Computer Games Are Dead

Chris Crawford

Death is an intense word. We associate it with evil, oblivion, finality. We can think of death in its narrowest meaning, the moment of termination of life. The throat rattles, the heart stops beating, and we say that death has come. But is death confined to that instant of actualization? For a person whose kidneys have failed, and medical intervention is unavailable, death is inevitable. The terminal cancer patient will surely die. The suicide in mid-plummet is just as certain of death as the victim of a major stroke. Thus, the clean line we seek to draw between life and death is often blurred by the complexities of causality.

"Where there's life, there's hope"—this is one of the adages preserved by Erasmus. I propose to turn the adage around: where there's hope, there's life. When the causal factors are sufficient to give us reasonable hope of future adaptive change, then we say that the organism is alive. When those causal factors give us no reasonable hope of future adaptation, then the organism is as good as dead. A magnificent oak tree whose roots have been infected with root fungus may linger on for years, but the arborist will tell you that it's dead. Where there's no hope, there is death.

This is the definition that I will use in arguing my prognosis for the computer games field. Is there hope of future adaptive change? I think not; therefore, I conclude that computer games are dead.

When I speak of "computer games," I refer to a complex organism. It's not just a collection of shrink-wrapped boxes sitting on some store shelf. Nor is it encompassed by so many terabytes of code, video, imagery, text, and sound. "Computer games" are an entire field, an industry, a community. I prefer to think of it as an organism composed of a variety of subsystems, each of which contributes to the overall health of the organism.

In living creatures, the process of death is a collective collapse of all the constituent subsystems. Indeed, most deaths are attributable not to any single subsystem failure but rather to a collective synergistic failure of all the subsystems. As the kidneys grow weaker, the concentration of poisons in the blood increases, reducing overall system efficiency. Metabolism slows down and the heart pumps

less. Appetite is reduced, thereby reducing the supply of nutrients with which to repair damaged cells. Resistance to infection falls, and opportunistic infections arise in the lungs. The creature grows lethargic, and in this lethargic state blood flow to limbs and musculature is reduced, further reducing recuperative capabilities in these regions. The whole system grinds downward towards a collapse.

I believe that much the same thing is happening with computer games, although I do not anticipate a complete collapse of the organism. Instead, I see it reaching a state of moribund stasis. The computer games industry is here to stay, but it could well spend its future in a coma, without hope of future adaptive growth: technically alive but dead in every meaningful dimension.

An example of my meaning is provided by the coin-op industry. I remember, back in the late 70s and early 80s, when coin-op was the leading edge of electronic game design. The brightest and most talented designers worked in the coin-op field, because it was the field with all the creative energy. All the great games were originally designed in the coin-op arena, and were then translated to the videogame and computer game fields. Do you remember *Space Invaders*, *Pac-Man*, *Centipede*, *BattleZone*, *Tempest*, and those other coin-op classics? Those were heady times.

But look at coin-op now. Yes, the industry is still here. They continue to ship products and make money. But where is the creative ferment? Where is the excitement of those earlier days? Who pays attention to their work? Coin-op has become a backwater, a comatose field marking time. Like old men sitting on the porch, reminiscing of the good old days, coin-op is just marking time until it dies. When it does, its passing will attract as much attention as the death of the ticker-tape machine or the telegraph; few will notice and none will care.

Videogames are moving along the same track, although their decrepit state is not so obvious. Like a dying oak, they still sprout new leaves every spring. But like the oak, you can only see the trend if you've been watching for a long time. The old-timer notes how, with each passing year, the new foliage is sparser and less exuberant. The youngster sees only the mighty trunk and the bright green colors, and does not understand the old-timer's sad shaking of his head. So it is with videogames. Yes, we continue to see new games each year, but they are ever-more pathetic echoes of past design greatness. Mario's children abound, but as heirs made feckless by easy wealth, they lack the drive and energy of their great ancestor. Videogames have been dead for years.

And now computer games are dead. The dying has been a long time coming, but it's here now. Yes, I realize that you don't see the indicators as clearly as I think I do; a cursory examination shows an apparently healthy patient. But let me show you how to look more closely at the organism, how to smell the ketotic breath, the asymmetric iris that are sure signs of inevitable death.

