

# More Thoughts About The Spirit of the Internet

Lawrence Hagerty

[Presented to The Inside Edge ([www.insideedge.org](http://www.insideedge.org)) on March 14, 2001]

I want to thank you for inviting me here this morning. Not only was I honored to be asked to speak to such a forward-thinking group, but I love the name you have chosen, The Inside Edge. For most of my life, whenever my friends, family, and employers tried to chastise me by saying that I was too far out on the edge to suit them, I would always respond, “At least I am on the inside edge.” It is reassuring to find so many others here as well.

I will be speaking this morning about some of the issues raised in my book, *The Spirit of the Internet*. First, I would like to set some expectations. My mission, both with my book and this morning, is to synthesize a wide range of disparate ideas into a larger pattern, which can be used to guide us all through what promises to be some very interesting (and possibly hair raising) times just ahead.

Those of you who are not drawn to the more technical aspects of the Internet can relax. I am not going to “go geek” on you this morning. In fact, my book is also structured so as to provide an easy read for the less technically inclined. For example, *The Spirit of the Internet* includes a 35-page addendum titled “A Brief Explanation of How The Internet Works.” While this addendum doesn’t give you enough information to qualify as a network engineer, it does provide enough detail, in simple terms, to give my 85 year old mother the ability to explain how routers, email, and websites work. Overall it is a very approachable book for even the least technically inclined people.

In addition to discussing my own book, I am going to take the liberty of mentioning two other books that round out the picture of the future that I am going to describe this morning. I suspect many of you have already read them, or at least heard of them. The first of these new books is *The Cultural Creatives*, by Anderson and Ray. The other one I will mention later.

In *The Cultural Creatives*, the authors draw upon research studies conducted over the past 13 years in which they studied the opinions and behavior of over 100,000 Americans. The focus of their work is *culture*, specifically, how our culture is shaped and nurtured. What they uncovered is among the most important sociological findings in recent history. In summary, here is what Anderson and Ray found:

- Until the end of World War II, there were two groups, or subcultures, shaping American culture, the Traditionals and the Moderns. Traditionals dream of going back to a pre-urban society, and the Moderns want things to stay just about the way they are so they can “get their share.”
- By the end of the 1960s a third group evolved, the Cultural Creatives. The underlying themes of this new subculture are ecological and planetary.

To quote Anderson and Ray, this new subculture emphasizes

. . . relationships and women's point of view, commitment to spirituality and psychological development, disaffection with the large institutions of modern life, including both left and right in politics, and rejection of materialism and status display.

[And here is the big news:]

Since the 1960s, 26 percent of the adults in the United States 50 million people have made a comprehensive shift in their worldview, values, and way of life their *culture*, in short.

I have absolutely no doubt that there are quite a few Cultural Creatives here this morning. It is important to note that the Cultural Creatives do not fit into any of our predefined categories, like liberal or conservative. They fall into both of those camps. As Anderson and Ray point out, "They refuse to choose sides. They head off in a third direction that's neither left nor right, neither modern nor traditional." Cultural Creatives are people who see the big picture. They are synthesizers and healers on both the personal *and* the planetary level. Most importantly, these people truly understand the value in expanding their own sense of self-awareness.

Ultimately, it is our culture, not our political institutions, that define us as a people. It is culture that teaches our children not only what they should and should not do, more importantly it teaches what they should and should not question, long for, and dream about. The most encouraging part of Anderson and Ray's book, for me, is their discovery of the fact that one in every four adult Americans has now begun to see things on a global scale. This single fact leads me to believe that the technological future I describe in *The Spirit of the Internet* will be one in which our species will thrive. Until recently, the survival of the human species was not something most of us thought about on a daily basis. Unfortunately, we have now reached a point in human history where the long-term survivability of our species is actually in doubt. As you will soon see, I believe that the Internet may hold the key to the continuation of what has been called "the human experiment."

For about two thousand years now, what we call the Western World has been expanding into every little nook and cranny it can hold on to. In no small part, the successes and the failures of Western culture have been amplified by our use of technology. Today we find ourselves here, at the western edge of the North American continent, literally at the edge of the West. Now what? Where do we go from here? One obvious answer is "up," whatever "up" means. Outer space, for example, is one form of up, but for the moment not many of us will be given the opportunity to leave this planet in a physical body.

There is another form of space available for our expansion, however, and that is cyberspace. In my book I spend part of the first chapter discussing the concept of cyberspace. For the purposes of this morning's presentation, I will keep the definition simple. Cyberspace is the limitless place one's mind finds itself in when using technology to communicate with others. Perhaps Bruce Sterling said it best, "Cyberspace is the 'place' where a telephone conversation appears to occur." In other words, cyberspace is a "mind space" in which information is passed from one mind to another by means involving high technology. It is not a *physical* place. Please note that these definitions imply two components, mind (or spirit) and technology.

