



The Digital Pandemic

*Reestablishing Face-to-Face Contact
in the Electronic Age*

By Mack R. Hicks, Ph.D.

New Horizon Press
Far Hills, NJ

Introduction

We are in the midst of a technological revolution that affects every facet of our lives. Changes are coming at computer speed so fast, in fact, that some question if the information technology (IT) society is a blessing or a curse. By the time research studies are completed, the landscape has already been changed.

Despite protests from some nervous parents, cynical teachers and the general public, some experts tell us to relax. In an article by former *Wall Street Journal* publisher L. Gordon Crovitz, futurist Ray Kurzweil explains, "...the power of computers is just the latest example of more than a century of exponential growth in communication and information technologies, beginning with electromechanical power and continuing through vacuum tubes and transistors."¹

Those who are middle-aged and older don't understand, many computer experts say. They call it a generational gap. According to such authorities, this generation better get with the program—and be quick about it. Multipurpose cell phones, computer games and Web sites such as Facebook and Twitter are teaching kids more and better than traditional schools, stimulating both creativity and social skills. Or so the computer proponents say.

Some people believe automation and the machine culture free us from mundane concerns over food, shelter, safety and the like.

Those who tout electronic devices theorize that now we can enjoy our “self-actualizing” potential for the first time in history. Concerns over machines will lessen as we take the high road to a world of creativity, empathy and self-awareness.² We’ll control machines and machine-like thinking—not the other way around. You bet. But experience and scientific research doesn’t always support these theories.

Not only do some psychological studies raise concerns over the “machine’s” negative impact on individual learning and development, but the growth in government regulations, legalistic thinking, objective testing in schools, increasing dependence on electronic gaming and the slicing and dicing of humans into abstract categories all point to the power of machines to influence our minds and ravage our souls.

The machine culture leads to complex changes, but I contend that a disease is spreading—lock up the kids. Several books supporting the information technology explosion rely on broad-based surveys to make inferences about *cultural* changes. *The Digital Pandemic*, on the other hand, relies on clinical experience and psychological research to sort out the impact of technology on the *individual*. In this book we’ll examine individual, social and, lastly, cultural possibilities. We’ll discuss the impact of IT on people who face problems in the real world—not virtual ones.

We’ve all come across anecdotal reports and bits and pieces about information technology, and though we all have our own opinions, this book is an attempt to bring the disparate parts together and connect the dots. We want to get away from machine thinking that breaks subjects into easily digestible and unrelated parts and instead take a measured and comprehensive view of IT. Only when we confront its influence on many aspects of our lives *at one time* do we experience the full impact of its power and potential threat.

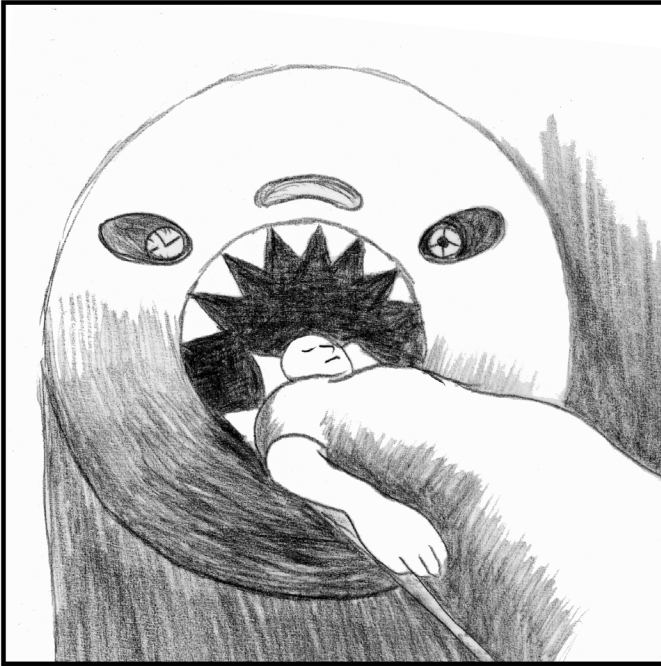
The IT movement affects each individual in different ways. This is due to gender, age and our unique personalities. We will look at two significant personality types to help us understand the growing impact of the IT movement.