From Creator-drive to Market-driven

The first indicator is the decisive shift from a creator-driven field to a market-driven field. In the early days of computer gaming, the creative talents made all the editorial decisions. There were two reasons for this: first, they had a lockhold on the supply of games. Competent designer/programmers were rare; if the executives didn't take it the way the designer created it, the designer could walk away and leave the executives stranded without product. Nowadays, the supply is more closely matched to demand, so the designers have less creative control over their work. Second, the marketplace was not well-understood in those days. It's difficult to overrule a designer with marketing data that doesn't exist. But over the years the industry has built up an impressive set of marketing truisms that have shifted the balance of power into the hands of the marketing folk.

I'll not decry this power shift as an evil; it just happened. Marketing people aren't bad or stupid or crass, and designers don't hold the keys to goodness and light. But the shift from a creator-driven atmosphere to a market-driven atmosphere worked a profound change on the organism, transforming it from a future-looking creature to a past-looking creature. At its heart, the creator-driven approach concentrates on the future, on what might be. The creator's whole point and purpose is to move beyond the existing limits and explore new areas—to change. This emphasis on change is at the core of what we mean by "life."

By contrast, the market-driven approach is past-looking, for it concentrates on what was successful yesterday. The marketer's whole point and purpose is to identify the locus of success and stick close to it. Stability is the byword of the market-driven approach.

Every industry combines the creator-driven approach with the market-driven approach in its own proportion. The creators supply drive and the marketers provide sustenance. The proportion determines the liveliness or morbidity of the industry. For example, laundry detergent is a mature industry, needing nothing in the way of new worlds to conquer; it is therefore, and quite fittingly, a market-driven industry. By contrast, a field such as genetic engineering is still nascent; its triumphs all lie in the future. Marketing focus is inappropriate here; whoever finds a cure for cancer need not concern him or her self with marketing issues. This field is utterly creator-driven.

There is nothing inherently disreputable or dishonorable about the laundry detergent industry, nor is genetic engineering morally superior to making laundry detergent. But ask yourself: which field has more life in it? Which field has the future with the greater promise of change?

By shifting from a creator-driven organism to a market-driven organism, we have transformed computer games from a medium to a commodity. A medium is a channel of communication, something whose content is constantly in flux and ever-surprising. This

flux, this change, is the heartbeat of life of the medium. There is always the hope of a brighter future with any medium, because the content can always change to address new conditions. But a commodity is a dead thing, a box that sits on a shelf. Who can confidently expect the commodities of today to meet the needs of tomorrow? In our shift from creator-driven to market-driven, our image of the computer game has shifted, too: we now see a box where once we saw a medium. By fixing it in place, we have killed it.

Buying Market Share

1990 brought a turning point in the history of computer games: *Wing Commander*. The game itself had some strong points; it was a modernized version of *Star Raiders*, the classic Atari game of 1979 that catapulted the Atari computers into near-success. But its greatest strength lay in its development budget. This may be hard to understand, but in 1990 the typical computer game cost perhaps $150K to create. *Wing Commander*'s budget was much, much larger than this. Origin's strategy with *Wing Commander* was clear: to buy market share. In most cases, a willingness to raise the stakes by investing more money is of positive benefit to an industry. Everybody else must either call the bet or fold, and the overall quality of product rises. However, in a young industry such as computer games, it doesn't quite work the way it should work, or the way it does work in mature industries.

In a mature industry, additional investment capital is carefully routed to those endeavors that will yield the greatest return on investment. To make this intelligent allocation of funds, we require an experienced team of executives who know what they're doing. Such has not been the case with computer games. Despite all we have learned in the last fifteen years, most computer game company executives are still groping about. The best evidence of this is the torrent of money that has been poured down the sinkhole over the last five years. Origin's action triggered an inverted gold rush; everybody stampeded to spend money on products. In the process, we succeeded in 1) glutting the shelves with overpriced junk; 2) convincing our customers that our output was overpriced junk; and 3) attracting a horde of shysters and opportunists into our industry.