When I began writing *The Spirit of the Internet*, my original intent was to write a brief history of the spirit of adventure and cooperation that was prevalent among the people who built

the Internet and among its early users. As I expanded my research, the book took on a life of its own until the concept of “spirit” expanded to the point where a subtitle was required to more fully describe the book. That subtitle is “Speculations on the Evolution of Global Consciousness.” It is important that you take note of the word “speculations,” for that is precisely what they are. In our present age, it is quite foolish to make concrete predictions about the future. The theme of *The Spirit of the Internet* is that there truly is a spiritual essence present in our world of high technology. At our core, we are all spiritual beings first and foremost. Yet we are spiritual beings who find ourselves immersed in the material world, a world in which technology plays a crucial role, particularly in the area of biological survivability. The theme of my book, and my theme for this morning, concerns the intersection of the spiritual and the technological. In short, what is the future of spirit in a technological world?

When we think of the forces of nature, our first thoughts often go to the weather, earthquakes, volcanoes and such. The more scientifically inclined may think of gravity, electromagnetism, and the nuclear forces. Yet how many of us see consciousness, human consciousness, as a force of nature? The next time you see a human artifact like the Tower Bridge in London, for example, take a moment to see it in a new way. That familiar-looking structure would not exist if it were not for human consciousness. In effect, it is a frozen thought, a product of the force of nature we call human consciousness. That beautiful bridge came into existence through the force of consciousness. Spirit gave shape to the material through the application of technology. Throughout the world, human spirit is reshaping the material structure of our planet, largely through the application of technology. In turn, technology has become an important factor in the creation of our cultures. Television is a good example of this phenomenon.

One sure sign of a Cultural Creative is the inability to find any interesting programs when surfing 100 plus channels of cable television. If you want to see what the dominant culture of any nation believes is worth preserving and promoting, just take a look at their local television programs, particularly the advertisements. Like it or not, what you will see are the values these cultures hold in highest esteem. This is the culture the Moderns wish to preserve. After a few minutes of watching U.S. television, I always wonder how we could have allowed things to get to such a state? More importantly, I wonder what we can do to change course. Is there still time for us to shift our focus from violence and “looking good” to harmony, love, and a sustainable way of living on this planet? Is our species, like almost every other species that has come before us, doomed to extinction, or can we rise to a higher level of consciousness and return this planet to the paradise it once was? In short, is there reason to hope that we will rise to the occasion?

Not only is there hope, but there is hard evidence that shows we have already begun to make the changes necessary for our survival as a species. Furthermore, I believe that not only is the Internet evidence of such a change in consciousness, it is the inevitable product of the evolution of human consciousness to a higher plane.

Less than twenty years ago, young adults in this country were called the “me generation.” This label was applied because they appeared to be so self-centered, primarily engaged in acquiring more wealth and material goods. During those same years, futurists spoke of the end of the Industrial Age and the dawn of the Information Age. What a concept! Information would become more valuable than material goods, more valuable than gold or diamonds. And we are actually seeing this come to pass. What very few people predicted at the time was that significant amounts of this precious new resource would be given away for free. There is already more

information, specifically more *good* information, available essentially for free than can be absorbed by a human being in a single lifetime. Billions and billions of dollars' worth of information is being given away each day on the Internet. Granted, distribution is not yet perfect. One must first have access to the Internet. But take a step back, pause for a moment, and think about the magnitude of change in consciousness that has taken place in the last 20 years. We are seeing the end of the Industrial Age, when the primary resources were hoarded, and the beginning of the Information Age, when the primary resources are given away. Not just individuals, but corporations are placing valuable information on the public Internet without having a clear idea of how this will be of benefit to their bottom line. This is a very measurable shift in consciousness.

It is one of the tenets of my book that the Internet is the physical manifestation of a form of global consciousness. Please note: I am speaking only about global *consciousness*, and I am not talking about any form of global *government*. An interesting thing about consciousness is that it is spiritual in nature, not material. Likewise, cyberspace is spiritual in its essence. Recall my earlier definition of cyberspace, "The limitless place one's mind finds itself in when using technology to communicate with others." It is reasonable, I believe, to think of consciousness and cyberspace as congruent, or taking up the same space. This concept is at the core of my book.

The first chapter of *The Spirit of the Internet* is titled "A Place Called Cyberspace." There I discuss the various ways people conceive of cyberspace, and I describe some of the new colonies of consciousness that are now taking shape there. Although you may not give it much thought, there is a virtual community in cyberspace that has already formed around The Inside Edge. I have several friends who come to your website regularly and replay some of the programs that you have made available. Now you even offer a live webcast. I am sure that the Inside Edge community is much larger than most of you imagine. Without having consciously thought about it, by supporting this organization you are also supporting the evolution of culture on the Internet.