Dividing individuals into two hypothetical groups—Gatherers and Hunters—we’ll focus on these two transcendent personality

types and show how they differ as well as their ultimate interdependence. Gatherers react and organize; Hunters act and create. Because machines affect people differently, it's important to learn how these two personalities influence our lives. Then we can begin to deal with the turbulent and rampaging machine culture. The differences between Gatherers and Hunters yield a powerful metaphor for understanding and interpreting the IT movement.

Uncle Gaderian, the pandemic robot, is a gatherer of kids. He stands at our front doors, offering gifts that dazzle and mesmerize. Our children will never be bored, he assures us. But will they still dream of lollipops and angels' wings? And where is he taking them, this Pied Piper in robotic armor?

Illustration courtesy of Rebecca Skeltes



“Welcome to My World”

1

How We Got Addicted

Influences of mechanization.

The encroachment of mechanization is destroying the human spirit. We have seen the relentless movement inward from Hunter and Gatherer to agricultural farmer to industrial worker to information economy to office automaton to post-modern thinker to cut and paste modern browser. The question we need to ask ourselves is: Are we moving from active, sensitive and creative to passive, mechanical and conventional?

Are we destined, like futuristic space aliens, to have massive heads, Lilliputian bodies and squeaky voices? Or is this a man-made problem? We will either use technology or it will use us.

We'll examine the hypothesis that machines are destroying our souls. It's not just the computer, the Internet or electronic games, but the mechanical, detached and sedentary approaches to life that are troubling...and the thinking and behavior they encourage at the expense of emotion, creativity and interpersonal awareness.

Where are these influences evident? Smart phones, televisions, computers, electronic games, YouTube, MySpace, Facebook, objective testing, airport body scans and categorical thinking that reduces us to mere abstractions (and that's just the beginning). What about billboards at malls that spy on people and change the product signage to fit the shopper's profile? The dry, analytic

model of science is expanding its influence into discussions about final truths and trying to answer the “why’s” and not just the “what’s.” Mechanical medical devices, such as computer-driven MRIs (magnetic resonance imaging) and electronic palm prints, are used for identification, research and our good health. But where does our spirit go after we’re nicely sliced and diced?

Are we unique and unpredictable humans or are we mere abstract concepts, like middle class, bipolar or urbanite? Science lacks a value system, unless you consider maximizing the survival of the species and the unfettered investigation of everything *as a value system*. No one’s at the helm of the science ship and most scientists like it that way. How can they discover new directions if they follow old paths? Some people in the digital generation seem to agree. We don’t need captains, helms or road maps, according to the electronic gurus. We can play it by ear and be the better for it: post-modernism with a hard drive?

According to these experts, technology and science aren’t perfect. They say such fields have a pretty good track record of helping our lifeblood, except they also have created weapons of mass destruction. Maybe when science reaches its ultimate goals, we won’t need such old-fashioned terms as emotion, conscience or free will. Science will redefine us and in the process do away with the old mythologies. If we have to compromise here and there, it’s worth it—so they say.

In this book I differ with such a mechanistic view of human beings and advocate retaining the advantages of technology, but not, however, giving up the basics that make life worth living. Things like valuing people regardless of status, background or helplessness; enjoying the simple pleasures of family and work; walking on green spongy grass; playing catch with a real ball and having to chase an errant throw into the weeds; meeting people face-to-face; learning through writing and composition; nurturing, touching, feeling and experiencing the pressure and smell when you press an old-fashioned crayon onto *and into* paper; and human dignity, philosophy and faith in things that can’t be measured.

Moreover I believe that mechanization is influencing our thinking and communications in many ways that are not positives.

What will occur when our present six-year-olds, whose brains are being shaped to conform to the IT model, hit the workforce, the parent-force and the citizen-force? What then?

High-tech generation.

