

## WHAT'S UN-COMMON ABOUT COMMUNITIES? PAST, PRESENT, AND FUTURE

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### Communities Past

Humans evolved, physiologically and psychologically, to live in small FTF groups of 23-30 people; maybe a few hundred, maybe a few thousand. Almost never more. Most people until very recently lived in small groups where you knew everyone, and were known by everyone. For better or worse, your future was completely apparent to everyone. There was no reason for futures studies because there was nothing to study that wasn't utterly obvious in the present. You never gave the future a second thought. You never gave anything a second thought, and barely a first thought. Everyone and everything around you reinforced whatever it was you believed about yourself and your world because everyone was of the same culture as you, spoke same language you did, and shared your genetic heritage. As someone somewhere must have said, "As it was in the beginning is now, and ever shall be. World without change. Ah me."

For all of human history--until very recently--that was the typical human experience: in your entire lifetime, you never met anyone you didn't know. There were of course exceptions, for some few migratory people, or for people who lived and worked in seaports, and, for brief periods of time, in the cities of the few ancient empires. But for most humans, even until the lifetimes of many people alive now, seeing was believing: the world you lived in--your farm, village, or nearby community (whose limits you reached by walking, sometimes by boat or horse) was the only world you ever saw, or ever knew.

In 1800, less than 3% of the world's population lived in communities of 20,000 people or more. Even at the dawn of the 20th Century, the world was still largely a rural place--fewer than one person in seven lived in an urban area. However, by the 1960s, 35% of the people in the world lived in towns and cities. This rose to 40% in 1980, will be 50% by 2000 and probably 65% by 2025, with no obvious end then in sight.

Until recently, most urban areas of the world were very small. The greatest city of antiquity, Rome, had 800,000 people, covering 4 square miles, at its height in the 3rd century AD. No other ancient city approached that size, and Rome itself--though Eternal--was not sustainable.

At the time of the American Revolution, the third largest city in the British Empire, and the place where the American Constitution was written, Philadelphia, had a population of only 30,000. And oh, how the Founding Fathers complained of what a squalid dump it was. London, the largest city in Europe by far, was at that time a mere 100,000.

However, by the beginning of the 19th century, London had grown to just under a million people, whereas in Asia, Tokyo--the world's largest city--had just over one million. A hundred years later, at the onset of the 20th century, there were 11 cities worldwide with more than a million inhabitants--almost all of them in Europe and North America. Now, at the end of that same 20th Century, there are 24 cities around the globe with populations in excess of 10 million. Most are in the third world.

It is by no means clear to me that we humans can survive the world which we have created. We probably were not meant to live in such large numbers globally, and in such close proximity to one another. We really must consider the possibility that humans are an evolutionary experiment that is just not working out. It is highly likely that there will be no 22nd Century for humans--at least in such huge numbers and living in the style we--or at least some of us--presently do.

But it is also very important that, given the present and the looming future, we must neither romanticize the past nor trivialize the future. We are going to have to do some very new things, to have viable communities in the future, and not try to restore past ways that were relevant for past situations but not for the lives of most people now, and for almost no one tomorrow.

At the same time, we must recall that there are vast cultural differences among "communities" now and in the past. This is a very American conference, with very American ideas of community. In fact, it is worse that being merely American--it is Texan and almost nothing prepares one less well for understanding the global present (much less for anticipating the global future), than living in Texas where everything is designed for, and by, profligate giants. Where unobscured sightlines over vast distances are characteristic, and where if you can see your neighbor, much less hear or smell them, you are offended and within your rights to act on your offense.

In contrast, I lived for 6 years in Tokyo, a city whose inhabitants have had much longer experience with substantial urbanization than have most Westerners. Even though Japanese seldom touch one another, they do prefer having lots of humans around them. There is no tradition of hermits, solitary monks, or isolated militiamen in Japanese culture, as there is in the West.

But Japan is by no means unique in this respect. Population density in Calcutta and Shanghai presently is more than 70,000 persons per square mile. And even that is nothing to what population density was like in Asian cities during 2000 BC, recently excavated, which appear to have had almost twice that density--130,000 per square mile.