Another culture that is taking shape on the Net is that of Inhabited Virtual Worlds, or IVWs. This isn't the same as Virtual Reality, which generally requires expensive headgear and other computer peripherals. IVWs are communities that are being built in cyberspace using only the capabilities of your average home computer. One form of an Inhabited Virtual World is a virtual city represented on a two-dimensional computer screen using perspective drawings to give the impression of a three-dimensional space.

Cybercolonists then divide this virtual space among themselves and construct dwellings, stores, parks, and community centers. What is most fascinating about these worlds is that the social rules governing them are often evolved as the city is being built. Everything from the size and placement of buildings to the penalties for unsociable behavior must eventually be agreed upon. Already sociologists are being drawn to the study of these cybercivilizations. There is one important point I would like you to keep in mind here, and I will come back to this in my conclusion. Cyberspace is a real place. It is a place where minds are joining together for common purposes, and where new information is constantly expanding the minds of those who inhabit this place of spirit. Fortunately, this is also an environment in which Cultural Creatives thrive.

Another way in which the Internet is silently beginning to affect the thinking of our species is its role in telecommuting, particularly for computer programmers. Although they are

few in number today, there are computer programmers in India, China, Russia, and other countries who are working from their homes for U.S. corporations. Imagine the change in consciousness that will take place when everyone in the world knows at least one person who is working at home for a foreign company. This alone will lead to a more global vision for our species.

After covering cyberspace, virtual reality, virtual worlds, and the evolution of a global culture, I discuss the relationship between the Internet and the noosphere. This is actually the core of my book. Many of you will recall Teilhard de Chardin's famous book, *The Phenomenon of Man*. In that landmark book, Chardin postulated the existence of a "membrane of thought" surrounding the Earth, and he called it the noosphere. Chardin went on to predict that at some future point in time we will reach an "Omega Point," which, according to Chardin, is the final step in human evolution, the full descent of spirit into matter. He foresaw this event as being a transformation of the noosphere into a vast sea of human consciousness, a sea in which every drop remains fully conscious of itself, yet is also fully aware that it is a part of a larger being. Chardin saw this event as the equivalent of every human being on the planet having achieved what the Buddhists call *satori* or enlightenment.

Now one may ask, "What does the Internet have to do with the noosphere?" For years I had been asking myself the same question, for on some level I felt there must be a connection between the two. As I began to research this question more deeply, I discovered hundreds of others who also saw a relationship between them. One day I came across an article Teilhard de Chardin wrote in 1947.<sup>1</sup> Keep in mind that although *The Phenomenon of Man* was first published in the late 1950s, it was written in 1938. So this 1947 article by Chardin actually represented what may be his last published thinking on the subject. In this essay, which is titled "The Formation of the Noosphere," Chardin discussed the necessity of a mechanical infrastructure for this sphere of thought. Although his focus for such an infrastructure was radio and television networks, he also mentioned the possibility that computers might one day provide the mechanical infrastructure of the noosphere.

Think about this prediction for a moment. In 1947, when Chardin wrote that article, there were only a handful of computers in the world. This was the same year Thomas Watson, then the president of IBM, predicted that the total worldwide retail market for computers was only five! This was 20 years before the first computer networks were developed. For an evolutionary biologist in 1947 to foresee the potential computers held for human communications is truly a magnificent act of intellect. I believe that if you read the arguments I set out in my book, you will also be convinced that the Internet is in fact the mechanical infrastructure of the noosphere.

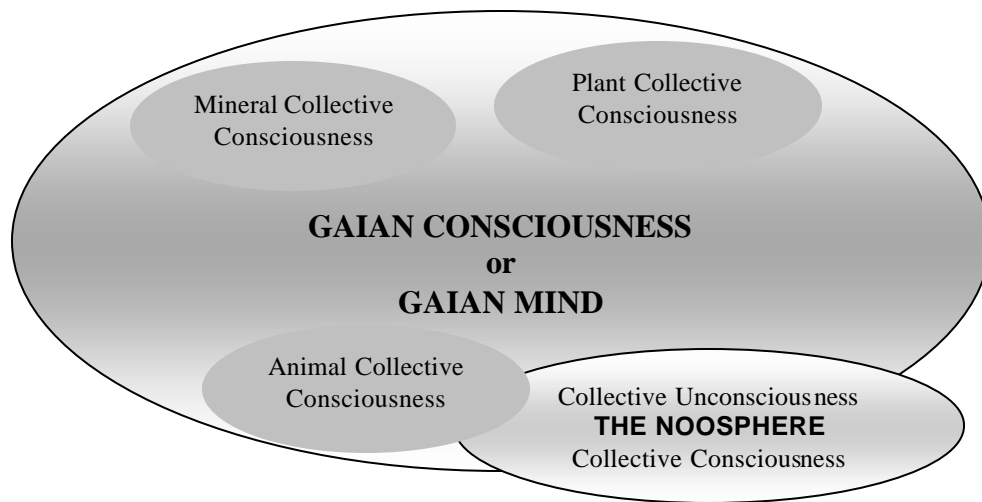
There are two speculations here: 1) there is such a thing as the noosphere; and 2) the Internet is the *mechanical infrastructure*, the physical infrastructure, of the noosphere. This is not to say that the Internet and the noosphere are one and the same. The closest metaphor I have found for the relationship between the two is that of the human brain to the human mind, the former being the material structure that supports the latter. If these speculations are true, what can this tell us about the future of global consciousness, and more importantly, what does this mean for the future of our species?