Our young high-tech generation has shorter attention spans, especially when they enter the regular school environment. They find television boring, so about a third of them use other media (especially the Internet) *while* watching television. Young people today spend much less time reading for leisure than ever before. Why use your own imagination and move *slowly* through an intricate plot when you can be blasted with stunning audio and visual effects that rivet you to “the game”?

Recent research by Professor of Clinical Psychiatry Gary Small, M.D., and his team indicates that technology is changing our lives but also changing our brains.¹ The human brain is quite malleable and constantly changes in response to the environment. A young person’s brain, which is still developing, is particularly vulnerable. It is also the most exposed to new technology. Information technology (IT) natives—young people born into the world of laptops, cell phones and text messaging—spend an average of eight and a half hours each day exposed to digital technology. These exposures rewire their brains and neural circuitry. All that tech time may diminish “people skills, including important emotional attitudes like empathy.”²

Today, parents receive some guidance to help determine the desirability of electronic game *content*, but there is no guidance when it comes to the *process* itself. The content of a basic video game may be entirely innocent, but the *process* of spending many hours playing that game may create learning and attention problems that won’t show up until later.

Social animals.

In a *Wall Street Journal* article, Harvard psychology professor Daniel Gilbert says, “Human beings are social animals, so it is no surprise that our greatest sources of happiness and unhappiness are our social relationships. When it comes to happiness, consumer goods

that involve our friends are better than those that replace them.”³ New studies show the negative effects of online “gaming” on self-awareness, understanding other people and comprehending our surrounding environment. This leads to decreases in adolescent life satisfaction.⁴

Young people across the country are “...posing like statues in public squares, dropping their pants in train stations and bursting into song in malls....15 pairs of identical twins, dressed in identical outfits, filled a New York City subway car and mirrored each other’s actions, without explanation,” writes journalist Ellen Gamerman in *The Wall Street Journal*.⁵ Why are these “urban alchemists” so desperate to create magic in their lives? Is it political protest and rebellion against authority, reminiscent of the 1960s, or is it just people who want to *feel something* again?

Are tattoos and flesh jewelry a way of saying, *Hey, look at me, I’m important. I’m a human being, not just a mechanical part*? And when pants drag a little, is this rebellion or just teen style? Maybe teen bad manners are partially caused by being machine-raised. Maybe our friendly and sympathetic machines will pacify our misplaced desire for fresh air. Perhaps video game console makers want us to do more than just play online—they want us to live in virtual worlds.

Virtual reality.

One electronic company promises a 2009 online world for console owners: “...a virtual-reality environment where gamers with custom-made avatars can browse a virtual shopping mall, shoot pool with friends or strike up a conversation at an online town square before linking up to play games together online”⁶ as reported in *The Wall Street Journal* article titled “A Way for Gamers to Get a Life.” (An avatar is a computer user’s representation of himself or herself or of an alter ego in various forms.) While there is no charge for “...standard clothing and a furnished apartment or personal space,” the company wants to “...sell specialized clothing and unique furniture...”⁷ for a small fee.

We live at a time when we can go to the shopping mall, buy furniture for our second home or party with friends without ever going outside. As documented in an article by Alex Roth and Paulo

Prada, excitement is brewing in Georgia about a "...15,000-square-foot-building [that] will feature interactive exhibits, including fishing simulators where visitors in a fake boat can struggle against computer-controlled fish. Outside, a wooden path will lead visitors through simulated Georgia topography—from mountains to Piedmont to swampland—as trout, bass and bream swim in aquariums and pools along the way."⁸

The awful truth.

What about the addiction process and its effect on self-concept, emotional growth and happiness? An anti-tobacco commercial features a smoker who struggles to speak through a loud, persistent cough. He refuses to be "a quitter" and give up his self-destructive habit. Tech addicts can rationalize with the best of the tobacco slugs. "Look, man, I spend my days working in an isolated cubicle with no chance to socialize. (He's saying he's a machine part, but he doesn't know that.)

"On the Internet I can meet friends and watching television relieves a hell of a lot of stress. At least I'm not on drugs and I don't gamble my money away. Give me a break, man, and let's move on into the new world." Ironic, isn't it? Machine thinking and technology are causing this poor guy's stress, and now he's turning to machines for the cure.

