your task is to envision and invent preferred futures--to consider what you want, among some old and many novel opportunities, and

to move towards that. The futures is the arena of the possible--*futuribles*, as the French futurist Betrand de Jouvenal called it.

So I will talk with you about some alternative futures for libraries, and I will do so following a conceit I sometimes adopt of a musical symphony.

You of course are all familiar with the structure of a symphony: The first movement often sets the general themes that will follow. The second movement is slow, heavy, depressing and full of angst. In contrast, the third movement is light, uplifting and brief, and the fourth movement recapitulates the main themes and comes to a triumphant, or at least hopeful, conclusion.

I find that my understanding of the future tends to follow that pattern. While there is much to be optimistic about, there are also many challenges ahead for us, both as librarians and as human beings (which I don't assume are always mutually-exclusive categories).

So now, after that brief bit of tuning up, on to the first movement:

### **Movement One**

One thing I also like to do is use poems that others have written to set the theme for each "movement" of my "symphony" and so I have a few of them sprinkled throughout. I will begin the first movement of my symphony today with a poem by Jorge Luis Borges called "Alexandria, 641 AD":

Since the first Adam who beheld the night  
And the day and the shape of his own hand,  
Men have made up stories and have fixed  
In stone, in metal, or on parchment  
Whatever the world includes or dreams create.  
Here is the fruit of their labor: the Library.  
They say the wealth of volumes it contains  
Outnumbers the stars or the grains  
Of sand in the desert. The man  
Who tried to read them all would lose  
His mind and the use of his reckless eyes.  
Here the great memory of the centuries  
That were, the swords and the heroes,  
The concise symbols of algebra,  
The knowledge that fathoms the planets  
Which govern destiny, the powers  
Of herbs and talismanic carvings,  
The verse in which love's caress endures,  
The science that deciphers the solitary  
Labyrinth of God, theology,

Alchemy which seeks to turn clay into gold  
And all the symbols of idolatry.  
The faithless say that if it were to burn,  
History would burn with it. They are wrong.  
Unceasing human work gave birth to this  
Infinity of books. If of them all  
Not even one remained, man would again  
Beget each page and every line,  
Each work and every love of Hercules,  
And every teaching of every manuscript.  
In the first century of the Muslim era,  
I, that Omar who subdued the Persians  
And who imposes Islam on the Earth,  
Order my soldiers to destroy  
By fire the abundant Library,  
Which will not perish.  
All praise is due  
To God who never sleeps and to Muhammad,  
His Apostle.

(Translated by Stephen Kessler)

Powerful words. Despairing and yet bitterly hopeful. I will return to some of the words later. But for now, you might be surprised by the last stanza if you are unfamiliar with the poem, especially since Omar and the Muslims actually had absolutely nothing to do with the burning of the Library in Alexandria. The entire notion that they did was Christian propaganda generated for political purposes at a much later time. I don't know what Borges had in mind by repeating the lie. But it certainly demonstrates that when it comes to Christians and Islamic terrorism, the more things change, the more things stay the same--which might also be a theme for this first movement.

Indeed, I can't imagine a better time to be a librarian than now, can you? Reading is at an all time high. Bookstores, that once were musty, obscure places run by gnomes and visited by trolls, now are found in the prime locations of every mall in America. They are big, bright, popular, and smell of coffee and cinnamon. Lively music plays in the background, and if the customers are hip, then the clerks are hipper.

And for those who don't *go* to bookstores, and even for many who do, there is Amazon which (along with eBay) is one of the brightest stars in the otherwise largely dark dot-com heaven.

If there were any futurists twenty years ago who prophesized the end of books, they were clearly wrong. Books are booming.

As a consequence, public and academic libraries are booming as well. Some of the most attractive new buildings in many towns, and on most campuses, are the libraries. Who hasn't marveled at such magnificent contemporary Crystal Palaces as the new library in

Seattle, or the Peckham Library in the UK, as well as similarly stunning monuments to the primacy of literacy around the world?

As Mel Brooks might have said, it's *good* to be a librarian. Of all people on campus, they are the ones held in the highest respect: the true kings and queens of academia. Moreover, when it comes to branding (which is now all the rage), well, "libraries" are THE brand to die for!

That certainly is the case at the University of Hawaii as David and Vicky will tell you. Several times, Hamilton Library--the very heart and mind and soul of the campus--has been threatened by natural or man-made disasters, and every time the faculty and administration have quickly and unstintingly come to the rescue.

