

A TALE OF THREE FUTURISTS



by Alex Lowenthal

Author's note:

The following segments are derived primarily from a series of phone and e-mail conversations I had with Kevin Kelly between November 11, 1994 and November 26, 1994.

KEVIN KELLY: WIRED FOR THE FUTURE

Kevin Kelly was born in Pennsylvania in 1952 and spent his formative years growing up in New Jersey, also known as the Garden State. The only child of a middle class family, Kelly's childhood was like most others in the early 1950s. Although his father got his academic degree in meteorology, he ended up working for a technical magazine while his mother stayed home.

In his spare time, Kelly started what he refers to as a "Nature Museum" in his basement. He had kids in the neighborhood go around and collect things for him, and then he would build displays and exhibits to show them. Kelly also had a chemistry lab in his basement where he did chromatography and other experiments, often assisted by his next-door neighbor who was a chemist.

As a student, Kelly was interested in science and math, and he took advanced placement classes to keep his interest piqued. In high school, he picked up photography and plunged into the arts. After graduating from high school, Kelly had a difficult time deciding whether to continue his interest in art and go to art school or pursue academics and attend the Massachusetts Institute of Technology. By default, he ended up at the University of Rhode Island as a geography major.

This was a short lived venture into academia, because in 1970 Kelly dropped out of college and dropped into Asia. Bored with the college scene, Kelly traveled to Asia to open his eyes to the world. Starting in Japan and Taiwan, Kelly made his livelihood by doing freelance photography and writing for various publications. Over the next ten years, Kevin Kelly would migrate through East Asia towards Turkey.

Once freed from the travel bug, Kelly returned to the United States and settled in the Bay Area, where his interest in writing gained him employment as a contributing editor to the Whole Earth Review (formerly the Coevolution Quarterly). In 1992, Kelly helped launch Wired magazine, where he is now the executive editor.

Kevin Kelly admits that he has no hard set of operating theories about social change; mostly they are just about attitudes and perspectives. His general attitude is that technology is a huge driver in influencing social change and stability. Subsequently, he defines technology very broadly, and uses the following as examples of impact of technology as catalysts for social change.

He considers the initial practice of writing and the mastering and control of fire as technological feats, just as he considers modern-day accounting to be a type of technological mastery. Kelly also includes other obvious technological developments like steel production and chemical engineering to all be part of this example. He sees the invention of the plow, and these common kinds of things, as being a tremendous driver in technological developments, and subsequently a tremendous driver in social change and stability. Kelly identifies these most fundamental innovations as paramount in human development, which manifests itself as one dramatic catalyst after another.

Kelly thinks of himself as somewhat of a "technological determinist." He thinks that human nature is basically very slow to change, and that he does not see much progression in human biological development, and even less in what is called "human nature." He sees humans as still very much like primates. Kelly says, "If you map primates within a very quickly evolving technological culture, that is closer to where I approach theories of social change."

To make this easier to understand, Kelly defines culture as a type of creative learning. The following is his spin on cultural evolution:

"If I was looking at the structure of organized change, I would say that evolution is a type of learning that happens over a generational time rather than a life of an individual. Culture is sort of a Lemarkian type of evolution, a type of learning, that is directed. Subsequently, in that sense evolution is a type of information processing, and actual learning is as well. You can definitely say that technology and cultural learning are a type of information flow."

If there is one methodology that Kelly utilizes repeatedly it would be scenario forecasting. Since his early writing days with the Whole Earth Review, he has been associating with an organization called the Global Business Network (GBN), which is a private consulting group that assists corporations and governments in futures planning. Kelly has been involved with GBN since 1989 and became an official member earlier this year. The first time he worked with GBN was on a program called the "Global Teenager project," which was in conjunction with the Whole Earth Review.

The concept was to send a teenager around the world to interview other teenagers and see if there was a generational cohort on a global level. GBN as a co-sponsor utilized much of the data and information gained from the report for different clients, while Whole Earth Review dedicated a large portion of their Winter 1989 issue to the subject ("Selling the World: Mouseketeers to Marketeers").

Most recently, GBN has been working for Sears, forecasting the future of retailing and retail sales. In this endeavor, GBN developed four alternative scenarios about what the future of retailing might resemble and then presented them to SEARS. Kelly said that the next step in this process is to assist SEARS in developing contingency plans that will allow this retailer to maintain profit margins in a variety of futures. Kelly believes that scenario forecasting provokes people into looking at the many possibilities of what lies ahead in the future and how best to respond to them..

