

## Chapter 7

### The End of the Story

#### *How The TV Remote Killed Traditional Structure*

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**Key words:** Interactive television, video games, media hacking, world wide web, empowerment, deconstruction, media literacy, Rushkoff, chaos, children, networked entertainment, digital TV

**Abstract:** This paper looks at programming from the perspective of who controls it, who buys it, what it all means, and how Digital TV may be a catalyst for its change. It shows how interactive television may neutralize the coercive effects of traditional programming and empower a generation to rethink its relationship to the mediaspace and itself.

*"Hey! You guys are upside down!"*

*Commander of the US Shuttle Atlantis to Russians aboard the space station Mir when the hatch was opened on their historic docking.*

We love stuff because we can touch it. It's real. It has mass. It falls to the ground when we let go of it. There's also a special value that real objects can take on, too. A violin played by Stravinsky, a pen used by James Joyce, or a pillow on which the Buddha slept are treasured more than identical objects from the same periods because of the sentimental value we project onto them. Their molecules are no different even if their price tags or museum placement are. The "genuine article" is an ethereal notion, at best.

Traditionally, for objects to take on magical significance, they must be connected to history and lineage. A samurai sword, Faberge egg, or original copy of the U.S. Constitution is only passed on from one person or institution to another when the recipient has demonstrated proper allegiance to and regard for to the significance of the object, either through application, ritual, or a huge outlay of cash at Christy's.

The forms of spiritualism, entertainment, and play that kids explore today are all ways of reclaiming the right to assign value to the physical – in the midst of an increasingly digital world. A blessing conducted in a back alley can turn a trashcan lid into a holy platter. A kid making skateboard stickers with a Magic Marker on Avery Labels can claim the same level of authenticity as Chagall. If he's accepted as readily as Keith Haring, his work may even become as highly valued.

This desire to generate or declare objects of value has been both prompted and empowered by the arrival of digital technology in the home. What is an "authentic" Nirvana CD? The first pressing? A signed copy? Does that make the music any different? No. Once the transmission from artist or originator to consumer or viewer can be made in the form of reconstructed code rather than physical objects, the relationship between the two human beings involved changes, as well.

The physical world is authentic by its very nature. Maybe we didn't realize this until we all started thinking about "virtual reality," but every time we breathe air, look at a tree, or make love, we are interacting in authentic flesh and blood. It's real. When we interact with icons and representations, we have moved into a different realm. It need not be confused with authenticity at all. A particular crucifix may have mass, but the symbol of a crucifix does not. No, I can't own a piece of the true cross, but I can make my own. With or without authenticating ritual, the symbol and its resonance are the same. A rose by any other name would still smell as sweet -- but without consensus language we couldn't share the thought with anyone else.

The deliberate confusion of symbols with objects keeps symbolism itself -- perhaps the most empowering and magical of human abilities -- out of our reach. As long as symbols are represented by real objects, their power can be held and monopolized. Because physical objects are subject to the force of gravity, they can only fall down. Superiors in the objectified hierarchy can thus "dub" their inferiors. They hold the scepter and the crown. That's why they sit up on thrones and altars: symbolic power, when it's attached to objects, only comes down from above.

When symbols of power are divorced from objects, they are also divorced from gravity and everything that goes with it. An image can be copied and distributed over electronic networks instantaneously. Entirely new rules of commerce have been developed to cope with this, ranging from

copyrights and patents to royalties and residuals. But lawyers and litigation are just a last line of defense against the impending turbulence. Ultimately, the move into massless commerce, religion, politics, and ideological warfare makes 90-pound weaklings indistinguishable from the heavyweights. In spite of the efforts of most of its creators to develop the ultimate advertising weapon, digital television should ultimately accelerate this launch into democratizing ether.

## 1. MEDIA SPACE

Media used to be a top-down affair. A few rich guys in suits sat in offices at the tops of tall buildings and decided which stories would be in the headlines, and how they would be told. However much the printing press and literacy movement empowered the masses to absorb information, the high price of manufacture and distribution kept the production of that information in the hands of those who controlled the equipment. The likes of William Randolph Hearst dominated the content of our media, and directed public opinion from the top. As print production became cheaper and more accessible thanks to typewriters and photocopying, news and storytelling moved to television and radio. Again, because these new, electronic media were so expensive to operate, not to mention obtain broadcast licenses for, content could easily be controlled by a few rich men and their even wealthier sponsors.

As a result, we came to think of information as something that got fed to us from above. We counted on the editors of the New York Times to deliver "all the news that's fit to print," and Walter Cronkite to tell us "that's the way it was." We had no reason not to trust the editorial decisions of the media managers upon whom we depended to present, accurately, what was going on in the world around us.

Television proved a better programmer than print, too, because it demanded even less of its audience. No reading, no distracting page-turning, no freedom to choose articles or the order of presentation. Just tune in, sit back, and zone out. But by slowly shifting our sense of trust onto the electronic image, those who hoped to maintain control over the content of media created the conditions by which they lost it.

We loved TV, and as more and more of it was provided to us, those terrific properties of turbulence led the tube to promote chaos over anything else. For electronic media doesn't intrinsically empower an elite of content providers the way printed matter did. It doesn't obey the laws of gravity. Cable television and home video technology combined to make the world of

television an even less ordered place. Much to the chagrin of network news advocates, CNN and CSPAN rose to prominence, and broadcast live news footage from around the world with much less editorial oversight. Television began to serve the purpose its name indicates: it allowed us to see what was going on somewhere else. Its role changed from a source of passively absorbed programming into a tool for remote viewing.