The most invidious result of the inverse gold rush has been the steep rise in entry costs. Back in the 1980s, two clowns in a garage could put together a hit computer game. This attracted a great many clowns, to be sure, but some of those clowns turned out to be quite creative. The low entry costs of making computer games kept up the creative ferment. But when the entry cost rose beyond the reach of individuals in the 1990s, computer game design became an activity requiring financial muscle—and a lot of talented people were shut out of the market.

A Closed Distribution System

A third factor contributing to the sclerosis of computer games is the self-assured closure of the distribution system for games. Everybody in the distribution chain, from retailers to distributors to publishers, knows what sells and what doesn't sell. They can all tell you with great precision what makes for a hit game and what doesn't. It has almost been reduced to a science. The entire process has become so tightly managed, so carefully balanced on the edge of profitability, that there is no longer any room for experimentation.

There's nothing wrong with applying our knowledge. We need to consider the feedback of the marketplace and apply that feedback to our creations. But we also need to retain some intellectual humility, a recognition that our best marketing data represents only a fraction of the truth, to wit, the knowledge of what has worked in response to what has been attempted. The marketplace is a vast unknown creature, a blob of confusion that we can only know by poking it with a variety of experiments. If we try to sell one game and it fails, then we know that games similar to it will fail; if we try to sell another game and it succeeds, then we know that games similar to this game will sell. But we must be careful about generalizing too much from these lessons. A failure can be attributed to many factors, and we cannot know with certainty why any given game succeeded.

For example, why was *Balance of Power* such a huge commercial success? I don't know. Was it because it was one of the first games to fully exploit the spirit of the Macintosh GUI? Was it because it appeared at a tense time when the public was particularly sensitive to international relations? Was it because its intelligence and maturity provided a welcome relief from the juvenile pap that dominated the industry at the time? We will never know. Anybody who claims to have put their finger on the answer is deceiving himself.

Let's look at the other side of the coin: why did my game *Trust & Betrayal* fail so miserably? Was it because the graphics were below average? Perhaps; but the graphics were still superior to those of some games that were more successful, such as the Infocom adventure games, which continued to sell well at the same time that *Trust & Betrayal* was bombing. Was it because the game had no action or violence? Perhaps. Was it because the game emphasized interpersonal relationships? Perhaps. Was it that the game had no clear market identification? Was the price too high? Who knows? The danger here is that we can use *Trust & Betrayal* or *Balance of Power* to support any pet theory we favor.

It is entirely plausible that someday, interpersonal games may be a hugely successful genre. In this case, people will point to *Trust & Betrayal* as the precursor game of the genre, attributing its failure to other factors. It was on the right track, we will say, but was crippled by the fatal flaw of (fill in the blank). The important thing for us to recognize today is that it is impossible for us to know what that fatal flaw is, at least not until we try other experiments. To dismiss

interpersonal games as a dead end because *Trust & Betrayal* failed would be idiocy—and yet the games industry has jumped to exactly that conclusion by placing all of its money on other factors.

This problem has been addressed successfully by other industries. For example, by the mid-1970's, Hollywood had established a solid marketing rule that science-fiction movies just didn't attract large audiences. Thus, George Lucas was taking an almost contrarian stance when he made *Star Wars*. Had Hollywood's distribution system been as closed as the computer games distribution system, *Star Wars* would never have seen the light of day. But Hollywood has learned that a certain amount of experimentation is essential to its survival. Entertainment is first and foremost a field in flux, and an industry that cannot support experimentation in an organized fashion is a dead industry. Such is the case with computer games.

The Death of Creativity

A related factor in this—perhaps a symptom of the previous factors—is the death of creativity. I have been participating in this industry for sixteen years now, and I have noted a sharp decline in the overall level of creativity in the industry since about 1990. The last truly original game we have seen is *SimCity*. This failure manifests itself most clearly in the slavish imitation of other designs. Everybody scrambles to make a *Doom*-clone or a *Myst*-clone. Why must we spend so much time copying each other? Isn't there anybody out there thinking an original thought?

Another way of saying this is that we just don't try fundamentally new ideas. Is the universe of entertainment confined to adventure games, shoot-em-ups, vehicle simulations, and strategy war games? Is that really all there is to design?