A recent example is most telling. Two years ago, as many of you know, a huge flash flood roared directly through the library one stormy night, flushing books and documents (personal, rare and governmental) all the way through the campus, across a major road, and pouring over a cliff into the lower campus, built in an abandoned quarry.

Hamilton Library was a total mess, its librarians distraught beyond words. They did in Alexandria with fire, but they tried to take out my library by water. The UH community rushed to the library to help.

I was among the first to leap forward too. I urged the Administration to take the hint and abandon the soggy library to the fish, rats and cockroaches. Put the money needed to restore the library into improving electronic access for everyone instead, I--a latter-day Omar--argued. What a brilliant, win-win solution. Just close the damn library! But did the University abandon the Grand Dame as I suggested ?

No! Not at all. Instead, what could be salvaged was salvaged and what could not was replaced. Librarians and friends of the library worked unbelievably long hours under inhumane conditions to restore the library to service. Trucks with emergency generators and huge fans for months labored to dry out the soaked building. Finally, after enormous labor, selfless dedication, extensive anxiety, and considerable expense, Hamilton Library was restored to its proper place of pride as the throbbing heart, inquiring mind, and salving soul of the University.

There can be no more stunning testament to the value of and love bestowed on libraries and librarians than that. I am sure it is repeated anywhere in the world that a library is threatened.

As Jorge Luis Borges said, "Unceasing human work gave birth to this infinity of books. If of them all not even one remained, man would again beget each page and every line...and every teaching of every manuscript." And we did.

We've heard for years that the teacher of the future will not be a "sage on the stage" but a "guide by the side"--and that of course is what librarians have always been--now learning

to guide not only face-to-face, but also online, in chatrooms, blogs, iPods, and via whatever communication modes come next. If we are moving from *teaching* to *learning*, as so many hope--all unfunded federal mandates to the contrary notwithstanding--librarians may find themselves leading the charge. Indeed, as the regulatory and security burden on schools and universities becomes too heavy, as it threatens to be, more and more students may shift from "going to school" to "going to libraries" in order to learn. Moreover, according to some polls I have seen, if libraries also include laundromats and day-and-night-care facilities (in addition to coffee and not-too-sticky-buns), their lure may be overpowering.

So the future indeed looks even brighter for libraries. The demographics are all in your favor. The Baby Boomers--big book readers all--will soon begin retiring, and what will they do with their spare time and considerable excess money? Read books, of course, and almost certainly go back to school in order to learn all the things their drug-clouded brains could not learn when they first were students--information found only in books and classrooms. Life-long learning is in, and most Boomers I know say they intend to live forever. And so do libraries and librarians. As Garth Nix put it: "It is better to be a librarian than part of the collection." And so all smart librarians just plan to keep on collecting. The future lies ahead!

And with that triumphant thought, the first movement comes to an end.

After a brief interlude of tuning, coughing and shuffling, the second movement begins:

## **Movement Two**

But is literacy really as wonderful as it claims to be?

We heard last night from Kepa Maly a bit of what happened when a literate Christian culture hit a nonliterate Hawaiian culture, as it did on these islands a little over 200 years ago. From the point of view of the "host culture", it was not pretty. Okot p'Bitek, a female poet from Uganda, offered this poem on how reading and writing destroyed the way of life of her people in Africa. She is not amused as you can tell from these excerpts:

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 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!

....

The papers on my husband's desk  
Coil threateningly  
Like the giant forest climbers,  
Like the kituba tree  
That squeezes other trees to death;  
Some stand up,  
Others lie on their backs,  
They are inter-locked  
Like the legs of youths  
At the orak dance,  
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,

....

There is not one single true son left,  
The entire village  
Has fallen....

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!

[From "The Song of Lawino" by [Okot p'Bitek](#), in Gerald Moore and Ulli Beier, eds.,  
*Modern Poetry from Africa*. Penguin Books, 1968, pp. 231-233]

There is no doubt that the slow but inexorable emergence of writing, only a few thousand years ago, was an utter and complete disaster to everyone and everything that existed and

had been known for tens of thousands of years before. A fluid, exciting, changing, personalized world of nomadic orality, that Okot p'Bitek recalls (and Kepa last night also reminded us of), eventually gave way everywhere to the frozen, hierarchical, killing world of sedentary civilization dominated by the cold, dead, written word.