Well-meaning liberals, like Tom Rosenstiel of the Los Angeles Times, were horrified by this transition: "[CNN] has even had a pernicious effect on the rest of journalism: it has accelerated the loss of control news organizations have over content." I'd agree except for the word "pernicious." As centralized control over news agencies erodes, the content of media becomes much more responsive to the needs of the world culture it serves.

Rosenstiel argues that CNN "gives voice to political leaders who otherwise lacked political standing." What's wrong with that? When a dictator with a million sword-wielding would-be-martyrs wants to tell the world something, I'd rather he do it over CNN than a mound of dead bodies. Supply-side news control breaks down when international networks are willing to point their cameras anywhere.

Populist sentiments -- however irate or irrational -- get more of a voice in a decentralized mediaspace, too. Intellectuals and social controllers fearing the will of our under-educated "masses" claim that sensationalism will replace wise journalism as the news lowers itself to meet consumer appetite. In order to keep up with their tabloid competitors, network news shows "stooped" to their level, and raced to appeal to public appetite over particular sponsorial agendas. The overriding agenda of the advertiser, after all, is to capture "eyeball-hours." The ratings of lower-quality tabloid television has begun to decline on their own, anyway, because the more fully staffed networks have adjusted their programming to suit an audience that demands the truth. And because we've gotten our fill of stories about neo-nazi youth.

However horrific a Rush Limbaugh or Gordon Liddy's radio show may get, it is merely a long-overdue response of a public against what it experienced as extreme domination. If our culture in its first stage of top-down mediation can be likened to the passively absorbing fetus or breast-feeding infant, then this second stage can be seen as the "terrible two's." When a baby first learns to speak, he soon realizes that his words can have an effect on those around him. Lacking a plan of his own and the words to express it if he did, the child simply repeats the one word that can so easily negate everyone else's: no.

## 2. DIGITAL DEVICES DECONSTRUCT

We call the stuff on television programming for a reason. No, television programmers are not programming television sets or evening schedules; they're programming the viewers. Whether they are convincing us to buy a product, vote for a candidate, adopt an ideology, or simply confirm a moral platitude, the underlying reason for making television is to hold onto our attention and then sell us a bill of goods.

Since the time of the Bible and Aristotle through today's over-determined three-act action movies, the best tool at the programmer's disposal has been the story. But, thanks to technologies like the remote, the joystick, and the mouse, it just doesn't work any more.

The traditional story influences its audiences by bringing them into a state of tension. The storyteller creates a character we like, and gets us to identify with the hero's plight. Then the character is put into jeopardy of one sort or another. As the character moves up the incline plane towards crisis, the audience follows him vicariously, while taking on his anxiety as their own. Helplessly we follow him into danger, disease, or divorce, and just when we can't take any more tension without bursting, our hero finds a way out. He finds a moral, a product, an agenda, or a strategy that rescues him, and us his audience, from the awful anxiety.

The higher the level of tension the programmer has been able to create, the more preposterous the hero's critical twist can get. Shirley Maclaine is only granted a minor insight in "Terms of Endearment," while Arnold Schwarzenegger has the luxury of breathing on Mars in "Total Recall." But whatever solution the character finds, the audience must swallow it, too. Along with it, we swallow the sponsor or filmmaker's agenda. This is what it means to "enter-tain" - literally "to hold within" -- and it only works on a captive audience.

In the old days of television, when character would walk into danger and take the audience up into uncomfortable anxiety, it would have taken at least 50 calories of human effort for the viewer to walk up to his TV set and change the channel dial. The viewer was trapped. As long as the programmer didn't raise the stakes too abruptly, the passive viewer would remain in his La-Z-boy and go along for the ride.

The remote control changed all that. With an expenditure of, perhaps, .0001 calories, the anxious viewer is liberated from tortuous imprisonment and free to watch another program. Although most well-behaved adult viewers will soldier on through a story, kids raised with remotes in their hands have much less reverence for well-crafted story arcs, and zap away without a moment's hesitation. Instead of watching one program, they skim

through ten at a time. They don't watch TV, they watch the television, guiding their own paths through the entirety of media rather than following the prescribed course of any one programmer.

No matter how much we complain about our kids' short attention spans or even their Attention Deficit Disorder, their ability to disconnect from programming has released them from the hypnotic spell of even the best TV mesmerizers. The Nintendo joystick further empowers them while compounding the programmer's dilemma. In the old days, the TV image was unchangeable. Gospel truth piped into the home from the top of some glass building. Today, kids have the experience of manipulating the image on the screen. This has fundamentally altered their perception of and reverence for the television image. Just as the remote control allows viewers to deconstruct the television image, the joystick has demystified the pixel itself. The newsreader is just another middle-aged man manipulating his joystick. Hierarchy and authority are diminished, and the programmers' weapons neutralized. Finally, the computer mouse and keyboard transform the television into a monitor/transceiver. Children growing up in computer households do not see the television as an oracle or hearth but a portal through which they can communicate. Sure, they might sit back and watch a program now and again -- but they do so voluntarily, and with full knowledge of their complicity. It is not an involuntary surrender.

The digital TV will be perceived more like a telephone than a television set. Like the computer, it will provoke a do-it-yourself attitude towards media and technology -- transforming the viewer's role from that of consumer to doer or even broadcaster. Such a person will be much less likely to accept the data fed to him, or respond favorably to the coercive techniques of marketers. A person who is doing rather than receiving is much less easily provoked into a state of tension. The people I call "screenagers," those raised with interactive devices in their media arsenals, are natives in a mediaspace where even the best television producers are immigrants. They speak the language better, and see through those clumsy attempts to program them into submission. They never forget for a moment that they are watching media, and resent those who try to draw them in and sell them something.