So mere numbers or density alone is not enough. While physiology is important, psychology, which is to say culture, is also important. And so is technology.

My point is that what might seem to be the proper size and scope of "community" for most people in one culture might seem like loneliness to another, and the mass oppression of a Tyson Chicken's coop to yet another.

What is a proper community is also a matter of experience and of esthetics. Some prefer what they consider to be "nature" as seen from commanding vistas, but others actually prefer Astroturf, wailing sirens, and close quarters. (Mack: small apartment vs. grass; Spike vs cats; and silence at Marsue's)

**Hawaii.** Yes. That is where I live--and have purposefully lived for 30 years. Paradise? Yes, I think so. One million plus people situated on six small islands--80% on only one island, however--in the most remote spot on the Earth. Nothing is as far away from everything else as Hawaii is. It is a tiny speck of land, lost in the vast Pacific Ocean, in many ways indeed a microcosm of fragile, lonely planet Earth, The Pale Blue Dot, hanging perilously in the foreboding darkness of space.

People come to Hawaii often expecting to find nature, grass shacks and grass skirts. What they find instead is lots of concrete --which is why I live there. In 1960, on my way to Tokyo, I found Honolulu too isolated and forlorn. I wrote in my diary then that I would not like to live in Honolulu. However, In 1966, on my way back to the US, I found Honolulu to be much more interesting. In 1969, I moved there, and have never wanted to live anywhere else...

But Hawaii is in great economic difficulty now. It just can't sustain itself in the present global economy. It must find a new way.

Many people--especially the rich and powerful--believe that Hawaii should just integrate more closely into the world economy, becoming another Hong Kong, Singapore, Las Vegas ,and/or Disney Land.

But other people wish to restore, or achieve, something they feel is lost. We have a very active Green party in Hawaii which has even been politically successful in elections on the Big Island. However, the major alternative future for "community" in Hawaii is found in the various forms of the Hawaiian Sovereignty movement, some of which wish to recapture the self-sufficiency Hawaii obviously had in the old days--before it was discovered and invaded by the West.

So there is extensive interest in small, sustainable communities in Hawaii because the present economic system plainly is not sustaining us. These discussions are the stuff of our daily discourse in the Islands. But, I regret to say, what the Greens and many Hawaiians want to do won't sustain us either, I am afraid.

Communitarianism, as often presently sought, simply won't work, in my judgement. We have GOT to get over the assumption that the only alternative to the continued loss of old forms of community is the restoration of old forms of community.

First of all, while there is much that is good about all small communities, and while some are better than others, there is much that is bad about all small communities, certainly in terms of closed and often oppressive human values, but also because many small communities have proven themselves to be as ecologically unsustainable as the globe is now. The most obvious example is Rapa Nui--Easter Island--which developed cultural and religious practices that led to its total destruction. But Rapa Nui is not unique; in fact, it is probably the rule, rather than the exception: many other small Pacific Islands suffered the same fate Napa Nui did--but because their destruction was so total before the coming of the White Man, we have not known much about it until recently.

It is possible that even Hawaii was similarly approaching the brink of ecological destruction when Capt. Cook arrived in the 1770s. Hawaii's population at that time was as large as it is now--1 million--and every square inch of land was under cultivation, with soil being brought down from the mountains and put on the coral reefs in order

to increase productivity to produce more food for the huge population.

It was also a very oppressive society, to women, and to slaves, and far too much time was spent in very bloody warfare on each island and especially between them.

So, although it is utterly politically incorrect for me to say so presently, it is completely possible that Hawaiians, too, could have plundered and exploited themselves out of existence, just as the Polynesians on Rapa Nui and many other Pacific Islands did.

It is very important that we not romanticize the past just because we don't live in a sustainable present. It is not the case for the most part that humans used to live in harmonious accord with nature and only recently have lost the old wisdom and gone crazy with mindless exploitation and growth. Much of our common past experience shows that our communities were sustainable only as long as we lived in self-sustaining natural environments. When the environment collapsed from human overuse, as it almost always did, communities either moved or developed new technologies which allowed the community to sustain itself a while longer. Or the community died out entirely. This happened again and again. To that extent there is in fact nothing new about the present, except its scope, the technologies involved, and our limited number of evolvable options.

