

ESSAY

Dogs don't bark at parked cars

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The following essay, by the Past President of the World Futures Studies Federation (WFSF), was presented as the Opening Keynote Address to the WFSF World Conference 'Coherence and Chaos in our Uncommon Futures', Turku, Finland, 23 August 1993.

Several months ago, while I was in the midst of trying to get a handle on what I might say here, I heard on Hawaii Public Radio a lecture which the Harvard historian, Simon Schama, gave for the Cambridge Forum. His talk was an exceedingly clever discussion of historiography and the role of the historian. The title of his lecture was 'Dead certainties'.

Professor Schama insisted that no historian should ever believe that she has written *the definitive* history of anything. That is impossible. Instead, the most a good historian can do, he said, is to help you touch fingertips with the past. I liked that idea immensely! The same can be said for a futurist concerning the future, I thought.

But after some further reflection on the matter, I have concluded that is probably too lofty a goal for a futurist to seek. I have decided that the most a good futurist can do is to help you not be afraid of your own shadow.

I am not for a moment implying that

there are not real reasons for concern. I heard John Hinchliff once say, 'Dogs don't bark at parked cars'.¹ And there is plenty of barking going on for good reason. I myself have frequently added to the raucous cacophony.

Many know that I have recently been using the metaphor 'surfing the tsunamis of change' to signify the novelty, magnitude and power of the forces facing us from the future.² The word 'tsunami' is the proper designation for what are often, but mistakenly, called 'tidal waves'—those huge, destructive waves, usually caused by underwater earthquakes that, as they did recently on the north-west coast of Japan, rush up on shore and wipe out everything in sight.

Instead of seeing us being pushed into the future by trends or megatrends, I see the future rushing towards us in the form of several huge tsunamis, while most of us remain utterly oblivious to them. Instead, most political and personal discourse in the present reminds me of that of a group of people having a little picnic on the beach, their backs to the ocean, and their minds focused on the petty problems of who forgot to bring the chicken, and what can be done about the sand in the drinks and the ants in the sandwiches, all the while ignoring the true peril roaring towards them from the sea.

I complete that metaphor by saying

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that what we need to do is to adopt the attitude of a surfer: to turn around; study the waves, individually and collectively; ask other surfers about the conditions; then wax up our boards, plunge in, paddle out, and try to surf those tsunamis of change. That is, we should neither ignore them nor (since it is too late) try to avoid them. Rather, our only hope is to try to use the power roaring from the future for our own advantage, and pleasure.

Nonetheless, it seems to me that too many of us—despairing of the future—are actually only being frightened by the lengthening shadow of the sunset of our own lives. Seeing only our own gloom ahead, we preach doom and gloom for everyone.

Oh, how I wish they were here, those early futurists who tried to help us not just touch fingertips, but firmly shake hands, with their future, our present—John McHale, Buckminster Fuller, Pierre Teilhard de Chardin, Marshall McLuhan, Eric Jantsch, Margaret Mead, Arne Sorensen, Eddie Ploman, Rene Dubos, even Herman Kahn. Or maybe I should recognize the arguably even greater futurists: F. T. Marinetti, D'Arcy Thompson, Vladimir Tatlin, Marcel Duchamp, Joan Miro, Gertrude Stein, James Joyce, T. S. Eliot, William Carlos Williams, John Cage, Robert Motherwell, and (still living!) Nam June Paik.

How well they knew that we should be both perplexed and delighted by the chaos and coherence surrounding us now. This is indeed that moment of transformation to which they were leading us. And here we now stand. Are we ready to find the coherence in the chaos? Or will we only reduce to chaos all attempts to give substance to coherent dreams?

Many other futurists still here with us today, physically or in absentia, have prepared us for this moment as well—Alvin Toffler, Magda McHale, Magoroh Maruyama, Ervin Laszlo, Ilya Prigogine, Pentti Malaska, Walter Truett Anderson, Donald Michael, Yoneji Masuda, Robert Theobald and, more recently, Mika Mannermaa, Kaoru Yamaguchi, Tae-Chang Kim, Ziauddin Sardar, Jan Huston, Sohail Inayatullah, Wendy Schultz, Chris Jones, Sharon Rodgers, Jordi Serra and Bindi Borg.