The second methodology that Kelly employs is that of age cohort analysis. When I asked him about this subject, this was his response:

"Yeah, I actually have been getting into that recently. A good book for American stuff is called "Generations" by William Strauss -- age cohorts throughout American history. Some projections about the next couple of generations lend a sort of a cyclical understanding to the generations in America, of which there are four kinds

that you can circle through. To respond to your question, I have been using this at Wired in trying to anticipate what the cultural landscape would look like, at the turn of the millennial century and beyond. I believe that a lot of the major cultural changes and stuff can be explained in generational terms. Other people have said, this but basically I think this was Thomas Khuns' own work that stated that basically people don't as a whole change their mind, just old ideas die off! Old scientists just basically just die off and the younger ones who have newer, fresher ideas move up in the vacuum. I really think that is very much the pattern of this conceptual change."

Since he was born in 1952, I asked Kevin if he identified with the "baby boomer" crowd. "Well absolutely, it's not like its something I have any choice about! That's the whole point of it. It is one of those kinds of things where you think yo're doing things on your own and then you find out that all your friends are doing them, and its always kind of depressing, but that is the definition of age cohort."

Kelly went on to say, "Before we were Boomers, we were all just freaks! We called ourselves freaks and hippies, and so that was part of the defining. My generation very much defined ourselves as a generation, and at the time we were doing it it was not in a negative sense, but rather a positive one."

I asked Kelly to put on his futures vision hat and quickly outline four scenarios for the future. The four that he came up with can be loosely grouped into these categories: Artificial life, Collapse, Ecotopia and Workable Cyberspace.

Artificial life: One vision that Kelly predicts is pretty far down the futures road. It is a future where in nature, there will be all sorts of artificial life forms. Where a whole spectrum of mechanical "things" will be replicating at a fairly high level subtly coexisting among us. Kelly elaborated that possibly the new basic building blocks of life for these entities could be some type of metal-silicon or sodium-alloy combination. An example of what these life forms looks like are creatures that are the size of butterflies, chipmunks or spiders that actively replicate and compete against the natural biological organisms and other artificial creatures. Kelly stressed that these artificial creatures were as much a part of the future environment, as biological creatures are a part of our present environment today.

Collapse: The second vision Kelly forecasts is much more forboding. It is a society in the midst of total decay and social collapse. He outlines a situation where nation-states and multinational corporations no longer have the capacity to finance their technological development and growth. Subsequently, development stagnates and we slide into a chaotic post-literate dark-age, as we witness a sort of new tribal resurgence to fill the vacuum created by the loss of social discipline. As Kelly describes it, "a kind of not very happy time."

Ecotopia: Kelly's third vision is a kind of ecotopia, where biological processes redeem technology. Daily living is accomplished in a very sound way where there is no longer massive degradation of the environment to meet societal needs. It is a future where there are a lot of Light rail and Super trains. Edge cities take over, so in essence big cities become cultural centers that take on a very beautiful ambiance similar to cities like Venice and Saigon prior to World War II. Kelly envisions a society where, over time, the old and ugly buildings will be taken down and new more aesthetically pleasing ones are rebuilt. In this scenario, society figures out how to do suburbia better, with transportation, community centers and solar energy that works! It will be a very benign technological community.

Workable Cyberspace: The final vision according to Kelly is a future where virtual reality and Cyberspace actually works and has some effect on society. In his articulation of this future, Kelly is unsure whether this is a "happy" or "unhappy" vision. Nevertheless, it's characteristics are such that people basically spend a lot of time "jacked in" to their computers. As a corresponding counter-balance to this activity, people would actually spend a lot of time interacting face to face. Kelly stressed that in this future, human travel does not decrease, but rather increases. There is a very strong sense of a planetary connectives to things. People spend so much time jacked in that they really enjoy spending a lot of time with each other in mass meetings or mass concerts. These mass congregations are where people will then meet either in Cyberspace or in person. The characteristics of these gatherings will resemble a "very social hive-like thing" where individuality is frowned upon and society becomes maybe more Japaneseque, more socially oriented. Kelly imagines a society that pulls back from our contemporary "rugged individualistic" persona to one that is much more community oriented over several generations. This becomes a society where it is considered to be socially unacceptable to be individualistic.

When asked who his favorite futurists are, Kelly admitted that he could only name about four or five authentic futurists in total. However, Peter Drucker was mentioned as his current favorite living futurist, and an honorable mention was paid to Alvin Toffler who continues to impress Kelly. Subsequently, when asked about dead futurists, Kelly acknowledges that Jules Verne got an awful lot right, and that many science fiction writers have been as good as any futurists.