Psychologists and politicians mistake their ironic detachment for cultural apathy. It's not. They do care; they're just unwilling to take on some character's anxiety and then swallow his agendas or buy his products. Although digital media empowers this demographic tremendously, it also makes them behave and react less like the "target market" that advertisers are seeking to reach.

The reaction of media programmers has been to redefine what we think of as interactivity. On the Internet, interactivity used to mean contact with other human beings. Millions flocked online for the sense of community it

offered. Most users had a good understanding of what was going on behind the screen thanks to simple interfaces, and had little fear of exploring the unknown reaches of the datasphere. And they usually found friendly people wherever they went.

By calling this revolution in communication an "Information Age," traditional media practitioners restaked their claim to the digital terrain. They pushed us to exchange community for content -- content that could be bought and sold. In a communications medium, the people are the content. And communication between people is free. No one can make good money off it.

The challenge for interactive media businesses was to convince users that "professional" content -- like games, databases, and web sites -- were more valuable and relevant than the chat rooms, community web sites, and USENET groups they had been enjoying for so long. This is when the Internet turned into the neon shopping mall currently known as the Web, where users simply point and click on images to buy stuff. Real stuff.

In its new, opaque and non-communicative incarnation, interactive media promised programmers the same sort of control and commerce abilities they had enjoyed with television. In came more investment dollars, as well as the blueprints for what will someday be known as digital TV. NASDAQ threw its capital in the ring only when its investors came to understand "new media" as just another way to say "old media."

Socially responsible programmers, however, will choose to apply the fledgling technology of digital television towards society's growth rather than as a new means of programming. We have already seen the success of deconstructional shows for traditional television, like *The Simpsons* and *Beavis and Butthead*, which give their young viewers quick lessons in media literacy. (*Beavis and Butthead* are armchair media theorists, deconstructing MTV videos and distancing their young audiences from the hypnotic imagery; *The Simpsons* are pure media satire, providing an exercise in pattern recognition and media history.) Such programs are both commercially successful and positively subversive to our consumerist society.

What will be the digital television equivalents of *Beavis and Butthead*? We have yet to see. Whatever these experiences look like, they will have to offer viewers the opportunity to participate with one another, rather than just with static content. Whether they take the form of network games, dense-screen chats, or user-controlled cameras and editing, shows for new media had better address the needs of a population hoping to orient itself to the digital terrain.

### **3. NOT JUST FOR KIDS**

Can adults train themselves to participate in the interactive mediaspace as effectively as children do? Or can they at least create the kinds of chaos-promoting television experiences that kids are looking for? And what will be the long term effects of dismantling social hierarchies through the same electronic devices that used to maintain them? If we are undergoing cultural transition -- a maturation, if you will -- then how do we bring ourselves to the next stage of development as quickly and painlessly as possible?

It is to be accomplished by understanding what a world without hierarchy looks like, and learning how to navigate it. The number of channels, voices, camcorders, and, finally, home computers and digital set-top boxes is fast bringing our mediaspace into a state of full turbulence. It is becoming fractal in nature, like a dynamical system. Our job is to look for the underlying patterns and natural, organic forms breathing within it. As media expands to encompass all of us as both content consumers and content providers, its intrinsic weightlessness becomes undeniable and even potentially liberating. As always, it's the kids who are best preparing themselves for this impending loss of gravity.

Consider the migration of arcade games from the real world to a virtual one. Pinball is a battle against gravity. After we whack the silver ball with the springed plunger, it's only a matter of time before it rolls back down the incline plane towards us. We stave off the inevitable with precise flipper flutters, but eventually the force of nature wins out and the ball rolls back down the shoot.

Extra games, however delightful, are just booby prizes. Like the promise of reincarnation offered by the Hindus, which can't really be enjoyed because it's someone else who comes back, each new ball is like starting over, and only exacerbates the anxiety that this ride, too, is only temporary. Sooner or later, it's going down the chute.

The evolution of the video arcade games that replaced pinball was a move away from gravity-based play and towards weightlessness. Think back to the first time you tried Pong, the original video game from the mid-1970's. The two white lines representing paddles and tiny white square representing the ball didn't move or feel like objects from the real world. There was no impact of the ball against the paddle. The ball hovered weightless as it traveled from one side of the screen to the other. The bottom of the screen wasn't really "down" nor was the top "up". No matter how much you moved your body in sympathy with the ball, only your fingers on the control knob had any effect. This difference in experience holds the key to understanding how to orient oneself to a weightless world.



Equally important, the direction of the developing video game culture and aesthetic indicates what we can expect as our mass media and culture at large follow their digital lead. The advancement of video games over the past three decades was based on the emergence of new technologies. It was less a consciously directed artistic growth than a race to utilize new computer chips, imaging techniques, and graphics cards. Every time a new technology arrived, game developers would redefine the essence of their gameplay around that new hardware. The same will be true when digital television is implemented. The architecture will lead the developers. At each successive leap in video game development, then, there is a return to technology and the underlying nature within it. Even if two or three years passes without a technological innovation, the games can only develop so far on a particular platform before a new one is introduced that redefines the medium. Each new platform, whether it is Super Nintendo or Sega Saturn, comes equipped with a "killer app" -- a piece of software (the game cartridge or disk) that makes use of the new hardware, and can't be played on more primitive machines.