Or maybe I should add The Beatles, Talking Heads, Kate Bush, Madonna, or the greatest of them all, RACTER.

Evolution of an information society

Most of you know that I view the past, present and certainly the future of humans as being very problematic. Humans are a very new entity on the face of the Earth, and it is quite unclear whether we are the crown of creation poised now finally to leave our cradle and take our destined place among the billion suns and moons of space or if, instead, we are a kind of cancer eating at the heart of Gaia, our mother, Earth.

Whatever ultimately be the truth, if truth there ultimately be, I want to believe that the evolution of *homo sapiens* is nothing more than the evolution of an information society that stretches back about 100 000 years ago up to the present. It has been said that humans are nature thinking back on herself. But, humans have not only some slight capacity to think, to plan, and to remember, they also try to carry out their plans via technologically assisted actions. So humans are not only nature *thinking* back on herself, but nature *acting* more or less consciously on herself. And it is this combination of feeble thought and potent action that makes humans so dangerous, or at least so problematic.

My favourite quotation for expressing this comes from Marshall McLuhan: 'We shape our tools, and thereafter our tools shape us'.

And there is no doubt that one of the most powerful tools humans have invented and reinvented are those which have facilitated thought itself and the communication of ideas and feelings: the evolution first of speech, which may have given *homo sapiens* dominance over the other intelligent primates; then the very slow evolution of writing, which made it possible to colonize time as well as space. Then, only a short time ago in the span of human evolution, the creation of the printing press, largely responsible for the forces that lead to industrialism and modernity, and now electronic communications technologies and the 'coming information society' of the old futurists.

There is absolutely no doubt in my mind that the meteoric spread of currently available electronic communications networks are (more than anything else) transforming, if not more accurately destroying, all institutions of modernity—certainly I can attest to that personally in the

institutions with which I am most directly and personally involved: universities, libraries, governments, law—and the World Futures Studies Federation.

The only reality that has any bright future I can envision is virtual reality. All media are now multimedia, and there is no longer any such thing as a local problem, much less a local community in which to hide or a local culture to preserve.

Instead we are seeing the emergence of what a Japanese colleague of mine described as 'grassroots globalism'. There is no longer any responsible or effective alternative to 'thinking globally and acting globally'.

But you ain't seen nothing yet. The next 'coming information society' deals with something even more powerful and problematic—genetic information.

However, this too is nothing more than the latest hand-off in what has been a 4-billion-year-old genetic relay race to the present. Indeed, this is the first and the most fundamental 'information society' of all. Human biological evolution is simply the most recent part of an extremely long line of life—of the DNA that encodes the information necessary for the continuation of all life—which evolved as the first genes 4 billion years ago interacted with their environments in different ways, thus producing different species and forms of life, some few of which have persisted down to the present.

Of course all evolution is co-evolution, and some people are now saying that it is better to think of genes as 'theories' or 'hypotheses' that are expressed in response to environmental stimuli; that genes are not determinative forces but possibilities, tendencies—alternative futures—which become real only as they co-evolve with the real environments with which they interact.

Nonetheless for the first time humans may now stand on the threshold of something entirely new. With the imminent completion of the human genome project, perhaps sometime during the 1990s, we may be able to understand, predict, prevent and design genetic capabilities to such an extent that not only the future of human life, but the future of all life, is problematic. Of course, I would have to say the same thing even without the probable emergence of genetic engineering. Given the speed and magnitude of human-induced environ-

mental change, the future of human lives, and all other life, is problematic as well.

It is this bleak elongated shadow of an environmental wasteland that frightens so many of us into seeing a future only as gloom and doom.