Authors note: I was unable to personally get in touch with William Gibson, as it turns out he is somewhat of a recluse and very difficult to contact. The following is compiled from a myriad of sources and gives a pretty good picture of what this individual is like.

WILLIAM GIBSON: CONSENSUAL HALLUCINATION

William Gibson was born in Conway, N.C., in 1948, and grew up in Virginia with his mother. While growing up in Wytheville, Va., he was "totally obsessed" with science fiction. He wrote and drew cartoons for various "fanzines" that circulated among science fiction aficionados. This obsession waned as Gibson entered his teen years, and he struggled to assimilate with his peers. His father died at an early age and Gibson was subsequently sent to boarding school in Arizona. After completing high school, Gibson moved back to Virginia where he lived for a short time until he immigrated to Canada.

At the age of 18, Gibson moved to Toronto's Yorkville district because of his precariously low draft lottery number. At that time, Yorkville was a refuge for hippies trying to avoid the draft for the Vietnam War. In 1972, Gibson moved and settled in Vancouver and enrolled at the University of British Columbia as an English major. There, he recalls, he took a science fiction course "to get an easy credit," reviving a boyhood passion.

His writing career began when he composed a short story instead of the term paper that he was assigned. Gibson's first short story to be published was called "Fragments of a Hologram Rose" which appeared in Omni magazine in 1977, and was followed over the next couple of years by a series of other science fiction stories. In 1984, Gibson's first novel, "Nueromancer," was published, and thus a new science fiction genre was born.

Gibson is now commonly credited with coining the term "Cyberspace" and its cultural offspring "Cyberpunk." However, Gibson is quick to point out that other writers describe such a place. For example,

Ray Bradbury actually describes Cyberspace in his story "The Veldt", which was written in 1952 about two kids who lure their parents into a virtual reality generating room where they are eaten by lions.

After the success of "Nueromancer," which swept the triple crown of science fiction writing awards -- the Hugo, Nebula and Philip K. Dick awards -- Gibson went on to write two more books in the "Nueromancer" series, "Count Zero" (1986) and "Mona Lisa Overdrive" (1988). Since 1988, Gibson has been involved in various writing projects, including his collaboration with another science fiction guru, Bruce Sterling, in "The Difference Engine " (1991), and his literally self-destroying work with New York artist Dennis Ashbaugh, "Agrippa (A Book of the Dead)"(1992). Most recently, Gibson has published another science fiction novel, "Virtual Light" (1993), and has explored the world of non-fiction in writing articles for Wired magazine.

The issues that Gibson grapples with are the same issues that society is currently facing and will continue to face into the future. An example of Gibson's eye for social change is the whole concept of "Cyberpunk" and its subsequent labeling as a social phenomenon. John Leonard writing for *The Nation* defines Cyberpunk as "hard science and pop culture; `reality hacking' and new wave rock; blown minds and blown fuses; alienation, confrontation and chaos theory. Cyberpunk is an Outlaw Culture, against Late Capitalism and its marketing of commodified emotions, the Grace of Hip."

Leonard doesn't stop here in his definition, however. He goes on to illustrate how it is also a fashion statement: "Black leather jackets, mirror shades, nose studs, nipple rings, tattoos. (After such mutilation, the meat might as well be left behind while a decentered self goes digital, in there where we never know what we look like anyway.)"

Gibson recognizes that technology is a driving factor in society and that Cyberpunk or Cyberspace is a part of an inevitable progression that started when television was invented in 1929. Gibson recalls: "I remember looking into a couple of the first video arcades and seeing kids wired into these systems. It struck me they might as well have their heads inside these things -- that they'd want to have their heads inside these things."

To further illustrate Gibson's impact on a certain portion of society Guy Martin writes: "Quite accidentally, his acid-washed vision caused a social revolution. Now there are magazines devoted to Cyberpunk and whole communities of crazed digital humans busily hacking their way through Cyberspace all over the world."

As a writer, Gibson's primary methodology for futures forecasting is Scenario Construction. All of Gibson's science fiction pieces reflect some of his vision of the future. In his interview with Victoria Hamburg in Interview magazine, she asked Gibson how much of his work really has to do with the future and how much of it is just a commentary or warning about where we are now. Gibson replied that he doesn't think of himself as a futurist. He just tries to make sense out of contemporary society and reality.