Little over a month ago, I addressed a conference on "War, Religion and Peace " held in Japan. I argued that before the invention of writing, there was general peace and spirituality, but neither war nor religion. Of course there was occasional interpersonal violence and there was extensive personal spirituality. It was writing that enabled both war and religion to come to dominate our lives as they do now. Writing enabled men to be organized into huge phalanxes and to march across the Earth systematically annihilating any who challenged them for the sake of Glory, God and Gold. At the same time, writing exterminated individual and largely female-inspired spirituality. A jealous male God demanded obedience to male priests who inscribed masculine ideas forever on tablets of stone and in holy scriptures that were to be memorized and followed world without end to this very day.

As Andreas Feldtkeller puts it:

"The act of writing down a religion makes a difference: metaphorically speaking, to write down a religion means to draw a line through the field of religious practice between what is to be preserved and what is to be rejected.

"To convert something into a written code is to preserve it: an important motive for religious writing, therefore, is to safeguard a certain form of religious practice from the everlasting stream of change, and to take care that this form will be known and practiced, if possible, forever.

"On the other hand, the same act of writing is also an act of rejection: other forms of religious practice will not be chosen for preservation; they may even be explicitly excluded from what the written form requires as practice".

[Andreas Feldtkeller, "Scriptures, forms of practice, and comparative religions," in Poul Andersen and Florian Reiter, eds., *Scriptures, Schools and Forms of Practice in Daoism*. Wiesbaden: Harrassowitz Verlag, 2005]

So much has been lost because of writing, priests, warriors, scribes, libraries and librarians. Is there no way to get rid of them all? How many times does water have to flood through Hamilton Library before we come to understand that people should be free to think and dream anew, and not be forever bound by a few privileged words from ages long passed?

Years ago, Marshall McLuhan, the patron saint of media, asked what the world would be like if television had been invented before the printing press--if we lived in a world in which everyone learned and communicated by dynamic audiovisual images instead of by static symbols arranged in eye- and brain-damaging silent little lines on paper. Just as the printing press froze the fluid world of the scribe and the orator, so also did printing promote linear thinking, with little locomotives of logic chugging along, pulling little

pieces of thought one after another across a flat, two-dimensional page. McLuhan believed television would finally liberate us from such an alienating world and create a global village of exciting simultaneity.

It is a good thing that St. Marshall died before he witnessed An Wang demonstrate something Wang called his "word processor"--a diabolical machine that extended the primacy of the written word for another seventy five years.

Word Processing! Just as people of a certain generation remember where they were when they heard about the bombing of Pearl Harbor, or the assassination of President Kennedy, or the 9/11 attack on the Twin Towers, so also do I remember very well when a colleague of mine, George Kent, in 1976, suggested I go downstairs and see a demonstration of what he said was a "word processor." The phrase contained no meaning to me at all: how do you "process" words? But I went, I saw, I understood, and my heart sank. Here was something that would keep printed words alive long after McLuhan and I had hoped they would be dead.

But we shall overcome some day!

Deep in my heart, I know that printed words will die; indeed, are dying now as I speak (or actually, as I read aloud words that I keystroked some days ago in to my wonderful little iBook G4, if you will permit me the irony: The word processor made me do it. If I had not been completely seduced by my very first Radio Shack Model 100, and then by Apple and Mac, I would be presenting to you in moving pictures and tailored sounds and smells instead of reading dreary words with nary a visual in sight. Blame the Devil incarnate: An Wang, the inventor of the first practical word processor).

But the end of the word is nigh. We live in a world increasingly dominated by interactive electronic games. Once enough old logophiles like you and me die off, and the new generation of electronic gamers takes over the world, as they clearly will do, the word will be out.

A recent book you all should read, if you have not (yes, yes I know; more irony) by Steven Johnson, and refreshingly titled, *Everything Bad is Good for You*, shows how valuable electronic games are for students, teaching them how to learn for themselves, to want to learn, to defer immediate pleasures and actually often engage in sheer drudgery in order to obtain long-term goals, to think and to act systemically as well as strategically, and how these features are producing--worldwide (because it most certainly is a worldwide phenomenon as I have vividly learned)--a global age-cohort of people who refuse to read and who refuse to be *taught* since they now know the pleasure of learning for themselves in interaction with other learners.