---

<sup>1</sup> Teilhard de Chardin's "The Formation of the Noosphere," *Revue des Questions Scientifiques* (Louvian), pp. 7-35, January 1947, found in Teilhard de Chardin's *The Future of Man*, pp. 165-166 (New York: Harper & Row, 1964).

I believe it is safe to assume that everyone in this room is concerned with our global ecological crisis, as are all Cultural Creatives. The true direction of the threat may not be completely clear, but the warnings about global climate change are unmistakable. While we may differ about the severity of the situation and the steps required to reverse the current degradation of the biosphere, we most likely all agree that we cannot continue on our present path indefinitely. It has taken a long time for us, collectively, to begin waking up to the fact that careless individual actions can and do often add up to harmful global consequences. Whether we call her Gaia or simply Earth, we now realize that this planet wasn't put here for *our* pleasure but that our species has evolved as an integral part of this planet's biosphere. Just because we don't have roots like trees, it does not mean that we are not a *part* of this planet. Every molecule in our bodies comes from the Earth. It is a part of us and we are a part of it. We cannot abuse the Earth without abusing ourselves.

I believe, as I am sure many of you do, that the Earth herself is conscious. I call this Earth consciousness Gaia, you may call it Mother Nature or something else. There are many ways to view Gaian consciousness. Some simply see it as a complex series of biological and climatological feedback loops, which in some as-yet-unexplained way regulates biological life on a global scale. My view, which I illustrate with several graphics in my book, is that Gaian consciousness consists of the collective consciousnesses of all the minerals, plants, and animals on the planet. In my view, however, one part of the animal kingdom's species-consciousness has not yet been fully integrated into Gaian awareness. That part is the noosphere.



The noosphere “on the edge of awareness.”

I think it is fair to say that a part of our human species-consciousness, the noosphere, has already achieved some degree of Gaian awareness. In the United States those people have now been identified as Cultural Creatives. As you recall, one of the defining characteristics of a Cultural Creative is a planetary ecological perspective. The big question of our age is how do we get the balance of humanity to adopt a similar point of view? How do we move the rest of the noosphere into the realm of full Gaian awareness?

To answer that question, I first took a look at our archaic past and the ages before human industrialization began to disturb the natural rhythms of our biosphere. What I found was most intriguing. One of the things I discovered was that virtually every ancient culture formed around one or more sacred plants. During the ages when our species lived in harmony with nature, our prehistoric ancestors participated in sacred rituals during which they would ingest substances such as mushrooms, cactus, and other plants which have psychedelic properties. These plants actually became the foundation upon which these ancient cultures formed. Although our highly technical Western culture has assumed a position of superiority over these ancient cultures, it seems to have forgotten that the culture of the ancient Greeks, the cradle of Western civilization, was shaped by the use of psychedelic substances. It has now been well established that the Eleusinian Mysteries were centered on the ingestion of ergot-infected rye. In its modern form this substance is called LSD.<sup>2</sup>

Today one seldom hears about these things because it has become unfashionable to speak the truth about psychedelic substances. Fortunately, research into the benefits of these medicines has once again begun at major universities and hospitals around the world. If you look carefully, you will find reports on this work, but sometimes the word “psychedelic” is replaced by the newer word “entheogen.” In 1978, when the word “psychedelic” became tainted by the mass media, a group of researchers coined the term “entheogen” to describe psychoactive medicinal substances. The term literally means “becoming divine within.” This word is not a theological term, but rather a cultural term that includes all shamanic inebriants.

There is an interesting story to be told in the West’s progression from sacramental use of entheogens to our position today. Today, simply growing one of these plants is an offense worthy of putting the offender in a cage for several years. (We may call it a jail, but in actuality we are placing our fellow humans in cages.) In parallel with our criminalization of the use of plants in one’s spiritual practice, we see the rapid destruction of the Earth’s biosphere. I often wondered if there is a connection between the state of consciousness our species has entered since outlawing the use of entheogens and the degradation of our ecosystems. Since these plants seem to have evolved primarily to provide a means of communication between our species and the Other, I also wondered if some new form of sacred plant would evolve to lead us out of this ecological blind alley in which we now find ourselves.