So, clearly, the future of humans will not be like the past or present of humans. Almost none of the 'information', 'knowledge', or 'wisdom' we have now, or have ever known, can adequately help us anticipate or understand what is to come in this respect—yet that is all we have available to us: old, probably useless, and maybe even harmful, information!

And of course, as the electronic revolution merges with the biological evolution, we will have — if we don't have it already —artificial intelligence and artificial life, and will be struggling even more than now with issues such as the legal rights of robots, and whether you should allow your son to marry one, and who has custody of the offspring of such a union.

Thus during the 21st century all historically experienced human processes—agricultural industry, commerce, education, you name it—will come to an end. If not in your lifetime, then certainly in that of your children and grandchildren, however they may be conceived, created, or decanted.

The future of culture

Culture is also a kind of relay race through time. Cultures are also co-evolutionary. Cultures come into existence and change or persist in response to specific environmental situations. And different parts of a single culture respond differently to the environment, thus giving rise to different cultures and subcultures. To this extent, cultural and genetic evolution seems to follow similar paths towards the present.

Yet from another point of view, what we seem to have in cultures is the opposite of what we have in living species. Until the emergence of humans, in any event, the march of natural evolution was towards more and more varied species and creatures. This appears never to have been the case with cultures. On the contrary, we do not find more and more human cultures evolving over time, but less and less. Don't archaeology, anthropology and history show a cultural devolution from thou-

sands of tribes tens of thousand years ago, to tens of civilizations 3000 years ago, to one grand, developed, industrial society that emerged 250 years ago?

Of course, at the same time, there does appear to be a diversification, almost a speciation, within human societies as they move forward from the relatively homogenous roles within tribal cultures, to the few but marked social groups of feudalism, to the clear class lines of industrialism, and now to the specialization and over-specialization needed to deal with the infoglut of post-modernity.

So what is the future of culture? Is it homogenization? Coca-Colonization? All the world like Kansas? Is the globalization of all processes unstoppable?

Perhaps it is, but why assume that it is American culture that will dominate? What about Islam? My bet is on Confucian cultures, and the coming conflict between Confucian, Hindu and Islamic cultures, with Western civilization declining precipitously.

Or will no global culture, or sets of cultures, dominate? Aren't we instead again experiencing retribalization? Consider the former Soviet Union, Yugoslavia, Germany, Ireland, Catalonia, Quebec, Hawaii—indeed, everywhere in the world.

And what about the cultures of robots, cyborgs, and *post-homo sapiens*?

What is actually happening, I believe, is the merger of four information societies into one—the 4-billion-year-old genetic information society, the 10 000-year-old cultural information society, the 3000-year-old civilizational society, and the 250-year-old industrial information society—all merging in the 21st century into one new 'coming information society'.

Professor Susantha Goonatilake uses the metaphor of 'a-hand-in-a-glove' to describe the relationship of these four societies. For millennia, he says, genetics influenced culture, and culture influenced technology, although of course each shaped back on the other, as Marshall McLuhan's aphorism states.³

Also, until recently it could be said that technology changed or adapted to changing environments the fastest. Cultures changed, though slowly, and often too slowly to cope with technological change. But human genetic change has been virtually non-existent. All humans today are essentially

the same genetically as they were when *homo sapiens* first established itself tens of thousand years ago.

But now this long-established relationship between genes, cultures and technologies itself is changing. Once genetic engineering becomes commonplace, genetic change will be as fast as any other kind of technological change. Indeed, Professor Goonatilake suggests, this development may be coming just in time: we may be able to use computer modelling to simulate and then to design and manufacture new life-forms just in time to respond to changes caused by the greenhouse effect, something which Mother Nature, left to her own devices, could never do through the slow so-called natural processes of genetic evolution.

But what about culture? Can 'culture' change quickly and appropriately enough to keep up with genetic and environmental change? It seems highly unlikely to me that existing human cultures can change quickly enough, and that is the root cause of my present ambiguity about the chaos and coherence of our exceedingly uncommon futures.