Gibson further explains that the world we live in is so hopelessly weird and complex that in order to come to terms with it, you need the tools that that science fiction has helped to develop. Gibson states that the scenarios in his writing are based on contemporary reality and that the future he alludes to in his books would be a neat place to visit. He advocates that the stuff he writes about only presents a possible map of what the future holds, and Gibson admits that he would be surprised if we ended up somewhere as interesting as his vision of the future.

Another method of exploring the future that Gibson utilizes is through art and technology, specifically "Agrippa: The Book of the Dead." In "Agrippa," Gibson weaves together the ancient art of bookmaking and the cold touch of modern binary encryption code technology with New York artist Dennis Ashbaugh. It is an

elaborately conceived marriage of antique bookcraft and modern computer technology that may alter our conceptions of the immortality of art. Gibson's book challenges the fundamental assumptions about books, art and reality. However, what truly makes it extraordinary lies not so much in the reading of the book but rather in the experiencing of the "art". "Agrippa" is a specially crafted oversized book illustrated by Ashbaugh, with page after page of printed cryptic letters such as the following:

TGTGG ATAAT CAAAA TTCTG CGGTC GGCGG

ATTGC CCATA GTTTG AGCCT TGCAT TTTAC

GTTTG TGCAT ATGCA GGTCT CGTCA GTAGC

CCATG GTTCC CTAAG AGCTA AATAT CATGG

These letters represent combinatory possibilities of genetic codes, as re-coded by scientists. The pages and engravings of the book are fog-colored and singed at their edges. Interspersed with the genetic code are fragments of old newspapers and advertisements from previous generations, all surrounded randomly with black patches that look like burns. With exposure to light, these black patches gradually fade into long rhythmic chains of DNA strands as captured in microphotography.

Embedded in the last pages of the book is a computer disk containing a story by Gibson. However, there's a catch: An encryption program on the disk devours the text as you read it, so you can only read it once. Also, Ashbaugh's etchings mutate when exposed to light -- some of the ink vanishes while other images appear. Therefore, for all the care that went into its production, Agrippa will not "survive" a single reading intact. When asked about the implications of his book, Gibson responded "I'm in the vanguard of the death-of-print crowd."

To best describe Gibson's forecasts of the future, all one has to do is look at some of the main components of his writings. The vacuum of Cyberspace, the hollow third-world refugee black markets of the "Sprawl" and the lack of nation-states supplanted by the domination of corporate and organized crime cartels. To explain his vision of Cyberspace it is most useful to quote him directly from his book "Nueromancer": "Cyberspace . . . a graphic representation of data abstracted from the banks of every computer in the human system. Unthinkable complexity. Lines of light ranged in the nonspace of the mind, clusters and constellations of data. Like city lights, receding"

Many consider Gibson's visions for the 21st century as dark and very bleak projections. His stories depict humans crowding into sprawling cities built under leaking geodesic domes. Young criminals spend their time trying to steal information from computer banks controlled by malevolent corporations. "Many of these young outlaws are addicted to simstim or wiz (both simulated stimuli), and Tennessee opium, endorphin analogs, or Memphis Black and Blue Nine represent the new performance drugs of choice."

Once asked what he hoped the future would be like, Gibson responded:

"I hope it will be there. I'm remarkably free of utopian fantasies. I've never really thought about what I would ideally like the future to be. I suppose I'm a reactionary in this regard, but I'd like it to be as much as like the present as possible. Of course, I'm sure it won't be. It will be something inconceivable.

ALEX LOWENTHAL: WHEN THE GOING GETS WIERD, THE WIERD TURN PRO

Alex Lowenthal was conceived on the Valley Isle of Maui and born in Berkeley, Calif., in 1968. At the age of four, Lowenthal moved with his mother to Vancouver, British Columbia, while his father moved to Maui, Hawaii. Lowenthal grew up and attended elementary and high school in Vancouver with his mom and spent his summers with his dad on Maui. As a student, Lowenthal was average. He enjoyed the arts classes because they were "Easy A's" and often would take Drama or Foods to ensure at least one good grade on his report card. Although Lowenthal was a mediocre student, he was voted class valedictorian in his senior year.

