Technology, Trauma, and the Wild

CHELLIS GLENDINNING

CHELLIS GLENDINNING, a clinical psychologist, speaks of herself as a "neo-Luddite" social critic, by which she means someone who explores the full impact of industrial technology on humanity. She has been a pioneer in applying the psychological concepts of trauma and addiction to the ecological crisis. In her book *My Name Is Chellis and I'm in Recovery from Western Civilization*, she explores our disconnection from the Earth as the "original trauma" that has been interwoven with subsequent traumas, such as child abuse or the genocide of indigenous peoples. In her work, she seeks to reclaim the wisdom of native peoples and reconnect the psyche to the primal matrix of the Earth. In this essay, she shows us how the qualities that are hallmarks of substance abuse can be seen in urban-industrial society's addiction to technology. Her diagnosis has significant implications for environmental politics. If people cling to technology and its products in the same way alcoholics cling to liquor, then their behavior is more complex than simple "greed." Ecopsychologists like Glendinning are finding persuasive new ways to change the lives of people in industrial society.

That millions of people share in the same forms of mental pathology does not make those people sane. ERICH FROMM

I met with a young political activist for conversation last week at my favorite cafe. A profeminist man and founder of an antiwar youth organization during the Gulf War, this twenty-one-year-old lives to explore social issues and act on his convictions. His burning question of the hour concerned technology. "Has television made people less intelligent?" he wondered, and he based his conclusion on the deconstructionist dictate that one speak only from personal experience. His answer was, "Decidedly not." Indeed, this young man's mental capacity was as substantial and his wit as sharp as I had seen in anyone of any age. But I could not help noticing that even before a quadruple *espresso latte* had exploded into his brain cells, my young friend was ranting at 120 words per minute, vibrating in his seat like a rocket poised for takeoff, hurling about words like VPL and Macromind, and answering his own questions in quantum leaps across paradigms unintegrated by any coherent worldview, physical reality, or moral obligation to life.

Like my friend, most of us who inhabit mass technological society find it difficult to understand technology's impact on social reality, let alone on our psyches. Like the tiny aerobic bacteria that reside within computer hardware, we are so entrenched in our technological world that we hardly know it exists. Yet widespread radioactive contamination, cancer epidemics, oil spills, toxic leaks, environmental illness, ozone holes, poisoned aquifers, and cultural and biological extinctions indicate that the technological construct encasing our every experience, perception, and political act stands in dire need of criticism. Further, such a critique requires integration by a coherent worldview, physical reality, and moral obligation to life.

At this point in history, it is essential that we ask difficult and searching questions about the place of technology in our lives. What is the essence of modern technology? How does it structure our lives? Our perceptions? Our politics? How does it shape our psyches? What does it say about our relationship to our humanness and to the Earth? Unfortunately, obstacles to answers are entrenched, like concrete piers at a freeway exchange, in both our social and psychological reality.

I discovered the scope of such obstacles while I was on a promotional tour for my book *When Technology Wounds*. The book is based on a psychological study of technology survivors: people who have become medically ill as a result of exposure to some health-threatening technology. I interviewed Love Canal residents, atomic veterans, asbestos workers, DES daughters, electronics-plant workers, Dalkon Shield users, homeowners whose groundwater had been contaminated, and Nevada Test Site downwinders, as well as sufferers of cancer, environmental illness, chronic fatigue, immune dysfunction, and many other problems.

By all accounts, this population is on the rise. Forty-one thousand Louisiana residents are exposed to 3.5 million tons of toxic landfill along the industrial corridor between Baton Rouge and New Orleans. Thirty million U.S. households, or ninety-six million people, live within fifty miles of a nuclear power plant. One hundred and thirty-five million residents in 122 cities and counties breathe consistently polluted air, while 250 million Americans—every one of us—are exposed to 2.6 billion pounds of pesticides each year, in addition to all the radioactive fallout ringing the globe from Hiroshima, Chernobyl, and the nuclear test sites in Nevada and Kazakhstan.[1]