This question brings us to the third major speculation in my book. That is, the Internet has evolved as a new form of “sacred plant,” or sacred medium, that can be used to bring human species-consciousness back into full Gaian awareness. To support this idea I begin with the best known secret in Silicon Valley. The Internet was designed, built, and to a significant degree is now run by women and men who are aficionados of LSD and other entheogens. This should come as no shock to you, for it has been frequently written about and discussed in the press. The Internet, quite simply, has been infused with the spirit of those who created it, and many of the key people involved were and are psychedelic. By the way, the word “psychedelic” means “mind manifesting” and does not necessarily imply that one is subject to hallucinations. Unfortunately, I don’t have time to go into more detail about this subject this morning, but if you are interested, I will be giving a presentation titled “Psychedelic Thinking” at the Mind States II conference at

---

<sup>2</sup> See *The Road to Eleusis* by Wasson, Hofmann, and Ruck (Los Angeles: Hermes Press, 1998) for a scholarly investigation into the mysterious rites of Eleusis.

the International House in Berkeley this Memorial Day weekend.<sup>3</sup> The full text of that talk will be available on my website, MatrixMasters.com, the week following my presentation.

The reason I think it is important to note the state of mind many of the Internet's creators find comfortable is that one of the results of ingesting these substances is that the person undergoing the experience somewhat magically becomes more "green." It isn't that people with an ecological bent are drawn to these medicines, it is just the opposite. Entheogens just naturally bring out the deep ecologist in most people. It only seems natural, therefore, that a technology created by ecologically responsible people should take on a similar spirit.

Before I explain the importance of the relationship between the Internet, noosphere, and entheogens, I need to tell you about a new kind of Internet device that you will soon be seeing. This device provides a wireless connection to the Internet, is small enough to fit in a student backpack, is always connected to the Net, and has a Global Positioning System (GPS) on board. These devices can be thought of as personal electronic companions. Over time, these devices will know a lot about their owners. They will know where they go every day, how long they spend at different places, what their owners are reading, what music they like, what movies they see, what products they purchase, and even what advertisements they want to see. In short these new devices will become more or less clones of their owners' personalities. It isn't difficult to see the potential privacy problems that will arise from devices such as this.

In fact, privacy in our newly wired world is going to be one of the most difficult problems we face over the next few years. In my corporate consulting practice, I see how seemingly insignificant design decisions being made each day by engineers all over the world can have a major impact on the quality of life we will be enjoying a few short years from now. My clients are competing to offer ever more convenience to their customers, yet that convenience often comes at the expense of personal privacy. Helping businesses walk that tightrope in a highly competitive marketplace is a huge challenge, but it is one that is not impossible to meet.

Whether we like the idea of these devices or not, they will be a common feature of daily life for millions of people in just a few years. In less than ten years, according to MIT's Nicolas Negroponte, there will be over one billion people who have a wireless connection to the Internet. Many of them will use devices like the personal electronic companions I just described. Others will have more primitive devices, and some people will have devices so sophisticated that they will be "wet wired" into their users' nervous systems. Without a doubt, universal, mobile connectivity to each other and to a large amount of human knowledge will be a fact of life for our species in no less than 25 years . . . if our species survives that long.

Now think in terms of what it will mean when the day arrives, as the evolution of our technology demands, that the majority of the human species is always connected to the Internet, which in turn is the mechanical infrastructure of the noosphere. It is certainly reasonable to see such a point in time as being akin to the one at which Chardin predicted our species would achieve some form of super psychic ability. Remember, I am not saying the Internet *is* the noosphere. It is merely a tool to be used to move our species-consciousness to a higher level, one that provides a planetary perspective. Only if our species as a whole achieves a global perspective, one that governs our daily individual actions, do we have a chance of escaping the fate of almost every other species that has lived on this planet . . . extinction.

---

<sup>3</sup> Go to <http://www.erowid.org/mindstates> for more information about this conference.



This brings me back to the importance of the interrelationship of the Internet, noosphere, and entheogens. How can a mere technological artifact like the Internet effect such a massive change in human thinking, you ask. The answer: in much the same way as did the sacred plants of old. It can do so by helping us to expand our consciousness, expand our view of the world. The Internet truly is an aid to “out of the box” thinking, or psychedelic thinking. Every ancient culture formed around an entheogenic plant. The new culture we are now creating is no different. It is a global culture, and its sacred medium for entering into a state of Gaian awareness is the Internet. By the way, it isn’t just the connections with others and access to information that will cause our expanded awareness. Every day, designers of what some will call “digital drugs” are coming closer to perfecting virtual reality devices that will launch a user’s mind into entheospace in much the same way their plant counterparts have been doing for millennia. The genie is out of the bottle, and our world is about to change forever.