### So what are the futures of communities?

In addition to the future challenging us today with unprecedented demographic and environmental conditions--conditions which absolutely require we think about community differently from the way anyone has thought about it before--the future is bringing us new technologies through which communities can and should be formed and understood.

Telecommunities certainly will be a dominant form of community in the future, as they are already becoming. Cyberspace clearly is, and should continue, to replace physical space in centrality and vitality. Chatrooms and listservs on the net will and should continue to rise in importance over drawing rooms and coffee houses on the village square, or mall. Drawing rooms, coffee houses, and other physical, face to face communities WILL continue to exist. But they will no longer be central as they once were when there were simply no other options.

Now we have many options for community, and will soon have many more. This, too, is good, though of course no technology is ever neutral. Every new technology displaces, even though it does not fully replace, older technologies. We did not stop talking when we learned to write though we did find out it was OK to forget things when we learned how to write them down and then look them up again later. We have not stopped speaking and writing when movies and television came to displace ftf speaking and writing as the sole means of constructing and communicating the world though far too many people still think reading and writing are more important than what are called "the media."

For better or worse, most people NOW live in a world constructed by television and the movies, and not by their own direct experience; still less by what they read in printed texts. It has to be, and the sooner we stop whining about it, and began understanding it, the better, if only because the lifespan of the dominance of movies and TV is very short and is being replaced by something else.

Now, like many of you perhaps, I have been living in cyberspace for a very long time. I was one of the handful of early experimenters on EIES, the electronic information exchange service which Murray Turoff ran, on an NSF grant, from a computer in the New Jersey Institute of Technology in the late 1970s. I was in Hawaii, and probably the person most remote, geographically, from New Jersey, but there were a few people in Europe and others throughout North America.

This was in the days before PCs. I accessed EIES via a telephone connection between a Texas Instruments terminal in my office (and deep local bow of thanks to TI for that) which had absolutely no local memory at all. It was just an electronic typing machine. If I wanted to save anything, then I had to "echo" it out, as it was called-- print out what I was writing or receiving on an attached printer. I still have most of that printout, and wrote about my experiences in a paper I gave at the Second Pacific Telecommunications Conference in Honolulu in January 1979. Actually, I did not physically give that talk either. Instead, since I had to be in Saipan while the conference was going on, I videotaped myself giving the talk, using old black and white reel-to-reel Sony Portapak equipment, and someone played it back to a no-doubt rapt audience, I can imagine, while I was thousands of miles away. It should be remembered that portable black and white reel-to-reel videotape was cutting-edge technology at that time too!

The title of my paper was "EIES and Racter and Me: Computer Conferencing from a Pacific Island. EIES was the electronic information exchange system, as I just explained. The Pacific Island was Oahu, and I am Me. But who is Racter?

Racter was a poet whose poetry I sometimes read via EIES.

Here are two of the more memorable, if enigmatic, poems by Racter:

"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."

Well, as you might have figured out from the second poem, 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 poetry? A sign of creativity? Of intelligence? Would you welcome Racter into YOUR community? I would into mine.

I would be a fool not to welcome RACTER, and all his silicon siblings and descendants, into my virtual community. I have for the past 20 years--as several people in this room will attest--spent more of my time in cyberspace than in physical space--online and not in line.

I have taught courses over PEACESAT, while I was in Honolulu, with my students spread across the Pacific on tiny islands with a total mass less than that of Rhode Island, but with distances between them, and between them and me, greater than between Los Angeles and Boston.

While I was teaching one such course, I had to go to a conference in Anchorage, Alaska, but because there was a PEACESAT link there, I could continue with the course. I then went to Orlando, Florida. There was no PEACESAT footprint there, so I telephoned to Denver, Colorado, which was within the satellite's footprint, and they uplinked me to PEACESAT so the course could continue. This was in 1977--more than 20 years ago. The spirit was willing but the technology was weak. Yet we made it work because we had faith in the Promised Land ahead. Our eyes had seen the glory of the coming of the Web.