After graduation, Lowenthal found work as a construction laborer, and after five months of ditch digging he realized the merit of post secondary education. Within weeks of quitting the construction trade, Lowenthal was on his way to Hawaii and the academic bastion of Maui Community College. In two short years, Lowenthal had exhausted all the courses he needed for his bachelor's degree that Maui Community College offered. Subsequently, in the fall of 1989 Lowenthal moved to Oahu to attend the flagship campus of the University of Hawaii system. While at Manoa, Lowenthal flourished, achieving a graduating grade point average of 3.92 overall and 4.0 in his political science major. He had finally caught up to his valedictorian accolades. The most prominent event to effect Lowenthal's academic life, and later his professional career, was his internship to the Hawaii State Legislature in 1991. Lowenthal was assigned to the powerful Senate Ways and Means (WAM) money committee, where he soon learned the ropes of the legislature and the value of a box of manapuas.

In 1992 Lowenthal ran for office in the competitive 12th district House of Representative race on Maui. Unfortunately, he lost his bid for elected office and returned to Oahu to work for WAM for two more legislative sessions. During his campaign, Lowenthal pitched one message to his generation. If you don't vote then you can't bitch. And if you don't like the system and do nothing to get involved and only complain, then you're just a whiner. After Lowenthal's stunning electoral defeat, he returned to School, accepted into the prestigious Public Administration program at the University of Hawaii, he is well on his way to earning his masters degree.

To say that Lowenthal has a hard core and refined set of theories regarding social stability and change is somewhat misleading. Lowenthal says that there are many different factors that effect our social composite and it's apparent stability, and to limit oneself to only two or three catalytic factors is too limiting. However, if he had to pick a couple of social drivers he named these: Chaos theory, the law of entropic thermodynamics and technology.

Chaos theory is pretty straightforward. Lowenthal likes the concept that things are inherently unstable and unpredictable. The concept of society as a state of circumstance in which chance is supreme is very appealing and fits with Lowenthal's view of the world. Entropic thermodynamics fits into a similar mold, says Lowenthal, where essentially everything is in a constant state of flux and decay. He states that the degradation of the matter and energy in the universe to an ultimate state of inert uniformity mirrors his lifestyle . . . Not! The final driver that Lowenthal mentions is that of technology and its effect upon society. Lowenthal acknowledges that his life is severely impacted by technological developments and that the increased advancements of technology now disproportionately out pace that of society thus, by default, the rift that is then generated causes massive social turmoil.

Lowenthal admits that there is no hard set of methodologies that he has embraced, however he does lean towards both scenario forecasting and age cohort analysis as techniques to forecast. There are two types of scenario forecasting that Lowenthal finds entertaining. The first is the arena of computer models. Not the mathematically intense super computer models, but rather PC-based scenario simulations. Programs such as Simcity and Simcity 2000 provide fun urban and regional scenario simulations. The other scenario forecasting technique that Lowenthal appreciates mirrors that used by GBN, which assembles a wide variety of people

together and then discuss possible future courses or forecasts. This kind of group dynamics is often the catalyst for tremendous innovation and progress.

Age cohort analysis is another method that Lowenthal values, although he is not as well versed as many others in the futures field, Lowenthal recognizes the advantage of utilizing age cohort analysis in determining possible future trends and manipulating specific demographic groups. Further influencing his appreciation of this method is the fact that he is solidly lumped in with the "Generation X" or "Thirteenth generation" cohort and has witnessed first hand the codification and subsequent marginalization of his age group.

Lowenthal's visions are stem from a myriad of influences. A great reader of science fiction and a childhood reared on role playing adventure games and television has had a profound effect on his world view. His vision of the future is rather dark, and emulates many of the qualities of Gibson's books and Kelly's collapse theory. Lowenthal's vision of the future is based primarily on the myopic traits of present day society and its artificial capacity to sustain the status quo. An example that Lowenthal uses to illustrate his view is from a question that he was asked during a candidate's forum when he was running for office. The person in the audience asked how Lowenthal could assure the group that he was not going to be a "career politician", and Lowenthal responded with some trite ambiguous response about how he was going to be a servant of the people until such time that his constituencies no longer thought that he was doing an adequate job. However, as Lowenthal spewed out his politically marginal answer, he was thinking "how could I possibly be a career politician when this system won't last long enough to make it a career?"

Although these three individuals may have more in common than their respective differences, each adds a new perspective and a new ingredient to the futures which assembles a wide varietolla podrida. Each futurist, although none of them would refer to themselves in that capacity, presents their forecasts with as much authority as anyone else does or can. There approaches are similar and their forecasts share qualities, yet these futures are still only as good as a guess.

"On his way to Diego's, Jeffrey discovers a woman harmed by information excess. All the symptoms are present: Bleeding from the nose and ears, vomiting, deliriously disconnected speech, apparent disorientation, and the desire to touch everything." (Ted Mooney)

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[Home](#) * [Back to Contents](#)