In one important passage in *Everything Bad is Good for You*, Johnson asks us to imagine what we would say about reading and writing if videogames had evolved before writing, and if we all had "been playing games for centuries--and then these page-bound texts

come along and suddenly they're all the rage"? He suggests that this new "frenzy of reading" would be greeted by critics of books issuing statements very much like this:

Reading books chronically under-stimulates the senses. Unlike the longstanding tradition of game playing--which engages the child in a vivid, three-dimensional world filled with moving images and musical soundscapes, navigated and controlled with complex muscular movements--books are simply a barren string of words on the page. Only a small portion of the brain devoted to processing written language is activated during reading, while games engage the full range of the sensory and motor cortices.

Books are also tragically isolating. While games have for many years engaged the young in complex social relationships with their peers, building and exploring worlds together, books force the child to sequester him or herself in a quiet space, shut off from interaction with other children. These new 'libraries' [as they are called] that have arisen in recent years to facilitate reading activities are a frightening sight: dozens of young children, normally so vivacious and socially interactive, sitting alone in cubicles, reading silently, oblivious to their peers.

Many children enjoy reading books, of course, and no doubt some of the flights of fancy conveyed by reading have their escapist merits. But for a sizable percentage of the population, books are downright discriminatory. The reading craze of recent years cruelly taunts the 10 million Americans who suffer from dyslexia--a condition that didn't even exist as a condition until printed text came along to stigmatize its sufferers.

Perhaps the most dangerous property of these books is the fact that they follow a fixed linear path. You can't control their narratives in any fashion--you simply sit back and have the story dictated to you. For those of us raised on interactive narratives, this property seems astonishing. Why would anyone want to embark on an adventure utterly choreographed by another person? But today's generation embarks on such adventures millions of times a day. This risks instilling a general passivity in our children, making them feel as though they're powerless to change their circumstances. Reading is not an active participatory process: it's a submissive one. The book readers of the younger generation are learning to 'follow the plot' instead of learning to lead."

[Steven Johnson, *Everything bad is good for you: How today's popular culture is actually making us smarter*. New York: Riverhead Books, 2005, p. 19f]

I just don't think the case against reading, books, libraries, and librarians can be made any better than that.

So you ball-crushers with your big books: Back off, and let the Games begin!

### **Movement Three**

The Third Movement, sprightly and uplifting, begins with the sound of a crackling fire and a rather uncertain scene. Take a look at Figure One. What do you make of it? Now Figure Two. These are variations of a logo that the University of Hawaii uses or has used on its official stationery. But what do they mean?

Figure One appears to be a book set on half a globe centered on the middle of the Pacific Ocean. I asked my son, Mack, to take a look and tell me what the UH logo meant. "It means" he said, "that Hawaii is the center of the universe."

"Well yes, of course," I replied, "but what else? What about the book and the words on it?"

On the book are the Hawaiian words, *malamalama*. Definitions from Mary Pukui's highly-regarded *New Pocket Hawaiian Dictionary* define *malamalama* as the "light of knowledge, clarity of thinking or explanation; shining, or clear." Superimposed on the book is what appears to be a torch, perhaps a Hawaiian torch. The Hawaiian light of knowledge may be illuminating the book of global wisdom so that everyone can read it.

Figure Two is more ambiguous. Perhaps it is a stylized version of Figure One, with the lamp of knowledge burning in back of and shedding its light over the book of wisdom. Or perhaps it is a flower over the book?

What do you think?

One of my very best friends in the world, the late Simon Nicholson of the Open University of England, a world-class painter and the leader of the magnificent OU course, "Art and the Environment", used to call this the "University of Hawaii Burning Book Logo". Simon insisted that it showed how very progressive and forward-looking UH was, burning all its books so we could move on to a dream society of electronic interactivity.

Because that is what he and I ourselves dreamed of and tried to live in then: a world beyond books and the printed page, where ideas and images and feelings poured directly from brains to brains without being frozen even for an instance in intermediating words. While speech probably was invented to give humans something to think with, once we mastered that, words (especially written words) have gotten in the way of our thoughts, requiring us always to have, formulate, and express new ideas in old forms, constantly referring back to old ideas (though they once were new).