I have also taught courses by radio, by newspaper, and repeatedly by television. Now listservs and websites dominate my pedagogy, and my students are worldwide and constantly online. Indeed, it is a dubious use of my time to show up at ftf conferences like this. I should be online now in my little electronic cottage in Waikiki, instead of consuming vast quantities of jet fuel and wasting bandwidth now just to be here with you. Hie thee to thy PowerBook and let us join our minds as one, and with all the other minds who would join with us--join the Global Brain; the Community of Ones.

It is absolutely clear to me that virtual communities are the waves of the present which will form into the tsunamis of the future. At the present time, cyberspace is slow, expensive, and print-based. But voice-activated technologies are zooming into prominence, and avatars will soon replace print.

For example, consider this item which I pulled off of one list and forwarded to another last week:

"A newly-launched employee-leasing firm is taking a decidedly virtual approach to filling jobs. Using technology developed at NASA's Jet Propulsion Laboratory, Digital Personnel, Inc. offers businesses a stable of virtual employees--photo-realistic, computerized talking heads to use for fielding complaints or taking product orders through the Internet. "We offer ready-to-talk talking heads to companies," Says DPI's owner. "I see it as a natural evolutionary next step for the Internet. If you think about how every time you go to look up the Web page of a company, you'd much rather talk with someone than read a bunch of text. It's the difference between reading the telephone book and asking someone what the number is... I can't image any company not wanting their Web site to have a human interface, whether its the IRS or Home Shopping Network." The talking heads can be pre-programmed with canned responses to frequently asked questions, or to operate as a facade for an artificial intelligent agent, or even to serve as photogenic masks for human customer reps (Tampa Bay Business Journal 6 April 98).

Certainly such avatars won't stop there. They will be everywhere, talking and thinking for you wherever you now think and talk, as well as in all the other places where you can not now think and talk. While your avatar does the thinking and talking, the pitiful dregs of your physical "you" can be off eating, sleeping, basking in the sun, making love, scratching yourself wherever you have the itch, online in the global communal brain.

Artificiality and virtuality are overwhelming everything we once considered "natural" and "real". Nature and reality are terms without any useful meaning now,

and for the future. There is no nature, no reality, and no normality now, and never will be again. Please don't use those terms unless you have inverted commas around them.

And that is good. Or at least that is not particularly new. It is clearly part of our human trajectory since Adam and Eve, now in extremis--though not nearly as extreme as it will be. Of course, as I said, just because it is a profoundly human way of doing things does not mean we will succeed. But I do think we have to try.

Recent advances in electronics make it clear to me that artificial intelligence, long anticipated by futurists, is very nearly here. When Big Blue caused the world's greatest human chess player to have a nervous breakdown and to slink off in humiliating defeat while ole Blue just sat there humming "Daisy," it was clear that AI was now able to take on any artificial task it was asked to do. From tic tac toe to checkers to chess, to "go". The next major artificial system to be taken over by AI is the law--all legal systems are nothing but more complex chess games, better played by artificial, than by so-called "natural," intelligence (if you are willing to grant lawyers any kind of intelligence at all). And so also is bureaucracy nothing but a zero-sum game whose conclusion--like tic tac toe--can be predicted as soon as the first move is made.

Now I doubt that computers will ever learn to think like a human. But why should they? Humans are horrible thinkers, with all sorts of emotions getting in the way of pure reason. So leave the thinking to AI and the playing to us.

On the other hand, we need to develop great tolerance for Artificial Intelligence. We must welcome them in all their annoying diversity and humorless specificity. We should not continue to pretend we are better than they are (nor that they are better than us)--we are all just different. We will not be able to live without them, nor they, for a while, to live without us. So we need to embrace them--figuratively, if not actually, since I do not yet know what constitutes the sexual harassment of a robot, though I am sure I will soon find out.

Hans Moravec observed:

"In the late 20th century, the barriers of complexity that divided the engineers of inanimate matter from the breeders of living things have been crumbling." "We are very near to the time when no essential human function will lack an artificial counterpart." "In the future..., the human race itself [will be] swept away by the tide of cultural change...to a future that, from our vantage point, is best described by the word, 'supernatural.'" "The underlying theme is the maturation of our machines from the simple devices they still are, to entities as complex as ourselves, to something transcending everything we know, in whom we can take pride when they refer to themselves as our descendants."