On the book tour, I suggested that since people everywhere are getting sick from technological exposure, we had best enter into an informed and reasoned conversation about technology. Such a conversation was not forthcoming. In a debate on National Public Radio with MIT Professor Marvin Minsky, the inventor of artificial intelligence, I was asked if I had any objections to computers. I expressed concern that the deadly chemicals used to manufacture computers contaminate the biosphere. I mentioned Yolanda Lozano, a thirty-six-year-old worker from a GTE plant in Albuquerque who died of cancer after being exposed to

1. David Maraniss and Michael Weisskoff, "Corridor of Death along the Mississippi," *San Francisco Chronicle*, January 31, 1988; Jay Gould, *Quality of Life in American Neighborhoods* (Boulder, Colo.: Westview, 1986), 2:117–20; Critical Mass Energy Project, "The 1986 Nuclear Power Safety Report" (Washington, D.C.: Public Citizen, 1986); Daniel F. Ford, *Three Mile Island* (New York: Penguin, 1982); *Aerometric Information and Retrieval System: 1988, with Supplemental Data from Regional Office Review* (Washington, D.C.: Environmental Protection Agency, July 1989); *Unfinished Business: A Comparative Assessment of Environmental Problems* (Washington, D.C.: Environmental Protection Agency, Office of Policy Analysis, February 1987), pp. 8–86; Lawrie Mott and Karen Snyder, "Pesticide Alert," *Amicus Journal* 10, no. 2 (Spring 1988), 2; and *Information Disease Almanac, 1986* (Boston: Houghton Mifflin, 1986), p. 129.

chemicals on the job. Professor Minsky replied, "It doesn't matter." Elsewhere on my tour, the conversation ended almost before it began. "Get this woman off the air! She's the stupidest guest you've ever had!" shrieked one talk-show listener. "I can't give up my mammogram!" howled another. "As soon as we take care of this environmental thing," insisted one man at a book fair, "we've got to colonize Mars. It's *imperative* for our belief in the future."

Techno-Addiction

As a psychologist, I compare today's public awareness of the impacts of technology to people's views of alcoholism in the 1950s. Back then, everybody drank. It was more than socially acceptable to drink; it was required. Alcoholics Anonymous was twenty years old and growing, but its members still considered it an embarrassment to belong. In the past forty years, a major revolution has occurred in our awareness of the destructive potential of alcoholism. I see a similar necessity in the coming decade to rethink another dangerous attachment: our addiction to technology.

It is not a new idea that we who live in mass technological society suffer psychological addiction to specific machines like cars, telephones, and computers, and even to technology itself. But the picture is bigger and more complex. As social philosopher Morris Berman says in *The Re-Enchantment of the World*:

> Addiction, in one form or another, characterizes every aspect of industrial society. . . . Dependence on alcohol, food, drugs, tobacco . . . is not formally different from dependence on prestige, career achievement, world influence, wealth, the need to build more ingenious bombs, or the need to exercise control over everything.

The editor of *Science* magazine describes the nation's dependence on oil as an addiction, while Vice-President Al Gore claims that we are addicted to the consumption of the Earth itself.[2] In *Steps to an Ecology of Mind*, evolutionary philosopher Gregory Bateson points out that addictive behavior is consistent with the Western approach to life that pits mind against body. Bateson concludes, "It is doubtful whether a species

2. D. E. Koshland, "War and Science," *Science* 251, no. 4993 (February 1, 1991), 497; Al Gore, *Earth in the Balance* (Boston: Houghton Mifflin, 1992).

having both an advanced technology *and* this strange polarized way of looking at its world can survive."

To clarify this notion that contemporary society itself is based on what I call "techno-addiction," we would do well to remember that no machine stands alone. In other words, we will forever be trapped in a narcissistic "but I want my mammogram" analysis as long as we view technology only as specific machines that either serve us individually or do not. What Lewis Mumford calls the "mechanical order" or the "megamachine" is an entire psycho-socioeconomic system that includes all the machines in our midst; all the organizations and methods that make those machines possible; those of us who inhabit this technological construct; the ways in which we are socialized and required to participate in the system; and the ways we think, perceive, and feel as we attempt to survive within it.

What I am describing is a human-constructed, technology-centered social system built on principles of standardization, efficiency, linearity, and fragmentation, like an assembly line that fulfills production quotas but cares nothing for the people who operate it. Within this system, technology influences society. The automotive industry completely reorganized American society in the twentieth century. Likewise, nuclear weapons define global politics. At the same time, society reflects the technological ethos. The social organization of workplaces, as well as their architecture, reflects the mechanistic principles of standardization, efficiency, and production quotas.