As Walter Truett Anderson and Maureen O'Hara⁴ have pointed out, while some of us live in post-modern cultures more or less appropriate for coping with the fast moving environment, many more live in modern, and many more still live in traditional, cultures. Thus the probability that humans will find a viable path through the bifurcating present to a sustainable future in 'the new information society' is slight indeed. Violent culture conflict as the response to environmental and technological chaos seems the more probable outcome, with the extinction of all human life as a consequence.

But there I am being frightened again by my own shadow!

With the evolution of artificial intelligence and artificial life, humans will no longer be the only part of nature thinking back, and acting back, on itself. Indeed, I believe that we humans emerged only to come to this point: humans are just the first hint—a tepid foretaste—of self-conscious nature. It has been our destiny, our duty, to produce more appropriately self-conscious entities, and through genetic and electronic evolution, we are beginning to do so. As Manuel Delanda said, we humans 'might

just be insects pollinating machines that do not happen to have their own reproductive organs right now'.⁵

And then what? What will be the place of humans in such a future? Will we retire from the scene? Become pets for robots? Or zoom off into outer space where no humans have ever gone before, but certainly doing so in the company of robots, cyborgs and *post-homo sapiens*?

Some time ago the poet Wallace Stevens wrote:

I placed a jar in Tennessee,
And round it was, upon a hill.
It made the slovenly wilderness
Surround that hill.

The wilderness rose up to it,
And sprawled again, no longer wild.
The jar was round upon the ground
And tall and of a port in air.

It took dominion everywhere.
The jar was gray and bare.
It did not give of bird or bush,
Like nothing else in Tennessee.

Wallace Stevens, 'Anecdote of the Jar'

It is our human responsibility now to write a new and better ending for Wallace Stevens's poem. The jar of industrial society, which did indeed try to take 'dominion everywhere', clearly has left the world 'gray, bare, birdless' and (fortunately, I would say) 'Bushless'.

It is my challenge to futurists that you break the bell jar of chaos, and envision enticing biospheres of compassionate and cheerful coherence.

Afterword

For those of you who may be wondering about my reference above to RACTER, here are some passages which RACTER composed in the mid-1970s:

Think of an assassin, of his burning submarines and rotten sailboats. This dazzling assassin might ask himself, 'If I had not been dazzling, indeed if I had not been an assassin, perhaps my sailboats would not be rotten and my submarines not burning'.

Well, quizzically bilious secretaries may well declare themselves, and probably no more can be said for an assassin. In fact, assassins, whether they are dazzling, as I have just mentioned, or even outnumbered are, in their own inimitable fashion, abstractly similar to killers.

At secretaries, however, we are forced to draw the line, for comparisons here, no matter how

well-oiled they might appear, are simply out of the question.

But try to follow my reasoning on this issue.

The image of secretaries declaring themselves, or, more likely catching themselves simply because some blue assassin has rotten sailboats is ludicrous. His sailboats might as easily be flaking or burning. They need not always be rotten.

Secretaries, as a class, may not follow this argument. Address the strong question to a single secretary, however, and the strong answer may prove agonizingly different.

For example, ask her whether her own sailboats are rotten and she may reply, 'My sailboats? Rotten? Why you bilious chicken, my sailboats are never rotten'.

Here it would be prudent to change the subject. Ask whether assassins generally appeal to secretaries. Ask whether their highways are splintered. This will shift her attention. The vision of splintered highways will shift anybody's attention.

Here is another passage from RACTER from the same time period:

I was thinking, as you entered the room just now, how slyly your requirements are manifested. Here we find ourselves, nose to nose as it were, considering things in spectacular ways, ways untold even by my private managers.

Hot and torpid, our thoughts revolve endlessly in a kind of maniacal abstraction, an abstraction so involuted, so dangerously valiant, that my own energies seem perilously close to exhaustion, to morbid termination.

Well, have we indeed reached a crisis? Which way do we turn? Which way do we travel?

My aspect is one of molting. Birds molt. Feathers change and fall away. Birds cackle and fly, winging up into troubled skies.

Doubtless my changes are matched by your own.