The frighteningly revolutionary aspect of the Doom games, no matter what the pundits say, is not that they are more violent than any games before them. They are simply more real. The player is completely within the point of view of the character, who must battle his way out of one hellish nightmare scenario or another. In one game, the player is in hell, in another he battles his way out of a nazi prison, and in another he is on a space station that has been overrun by evil aliens. The world is in complete disarray, and the player must defeat and overturn the status quo or die trying.

The effort by concerned parents and politicians to make video games less apparently violent is earnest but misguided, because they do not understand the underlying reasons for these games' increasing realism. Social scientists, like Leonard Eron, have sought to demonstrate a causative link between television or video game violence and aggressive behavior in children. Unfortunately, these scientists do not follow the same stringent methodology of real ones. For example, one study shows that kids who are called into the principal's office for aggressive behavior are more likely to say that *The Power Rangers* is one of their favorite shows than kids who haven't been caught in violent behavior. That is not the demonstration of a causative link. It's akin to saying that because a higher proportion of African-Americans frequent Kentucky Fried Chicken than white-Americans, eating fried chicken will make a person turn black.

A world in which toy guns must be colored fluorescent green is not so dangerous because of the preponderance of toy guns. Toy weapons are only dangerous in a world so violent that we can no longer tell the difference

between them and the real ones. If anything, the repression of fictional violence and the confusion of adults over the clear differences between ritualized play and bloody murder are what lead to the actual violence committed by kids and the adults those kids become.

The true purpose of play and the violence associated with it is revealed when we examine the natural direction that video games have been allowed to evolve over the past few decades. There are startlingly few examples left of unfettered evolutionary activity in modern culture, but video and computer games, because they developed along the same natural evolutionary path as technology in a reverse-engineering similar to that of *Animé* and *Gundam* cartoons, show us the more organic impulses beneath the surface of mediated play.

In each case of an archetype's development, the games progress from objectified viewpoints to increasingly participatory ones. They turn from stories told or observed into stories experienced. Video games, like most fictional media, are an imitation of dream space. The world is generated, on the fly, by the game console as we move through it. In some games, you can even see the scenery being rendered as you move towards it. But, like dreams, they are from a weightless reality. A real ball never descends an incline plane, nor does a real Nazi ever hit the ground. As our tolerance for the reality of dream-death increases, we can accept more and more realistic and riveting portrayals of violent events. This doesn't make the many closer to flesh wounds -- only more consciously experienced catharsis. As Jung would tell us, the archetypal struggles in dreams remain the same, even if the symbolism changes from era to era and culture to culture.

In video games, the central conflicts and universes remain the same over time: our world is being attacked, I am in a struggle against another individual, or I must accomplish my quest. These are the same structures underlying dreams. But if a person goes to a psychiatrist because he is having problems in life, does the doctor try to change the patient's dreams? No. He gets the patient to remember more about them, or even dream consciously in the form of guided visualization. Dream deprivation studies have shown that if a person is not allowed to dream, he will develop psychotic delusions -- hallucinations in waking consciousness.

The same is true for cultures. If we deny ourselves or repress our cultural dreams as they express themselves in our media, we will experience cultural hallucinations like paranoia, magical thinking, UFO abductions, and more. We should not try to change our world by changing or eliminating our dreams, but we can look to our dreams for answers about why we do what we do in real life.

The unique opportunity offered by a mediated dreamspace is that we all experience the same dreams together. A particular game becomes popular

because it offers a dream in which many kids wish to participate. Should we fill a child with shame because he has a violent dream? Of course not. Nor should we condemn them or ourselves for participating in violent gameplay in the weightless realm. Unlike boxing, no one really gets hurt. In mediated play, like no other, we can push ourselves into ultraviolent, physically impossible acts of aggression, and everyone can live to tell the tale.

Most video game consoles come equipped with modem plugs, so that players can find opponents or co-combatants anywhere in the world. Kids will wander through the corridors of Doom together, teaming up against the monsters. Most computer "quest" games also have networking capabilities, so that four or more players can work together or against one another over the Internet. It is as if video games comprise a technologically realized collective unconscious. A shared dream. Unlike most computer games, though, in the act of dreaming, the dreamer gets to create the world he inhabits. The level of violence and passivity is wholly determined by the dreamer's own mind.

Maybe this is why the latest and fastest-growing segment of the computer game market is simulation games, or what we can call the "God" archetype. In these games, the player develops and controls some sort of world, and makes decisions about what kind of world it is going to be. One of the first popular games of this type was called Balance of Power (late-1980's), where the player acts as the Chief-of-State of the United States or Soviet Union, and attempts to avert nuclear war without compromising the interests of his nation. The game is programmed so that the more violent or aggressive the player gets, the more violent the rest of the world becomes. The game looks like a map of the world, and players click on countries or use menus to take actions.

The next and most popular variety of this archetype so far is Sim City (first developed in 1987). Rather than taking charge of a world already in progress, the player starts from scratch, bulldozing terrain and placing roads, power plants, homes, and industry. He watches as cars fill the streets and a population inhabits his town. If he does a good job, his popularity and tax-base remain high. He can grow his town into a city and even build an airport or stadium. The object of the game is not to "win," but to develop a sustainable society.