Stuart Hameroff, the author of Ultimate Computing: Biomolecular Consciousness and Nanotechnology writes:

"Biology and technology are both evolving towards more efficient methods of information processing." "With a head start of a billion years, biology has evolved human consciousness; technology appears to be catching up rapidly." "There are several indications that the evolution of technology will force another nonlinear acceleration in biological evolution which has dealt with crises such as toxic oxygen

two billion years ago, utilized new energy sources, inhabited new environments, developed new forms, and spawned technologies which themselves have evolved."

This is not silly science fiction, or a diversion from the serious problems of "real" human communities, as some of you might imagine. At the present, we treat artificial intelligence as white men used to treat, with impunity, black men, and all men treated women until very recently. It is sheer prejudice, ignorance, and hubris to deny robots, cyborgs, and chimeras their rightful place in the community of life on Earth as painful as it may be for many of us to accept.

I urge you all to read a book called *Merged Evolution*, written by the Sri Lankan futurist, Susantha Goonatilake, as soon as it is published by Gordon and Breach in a few months.

Goonatilake makes it crystal clear that developments in electronics on the one hand and biology on the other are merging so rapidly that the old Darwinian understanding of evolution is over and gone--or at least marginalized by merged evolution. For those of you who are religiously or spiritually curious, Goonatilake also has an excellent analysis towards the end of how various religions might react to, embrace, or reject artificial intelligence and artificial life. Will we ignore them? Will we rip their freaking little transistors out? Will we try to baptize them? Or will we accept their own spirituality as their own and legitimate for themselves--maybe even as something we humans might want to try out, as best we can, as well?

I am minded at this point to talk about the human community in relationship to other lifeforms already on Earth--dolphins, whales, our simian siblings, of course, but all the way down, or across, to every plant, animal, bacteria, eukaryotes, and Archaea hyperthermophile there is. All creatures great and small, all things wise and wonderful, the lord god made them all, and we are in community with all of them as well. But I won't talk about that here since I am sure it is already on the minds of so many of you.

Instead, I will turn our attention to coming cosmic communities, discussion of which is also so much a part of this place, Houston, that you may be tired of it.

Nonetheless, barring global environmental or economic collapse--and barring it is not easy to do--space settlements from Earth will come into existence over the 21st C and beyond. New forms of community will begin to emerge in these settlements over the next 30 years or so.

In what is still one of the most important volumes on space exploration and settlement from a human perspective, Ben Finney and Eric Jones "reiterate that the use of technology to expand beyond Earth would be entirely consonant with the whole trend of human evolution. From the time the most adventuresome of apes left the tropical forest to seek a living in the grasslands of the African savanna, our ancestors have been inventing technology to adapt to new environments and to expand over the globe. There is a large techno-cultural distance between grubbing succulent roots from the soil of the savanna with digging sticks on the one hand and growing algae to provide both food and oxygen for Moon colonies on the other. And it is a long way from sailing canoes to interstellar arks. But ever since our ancestors started using tools to survive and eventually flourish in new environments, the pattern of evolution by cultural as well as biological adaptation has been underway. Although the prospect of traveling and living in space might seem 'unnatural' to many, it would represent a logical extension to the technological path our ancestors

have been following for some 5 million years." [In Ben Finney and Eric Jones, eds., Interstellar Migration and the Human Experience. University of California Press, 1985, p. 335.]

The first permanent settlements in space will not necessarily be by Americans (or by Americanized wannabees). Or at least settlements will not necessarily ONLY be by Americans. We should anticipate that Japan, China, India, Brazil and other nations will become much more active in space exploration and settlement in the 21st Century. They may establish communities with very different cultures and expectations from those NASA might have in mind.

One of the characteristics of space settlements (which might each themselves initially be quite small) is the vast distances between themselves and other settlements, on Earth and elsewhere in the solar system, and eventually the cosmos. What we learn about telecommunities and virtual communities on Earth will be very important for space--and vice versa.