There isn’t time here to go into the other topics in my book, but some of them should be of particular interest to this group. I see from your website that one of your guiding principles states, “We welcome the challenge of change.” If that is true, you couldn’t have picked a better time to be alive. Just look at some of the signs:

- Physicists have recently conducted experiments that are throwing much of the current thinking about quantum physics into serious doubt.
- Experimental evidence also indicates that Bell’s theorem is true. (A physicist’s short hand explanation of Bell’s theorem is that all parts are cotangent. A Cultural Creative would state it as “all is one.”)
- Both ancient teachings and modern believers in a technological singularity agree that a radical change in human consciousness will take place within the next 50 years.
- The rate of technological advances in computers, communications technology, nanotechnology, and biotechnology continue at exponential rates.

Yet there is a cloud on the horizon. Twenty years ago that cloud was no larger than a man’s hand. Today that cloud threatens to fill the sky. I am speaking, of course, of our global ecological crisis. Just last month, the United Nations released its second in a series of reports on global warming.<sup>4</sup> Over 700 scientists participated in the preparation of this report, and they came to the conclusion that:

Projected climate changes during the 21<sup>st</sup> century have the potential to lead to future large-scale and possibly irreversible changes in Earth systems.

Their earlier report concluded that the Earth’s temperature will rise 10.4° F in the next 100 years. This is significant and very serious news, yet it only stayed on the front pages one day. Until lately, the news of this impending crisis barely penetrated my waking consciousness, but it is finally getting through. For example, every day, when I think about my wonderful two-year-old granddaughter, the thought occurs to me that she is going to live to see her childhood home in Florida permanently under several feet of water. In fact, all of the residents of coastal

---

<sup>4</sup> "Climate Change 2001: Impacts, Adaptation and Vulnerability," issued by the United Nations’ Intergovernmental Panel on Climate Change, February 2001.

Florida will have surrendered their property to the sea by the end of this century. I fear it is already too late to prevent that particular tragedy.

Living here in California also brings our global ecological crises into sharper focus. We are almost out of water, and our supply of energy is in doubt. This time these problems just are not going to go away on their own. We are going to have to face this situation head on and learn to live lives that present a more sustainable future for our species. If we are to survive, we must make some hard choices in the years just ahead. For example, instead of taking the chance of destroying the Arctic Wildlife Refuge for what amounts to only a few months of total U.S. yearly demand for oil, we should be looking instead for ways to cut our demand for oil by the amount those fields will produce. That oil isn't in the pipeline today. We aren't dependent upon it now. Why not find ways to reduce consumption so we won't need that oil in the future? There *are* solutions to our problems, but we must be willing to pay the price to solve them.

I think that most of us have always realized that the era would one day arrive when our species would have to make a conscious choice between the current way of life and a sustainable future. Yet most of us thought, or hoped, or assumed that day was still far off in the future. Guess what? That day has arrived. *We are the ones* who must make these choices. The future of civilized human life on this planet may well be in the hands of those who are alive today. I sincerely believe that the future of our species is quite literally up to us. And that means every child, woman, and man alive today. We are the ones who will actually determine the future of biological life on this planet. In many respects, this is a gray day for the biosphere. It is up to us to ensure that our grandchildren's children will see the sun.

The reason I remain optimistic about our chances of success in solving these problems is that the Internet has now provided our species with a communications tool of unprecedented power. Thanks to the Internet, local environmental groups have been able to be in direct communications with each other and with national and transnational organizations. By coordinating visions, strategies, and tactics, an awareness of our world-wide ecological crisis has finally begun taking hold in more persons' every day consciousness. Awareness of these problems not only influences voting decisions, but more importantly is beginning to influence purchasing decisions.

One of the projects I am involved in is the establishment of a product data base wherein commercial products are directly tied to the environmental practices of their manufacturing company and to those of any parent corporations involved. Wouldn't it be nice, we are thinking, if anyone could go to a website and enter the name of a candy bar, for example, and find out what percent of the price they are about to pay for that product goes toward the destruction of the rainforest, or for anti-environmental lobbying efforts. With the significant growth in numbers of Cultural Creatives in this country, you can expect to see the concept of "voting with one's dollar" become as important as the voting booth. Technology used for purposes such as this infuses that technology with the very best of human spirit.

One of the ways to see what kind of spirit infuses a given technology is to look at what advancements in consciousness that technology brings about. I will give you one more example of how the Internet is a lever that can be used by spirit. After hearing about many promising computer research projects that required small sums of money to undertake, Jake Bowman decided to bring basement researchers and small donors together. To do this he founded an organization to administer "seed grants." These research grants are funded by small donors. The

donations are tax deductible because the researchers agree to place their discoveries in the public domain. Through this ingenious system, small tax-deductible donations may be made to fund the development of new science and technology that will be given away to those who can use it. This new organization, SciencePrize.org, is thus providing the structure for a cyber-ecosystem, which will eventually lead to a significant growth in publicly available intellectual property. This program simply could not exist without the Internet.