Although the original version of Sim City uses icons and is viewed from above, newer versions allow the player to experience his city on almost any level. He can go to the street and hear comments of his citizens, or up to the sky to see the traffic patterns. This fractal approach to the God game seems designed to demonstrate the fact that tiniest of interactions reflect the largest concerns. For networkers, a giant God game called Civilization (1991)

allows players to pick and develop a civilization as it evolves from tiny tribes to modern nation states and beyond. The players are in competition with one another for continents and power, but whoever manages to survive through the modern era, gets to cooperate in the construction of a spacecraft that moves humanity off the planet. Civilization is shared world-building, and thus shared dream-construction. Each player has a say, but the world of the game is determined by the consensus of the whole group as expressed in their actions.

So the dream our kids want to dream is a collective one. Through technologies that can now be considered precursors to digital television, they gain the ability to create what science fiction writer William Gibson called a "consensual hallucination" -- a group exercise in world creation where reality is no longer ordained from above, but generated by its participants.

Fully evolved media play, then, is total immersion in a world from within a participant's point of view, where the world itself reflects the values and actions of the player and his community members. Hierarchy is replaced with a weightless working out of largely unconscious preoccupations.

#### **4. DUELING JOYSTICKS**

Thanks to their experience with video games, kids have a fundamentally different appreciation of the television image than their parents. They know it's up for grabs. This will make them both better equipped to take advantage of the interactivity and group activity that digital television will offer; but it will also make them more resistant to those who attempt to use this new media for marketing and other forms of propaganda.

While their parents sit in the living room passively absorbing network programming, the kids are down in the playroom zapping the Sega aliens on their own TV screen. The parents' underlying appetite is for easy entertainment or, at best, prepackaged information. The screenager sees how the entire mediaspace is a cooperative dream, made up of the combined projections of everyone who takes part.

Today, Dan Rather and Geraldo Rivera have a bit more of a say in what that dream looks like than most of us, but even this is changing as more people get online and begin uploading their own text, images, and video. The difference between the Sega kid and Dan Rather is that while the non-networked video gamer is involved in an essentially masturbatory act, Rather is communicating and interacting with other people.

Still, like any masturbator, the Sega kid is learning how to use his equipment. He orients himself to the television screen as a racecar driver to his windshield. The games he plays are simulated drives through the very

real data networks he will access later on with his computer and modem or, if the developers of DTV permit it, through the television itself.

Market research indicates that screenagers are migrating from their game machines to legitimate personal computers in droves. "I stopped wasting my time on video games and started wasting it on the Internet," one appropriately cynical fourteen-year-old boy told *Upside*, a technology industry magazine. According to its article about the possible decline of video game consoles, a marketing survey conducted in 1995 indicated that kids overwhelmingly prefer PC's to game consoles as a platform for entertainment.

Further, psychologists have noticed an improvement in intellectual abilities -- problem-solving, creativity, visual and spatial conceptualization -- among college students who play video games regularly. Researchers at New York University Medical Center use video games to improve hand-eye coordination in recovering stroke victims, and most computer training specialists use video games as a teaching tool for adults and children alike. If nothing else, they serve as excellent flight simulators for cyberspace.

But the promise of cyberspatial orientation is of little consolation to worried parents. The endless hype and panic over cyberspace, cybersex, or anything with the prefix "cyber" is a bit tiresome, but only natural. We are beginning to participate directly in something we've until now only experienced as programming from above.

Imagine if you were told you could choose exactly what you were going to dream. (You'd probably choose sex or violence, at first.) The promise of cyberspace is the same. This is why, back in 1984, William Gibson imagined the "net" as a consensual hallucination. Our media is our shared and weightless collective psyche. No wonder it evolves towards chaos.

The realm of computer networks is a created world, built upon an intentionally organic, anarchy-inspiring skeleton. No computer means more than any other, and only the weightless can pass between them. As more people got involved in the shared reality of the Internet, its practical application gave way to pure pleasure. Participants created bulletin boards and conferences dedicated to extremely personal, intensely spiritual, and highly philosophical subjects.

It is as if going online somehow opens a person to a more chaotic sensibility. 50-year-old businessmen get into conversations about Carl Jung with teenagers whose dreadlocks and piercings would repulse them in the street. New kinds of forums have arisen to give people a chance to interaction more dreamlike ways. Multi-User Dimensions (MUDS) allow users to engage in text-based fantasy games with strangers from around the

world. Physically, it's as safe as writing an email letter; psychologically, well, it's as depraved as the participants want it to get.

At the moment we realize that the computer medium is not just for reading and consuming, but for posting and participating, an entirely new set of responsibilities confronts us: what do we want to say and do, and what affect will our words and actions have on the consensual hallucination? Slowly but surely, the hierarchically structured databases, newsgroups, and file-sharing systems (ftp, USENET, gopher) are giving way to more freeform-style Internet browsers, that encourage users to chart their own, almost random paths through the world of computer networks.

The World Wide Web lets people participate online in a manner much more consistent with the underlying network. Any person or institution can create a "home page" -- a bunch of data, images, text, and "links," or pointers to other pages throughout the network. Because these pages are linked to one another, users roam from one place to another, exploring the Web in the manner they would explore a natural environment: go to a tree, inspect its bark, see a bug, follow it to its nest. On the Web, one might start by accessing a computer in New York with a page someone created about Marshall McLuhan. He can click on a picture of the book *Understanding Media*, and get connected to another page containing the text of the book. On that page, he may find links to other media theorists, television museums, or the University of Toronto. A click of the mouse takes you to the new site. Exploring the Web requires a surfer's attitude towards data and ideas.