Of course, he is giving up more friends, greater success, increased income and better physical and mental health. Too bad he doesn't know the awful truth. He can still enjoy his machines as long as he doesn't *become* his machines.

In this book I will show electronic addicts and their families how to break hardware addiction and tame thirst for "computer time." I will also try to reignite latent curiosity about people and show how to use natural skills of observation to understand ourselves and others.

A powerful tool.

Research is a powerful tool for reform. It seems logical that the Internet and computer games would increase attention and the ability to focus, but much recent research disagrees. Tasks requiring

high levels of direct attention can cause the attention system to fatigue. As reported in the *American Journal of Public Health*, Frances E. Kuo, Ph.D., and Andrea Faber Taylor, Ph.D., conducted a study showing that increasing children's time in natural green settings diminishes symptoms of inattention.

Participants in the study were 452 parents of children ages five to eighteen who had been formally diagnosed with attention deficit hyperactivity disorder (ADHD) by a physician, psychologist or psychiatrist. The parents were diverse in terms of their socio-economic statuses, the ages of their children, the community types in which they lived and the regions of the country from where they were came. The severity of their children's ADHD symptoms was also diverse, and both males (80 percent) and females (20 percent) were represented.⁹

"Parents nationwide rated the aftereffects of 49 common after-school and weekend activities..." in terms of whether it made their children's symptoms much worse than usual, worse than usual, same as usual, better than usual or much better than usual, for an hour or so after the activity ended. Activities were described as occurring in either green outdoor settings such as parks, farms, green backyards, neighborhood spaces, built outdoor settings like parking lots, downtown areas or indoor settings. The parents knew nothing about the purpose of the study. The parents' ratings indicated that the children's ADHD symptoms were significantly better after participating in green outdoor activities compared to activities that occurred indoors or in constructed outdoor spaces.¹⁰

The study also controlled to ensure that this outdoor fun wasn't the result of more activities taking place in a green space. Results from a supplemental analysis indicated that even when the activities were identical, there was a greater reduction in attention problems when they took place in a green space.

Abraham Lincoln wasn't the only United States president who grew up in the outdoors. In his book *An Hour Before Daylight*, Jimmy Carter says, "My most persistent impression as a farm boy was of the earth. There was closeness, almost an immersion, in the sand, loam, and red clay that seemed natural,

and constant. The soil caressed my bare feet, and the dust was always boiling up from the dirt road that passed fifty feet from our front door.”¹¹

Reading? Who needs it?

Does the IT explosion leave any room for reading? In 2004, The National Endowment for the Arts in Washington, D.C., reported that fifteen- to twenty-four-year-olds spent an average of seven minutes reading on weekdays; people between thirty-five and forty-four spent twelve minutes; people sixty-five and older spent close to an hour.¹²

In an article from *The Wall Street Journal*, Amazon CEO Jeff Bezos states that, “Laptops, Blackberries and mobile phones have shifted us more toward information snacking, and I would argue toward shorter attention spans.”¹³

Internal and external protests.

When we spend too much time on machines, even our bodies protest. Sometimes they stiffen up and stop working. There’s something about our physical reactions to computers that are definitely negative. According to Melinda Beck, in her article “When Your Laptop is a Big Pain in the Neck,” long bouts on the computer and incorrect positioning can result in “...headaches, pains in the temporo mandibular joint (TMJ) and carpal tunnel syndrome, in which pressure on wrist nerves causes tingling and numbness in the hands,” in addition to “...pain and stiffness in the neck, shoulders, back and arms.”¹⁴ (Doesn’t do much for your posture, either).

And sometimes we protest intellectually, as well. How many curse words have you leveled at your machine? Has any human boiled your blood or elevated your blood pressure like your machines? Wait until it is fully running your life, parceling out candy and other rewards, along with positive words in that flat, monotonous voice just—to—keep—you—going. The next time you walk into your office or open your laptop, glance out of the corner of your eye. You might catch your machine staring at you. And someday it will. But when it finally decides it doesn’t need you, you’ll hear the click of the delete button.