Simon died very prematurely and before interactive games came into existence, but I am certain he would be one of the leading users of and inventors of "art and the interactive electronic environment". He would also have grasped instantly and perfected the idea of the "dream society" as the emerging successor to the "information society."

There are several proponents of the "dream society" concept. I first encountered it when a colleague at the State University in Buffalo, Ernest Sternberg, asked me to read a manuscript of a book he was writing that eventually was published as *The Economy of*

*Icons: How business manufactures meaning* (Praeger, 1999). In the same year, Rolf Jensen and Joseph Pine and James Gilmore published similar ideas. (Rolf Jensen, *The dream society: How the coming shift from information to imagination will transform your business* (McGraw-Hill, 1999) and Joseph Pine II and James H. Gilmore, *The experience economy: Work is theatre and every business a stage* (Harvard Business School Press, 1999). Virginia Postel, wrote *The substance of style: How the rise of aesthetic value is remaking commerce, culture and consciousness* (HarperCollins) in 2003, while Daniel Pink has made the most recent contribution in *A Whole New Mind: Moving from the Information Age to the Conceptual Age* (Riverhead Books) in 2005. And yes, yes. I know: more irony. They are all books.

I think the basic concept is captured well in this excerpt from Rolf Jensen, a Danish futurist:

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 (vii).

Today, knowledge is stored as letters; we learn through the alphabet--this is the medium of the Information Society. [T]he medium of the Dream Society will be the picture (40).

[Henry Ford was the icon of the Industrial Age; Bill Gates 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. ... Steven Spielberg [is] the closest we now have to a Dream Society icon (121).

[Quotations from Rolf Jensen, *The dream society: How the coming shift from information to imagination will transform your business*. New York: McGraw-Hill, 1999]

Jensen published those words seven years ago, and now our schools and universities are entirely populated by young people who grew up in the emerging Dream Society of interactive electronic games. As I have already argued, they will not read, even if you try to force them to, and they will not sit still to be taught if there is the slightest possibility that they can engage themselves online to learn interactively.

And we also now know that the icon of the Dream Society is not a Jewish-American filmmaker named Steven Spielberg, but a Korean comedian, filmmaker, and game producer named Shim Hyung-Rae <<http://www.younggu-art.com>>. In fact, a colleague of mine at the University of Hawaii, Yongseok Seo, and myself recently demonstrated that South Korea is the first Dream Society on the face of the Earth, and is so as a consequence of specific governmental policy that recognizes that the future lies in the creative and emotional spirit of interacting individuals, and not in dreary, analytical, fact-

filled minds. Indeed, children forced to achieve in a test-obsessed culture deserved to be Left Behind, they understand.

Little over two years ago, none other than the president of South Korea, Roh Moo-Hyun, said: "The 21st Century is the age of the creative mind." "A powerful cultural nation will become an economically strong nation." "The game industry is a high value-added cultural industry that has enormous potential in the future." (President Roh, *Digital Times*, 25/02/2004). South Korea has recreated itself around the concept of a Dream Society and it is truly awe-inspiring to be in that country now

[For more information, see Jim Dator and Yongseok Seo, "Korea as the wave of a future: The emerging Dream Society of icons and aesthetic experience," *Papers of the British Association for Korean Studies*, Vol. 10, 2005, pp. 1-21. (Original version). In slightly modified form in *Journal of Futures Studies*, Vol. 9, No. 1, August 2004, pp. 31-44. Or, better yet, just watch some Korean television while you are here in Hawaii, or go anywhere in Asia where the Korean Wave of popular culture is sweeping ahead--or just play any of the most popular internet games, all created in Korea--to experience the power of the Dream Society of icons and aesthetic experience for yourself.]

I believe that the future of education is foreshadowed by the present of interactive games. And I am among those who are doing what we can to transfer course content to an interactive game format as soon as possible. But even this is only a pale foreshadowing of what may be yet to come because the world of electrons (which dominated the second half of the 20<sup>th</sup> Century in science, engineering, and society) is being replaced by the world of genomes and molecules--which is to say the world of life is replacing--actually it is becoming one with--the world of matter as many futurists have long anticipated.

Susantha Goonatilake, a colleague from Sri Lanka, called it "Merged Evolution" [Susantha Goonatilake, *Merged Evolution: Long-Term Implications of Biotechnology and Information Technology*. Taylor & Francis, 1999]. More recently the American Ray Kurzweil has labeled it "Singularity" [Ray Kurzweil, *The singularity is near: When humans transcend biology*. Viking, 2005]. And there have been many other futurists who have foreseen and striven to create such a world.