## **5. FRUITOPIC LEVERAGE**

Hardly immune to this growing chaotic urge, the traditional media is slowly emerging from its own terrible two's into the more adolescent drive towards real participation. Camcorder tapes and public access television have changed the way television looks and behaves. We have come to trust the grainy, bumpy footage of Rodney King and Bosnia over the high gloss finish of staged press events.

Always on the prowl for a new cult hit, and receptive to programming created by people "just like us," we search out weird little programs that express highly personalized visions. A teenager named Jake produces "Squirt TV" out of his bedroom with a camcorder and sits on the edge of his bed irreverently chiding a rock star like Michael Stipe for shaving his head for his appearance on the MTV Awards: "Like we didn't know you were going bald, anyway!" Activists from around the nation gather their own camcorder footage and download satellite feed for compilation into

alternative news shows like Deep Dish TV. South Park arises from the Internet as a censored program, only to become the biggest show on cable TV.

Mainstream programs and commercials now imitate the style of this guerilla programming in the hope of attracting viewers and adding a sense of credibility. E.R., NYPD Blues, ATT commercials, and many other high budget productions intentionally use jump cuts, hand-held cameras and off-beat hosts to make their productions look viewer-generated rather than planned in lofty corporate boardrooms. Snapple's "homespun" media campaign features "real people" that write in about their lives to a sweetly plump spokeswoman, who is herself photographed with way too much headroom, much in style of amateur home video.

America's mega-beer manufacturers have launched fake "microbrewery" labels like Red Dog, as if the products and campaigns were the efforts of tiny companies -- remote high leverage points in a chaotic system. The marketers know that if they look like the "big boys" they will fail in screenager-dominated mediaspace that no longer favors or respects the heavyweight. Meanwhile, the programmers and advertisers who buck the trend fail miserably.

Hollywood is still desperately trying to come up with movies and TV shows that depict the more frightening and dangerous aspects of our consensually hallucinatory mediaspace. None of the films or programs imitating the cyber-experience succeed because they pretend that these technologies aren't readily available. In the movies, no one gets to travel through virtual reality without a room filled with expensive, imaginary computer equipment, and going online is made to look about as complicated as wiring up one's own international fiber optic network. The parade of cyberthriller movies including *Virtuosity*, *The Net*, and *Johnny Mnemonic* fail because they exchange the real thrill of participating online for the Hollywood theatrics of car chases, machine guns, and explosions. Going online may be dangerous to one's world view, but not to one's physical being.

Why are the film and television industry intent on misrepresenting the chaotic quality of the mediaspace? Because -- all conspiracies aside -- the long-term aims of big money moviemakers and TV producers are directly opposed to the possibilities opened by our new technologies. The movies need to make things look bigger than life, romantic, and far removed from the day-to-day reality of their audiences. That's why we pay to see them -- because the worlds they open to us are inaccessible by any other means. Television needs to create a sense of desire in its audiences, so that they buy the products being offered during the breaks. These products must be offered

to us from above, and be bracketed by environments and stars who are exclusive and inaccessible.

So a TV version of virtual reality will never look like something you could rig up in your own bedroom with an appliance you bought at Circuit City, nor will the cinematic depiction of the Internet ever offer you the opportunity to type in a few keystrokes and find yourself in Tokyo.

Our established media outlets may be losing ground in the battle against co-operative, participatory media, but they are not going down without a fight. It's as if the traditional mainstream media -- the parental expression of communications technology -- wants us to be afraid of participating so that we never leave the safety of its nest. The editors and producers, steadfast in their belief that they can monopolize our airwaves and printing presses, probably have something to do with it, too.

Our newspapers tell us we are too stupid to go out online and find information for ourselves. A New York Times piece on health and the Internet warned readers of the potentially damaging information available online "Some of it is harmless, but a lot is dangerous to your health and well-being." The writer learned that, although one health forum recommended blue green algae as a dietary supplement and appetite suppressant, "their product was nothing more than pond scum." That algae is pond scum is no more relevant to the argument of its efficacy than the fact that penicillin is nothing more than bread mold.

## **6. THE PARANOID RECIPROCAL**

The accommodation and integration of the unfettered, natural will into public affairs is not a "que sera, sera" or a free market libertarian social scheme. It may accelerate a few things, and it may be fun for the anarchists, but, more than anything, it will nurture the development of a networked global culture -- world consciousness. Many great thinkers fear such a development because they see it as a reversal of human evolution back to the stage of the herd. Colonial organisms are great for plankton, but human beings are different, superior. If we are, indeed, superior, it is because we have the ability to be conscious of what we do. The plankton and minnows do not understand that they are part of reefs and schools. They simply behave. If human beings move into a more organismic relationship with one another, it will be by choice. We will participate consciously.

This is why technology and media play such a crucial role in this next phase of our evolution, and why it is so important that we continue to raise children who are less afraid of our inventions than we are. Technology is the method by which we consciously rig up the communicative fibers of our



planetary brain. Whether we are engineering the genes of our offspring or simply choosing to enable call-waiting on our second phone line, we are at least indirectly participating in our own and one another's forward evolution. Even though it takes on a life of its own at some point, technology still feels like our own creation. We develop it willfully, which is why we feel it is incumbent upon us now to evaluate its purpose and efficacy in serving humanity and nature's goals.

Marshall McLuhan foresaw much of our media revolution, but always felt the need to associate technological progress with biological or cultural decay. He pointed out how rock music made us deaf, and television damaged our eyes. Every technological innovation, according to McLuhan, has a reciprocal effect negating it. This way, everything stays the same or, more likely, slowly gets worse. "A speed-up in communications," he warns, "always enables a central authority to extend its operations to more distant margins."