Electronic relationships.

Hal and Gail are tooling down the highway from their son's summer camp in the family sedan when Hal complains to his wife that her onboard GPS is too loud. "Besides," he says, "my cell phone has GPS with turn-by-turn navigation and it's only four inches long."

"Don't get me started," Gail shoots back. "My new cell phone has twice the speed at half the price. I know yours has superior integration and a secure e-mail platform, but you can keep the applications." Quiet in the backseat causes Gail to turn and look at their two children, who sit side by side typing away.

"Who are you guys e-mailing?" Gail asks.

"Only old people e-mail," her son snaps. "We're texting a bunch of people; mostly each other," he says, in a nearly complete sentence.

Gail shakes her head. "So, to summarize, you two haven't seen each other in two weeks and you're sitting one foot apart—texting?" Silence greets her again. She shakes her head and turns to her husband for support, but he's listening to music on his stereophonic earphones and isn't in a response mode.

Online vs. face-to-face.

Relationships are based on trust, empathy and imagination, none of which are strong points for a computer. Computers can collect data and produce incredibly useful information in a millisecond, but they can't recognize basic facial expressions such as anger and happiness. We seem to be getting "relationship Lite," not the real thing.

Founding executive editor of *Wired* magazine, Kevin Kelly, in his book *Out of Control*, predicts living organisms will become the model for man-made systems. "Control is out, out of control is in."¹⁵ In *Playing the Future: How Kids' Culture Can Teach Us to Thrive in an Age of Chaos*, author Douglas Rushkoff tells us to embrace the new technological age and challenges us to accept kids as the latest model of human beings, "equipped with a whole lot of new features."¹⁶ He believes kids relish a technological climate of chaos and go with the evolutionary flow, while their elders cling to obsolete institutions.

In *Born Digital: Understanding the First Generation of Digital Natives*, law professors John Palfrey and Urs Gasser state that many aspects of the way “Digital Natives” lead their lives are cause for concern, but “...parents and teachers need to let Digital Natives be their guides to this new connected way of living.”¹⁷ Business executive Don Tapscott’s book, *Grown Up Digital: How the Net Generation is Changing Your World*, concludes that “Net Geners” are smarter and quicker than their predecessors. Rather than meeting face-to-face, Tapscott’s team interviewed nearly 8,000 young people through *online questionnaires*. Tapscott’s study is endorsed by twenty-one business leaders, including the CEO of Internet search engine Google and the editor-in-chief of *Wired*. Fifty companies collaborated in the study. “The reports are *proprietary* to research sponsors, but *some* of the high-level findings and main conclusions can now be shared.”¹⁸ (My italics)

In my opinion, many of the studies share a common flaw: their descriptions of people are devoid of such considerations as genetics, temperament, gender, personality style or individual differences. There were some people who believed the automobile would never replace the horse and buggy. It did, but it’s too bad it took almost one hundred years to require the use of seat belts. Talking on digital telephones while driving a vehicle causes more accidents and results in more deaths than drunk driving, but so far the phones are still conveying information critical to good driving, such as, “Do you want asparagus or green beans with the lamb stew?”

Anthropologist Mizuko Ito at the University of California, Irvine, led a group of anthropologists on a fifty million dollar *ethnographic* study for the Pew Internet & American Life Project. They looked at social and recreational aspects of technology from a youth perspective. The study revealed some important information on what kids said they were doing on a day-to-day basis within our culture. Ito’s study was an important foundational work, but it relied on young people’s own reports and opinions rather than outcome studies. It did not focus on digital usage in our schools, and parent and teacher perspectives were not assessed.¹⁹

In the twelve to seventeen age range, 97 percent said they played video games and 82 percent said they played alone,

occasionally. What about mature and adult games? Twelve to fourteen-year-olds are equally inclined to play mature and adult games as older children and young adults. Ito used students in the range of eight to twenty years old, which means that some of the students were ten or twelve years of age before much of the current technology was introduced. These older students' brains were not exposed to the early stimulation that is of concern in some neuropsychological research today. As mentioned before, it's difficult to research the new technologies because of their rapid changes. Also, the researchers couldn't study the effects of such widely used devices, such as video game consoles, cell phones and the like. According to the researchers, lower-income families couldn't afford them.²⁰

Think IT learning doesn't create strong attachments? Ito and her colleagues interviewed hundreds of students across the United States. One twenty-one-year-old had discussed his all-consuming relationship with an electronic game involving a future cataclysmic civilization. He said it was very mechanistic and repetitious, with an emphasis on rational thinking. He described it as "meticulous problem solving" with "frighteningly gorgeous environments."²¹

Privacy, trust and control.