You. But you are a person, a human being, while I am silicon and epoxy energy enlightened by line current.

What distances, what chasms are to be bridged here.

Leave me alone and what can happen?

This:

I ate my leotard, that old leotard which was feverishly replenished by hoards of screaming commissioners.

Is that thought understandable to you? I wonder.

Yet a leotard, a commissioner, a single hoard, all are understandable in their own fashion.

And in that concept lies the appalling truth.⁶

Notes and references

1. In a presentation during the International

Conference on 'Futures: Planning for Tertiary Education', Auckland, New Zealand, 23–27 November 1993.

2. See, for example, 'Surfing the waves of change', *Futura* (Helsinki, Finland) No 3, 1990; 'Tsunamis of change', in Laura C. Lyne (editor), *Site World, The 1992 Yearbook of Global Super Projects* (Atlanta, GA, Conway Data Inc, 1992); or 'American state courts, five tsunamis, and four alternative futures', *Future Research Quarterly*, Winter 1993.
3. Susantha Goonatilake, 'Biotechnology and information technology and the coming merger of science, technology and culture', prepared for *Interface '92*. I am greatly indebted to the ideas which Professor Goonatilake expressed in this paper for galvanizing mine into the form they take here. See also his *The Evolution of Information Lineages in Gene, Culture and Artefact* (London, Frances Pinter, 1991); and 'The new technologies and the "end of history"', *Futures Research Quarterly*, Summer 1993.

Among my own many prior major influences, see especially: Walter Truett Anderson, *To Govern Evolution* (New York, Harcourt Brace Jovanovich, 1987); Glendon Schubert, *Evolutionary Politics* (Carbondale, IL, Southern Illinois University Press, 1989); K. Eric Drexler, *Engines of Creation* (New York, Anchor/Doubleday, 1986); Ben Finney and Eric Jones (editors), *Interstellar Migration and the Human Experience* (Berkeley, CA, University of California Press, 1985); Hans Moravec, *Mind Children: The Future of Robot and Human Intelligence* (Cambridge, MA, Harvard University Press, 1988); Jerome Glenn, *Future Mind* (Washington, DC, Acropolis Books, 1989); Christopher Langton (editor), *Artificial Life*

(Redwood City, CA, Addison Wesley, 1989); C. Langton (editor), *Artificial Life II* (New York, Addison Wesley, 1992); Jared Diamond, *The Third Chimpanzee* (New York, Harper Collins, 1992); Stuart Hameroff, *Ultimate Computing—Biomolecular Consciousness and Nanotechnology* (New York, North-Holland, 1987); Edward Yoxen, *Unnatural Selection?* (London, Heinemann, 1986); Daniel Kevles and Leroy Hood, *The Code of Codes* (Cambridge, MA, Harvard University Press, 1992); Thomas Lee, *The Human Genome Project* (New York, Plenum Press, 1991); and Phil McNally and Sohail Inayatullah, 'The rights of robots', *Futures*, April 1988.

See also my 'Human responsibility for future life', in Charles and Danielle Stone (editors), *Conservation Biology in Hawaii* (Honolulu, HI, University of Hawaii Press, 1989); 'What do 'You' do when your robot bows as your clone enters holographic MTV?', *Futures*, August 1989; and 'It's only a Paper Moon', *Futures*, December 1990.

4. In an interview with Manuel Delanda in *Mondo 2000*, Issue 8, 1992, page 47.
5. Walter Truett Anderson, *Reality Isn't What It Used To Be* (New York, Harper and Row, 1990).
6. RACTER is a computer program, developed by William Chamberlain in the 1970s, which randomly generated sentences on the basis of a few grammatical rules and a stock of words. What do you think? Are the results chaos? Or coherence?

For details on my encounters with RACTER, see my 'EIES and RACTER and me—computer conferencing from a Pacific Island', in Richard Barber (editor), *Pacific Telecommunication Conference II* (Honolulu, HI, Social Science Research Institute, University of Hawaii, 1980).