From our everyday experience within mass technological society, we will note that "normal" acts like standing in line, obeying traffic signals, or registering for the draft all constitute acts of participation in this grand machine. Regarding our minds and bodies as disconnected in health and disease, or thinking that radioactive waste buried in the Earth won't eventually seep into the water table, are symptoms of the fragmented thinking that emerges from such a mechanical order.

Technology and society are completely interwoven. "Technology has become our environment as well as our ideology," writes the Dutch social critic Michiel Schwarz. "We no longer use technology, we live it."[3]

3. Michiel Schwarz and Rein Jansma, eds., *The Technological Culture* (Amsterdam: De Balie, 1989), p. 3.

Vine Deloria, a Sioux Indian and author of many books on Indian history and politics, describes the results of this social-technological imbrication as "the artificial universe":

> Wilderness transformed into city streets, subways, giant buildings, and factories resulted in the complete substitution of the real world for the artificial world of the urban man. . . . Surrounded by an artificial universe when the warning signals are not the shape of the sky, the cry of the animals, the changing of seasons, but the simple flashing of the traffic light and the wail of the ambulance and police car, urban people have no idea what the natural universe is like.[4]

Langdon Winner, in *Autonomous Technology*, moves the idea further, arguing that the artifacts and methods invented since the technological revolution have developed in size and complexity to the point of canceling our very ability to grasp their impact upon us. The socially structured scientific-technological reality that now threatens to determine every aspect of our lives and encase the entire planet is out of control, he asserts.

Total immersion, loss of perspective, and loss of control tip us off to the link between the psychological process of addiction and the technological system. Addiction can be thought of as a progressive disease that begins with inner psychological changes, leads to changes in perception, behavior, and life-style, and then to total breakdown. The hallmark of this process is the out-of-control, often aimless compulsion to fill a lost sense of meaning and connectedness with substances like alcohol or experiences like fame.

Throughout the technological system, the recognized symptoms of the addictive process are blatantly evident. They are obvious in the behavior of those who promote technology to maintain control over society or to inflate their own bank accounts and egos. And they are evident for us all because our experience, knowledge, and sense of reality have been shaped by life in the technological world. Symptoms of the addictive-process to be discussed here include denial, dishonesty, control, thinking disorders, grandiosity, and disconnection from one's feelings.

4. Vine Deloria, *We Talk, You Listen* (New York: Delta, 1970), p. 185.

Denial

A hallmark of any addiction is the presence of denial. The practicing alcoholic pretends that everything is normal and holds up appearances at all costs. Similarly, with regard to technology and environmental destruction, a societywide stance of "business as usual" pervades our lives. Denial abounds. The automotive industry at home and abroad keeps cranking out new models of polluting cars. Television runs ads for them. We continue to buy them. The U.S. government denies a link between technological development and global warming, while one president after another calls for more technological development as the answer to environmental disaster. The plastics industry inundates world markets with petroproducts, even using the idea of park benches made from recycled plastic as an excuse for further production. The medical establishment denies the existence of environmental illness. Corporations deny the environmental impact of toxic manufacturing processes.

Technology survivors suffer further pain as they encounter widespread denial that their illnesses are caused by technology—denial by the insurance industry, the justice system, the medical establishment, the media, and even by friends and family. As Love Canal activist Lois Gibbs told me,

> I went to my son's pediatrician, and I said, "Look, there are eight patients who have you as their doctor. All of them are under the age of twelve, all of them have a similar urinary disorder. Why is this? What do you make of the fact that you have eight patients who live within a few blocks of Love Canal who have *the same disease?*" He said, "There is no connection."[5]

Dishonesty

This symptom is acted out by the alcoholic in secret drinking, sneaky behavior, and lying about feelings and activities. With respect to technology addiction, dishonesty reveals itself most blatantly in the behavior of corporations and government agencies whose self-interest lies in purveying offending technologies. We know, for example, that officials at A. H. Robins, the makers of the Dalkon Shield, knew in advance of the

5. Chellis Glendinning, *When Technology Wounds* (New York: Morrow, 1990), p. 66.

potential medical risk of their product. Nonetheless, they sent it to market, and when reports and studies indicating ill effects became public knowledge, A. H. Robins claimed complete ignorance.[6]

Control

Addicts need to control their world to maintain access to the source of their obsession. A workaholic I know who directs a small institute is incapable of negotiating even the smallest agreement, because input from others upsets her sense of control. Likewise, today's multinational corporations display an obsession with controlling the world's resources, consumer markets, workers' behavior, and public opinion toward their products.