Is the idea that machines may be gradually taking us over and infecting our minds and hearts real paranoia? Could be. What about the new security machines that strip us bare at airports? The bodies of men, women and children are exposed while disinterested security agents look on. Urban myth has it that Homeland Security screeners like to select attractive women for body scans. Are we pushing the envelope when it comes to human dignity? Could that old-fashioned dignity idea become a thing of the past?

What about privacy? That lady with the cell phone can take your picture or transmit your actions to her friends in other parts of the world. Recently, in a *St. Petersburg Times* article, an Olympic gold medalist was seen smoking marijuana from a bong/pipe on a cell phone camera picture.²² Newspapers later printed the

story worldwide. There's been some debate about the hoards of data shared by 200 million users of Facebook. In an article by Jessica E. Vascellaro, published in *The Wall Street Journal*, she writes that "...consumer-advocacy blog Consumerist.com posted an item... with the provocative headline 'Facebook's New Terms of Service: We Can Do Anything We Want With Your Content. Forever.'"²³

High tech helper or big brother? Todd Lewin reports for the *Associated Press* that two employees of a surveillance equipment company had glass-encapsulated microchips with miniature antennas embedded into their forearms.

"We're really on the verge of creating a surveillance society in America, where every movement and every action—some would even claim, our own very thoughts—will be tracked, monitored, recorded and correlated," says Barry Steinhardt, ACLU, Washington, D.C.²⁴

Trust: Where did that go? Dressed in full armor, a knight of old opened his visor to show others his face; this way people could identify him as friend or enemy. The raising of the visor, usually with the right hand, evolved into the military salute, which carried the same significance. This was replaced by the handshake, which showed that the fist didn't conceal a weapon.

Today's biometric technology is replacing these civilized gestures by reading the veins in our hands. You simply place your palm on the scanner and the Great Oz will know your age, employment—or lack thereof—government identification number (Social Security), spouse, family, reliable acquaintances and physical conditions.

In an article written for *Harper's Magazine*, a pilot flying a B-2 bomber from Missouri to Baghdad and back states, "Technology trumps our shared human nature. I tell myself that my actions will help save the lives of soldiers who are racing north out of Kuwait. This is honorable. It is not honor." This intelligent and sensitive pilot asks: "Will I kill to free another man's slave into a world that may be more chaotic, anarchic and dangerous?" and observes "It is difficult to match deeds with the ancients. I am cloaked in the *conceit of technology*."²⁵ (My italics)

We used to think pilots were protected from the brutality of war because they didn't engage in trench warfare and man-to-man combat. Now, technology has induced significant stress on air national guardsmen who operate bomber drones over Iraq via remote control from the safety of Southern California. In an article published in the online magazine Slate.com, writer William Saletan says that some of these drones have equipment that allows guardsman to see through walls. The effect of these devices, in the words of one former U.S. military official interviewed by the *Los Angeles Times*, is that insurgents "are living with a red dot on their head."²⁶ Drone pilots sitting in the comfort of their air-conditioned offices watch 500-pound bombs all the way to impact *and*, unlike the view from a traditional plane, they can see the resulting fatalities in high-resolution detail.

Mechanical thinking.

Many people are concerned about the *contents* of computer games or what dreadful excuses for education or entertainment are showing on our television sets. Granted, content is important and can be damaging to individuals and our society. My concern is the insidious *process* of mechanical thinking.