Archimedes is alleged to have said, “With a lever big enough, I can move the world.” I honestly believe that the Internet is just such a lever. It may not be so obvious to those whose only knowledge about the Net concerns the rise and fall of dotCOM stocks, but the Internet is already beginning to move the world. Without a global communications tool as powerful as the Internet, I would not be as hopeful as I am about the future of the world, and in particular, the future of our species.

The concluding chapter of my book is titled “The Internet as a Cathedral.” I use the metaphor of a great cathedral as being a sacred place where people can come to learn, to join in a community, and to reflect on new insights they might have. Just like many great cathedrals, one must first get through the crowd of vendors outside the doors before entering into the tranquility inside. I believe such a sacred space is more necessary today than ever before in our history. The dawn of human history coincides with the appearance of human technology, thus beginning the branch of *Homo sapiens* we call *Homo faber*, man the maker. With the advent of the Internet and all of the other new forms of high technology, I believe our species has branched off in yet another direction. I call this branch *Homo cyber*.

Contrary to what some futurists believe, I do not see human consciousness completely leaving its biological foundations. Instead, I see *Homo cyber* as a bionic being, part human and part machine. In fact, early examples of *Homo cyber* can already be found all around us. Just spend an hour sitting in a busy airport terminal and you will see many people walking down a concourse apparently talking out loud to themselves. If you look closely, you will notice a wire coming out of one of their ears. This wire, you will see, is connected to a cell phone on their hip. The next time you see the scene I just described, make a note to yourself that you just spotted a prototype of *Homo cyber*. As we move from cell phones to personal electronic companions with full Internet access, the significance of this evolutionary step will become even more obvious. With a world full of people who are always connected to their friends and families, and who have instant access to a significant portion of the written and spoken human record, a more global view of one’s place on this planet is inevitable. Long before this century is half over we can expect to see vast numbers of our species always connected to the mechanical infrastructure of the noosphere. Let us hope this moment comes before the decline in the health of our biosphere passes the point of no return.

Depending upon the decisions we make in the next ten years, those who are fortunate enough to be alive when this century is one half over will barely remember a time when telephone conversations didn’t take place in a holographic virtual space. Meetings such as this one today will be held with each table of people in a different city, yet it will appear exactly as if we are all in the same room. The concept of the Internet will have been long forgotten, for the convergence of voice, video, and data that constantly stream into our information appliances will be so routine as to become invisible. The really exciting news from science 50 years from now will come from the frontiers of DNA research and from startling new theories about physics and

astronomy. If we play our parts well in the next few years, future generations of our species will most certainly flourish.

Now I would like to ask you to recall what I said earlier, *cyberspace is a very real place*. This being so, everything that takes place in cyberspace is also very real. Virtual meetings, such as the one I just described, will be every bit as real to us as is this meeting here today. You will have to spend some time in an Inhabited Virtual World before you can really grok<sup>5</sup> the importance of the fact that cyberspace is not the realm of the imaginary. It exists in reality every bit as much as this room does. The difference is that cyberspace is not in the material world. It is in the spiritual world, inhabited by beings who have been given the gift of existing on the spiritual and material planes simultaneously. These beings are the genesis of a new branch of the human species, *Homo cyber*.

As melodramatic as it may sound, we are now witnessing the end of one branch of our species, *Homo faber*. This branch has led itself down a blind alley. It is being driven to extinction by the very technology it created. *Homo faber* has had a good run. It even made it to the moon for a few days. Unfortunately, *Homo faber* never has been able to overcome its egocentric view of life, which caused it to constantly fight bloody wars, overpopulate its environment, and is now strangling on its own waste.

*Homo sapiens*, however, has a powerful will to continue in existence, and so it has begun this hopeful new branch, *Homo cyber*. This new breed of human remains warm, loving, and compassionate, but it is cybernetically enhanced and sees itself as an integral, yet individual, component of a larger organism. This new branch of humanity has finally begun the important task of awakening its species-consciousness, the noosphere.

This evolutionary bifurcation could not have come at a better time, for the life support systems on spaceship Earth are in worse shape than we originally thought. Until recently, even most of the pessimists among us believed we probably had several more generations before we passed the point of no return. Now we are learning the truth. And the truth is we are the ones who are being confronted with the decisions that are going to determine the future of the Earth's biosphere for the next millennium. We must change our way of living immediately if there is to be any hope at all for human civilization to flourish. Even our young people understand the situation. Listen to what Chelsea Matz, a student in the 10<sup>th</sup> grade of Eastlake High School in Chula Vista, California, has to say:

Opting for renewable energy is, at heart, an ethical choice. The money saved on utility bills will not make up for the cost of an installation anytime soon. It is, rather, a down payment toward a livable future and a reduction in the environmental deficit for us and our children.