Some people have suggested that our standards of creativity have fallen because we have already discovered everything there is to create. Having already staked out the territory, we are now in a more mature phase where we merely examine the nooks and crannies that were overlooked in the initial creative reconnaissance of the 1980s.

This argument leaves me aghast. I can't decide whether to condemn it for its cynicism, its stupidity, or its intellectual vainglory. Consider, for example, the scale of human ingenuity unleashed by the invention of the printing press. The basic technology has remained stable for over 500 years, and yet during that time we have seen an ongoing cavalcade of new ideas. First the printing press was used for devotional works, then polemic works. It was the driving technology behind the Reformation, and then became a medium for scientific collaboration. It also became a source of entertainment, expanding to bring literacy to the masses in the nineteenth century. It is now the basis for a bewildering array of elements fundamental to our civilization. And this is just a way of putting ink onto paper. Contrast this with the vastly greater power of the computer!

Consider the fact that the personal computer has increased in power by at least a thousand-fold since its inception. To suggest that, in fifteen short years, we have fully explored the creative potential of a medium more powerful and changing more rapidly than any other medium in human history is ridiculous. Creative life and energy should be the hallmark of our industry; the creative failings of the last five years are sure signs of its morbidity. If all this creative potential cannot inspire us to mighty leaps of creative derring-do, then surely our souls are dead, dead, dead.

A Dead Community

Another indicator of industry morbidity is the loss of the spirit of community. This is best evidenced by the steady shift in spirit at the Computer Game Developers' Conference. Here's something I wrote in the June 1988 issue of this same periodical in reference to the first CGDC: "But easily the most powerful feeling of the day was the dawning sense of awareness of community. For the first few hours, you could see people looking around the circle of faces with a sense of awe. 'My God!' their faces said, 'Lookit all these other people who are game designers just like me!' People who have spent years working in isolation suddenly realized that there are others who ask the same questions, fight the same battles, and make the same mistakes they have."

Contrast this with the spirit of the 1995 CGDC. It was huge and impressive, to be sure, but the sense of anomie was overpowering. The banquet was swanky but had none of the warm communal spirit of times past; instead it had shouting, food thrown, and people ejected. What was once a communal gathering has become a carnival, a meat market, and a promenade; it felt more like a cotillion than a family picnic. Some of this change is the unavoidable result of growth, but we can't pin all the problems on growth. Some cities have developed slums, crime, and inner city decay as the consequence of their growth; other cities have grown just as rapidly without encountering these problems. Somewhere on the path from my living room to the Santa Clara Convention Center, the CGDC lost its soul. And I think that this loss is reflective of deeper trends within the community as a whole.

Let's talk about morality. It seems to me that most people take an entirely too religious approach to morality, treating it as something mystical and sacred, full of absolute truths and moral imperatives. I view morality in more pragmatic terms, as a collection of rules for social cohesion. Moral systems allow people to live together in cooperating communities. Every community and sub-community has its own local mores, its special variant moral system. Our industry is a community with a moral system, and that moral system is democratically established in much the same way that a language is established: people embrace what they like and reject what they don't like, and the collective average of everybody's choices constitutes the language and moral code for the community. Thus, moral code and language are the primary glue that holds

the community together. A community with a vibrant language and a strong moral code will prosper; a community with a divided language or a weak moral code will be destroyed by its fissiparousness.

I was once discussing a complex financial transaction with my financial advisor when I suggested what I thought was a simple solution to a knotty problem. He dismissed my suggestion with the slightest edge of distaste in his voice: "We don't do that kind of thing." He went on to explain that my suggestion, however innocent in intent, was similar to a ploy used by unethical persons and was therefore shunned by honorable traders. While perfectly legal, it was a violation of the unwritten moral code of his community, and as I studied the workings of the financial instrument in question, I came to understand the practical value of my advisor's prohibition.

I remember another case in which I was discussing a business deal with my agent, who was a member of the New York book publishing community. As part of the deal, he wanted me to jump through some hoops, and I was rather impatient with the rigamarole. When I protested the impracticality of his request, he explained, "That's the way we do things." My protest ran afoul of an unwritten rule of his profession. Again, that rule made perfect sense in the context of the kinds of business transactions he worked with every day.