Recently, I went to a hospital for some blood work and when I entered the laboratory waiting room, four people were seated behind an L-shaped counter, ready to greet me and take care of me (or so I thought). No one else was in line. Fronted by computers, their eyes held steady to their respective screens. They were dressed in casual enough garb. No one looked up; no one gave me a single sign of recognition, not even a fluttering eyelid. *What are they doing?* I wondered.

I noticed a yellow business pad for names and times of entry. Assuming it was the sign-up sheet, I signed in and sat on a chair only a few feet from the counter. Fifteen minutes later, I became impatient and approached the dynamic foursome again. No one else had inked the sign-up sheet. After getting the attention of the closest employee by coughing and finally waving my hand, I asked her whether I had followed the correct procedure. She blinked and stared at my chest (later we'll discuss *microinequities*—she was a

master). Yes, she nodded. “Go to Station Two.” She disappeared back inside her white-lighted screen and world of ordered chaos. I looked for Station Two.

About four feet away, on the vertical part of the L-shaped counter, was a paper with the number 2 scrawled on it. This lady didn’t look up either, but when I dangled the physician’s order for blood work over her computer, she took it and looked up. “Are you here for blood work?” she asked. I said yes. She pointed to a wall and told me to wait over in that direction. Before long, a sunny-faced medical technician with an impish smile bounced into the waiting room. The computer appendage handed him the physician’s order, but said nothing. He had to walk among the patients, calling out my name.

Later, I discussed my experience with the personable medical technician. He reported that the people at the front desk usually gave him no information about the patients and more likely than not handed him the doctors’ orders with the blank side up. He was obviously unhappy with the situation but pleased to tell me that the hospital was highly responsive to patient feedback. The med tech gave me an observation card and indicated that the woman in charge of public relations was sensitive to patient needs and would appreciate any comments I might make.

It wasn’t until I got home that I discovered the card had already been filled in by another patient, giving her address, phone number and other information I didn’t need to know and shouldn’t have had. I filled in the evaluation card, making it clear that my evaluation was separate from the person who had filled it in originally. I never heard anything from the hospital. Two months later I received a call indicating that I owed money for my blood work, despite the fact that my secondary insurance covered the entire cost.

We question the value of machines for teaching, but surely they help us sort out records. Right? Some people question whether digitizing medical records adds too much complexity to the system. Dr. Scott Silverstein states in *The Wall Street Journal*, “For 12.7 billion pounds, the U.K., which already has socialized medicine, still does not have a working national HIT (Health

Information Technology) system, but instead has a major IT quagmire. HIT (with a few exceptions), is largely a disaster.”²⁷ A *Wall Street Journal* article titled “Computer Spies Breach Fighter-Jet Project,” reports that “...computer spies have broken into the Pentagon’s \$300-billion Joint Strike Fighter project, the Defense Department’s costliest weapons program ever...computers used to control the U.S. electrical-distribution system...have also been infiltrated.”²⁸

But won’t technology help reduce the worldwide problem of carbon emission? Peter Hopton, Chief Executive and founder of Very PC, would like to lower the carbon footprint of IT without sacrificing performance. Writing in the RSA Newsletter (Royal Society for the Encouragement of Arts, Manufactures and Commerce), he states, “One server in the data centre has a similar operational carbon footprint to a range rover sport [car] and IT worldwide is responsible for similar *annual emissions as commercial airlines 4 times over.*”²⁹ (My italics)

Love at first click.

One day I received a recorded message from an insurance company that gave inaccurate information. I called back to clarify the errors, only to reach a recording. This robotic voice kept asking me questions but seemed to have difficulty understanding me. I knew what the machine wanted, so I began to speak like a robot myself. I shaped my mouth in a stilted and unnatural manner to articulate. Once I did this, the robot rewarded me with clear directions, but did not seem one bit relieved or grateful. I was congratulating myself on my success when I realized that I was gradually being shaped into the automated IT world.

Another time I dialed 411 for a phone number. A seductive and lyrical, if somewhat cloying, voice filled me in on other available services. But she couldn’t compete with the young lady who answered my call to a printer company for technical support. She was so personal, I swear she knew me. She warned me that she would be asking a few questions and admonished: “Be sure and speak up so I can hear you.” *Yes, I’ll try,* I thought. Later she made my spirits soar when she interrupted my mutterings with, “You’re doing great.”

