2. TeknoFear

Dennis Baron

Even though the public didn’t scoop up the computer-in-a-refrigerator, people are not about to give up their computers (emphasis on the plural) any time soon. But not everyone is enthusiastic about these cranky, high-tech typewriters. Computers make enemies as well as friends: not just those who disparage computers because they simply think that the machines are too hard to figure out, but enemies who fear that computer technologies will destroy life as we know it. The true computerphobes are convinced that these machines will corrupt our writers, turn books into endangered species, and litter the landscape with self-publishing authors. In addition, computers will rot our brains, destroy family life, put an end to polite conversation, wreak havoc with the English language, invade our privacy, steal our identity, and expose us to predators waiting to pervert us or to sell us things that we don’t need.

One enemy of computers, John Zerzan (1994), writing long before the age of the digital refrigerator, warns that the computerized office is no better than a sweatshop. And the environmentalist writer Kirkpatrick Sale, who agrees with Zerzan that computers mechanize and dehumanize production, once expressed his personal contempt for computers by destroying one during a lecture on the evils of the “technosphere.”

Sale explained in a 1995 Wired Magazine interview the joy of his computer-smashing experience:

It was astonishing how good it made me feel! I cannot explain it to you. I was on the stage of New York City’s Town Hall with an audience of 1,500 people. I was behind a lectern, and in front of the lectern was this computer. And I gave a very short, minute-and-a-half description of what was wrong with the technosphere, how it was destroying the biosphere. And then I walked over and I got this very powerful sledgehammer and smashed the screen with one blow and smashed the keyboard with another blow. It felt wonderful. The sound it made, the spewing of the undoubtedly poisonous insides into the spotlight, the dust that hung in the air ... some in the audience applauded. I bowed and returned to my chair.

[Kelly 1995]
Sale’s concern for the biosphere didn’t stop him from exposing the Town Hall biosphere to the computer’s “poisonous insides,” but perhaps the most extreme reaction against computers has been that of Theodore Kaczynski. Over a period of eighteen years beginning in 1978, Kaczynski went after, not the offending machines themselves, but the people he held responsible for them, computer scientists and executives of the technology industry. Kaczynski mailed or planted sixteen bombs in his effort to turn the world away from technology, killing three people and injuring more than twenty others with his home-made devices. He was dubbed the Unabomber by the FBI because many of his victims were associated with universities and airlines, but for most of his teknofear campaign no one knew for sure what his motives were. Finally, in 1995, the Unabomber wrote a letter to the New York Times demanding the immediate publication of a 35,000 word manifesto outlining his complaints against the technological world. He threatened to step up his killing spree if the newspapers didn’t comply. Kaczynski explained, in an aside, that though universities were among his targets for their complicity in developing technology, not all academics were worth killing:

We have nothing against universities or scholars as such. All the university people whom we have attacked have been specialists in technical fields. . . . We would not want anyone to think that we have any desire to hurt professors who study archaeology, history, literature or harmless stuff like that. [From the Unabomber’s ransom letter to the New York Times, reprinted in the San Francisco Examiner, April 26, 1995, and retrieved from that newspaper’s website. Kaczynski writes in the plural to give the impression that he is not a lone gunman, but is instead part of a larger movement mobilizing against technology.]

Archeologists and historians may have been grateful that they weren’t in Kaczynski’s sights, but Ted Kaczynski was wrong in his assessment of humanists on two
counts. Humanists can be harmful, and more to the point, humanists are heavily involved in technology, particularly the writing technologies that the computer has enabled. But since the Unabomber seemed ready to kill anyone, technocrat or not, just to make his point, I for one was reluctant to speak out, at least until a plausible suspect was in custody.

It was the Washington Post that published the Unabomber Manifesto. That newspaper was technologically better-prepared to do so than the New York Times, and that was not a problem for the Unabomber, who proclaimed in his Manifesto that revolutionaries could use modern technology – for example, the mass media – so long as they did so to attack the technological system (Unabomber Manifesto, par. 96).

The Manifesto’s publication eventually led to the Unabomber’s identification and capture. When David Kaczynski read the Manifesto he was reminded of the ranting letters that he had received from his brother Ted, who lived in an isolated cabin in Montana. After some soul searching, David Kaczynski alerted the FBI, and his brother was finally captured a year after the Manifesto’s publication, in April, 1996. The Unabomber pleaded guilty to avoid the death penalty, and he is presently serving four life sentences in a maximum security federal prison in Colorado, without possibility of parole.

So now it can be said: the humanities – and the arts – have the potential to be just as dangerous as cloning sheep or genetically altering corn. Books are technology, after all, and sending them through the mail may not have the direct impact of sending bombs, but the written word has always had the power to anger people to the point where they act irrationally, even violently, banning or burning books, destroying entire libraries (the word for this, reflected in the title of a recent book on the subject, is libricide), and physically attacking authors and readers.