It seems to me that the games community has failed to establish a solid moral code. Perhaps the gold rush mentality that we have lived with for so long has seeped into our souls and poisoned our values. In the last five years, I have observed with growing dismay the steady erosion of altruism, the decline of artistic aspiration, the stealthy march of greed. But worst of all has been the moral apathy of the community as a whole, a cynical shrugging of the shoulders at the process of moral decline.

Some years ago a powerful publisher brought under-the-table pressure to bear to prevent an individual from giving a technical lecture at CGDC, even though the primary subject matter of that person's lecture was his own proprietary technology that he had used in conjunction with a project involving the powerful publisher. The powerful publisher's attitude was that every aspect of their operation was a proprietary secret, even those aspects that they had not themselves created. I publicly raised the moral issue created by this case; did we as an industry want to live with this kind of moral precept? My question should have spurred a soul-searching debate about the complexities of intellectual property and how ownership of that intellectual property can spread to others through business relationships; instead it was met with utter apathy. Nobody seemed to be interested in the question.

More telling is the sad story of the sale of the CGDC to Miller-Freeman. Here was the premier community event of our industry, explicitly founded and historically operated as a public service, not a vehicle for personal gain. Incoming directors were required to promise not to harbor expectations of deriving personal gain from

the power that they were being given. Their stock was contractual-
ly specified to have a value of exactly $25. In the early years, there
was no question as to our altruistic intent; it was woven into the
fabric of our corporate culture and provided the basis of many of
our decisions. It was a profoundly healthy moral rule, something
that conferred great power on CGDC and a major factor in its spec-
tacular success. In the early days, everybody pitched in to make
CGDC a success.

But then the moral miasma of the community infected the
CGDC. Greed whispered ever more insistently in our ears. I must
confess before God and the universe that I was sorely tempted; I
flirted with greed and explored the possibilities of being "just a lit-
tle greedy." I wondered aloud whether there was not some middle
road between altruism and greed. I never had the opportunity to
transform my illicit fantasies into actions noble or evil, for the oth-
ers kicked me out and confiscated my stock. They then decided the
issue themselves by selling CGDC to Miller-Freeman for an undis-
closed sum. I do not know how much they got; I am told that it was
a great deal of money. In so doing, they violated their promises to
others and indirectly transferred huge amounts of money out of the
pockets of their colleagues in the community and into their own
pockets. Even more striking was their treatment of their former part-
ners, the previous directors of the CGDC: they gave each such per-
son $3,000 in return for a legal waiver. This amount represents an
infinitesimal fraction of what they kept for themselves.

The most astounding aspect of this entire affair is the reaction of
the community. When I laid these facts before members of the
computer game community, the most common reaction was a cyn-
ical shrug of the shoulders. "What did you expect, Chris?" There
was no sense of moral outrage, no concern that such behavior poi-
soned the atmosphere for everybody. Instead, some people
applauded the sellers for having gotten rich. Others abdicated all
moral responsibility, arguing that moral policing is the duty of the
law, not of individuals. Some placed personal loyalty ahead of
moral sensibility, deciding the case on a strictly ad hominem basis.
Some chose to bury the matter under an obfuscatory pile of uncer-
tainties, demanding written proof of criminal intent before they
would pass judgment. Some just preferred to avoid conflict. The
end result was a community-wide acquiescence to behavior that
many other communities would refuse to tolerate.

Some of the same people who sold the CGDC are now running
the CGDA. One would think that CGDA members would demand
their replacement at the earliest possible date, if only to assert the
highest moral standards for their nascent organization, but in fact
no such demand has materialized. Indeed, one of the sellers, Ernest
Adams, is now a candidate for a full-time salaried position as
Executive Director of the CGDA. When I point out the irony of this
situation to members of the community, the most common
response is, "If he does a good job for us, why should we care
about his past?"

The problem here isn't Ernest Adams or any of the other people who sold CGDC. They are only the touchstone against which the moral strength of the community is tested. The problem is with the community. A group that responds to allegations of unethical behavior with a cynical shrug of the shoulders is a moral corpse, a collection of individuals elbowing against each other rather than a cohesive community. Without a strong moral infrastructure, this community is only marking time before it fractures into defensive enclaves.