Let us also consider the very structure of modern technology. The kinds of technologies a society develops are not as absolute or preordained as our ethos of linear progress would have us believe; they express a society's goals, both conscious and unconscious. In mass technological society there exists a striking resemblance between the kinds of technologies produced and tyrannical modes of political power. We could, in theory, focus our technological efforts on inventions that would permit us to meet basic human needs in as sustainable a manner as possible. Instead we strive to develop technologies, from dams to anti-aging creams, that allow us an increasing degree of control over the natural world.

This desire for control often backfires when humans assume a position of extreme dependence on technical artifacts, and the lines blur between who is master and who is slave. What happens to our lives when cars break down or telephones go out? What happens when you don't own a fax machine, a computer, or a car? Technology's mastery over our lives translates into political disempowerment as well. The very conception, invention, development, and deployment of new technologies involves a highly undemocratic social process that is rationalized as "progress." The life experience of technology survivors attests to this fact: they are usually exposed to technological events that rob them of their health and livelihood without any warning or choice.

If the particular kinds of technologies in our midst exist to promote

6. Morton Mintz, *At Any Cost: Corporate Greed, Women and the Dalkon Shield* (New York: Pantheon, 1985), chapter 3.

mastery and power, we might ask, for whom? And over whom? Windmills and tepees express democratic and ecological values because the very people who invent, produce, and maintain them are the same people who use them. By contrast, the technologies disseminated in mass society reflect a mentality of control over the natural world, space, other people, and even ourselves. As Jerry Mander points out, running a nuclear power plant requires tight, centralized control by both government and industry, first to produce such a capital-intensive project, then to master public opinion, and finally to provide military backup in case of sabotage, accidents, or public protest. The presence of nuclear, biological, and chemical weapons in a nation's arsenal not only controls that nation's enemies; it also frightens and intimidates, and thereby controls that nation's own citizens.

Thinking Disorders

Alcoholics and other substance abusers typically employ modes of thought that serve the immediate needs of the addiction, rather than the long-term well-being of the person. This is seen, for instance, in the alcoholic who drinks to alleviate the physical and emotional pain of the hangover.

Likewise, much thinking in mass technological society is dysfunctional. Many people embrace the "technological fix" as the answer to social, psychological, and medical problems caused by previous technological fixes. For instance, a proposed government program seeks to cover the oceans with polystyrene chips that, it is hoped, will reflect "unwanted" sunlight off the Earth's surface and save us from global warming. Likewise, some scientists suggest orbiting hundreds of satellites around the planet to block the sun's light.[7] This is techno-addictive thinking at its most convoluted.

Grandiosity

The practicing alcoholic's delusion of inflated power is well known. The delusion of grandeur that fuels technological development is less apparent, more assumed. This grandiosity insists that mass technological society is superior to all other social arrangements. It implies that human

7. Jerry Mander, *In the Absence of the Sacred: The Failure of Technology and the Survival of the Indian Nations* (San Francisco: Sierra Club Books, 1991), p. 179.

evolution is linear and always progressive, and that all societies should be judged by the yardstick of technological achievement.

Technological society's main organ of socialization, public relations, purveys the grandiosity of technology. "Master the Possibilities," teases the MasterCard ad. "What Exactly Can the World's Most Powerful and Expandable PC Do? Anything It Wants," promises the Compaq Deskpro. At the same time, the "smart weapons" unleashed during Desert Storm and televised at home advertise that American technology, and America, are "Number One." Behind this all-too-earnest insistence lies the out-of-control, often aimless compulsion to create ever-increasing expressions of grandiosity—and the hallmark of the addict, to return continually to the source of aggrandizement. We *need* more cars, more televisions, more dams, more new technologies to prove our grandiosity.