Well, the day is here. It is no longer coming, except inasmuch as it is still largely unrecognized by professors, politicians, priests and (maybe yes, maybe no) librarians. Of course it still must roll forward for many more generations in growing global intensity and profundity, changing everything in its path, just as agriculture obliterated lives focused on hunting and gathering, industry destroyed societies built on farming, and the information society marginalized industrial societies a few decades ago.

It is frequently said that poets and artists are futurists, seeing things before the rest of us do. I seldom find that to be the case. Like the rest of us, most poets and artists and writers seemed locked in their fanciful pasts, it seems to me. But Richard Brautigan may have been an exception, at least in one of his poems, though I think he intended to ridicule the world that he so lovingly foretold many years ago--and you soon will be able to tell it

was written many years ago indeed. But I think it is still "futuristic" in its flavor even if it is very old-school in its technology. I am sure you know the poem I mean:

I like to think (and  
the sooner the better!)  
of a cybernetic meadow  
where mammals and computers  
live together in mutually  
programming harmony  
like pure water  
touching clear sky.

I like to think  
(right now please!)  
of a cybernetic forest  
filled with pines and electronics  
where deer stroll peacefully  
past computers  
as if they were flowers  
with spinning blossoms.

I like to think  
(it has to be!)  
of a cybernetic ecology  
where we are free of our labors  
and joined back to nature,  
returned to our mammal  
brothers and sisters,  
and all watched over  
by machines of loving grace.

#### **Movement Four.**

Which brings the jarring, sprightly, and optimistic third movement to an end and leads to the Fourth and final movement which is short, and quite somber, though irrationally optimistic at the end.

I think you will agree that one either has to be smoking too much weed or otherwise just not paying attention to think we are moving into a Dream Society any time soon.

Between the Islamic fundamentalists on the one hand and the rightwing American political, economic, and religious fundamentalists together with the leftwing American cultural fundamentalists on the other hand, nothing like a Dream Society is likely to emerge (in the US anyway) anytime soon, unless you dream of a society of eternal

surveillance as the just price to be paid for a society of eternal vigilance. "All watched over by machines of loving grace" indeed!

Libraries are already on the front line of the full effects of the PATRIOT Act, and I expect some of you (especially if there are any here from Connecticut) could tell great stories about how that Act has impacted your lives, if you could tell those stories without thereby having your lives end. The same technologies that make the Dream Society a plausible dream are already being used to "watch over" us by keeping careful tabs of every breath you take and every move you make. And with the federal courts increasingly packed with political fundamentalists with life tenure, no matter what the American people may decide in future elections, there just isn't going to be much of "da mental fun" allowed for most of us by the old "fun da mentalists".

At the same time, enormous environmental problems loom which will require our attention--global warming, sea-level rise, water pollution and scarcity, new and renewed diseases, and ever growing levels of poverty. And this is all occurring just at the time when some people--though still far from enough--are finally becoming aware of the fact that oil will become increasingly scarce and expensive exactly when we will need that oil in part to find new energy sources, that exist now only in theory and concept and not in fully-operable reality, and in part to address the new environmental challenges.

What does all that mean for the futures of libraries and librarians? It could mean that you will be forced to move even more rapidly and urgently to a space-based, all-digital world that is arguably more energy-efficient than the old place-based, print-on-paper libraries are.

At the same time, preserving knowledge, old and new, from the hands of those who would deny and destroy it may be your main challenge again, and one thing that can be said for writing is that it is great for keeping secrets since it is silent and hideable. Librarians as scribes and curators of subversive wisdom might seem very attractive to some of you--or at least to those of you who aren't already double agents for the NSA.

So I end with yet another poem that I think embodies the challenge and opportunities of the present. It is called "Extinct Birds" and it is by Judith Wright, an Australian poet, writing about Charles Harpur, arguably Australia's first widely-acclaimed modern poet:

Charles Harpur in his journals long ago  
(written in hope and love, and never printed)  
recorded the birds of his time's forest--  
birds long vanished with the fallen forest--  
described in copperplate on unread pages.

The scarlet satin-bird, swung like a lamp in berries,  
he watched in love, and then in hope described it.  
There was a bird, blue, small, spangled like dew.  
All now are vanished with the fallen forest.