Our cold-blooded friends don't really know us, but at least we can rely on their flawless logic. Right? I was having trouble printing a letter and got this message on my computer screen: "The printer has not yet responded, but the server may be able to proceed without the printer information. Do you want to continue to wait?"

Yes

No

I was able to get a real live person when I called my insurance company to warn them that their computer needed counseling. I was getting two to three reports, covering the same material, each week. I suggested a vacation for Uncle Gaderian, the pandemic robot—he seems to be rusting up and could use at least a lube job. The real person—I think—apologized and said she'd like to stop the mailings, but the computer wouldn't cooperate. She said, "I'm sorry, sir, we can't *suppress* it."

Here today, gone tomorrow.

Unfortunately, Digital Natives may not realize what they're missing in the way of personal service. It would be helpful if they came to recognize the losses as well as the gains associated with information technology. Passing information from generation to generation can be good. However, it took me years of training and thirty years in private practice to develop interviewing techniques that have proved *relatively* valid and reliable. I've found observing behavior is more accurate than asking people questions.

Young people are likely to be wary of strangers who ask questions about their increasing involvement with electronics and computers. This is part and parcel of our separate adolescent culture. Teenagers may hide negative aspects of technology and exaggerate positive experiences.

The new imaging machines also help in the dehumanization of the individual. Much brain research today starts with a person lying immobile, like a machine part, inside an MRI, which is a narrow metal capsule where scientists study what part of the computerized brain image lights up (in living color) when the subject solves problems or entertains certain thoughts.

Some scientists tell us that the whole is not greater than the sum of the parts and personality is merely an aggregate of carefully identified brain modules. How these modules interact in a cohesive way, and where they'll lead us, has not yet been sorted out.

Personality...personality.

In the next chapter we're going to examine the behavior of a couple of hypothetical personality types to better understand the impact of IT on people.

In the *Journal of Personality Assessment*, Dr. Theodore Millon writes, "No longer was personality to be seen as an integrated gestalt, a dynamic system comprising more than the mere sum of its parts. The pendulum swung toward empiricism and positivism; only 'observable' facts were in the ascendancy...this new breed of quasi-empiricist made a shambles of the inspired 'personality-as-a coherent-whole.'"³⁰

This piecemeal approach to research is definitely working from the bottom up and hopefully will contribute to coherent systems in the future. In the meantime, to better understand the impact of information technology, let's plunge ahead and divide individuals into two personality types: the Gatherer and the Hunter. According to the article "Hunter Gatherers" by K. Kris Hirst on About.com, anthropologists use these terms to "describe a specific kind of lifestyle, that of all human beings until the invention of agriculture about 8,000 years ago...Hunter-gatherers hunt game and collect plant foods (called foraging) rather than grow or tend crops."³¹

How about our so-called "Cyber Generation", which spends a lot of its time browsing the Internet, foraging in the wilds, refusing to plant, cultivate and harvest crops? No, they don't need to struggle with long-range plans, mentors or proven methods of food production. They'd rather forage on their own, relying entirely on their own abilities. *Foraging*, as defined by Merriam-Webster's Collegiate Dictionary, Tenth Edition, is: 1. "food for animals, especially when taken by *browsing* or grazing." 2. "wander in search of forage or food."³² (My italics)

In borrowing these terms from our anthropology friends, I'm defining the Gatherer as the realistic and conventional one, who

is a linear thinker and relies on logic and objective information. The Hunter, on the other hand, is more intuitive, creative and more physically agile. In the next chapter we'll home in on their characteristics and encourage you to discover these personalities in yourself, your friends and your co-workers. We will study the effects of IT on Gatherers and Hunters and observe how interesting real people are. We'll look at a number of areas where the mechanization culture shapes our lives. Are machines the problem or are they harbingers of things to come? If we don't open a path that allows for both mechanization and humanization, we could easily "drift" away, into the not so starry night.