Disconnection from Feelings

Alcoholics are brimming with emotions, but they can't express themselves directly or constructively. Instead, their feelings are hidden from view in the shadows of their unconscious minds, and so they deny their feelings and live in a state of frozen emotion.

Likewise, survival in the technological system requires that we act "cool" and behave like machines. The hallmark of technological education is to learn mathematics to quantify reality, and to master fragmented thinking to function in a mechanistic world. Every subject we learn in school seems unrelated to the others.

Mass technological society is structured "top-down," its fragmented nature keeping most of us from ever grasping an understanding of the whole. The Manhattan Project that built the bombs that killed hundreds of thousands of people in Hiroshima and Nagasaki was constructed according to a mechanistic military model. The project included thirty-seven installations scattered across the United States and Canada, each providing one fragment of the production process.[8] At the Los Alamos Laboratory, work was purposefully accomplished with a compartmentalization of tasks and a censoring of communication between scientists that enabled everyone involved to lose his or her sense of vulnerability

8. Richard Hewlett and Oscar Anderson Jr., *The New World, 1939–1946: A History of the Atomic Energy Commission* (University Park: Pennsylvania State University Press, 1962), p. 3.

and to engage in activities the consequence of which could neither be felt nor understood.

The upshot of such an approach to life is that feelings, experiences, and perceptions become disconnected from each other, and the unconscious mind becomes the receptor of repressed feelings. As a result, many of us tend to reside in a semiconscious state: the hideous and subterranean violations around us catalyze our feelings, but unacknowledged and unwelcome by the mechanistic world, we act them out in behaviors we neither feel nor understand. Like dropping the atomic bomb.

We must recognize systemic addiction in mass technological society if we are ever to achieve a state of psychological and technological well-being. The twelve-step recovery movement says that the addict must make "a searching and fearless moral inventory" of him- or herself. On the personal level, this includes claiming responsibility for instances in which we have violated another person's integrity. On the collective level, we would claim responsibility for technological society's uncounted violations against humanity, animals, the plant world, and the Earth. But lest our bleeding hearts overtake the process, let us be alert. As psychotherapist Terry Kellogg tells us, addictive behavior is not natural to the human species. It occurs because some untenable violation has happened *to* us.[9]

And indeed, we have undergone an untenable violation: a collective trauma that explains the insidious reality of addiction and abuse infusing our lives in mass technological society. The *Diagnostic and Statistical Manual of Mental Disorders* defines trauma as "an event that is outside the range of human experience and that would be markedly distressing to almost anyone."[10] The trauma endured by technological people like ourselves is the systemic and systematic removal of our lives from the natural world: from the tendrils of earthy textures, from the rhythms of sun and moon, from the spirits of the bears and trees, from the life force itself. This is also the systemic and systematic removal of our lives from

9. Terry Kellogg, "Broken Toys, Broken Dreams" (Santa Fe, N.M.: Audio Awareness, 1991). Audiotape.

10. *Diagnostic and Statistical Manual of Mental Disorders*, 3d ed. (Washington, D.C.: American Psychiatric Association, 1987).

the kinds of social and cultural experiences our ancestors assumed when they lived in rhythm with the natural world.

Vine Deloria rightfully asserts that we technological people "have no idea" about much of anything residing outside "the artificial technological universe with which [we] are familiar." Human beings evolved over the course of some three million years and a hundred thousand generations in synchronistic evolution with the natural world. We are creatures who grew from the Earth, who are physically and psychologically built to thrive in intimacy with the Earth. A mere three hundred generations ago, or 0.003 percent of our time on Earth, humans in the Western world began the process of controlling the natural world through agriculture and animal domestication. Just five or six generations have passed since the industrial societies emerged out of this domestication process. Our experience in mass technological society is indeed "outside the range of human experience," and by the evidence of psychological distress, ecological destruction, and technological control, this way of life has been "markedly distressing" to almost everyone.

Though largely ignored, evidence jumps from the pages of anthropological texts suggesting that the very psychological qualities so earnestly sought in today's recovery, psychological, and spiritual movements; the social equalities for which today's social justice movements struggle valiantly; and the ecological gains sought after by today's environmental movements, are the same qualities and conditions in which our species lived for more than 99.997 percent of its existence.