Howcum We're Still Kicking?

It would be easy to dismiss my apocalyptic preaching with the simple observation that the industry is financially healthy. The hairshirts who point with quavering fingers at our iniquity, threatening hellfire and brimstone, may be at least partially right about the iniquity, but so far we seem to have been doing enough things right that the hellfire and brimstone are on hold. So perhaps we should ignore crazy hairshirts like Chris Crawford.

It's certainly true that the computer games industry has successfully escaped damnation for quite some time now. In many ways, the situation is similar to the stock market, which just keeps rising and rising in blithe disregard for the predictions of financial experts who insist that it must come down sooner or later. The financial papers talk about the Dow defying gravity, and nobody seems to understand what's happening. The big difference, of course, is that canny investors are balancing their portfolios with greater diversification, but the computer games industry just keeps believing in itself.

There are three reasons for the apparent levitation of the computer games industry. First is easy money. Because so much money was made by the pioneers, there are plenty of investors willing to pour money into the business. Because everybody sees this as a growth industry, investors are willing to lose money today in order to get a solid market position for the future. So the money pours into our industry, we build million-dollar products that return ten cents on the dollar for their development costs, and we just keep reminding our investors of *Myst* and *Doom*. We think that because we're gaining money, we're doing just fine, but in fact much of that income is investment, not earnings. Someday the easy money will dry up, and when it does, we won't look so superhuman.

Another factor in our continuing success is the supply of cheap labor. Any other industry would have to pay its creative and technical people huge amounts of money for their services, but in this business there are always eager young talents willing to work for next to nothing to get their big break. There are thousands of people who are working on speculation, and their net contribution to this industry can be valued in the hundreds of millions of dollars. This labor acts just like investment, so again the impression is created of a wealthy and successful industry, but in fact it's more like those financial empires assembled by con men who borrow in long

chains, making themselves look rich on borrowed money. At some point, a payment comes due that can't be met, and the whole financial "empire" collapses. So it is with our industry. At some point the expectation of easy money will erode, causing some of the opportunists investing their time to write off their investment, depriving companies of valuable cheap labor, further accelerating their decline, which in turn only hastens the first process.

A third factor in our faux-success is the false basis of most of our sales. Several years ago I pointed out that we were riding on the backs of the hardware manufacturers, who have performed economic miracles in lowering the price of the personal computer while raising its performance. The ever-improving price/performance ratio of personal computers has enticed an ever-larger segment of the public to take the plunge. Of course, whenever you buy hardware, you might as well get a few games. I believe that the ignorant games purchases of initial computer buyers have been a major component of our industry's financial success in the last five years.

The best evidence in support of this belief is the dramatic concentration of sales in a few hit titles. Surely the phenomenal success of *Myst* cannot be due to any overwhelming superiority of the title—we've all played the game and we all know how good it is. Existing computer owners did not rush out to buy *Myst* because it's the greatest computer game to come along in years. Instead, it established a solid reputation as a great pretty pictures game, the one for first-time buyers to get in order to show off the wonderful capabilities of their new machines.

If my hypothesis be correct, then as the deceleration in sales of home computers expands, we should see a strong decline in the sales of computer games. This issue will make itself clear in a matter of a year or two. If in fact we do see this strong decline, then we will know that we've been living in a fool's paradise, and that the financial success we have enjoyed has little to do with the economic merits of our output.

You can't defy gravity forever. We've pulled off a great levitation act for the last five years, but reality will catch up with us and when it does, we'll hit the ground all the harder for our failure to appreciate what's been happening. If there were no other forces at work, we'd be facing the same future that coin-op games and videogames are facing.

Other Forces

But there are other forces at work, forces that might save computer gaming: multimedia and the Internet. I will not prognosticate on their separate futures; you've seen more than enough hype on those two subjects already. Instead, I want to focus on the how these two forces will affect computer games.