True, but, as any screenage hacker knows, it also enables those distant margins to extend their operations back to the central authority. Imagine, for a moment, a female sitting at her place of work, at the keyboard, with a headset, microphone, virtual reality goggles and, let's say, foot pedals. Do you see this person as victimized or empowered? Most socialists from McLuhan's school would see our thought-experiment test-subject as an exploited worker. Management, in its endless hunger for higher productivity, has enslaved one of the innocent proletariat in a web of wires and electrodes. Every possible sensory organ of this poor woman has been physically violated and condemned to hard labor, in a scene even more horrendous than a sweatshop.

To a screenager, though, this individual could as easily be an empowered cybnaut, for whom work and play are indistinguishable aspects of life. She may have won her VR goggles through hard work and perseverance, in spite of her boss's technophobia. She may even be working at home, as the designer of a dazzling new CD Rom game based on her own analysis of Jungian dream archetypes. She may even be fourteen years old. If she experiences herself as a creative participant in her employment rather than its helpless victim, then every tool at her disposal is another avenue for extending her mastery. Her nervous system -- her very awareness -- expands with every new implement she acquires.

Either vision can also be applied to the DTV viewer. Is she augmented or imprisoned? It depends on her ability to distinguish between opportunity for expression and imposition of coercion -- and (probably to a lesser extent) the intentions of the technologies' creators. Victims see progress as a continuation of their own progression towards further victimization. They

seek stasis, because at least their predicament will not get worse if it stays the same. They spend their energies doing what is necessary to stave off disaster.

Empowered screenagers, on the other hand, see progress as an augmentation of their own journey towards empowerment and expansion. They spend their energies doing what they enjoy in order to get to do it some more. (This is what "to slack" really means.) Their jobs get easier and more fun when they've got better tools. They understand that enjoying work isn't a crime, and that turning creativity into a commodity is like getting paid for playing.

But they have also necessarily dropped the duality implicit in the word "employment". They are no longer passively being employed by an external force or person. Everyone from a store clerk or software designer to a garbage collector or medical doctor is an active participant in the development of culture or maintenance of life.

But some jobs just aren't fun. Still, screenage movies like *Clerks* and TV shows like *Friends* glorify the apparently menial tasks of clerking at a video store or serving coffee. It's all in the attitude and relationships. Data entry and code crunching -- labors requiring more hands and eyes every day -- are hardly as creative as designing video games or creating network software. The young people involved in these seemingly rote tasks have found ways to make them more interesting.

The best companies employing screenagers welcome feedback and ideas from their workers about making tasks more efficient and products less expensive. Young workers with great ideas quickly move up the ranks to become programmers and creative executives. Meanwhile, the kids working at terminals use company networks and the Internet to maintain chat windows and discussions with one another during work hours. McLuhan liked the "mild institutionalization" of the village, because "everyone could play many roles. Participation was high, and organization was low. This is the formula for stability in any type of organization."

He laments the growth of the village into city-state, which forced people to specialize and sacrifice their overall participation in local affairs. Similarly, he believed that technology forces further specialization and even makes simpler, craft-oriented specialties obsolete.

What McLuhan failed to foresee was that technology and cities alike would become so complex that their linear, highly organized structure would give way. The World Wide Web is anything if not highly participatory and barely organized. Computers don't "oversimplify" human interaction, as leading technology critics like Jerry Manders argue; they make it much more complex -- almost organic. The tremendous stability of the current vanguard of computer community-making is the result of the rather random way it

sprung up. Whoever understood how to create a site and had access to the proper equipment could do so. Like any people exploring a new frontier, they formed villages, alliances, and networks for mutual support.

Eventually, businesses established presence on the Web, encouraging people to visit their sites and learn about their goods and services. Many of these businesses are Web-related, offering software or advice for creating Web sites, or navigating the Internet. And again, as most urban planners now recognize, the most stable and thriving communities are built around business and commerce. They are not isolated suburbs, but small towns where people can gather naturally around the barber shops, corner stores, and banks where they conduct their daily business. On the World Wide Web, just as in the well-designed town square, work, entertainment, and the civil society are interdependent and ultimately indistinguishable.

Digital television appears to be developing the other way. It is beginning as a business, fueled not by communities but by large corporations. Will business interests and installations slowly give way to community spirit and local conversation? Or, in the television environment, will businesses be able to make money and provide enduring employment in a way that the Internet simply hasn't?

Many still wonder how people are going to make a living in the so-called information age. We will do so by selling what we generate from our minds and on our own computers or enhanced televisions as text, image, and code. When the commodity we have been selling -- our physical labor -- becomes obsolete (or at least less in demand), there had better be a new commodity to sell. Try creativity: Infinite supply, environmentally safe, culturally valuable, and even fun to make. If all our information were destined to be "free," then no one would be able to make any money with it, and we all really would be in need of some gainful employment, fast. The robots are already making our automobiles. The reason we don't need to worry is that the creation of wealth without the exploitation of physical resources has become a reality.

The danger, however, is reducing a new and important tool for global communication into capitalism's savior. When the bottom line of a medium's development is the bottom line, it will tend to serve the needs of the Gross National Product much more than the needs of human beings. The current effort to commercialize the Web -- at the expense of its communitarian function -- gives ample witness to the sacrifice of all other values to singular concern of profit.

In order to take advantage of the opportunity before us, we must learn to see ourselves as masters rather than victims of our new communicative pathways. Luckily, interactive technologies like digital TV may teach media literacy despite themselves.