Nature-based people lived every day of their lives *in the wilderness*. We are only beginning to grasp how such a life served the inherent expectations of the human psyche for development to full maturation and health. In nature-based people who today maintain some vestiges of their relationship to the Earth and their Earth-based cultures, we can discern a decided sense of ease with daily life, a marked sense of self and dignity, a wisdom that most of us can admire only from afar, and a lack of the addiction and abuse that have become systemic in civilization.

The loss of these psychological and cultural experiences in the face of an increasingly human-constructed and eventually technology-determined reality, and the loss of living in fluid participation with the wild, constitute the trauma we have inherited.

The hallmark of the traumatic response is dissociation: a process by

which we split our consciousness, repress whole arenas of experience, and shut down our full perception of the world. Dissociation results not only from direct traumatizing experience, but also from the kinds of social changes that took place in the historical process of domestication. In *Nature and Madness*, Paul Shepard describes this process as the initiation of a heretofore unheard-of tame/wild dichotomy in which all things considered tame (domesticated seedlings, captured animals, and the mechanical and controlling mentality required to keep them alive) are prized and protected, while all things considered wild ("weeds," wild animals, and the fluid, participatory way of being human) are considered threatening and to be kept at bay.

This split between wild and tame lies at the foundation of both the addictive personality and technological society. Ultimately, such a split imprisons us in our human-constructed reality and causes all the unnecessary and troublesome dichotomies with which we grapple today—from male/female and mind/body, to secular/sacred and technological/Earth-based.

Technological society's dislocation from the only home we have ever known is a traumatic event that has occurred over generations, and that occurs again in each of our childhoods and in our daily lives. In the face of such a breach, symptoms of traumatic stress are no longer the rare event caused by a freak accident or battering weather, but the stuff of every man and woman's daily life.

As human life comes to be structured increasingly by mechanistic means, the psyche restructures itself to survive. The technological construct erodes primary sources of satisfaction once found routinely in life in the wilds, such as physical nourishment, vital community, fresh food, continuity between work and meaning, unhindered participation in life experiences, personal choices, community decisions, and spiritual connection with the natural world. These are the needs we were born to have satisfied. In the absence of these we will not be healthy. In their absence, bereft and in shock, the psyche finds some temporary satisfaction in pursuing secondary sources like drugs, violence, sex, material possessions, and machines. While these stimulants may satisfy in the moment, they can never truly fulfill primary needs. And so the addictive process is born. We become obsessed with secondary sources as if our lives depended on them.

Today the world is awash in a sea of both personal and collective addictions: alcoholism, drug abuse, sex addiction, consumerism, eating disorders, codependence, and war making. In her book *Co-Dependence*, psychotherapist Anne Wilson Schaef points out that beneath these behaviors lies an identifiable disease process "whose assumptions, feelings, behaviors, and lack of spirit lead to a process of nonliving that is progressively death-oriented." While her words describe the addictive process of individuals, they also characterize the techno-addiction of a civilization. Society is addicted to specific technologies like cars, supercomputers, and biological weapons, all of which facilitate an unhealthy propensity to control, numb the psyche from pain, and momentarily feed a craving for power.

Techno-addiction is also an addiction to a way of perceiving, experiencing, and thinking. As the world has become less organic and more dependent on techno-fixes for problems created by earlier techno-fixes, humans have substituted a new worldview for one once filled with clean rushing waters, coyotes, constellations of stars, tales of the ancestors, and people working together in sacred purpose. But the ancestors from the Western world took on the crucial task of redefining their worldview in a state of psychic dislocation, and so they ended up projecting a worldview that reflects the rage, terror, and dissociation of the traumatized state. They dreamed a world not of which humans are fully part, but one that we can define, compartmentalize, and control. They created linear perspective, the scientific-technological paradigm, and the mechanistic worldview.

Life on Earth encased in the product of such a construction is, to quote the Hopi, hopelessly *koyaanisqatsi*, or out of balance. As a psychologist, I believe that to address this imbalance at its roots will require more than public policy, regulation, or legislation. It will require a collective psychological process to heal us technological peoples who, through a mechanized culture, have lost touch with our essential humanity.