Let's start with multimedia. What is most striking to me about multimedia is the fact that it isn't gaming. That is, multimedia is just another term for interactive entertainment, but there's a clear con-

notation of differentiation from gaming. We may not know what multimedia really is, but we do know that it isn't gaming. Yes, computer games use CD-ROMs and sound boards and full motion video, just like multimedia products, but we still know that computer games are distinct from multimedia. This distinction implies divergence, and divergence means that multimedia won't save computer gaming. I think that multimedia represents a society-wide rejection of computer games. After all, if everybody thought that computer games represent the path to the future, then what need would there be for an alternative path utilizing the same means? The rapid growth of multimedia represents a broad desire for something other than computer games, something different. Therefore, the progress of multimedia represents not the salvation of computer games, but its bane.

The Internet is a different story. This is not an alternative using the same technology, but something quite new. What is exciting about the Internet is that its culture is as yet undefined. Initially a research culture, later a more broadly academic culture, now it is moving out into larger circles of society, and along the way its culture is changing. Because it is so ill-defined, the starry-eyed optimists among us see whatever they wish to see in the Internet. At some point, though, the Internet will crawl into focus; it will not be all things to all people.

I don't know what this focal point will be, but let's explore two simplistic alternatives based on a single polarity: let's assume that either the Internet culture will embrace the techie-nerd culture that dominates computer gaming, or it will reject it. Again, this is a simple polarity, but it clarifies our reasoning. Because if the Internet settles down to an on-line manifestation of the techie-nerd universe, then its entertainment will be a clone of the existing techie-nerd world of computer games—in which case computer gaming will not be changed by the Internet.

On the other hand, if the Internet becomes populist, mainstream rather than techie-nerd, then conventional computer games will fail on the Internet just as surely as they have failed to penetrate society at large, and the computer gamers will retreat into their own little hobbyist enclave the same way they've done with stand-alone systems. Either way, we come to the same conclusion: the Internet is not going to change the nature of computer gaming. A dying man can change hospitals, but it won't change the outcome.

Some will point to the multi-player aspect of the Internet and argue that this is the revolutionary socializing factor that will change the face of gaming. Until now games have been solitary experiences, attracting asocial nerds and repelling the more socially adept. The Internet will change all that, they say, attracting a new type of player, thereby enabling a whole galaxy of new creative opportunities.

There is merit in this argument, but I think it must take a back seat to the larger cultural issues surrounding the use of the Internet. I really don't think that large numbers of people will make their decision to participate in the Internet solely on the basis of the

games available there. Ultimately, the Internet will develop a culture, and this overarching culture will dictate the style of games that will be commercially viable. In other words, the availability of fine multi-player games will not attract large numbers of "normal" people to join an otherwise "techie-nerd" culture. If, by my previous argument, the Internet instead becomes a medium for "normal" people, then the multi-player interactive entertainment available will be differentiated from computer gaming, and again we will see the divergence between computer gaming and Internet interactive entertainment in exactly the same manner that multimedia has differentiated itself from computer gaming.

What I am saying here is that technology doesn't change people; people change technology. It took nearly a decade for computer games to establish their target market, but that marketplace is now clearly defined, and it's the people—the customers—who dictate the shape of computer gaming. New technologies will not change the customer base. Computer gaming has failed to establish itself as a mass market medium. Instead, the field has become a hobby, and hobbies tend to be insular and resistant to change.

I am not suggesting that computer games will drop off the face of the earth. Indeed, they will surely persist with the same durability demonstrated by, say, model railroading, amateur photography, and woodworking. But this generation has dropped the torch in its scramble for quick gain, and has lost its shot at creating a living medium with a bright future. Instead, we have created a hobby, a good and fine thing, to be sure, but nothing approaching the potential that we optimistically contemplated back in the early 80s.

As for me, well, I don't give up so easily. I have picked up the torch, brushed it off, and resumed trudging up the now-lonely path, even as the rest of the parade gaily marches down to hell. There are plenty of other people standing around hopefully, potential torchbearers all, each bringing some special talent to the picture. I don't know whether it will emerge from the multimedia people, or the Internet people, or from some other direction, but I do know that we need to start all over and build a new creative community, one dedicated to the construction of a mass medium rather than the exploitation of a technology.

I approach this task with optimism and excitement. Over the last year or two, as I have opened my eyes to people outside the traditional computer gaming community, I have discovered a wide array of talented people, bursting with energy and enthusiasm. They're out there, ready to make a revolution.