For example, at almost every talk I've given about networking technology, someone complains that the Web might be a new avenue for disinformation, especially by advertisers. How will a person know what to believe and what not to believe? Compounding the confusion, reporters sometimes research a story simply by visiting a company's Web site and transcribing prepared press materials. They quote the press releases nearly word for word in their news stories, leading those of us who have seen both the posted press release and the publicized article to become quite suspicious of the way news is being gathered in the information age.

What we fail to realize is that this is the way most reporters have always researched their stories. Before computer networks, it was accomplished more surreptitiously through mailed press releases or phone calls. Now that we are all becoming witnesses to the way information is disseminated, we are gaining a more, not less accurate picture of the ways disinformation is accomplished. The process is being revealed to us. The real problem is that the more convenient our communications technology gets, the more choice we have. The more choices we make, the more honest we get, and the fewer secrets we are allowed to keep.

## **7. WEIGHTLESS POLITICS**

Unlike our kids, whose Sony Playstations teach them the joys of self-navigation, we yearn for guidance from above and restrictions on how and where we move. As those guiding authorities lose the ability to convince us of their moral high ground and intellectual superiority, we need to adjust our social institutions to support the sustenance of the non-hierarchical, user-generated reality that is fast approaching.

This means combating the fear of stupidity, vulnerability, innocence, and evil that we are currently fomenting in our media, and learning how to instill confidence instead. We must become willing to take responsibility for the world we are dreaming up together, however frightening or preposterous this may seem.

We are like our ancestors who, only understanding gravity as a top-down proposition, couldn't figure out why people "down" in Australia don't fall off the planet. Similarly, just because regular people like us are steering civilization doesn't mean reality itself is going to fall apart.

Teachers feel the impact of empowering technologies first. Computers challenge the teacher's role as the classroom's chief information provider. A single teacher's brain can't hold much more teachable data than a couple of CD ROM's, if that. When a kid can log onto an information service and

gather facts about almost any subject, and at a depth beyond any single human being's capability to provide it to him, his teacher must stop seeing himself as the storehouse of knowledge.

Teachers threatened by technology attempt to restrict it, or even prohibit its use in the classroom, justifying their actions with bogus claims about how computers quell creativity or stunt social skills. This tactic aimed at prolonging a teacher's monopoly on data is doomed to failure. Instead, like movie theater owners reckoning with the advent of videocassettes, teachers must discover what they can offer that a computer cannot. Such teachers will realize that they have been liberated from the rote task of supplying information -- a machine can do that.

Unlike a computer, a human teacher can be a partner in learning, and instead dedicate himself to giving his pupils the necessary criteria to judge their data's integrity, make connections between different facts, and formulate opinions and arguments of their own. The best of them will instill their pupils with the confidence and enthusiasm to express themselves as widely and articulately as possible.

Much like the Internet subculture, rap and hip-hop culture were enabled by a willingness to exploit do-it-yourself technology. Using tape loops or simple digital recording equipment, rap musicians can "sample" and remix the riffs of their favorite artists, and then create their own lyrics as overdubs. The music evolves as new artists layer their own sounds and words over existing tracks. Each song amounts to a cultural record of everything that went before it. The rap lyrics themselves are codified, much like slave "spirituals" of the early 1800's, so that singers can exchange urban coping strategies without the overculture's knowledge.

When the would-be censors do catch wind of what the kids are talking about, they are horrified. Time-Warner is regularly in the headlines for distributing music that, at least on the surface, degrades women and challenges the authority of police officers. The real and much more powerful threat of this music, however, is that it fosters a tight-knit subculture of kids who are willfully reprogramming themselves with ideas they feel are more appropriate to survival in the modern urban landscape. They are creating tribes bound together by new sets of values that, unfortunately, because they are necessarily disconnected from the values of their elders, often lack some of the tempered wisdom of an older civilization.

But can we blame them? By rejecting their efforts at community-making wholesale, we drive them further away, and isolate ourselves from their quite healthy urge towards restoring a social fabric. Neither we, nor our kids, can go it alone. Only by abandoning the need for enforced social and economic hierarchy and division as well as the convenient barricades they

offer, and trusting that a weightless world will develop naturally into real, if fluid, communities can we move out from our self-imposed parental control into true adulthood.

Will a fourteen-year-old kid playing *Mortal Kombat* over phone lines with another boy 1000 miles away, or another exchanging hip-hop tapes with a "homey" from across town eradicate the past fifty years of community disintegration? Probably not. But by focussing on the experience of real connection to one another -- which has nothing to do with defining an up or down, yet everything to do with gaining one's bearings in an intrinsically weightless system -- we can instill ourselves with the necessary confidence to step out of the womb and into the unknown.

## **8. CUSTER'S LAST STAND**

It may very well be up to the developers of Digital TV to decide whether to support or resist our culture's efforts to take back control of its own mediaspace. Like an indigenous people surprising its colonizers, the denizens of the datasphere are fighting for the turf they call home. And they have the advantage of being natives. They understand how to navigate this weightless terrain, and seek to utilize it in a manner more consistent with nature. Everything, except perhaps capital, is on their side.

The daily mergers of giant media conglomerates may not pose such a tremendous threat to the emergence of a truly interactive datasphere as we believed. No, they are more like a band of cowboys circling their wagons in the face of an imminent attack.

If the would-be colonizers of Digital TV hope to survive for any length of time in the datasphere, they will either have to learn the local customs, or go to war with the people they claim to serve.