In his book, Infinite in All Directions, Freeman Dyson envisions human's movement into space on the wings of a space butterfly or an astrochicken. The former he describes as "a way of exploiting for the purposes of space science the biological technology which allows a humble caterpillar to wrap itself up in a chrysalis and emerge three weeks later transformed into a shimmering beauty of legs and antennae and wings." "So it is reasonable to think of the microspacecraft of the year 2010, not as a structure of metal and glass and silicon, but as a living creature, fed on Earth like a caterpillar, launched into space like a chrysalis, riding a laser beam into orbit, and metamorphosing itself in space like a butterfly."

Similarly, Dyson says the "Astrochicken will not be built, it will be grown. It will be organized biologically and its blueprints will be written in the convenient digital language of DNA." "The next hundred years," says Dyson, "will be a period of transition between the metal-and-silicon technology of today and the enzyme-and-nerve technology of tomorrow. The enzyme-and-nerve technology will be the result of combining the tools of genetic engineering and artificial intelligence."

"When life spreads out and diversifies in the universe, adapting itself to a spectrum of environments far wider than any one planet can encompass, the human species will...find itself faced with the most momentous choice that we have had to make since the days when our ancestors came down from the trees in Africa and left their cousins the chimpanzees behind. We will have to choose either to remain one species united by a common bodily shape as well as a common history, or to let ourselves diversify as the other species of plants and animals diversify. Shall we be forever one people, or shall we be a million intelligent species exploring diverse ways of living in a million different places across the galaxy?"

Ben Finney answers Dyson's question clearly, and I think correctly [in his book, Interstellar Migration and the Human Experience]:

"If our descendants spread far and wide through space, the forces of evolution now braked on Earth will be released once more." "Human evolution in space will hardly be limited to the birth of one new species. Space is not a single environment.... There are innumerable environments out there providing countless niches to exploit, first by humans and then by the multitudinous descendant species. By expanding through space we will be embarking on an adventure that will spread an explosive speciation

of intelligent life as far as technology or limits placed by competing life forms originating elsewhere will allow."

Professor Finney has recently come to call this the cosmicization of humanity (how the cosmos will change us) and the humanization of the cosmos (how we will change the cosmos).

So I conclude that soon we will experience our first encounter with true post-human (but, initially, human-generated) intelligence, and within a few decades beyond that, humans will live in an environment where there is a large number of such intelligences, none much like our own now, and many clustering into "cultures" and communities which will differ significantly from the others. That is to say, just as there will not be one post-homosapiens but many, so there will be many differently intelligent artificial lifeforms (and hence cultures and communities) and artificial environments--virtual realities--by the mid-21st Century and beyond.

I believe we present "human becomings" have already forfeited our control over the forces of transformation of our environment and ourselves by focusing too much on obsolete past, and relatively trivial personal and cultural, problems and injustices. But what we do about the transformation (whether we respond with foresight, creativeness and enthusiasm, or with reactionary hindsight, appeals to tradition, and apathy or denial) depends very much on our will--here and now.

This is the world we must face honestly, and not focus only on the small ftf alternatives. As I have repeatedly said, small ftf communities will exist in the future, of course. But if, in the 22nd Century, we live only in small ftf communities on Earth, it will be because we failed to anticipate and embrace new forms of community, and life, in the 21st. Whoever is living in small ftf in the 22nd century and beyond, with no other options, will have been forced to live this way because of our inability--now and in the 21st Century--to find ways to imagine and to build new, sustainable megacommunities, across many diverse cultures, species, and lifeforms, and across ever widening distances of the cosmos.

That is our challenge. It may indeed be a mission impossible. But we have no choice but to accept it. It is an offer which we cannot refuse, an offer made to us by our ancestors which we must accept gladly on behalf of future generations.

It is important to remember that we are someone's future generation. Those past generations have, with the best of their intentions, given us the world in which we live, in a trajectory towards the future which we can only learn to surf. We can neither avoid it nor divert it. Surfing it with vision, joy, and courage is the only responsible way for us to show our respect for our ancestors and our love for *all* the diverse lives who should have the chance yet to come.