And he, unloved, past hope, was buried,  
who helped with proud stained hands to fell the forest,  
and set those birds in love on unread pages;  
yet thought himself immortal, being a poet.

And is he not immortal, where I found him,  
in love and hope along his careful pages?--  
the poet vanished, in the vanished forest,  
among his brightly tinted extinct birds?

[in Carol Cosman, Joan Keefe and Kathleen Weavers, eds., *The Penguin Book of Women Poets*. New York: Viking Press, 1979, p. 380f].

And so I say (as one soon-to-be-extinct bird--a tenured-for-life college professor--to a whole flock of endangered bright-feathered mocking birds, spangled like dew): I hope there are Charles Harpurs among you, recording, in love and hope, though never to be printed, your presence, before you too vanish with the forests we are all felling so casually with our proud stained hands.

No. No. NO! I just can't leave it that way. I am too much of a cockeyed optimist myself to end this symphony on such a Bflat minor chord. Sure we have challenges. Sure we might not make it. But what is the lesson of the libraries at both Alexandria and the University of Hawaii? That we will renew our vision, pick up the pieces, and tell our stories all over again. I said at the outset that the most important message I want you to come away with from my little talk is that the only way to predict the future is to invent it. So the future of libraries and librarians is just as bright, or just as dark, as you want it to be. It is very much up to you.

Figure 1: University of Hawaii Seal and Letterhead

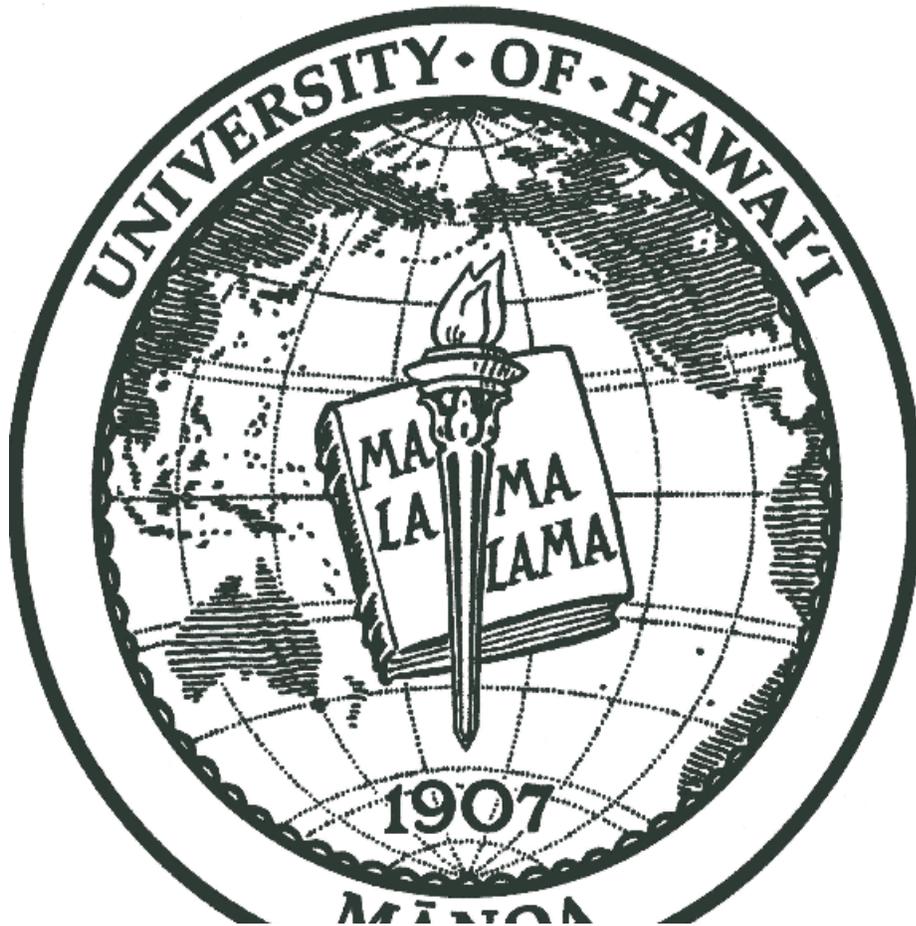


Figure 2: Recent University of Hawaii letterhead



**University of Hawaii at Manoa**