The good news is that our children are already smarter than most of our leaders. The bad news is that the current downward trends in our environment are going to continue long after we get greenhouse gases under control. The United States has still not reduced its greenhouse gas emissions to the levels we agreed to by treaty years ago. It doesn't take a rocket scientist to understand that if we keep doing what we have been doing, we will keep getting what we have

---

<sup>5</sup> Grok: Robert A. Heinlein coined the word "grok" in his 1961 novel, *Stranger in a Strange Land*. Essentially, "to grok something" means to understand it so intimately that it becomes a part of oneself.

been getting. What we are getting right now is the highest species extinction rate since the event that caused the end of the dinosaurs.

Let me go right to the bottom line. We no longer have the luxury of ignoring the problems that are threatening the survival of our species at this very moment. It is up to each and every one of us to begin today and take on our share of the responsibility for changing the course of ecological destruction we are now on. This doesn't mean that we all have to quit our jobs or change our religions or political parties. There is a great deal we can do within the framework of our current lives.

Each of us has a different role to play. For some it will take the form of badgering our elected representatives, *all* of our representatives, from local to national. No longer will one or two letters a year to a Congressperson suffice. The day has arrived to let them know we are not going away until they address your concerns. Now that almost every elected official has an email address, it has become much easier to stay right in these politicians' faces. Tell them it is time to stop talking the talk and begin walking the talk. For the foreseeable future, I believe *every* politician should run under the slogan, "It's the ecology, stupid!"

If political action is not your style, there are other things you can do. Writing letters to the editors of your community newspapers is another important action you can take. Encourage your friends to speak up also. Invite ecologists to speak at any organizations to which you belong. Get your local Chamber of Commerce involved in teaching their members better ways of meeting their environmental obligations. There is no limit to the creative things you can do to raise public awareness about the seriousness of this issue.

Earlier, I mentioned Anderson and Ray's new book, *The Cultural Creatives*. Now I would like to add one more book to your reading list, in case you haven't already read it. That book is *Jump Time* by Jean Houston. In this book, Dr. Houston describes events which indicate we are about to encounter a major transformation in human consciousness, both individually and on a global scale. I find this book fascinating on many levels, and I am intrigued at the similarity of Dr. Houston's concept of "Jump Time" with similar concepts I wrote about in *The Spirit of the Internet*. There I discuss the Winter Solstice of 2012, the time the ancient Mayans predicted would bring a global transformation in human consciousness. I also discuss the potential for a technological singularity, which some believe will occur during the first one half of this century. Jean Houston's in-depth coverage of the transformative times in which we now find ourselves brings new life to both ancient and modern prophecies about the transformation of human consciousness. It is well worth the time it takes to read.

These three books I discussed this morning, read in the context of our current ecological crisis, paint a clear picture of this new age we have just entered. We have entered the Age of Information, an age that brings with it the dawn of *Homo cyber*. New ages call for new cultures, and it is forward-thinking people like yourselves who are shaping the culture in which *Homo cyber* will take root and grow.

This new age is not to be an age of revolution. It is an age of evolution. In this age it is not governments that will be overthrown, it is cultures that will be overthrown. It is an age that calls not for revolutionaries but for evolutionaries. After all, the most lasting form of revolution is evolution. By the way, the alternative to the continuous evolution of our species is extinction. What do you think would happen to the noosphere if the human species becomes extinct? What happens to human spirit in the cosmos if we allow our species to come to an end?

Granted, one day our sun will burn out, and this lovely planet will become as barren as is Mars. Yet this is no reason to give up our struggle to preserve human life on this planet for the millions of years left before that great catastrophe. There is no telling what possibilities lie before us if we succeed in reaching Chardin's Omega Point, the awakening of the noosphere.

I see two great reasons to have faith that our species will survive and actually arrive at some kind of Omega Point. One reason is the noosphere itself, that vast sea of collective human consciousness of which each and every one of us is already a part. The other ray of hope I see is in the construction of the largest, most complicated technological artifact the human species has ever envisioned, the Internet. With this awesome communications tool, I am convinced we can channel the true potential of the human spirit into rivers of creativity that will eventually flow throughout the paradise this planet can become. In spite of everything, I remain committed to the belief that we will rise to this historical moment in the life of our species and not only survive; we will thrive. I have no doubt that before this century is over we will have developed a sustainable way of life for our ourselves, our children, and on to the seventh generation and beyond.

There is much to be done, and now is our hour in which to begin. Every child, woman, and man alive today has a role to play in the future of our species. I cannot tell you what your part is, but I am sure you will find it and embrace it with enthusiasm and hope.

In closing, I would like to leave you with a thought that makes each day seem a little easier for me. It is a quote from Mahatma Gandhi. He said, "Whatever you do will be insignificant, but it is very important that you do it."