The computer is not the first writing technology to be censored, controlled, or sabotaged. Whether it’s Ulysses or The Merchant of Venice, Huckleberry Finn or Harry Potter, Catcher in the Rye or Soul on Ice, literature is often too radical, too sexual, too threatening to the status quo for it to sit quietly on the shelf. Sacred literature can be especially controversial: there’s a fine line between exegesis and heresy. One person’s scripture is another’s blasphemy, and the devout don’t always suffer blasphemers quietly. In pre-Reformation England, translating the Bible into English was a capital crime (in 1536 William Tyndale was strangled, then burned at the stake, for his English version of the Bible). Mixing the secular with the sacred may prove even more explosive. Salman Rushdie is but one prominent example of an author who had to go into hiding – in his case from religious fanatics who feared and hated, but hadn’t even read, the portrayal of Islam in his novels.

In extreme cases, books contribute to wars and political upheavals. Certainly the goal of manifestoes like those of Karl Marx or Ted Kaczynski is to overthrow the state, and revolutions of any magnitude are more likely to be bloody than bloodless. On a much narrower scale, in the Unabomber’s case, it was the act of publishing his Manifesto by a computer-savvy newspaper that led to Kaczynski’s capture and incarceration. As Hamlet might have put it, Ted Kaczynski was hoist by his own petard, which translated into Modern English means that the bomb-maker was blown up by his own bomb.

Fortunately, most books and their authors abide by the same rule that guides physicians: first, do no harm. That goes for archeologists, historians, and students of
literature and harmless things like that. They mean to do the right thing; but the Ted Kaczynskis of this world should not underestimate their impact.

The power of the press

Humanists have dangerous minds, and they are also as heavily involved in technology as scientists and engineers and even mathematicians like the Unabomber himself. That’s because writing is technology.

The texts that writers write are the products of machinery: pencils, pens, typewriters, and now computers. And it is not just the writing of these books, but also the technology of their dissemination, that can spark trouble. The machinery of publishing includes writing on clay, carving in stone, and copying manuscripts by hand onto paper, parchment, vellum, papyrus, bamboo or silk. In the age of mechanical reproduction, the printing press, the typewriter, and the mimeograph reproduced reading matter in quantities that scribes could never match, and now, in the digital age, computers serve to compose and disseminate both wired and wireless text in ways that are revising the definitions of reader and writer.

These technologies of the word are never neutral. At the very least they limit who in a given society gets to write and read. The technologies are always exclusive at the outset, because they are both expensive to acquire and difficult to use. They may facilitate the mass production of text, but they don’t always put that text in the hands of the masses.

At their most powerful, the technologies of literacy control not just who can read and write, but also what can and can’t be said. Civil and religious authorities alike insist on their imprimatur – literally, their permission to print – to license and censor writing, to direct it toward politically or spiritually desirable ends.

Today it’s a given in American society that literacy is a universal good, that reading and writing are essential for good citizenship, not to mention economic success, and in many parts of the world literacy has come to separate the haves from the have nots as effectively as money or land does. Whether it’s an opposition between those who can read the stone tablets and those who have to have the inscriptions read to them, or between those who write letters and those who must pay someone else to write for them, access to the mysteries of the written word is reserved for people who can manipulate its technologies, wielding the pen, unrolling the scroll, uploading the prose.

The literacy divide between those who possess the written word and those who don’t is minimized as literacy levels rise, but oddly enough some present-day opponents of technology object to reading and writing, which most people are inclined to think of as essential skills, because these activities require technology.

Kirkpatrick Sale, the self-righteous smasher of computers, is no friend of the printing press either. Calling literacy a tool of industrialism, Sale blames the printing press for the destruction of the European forests as the West became ever hungrier for paper. Asked in a face-to-face interview whether the alternative – less paper and less to read – would really have been preferable, Sale, a contributing editor to the Nation and the author of a dozen books of nonfiction and poetry, responded without a single beat of ironic self-reflection that literacy, a product of the industrial revolution, led to the destruction of oral culture and there isn’t much worth reading in any case (Kelly 1995).
As Sale’s extreme position indicates, the machines and materials of literacy can inspire suspicion as well as veneration. In its day the printing press was a development that some people feared, as well as one that promised to edify an ever-growing readership. As an instrument of enlightenment, printing brought relatively cheap texts to increasingly literate populations. But book learning can also threaten the status quo, and political systems whether ancient or modern don’t necessarily want their citizens educated beyond what the established authorities deem good for them. Alexander Pope may have warned, “A little learning is a dang’rous thing,” but in some cases, a lot of knowledge – if it’s not the authorized version – can prove more dangerous still.

The printing press offered writers a chance to reach a larger public at the same time that it provided governments with a means to control public access to information and to limit the spread of dangerous ideas. But controlling the printed word is always difficult. It doesn’t take long for unlicensed books to evade the censor and get published, and fatwas against authors invariably backfire by increasing readership. As a result, authorities bent on controlling access to ideas may go beyond banning books and seek to punish the readers who read them. This is not a phenomenon restricted to autocratic regimes in the developing world. So prevalent are calls for removing books from libraries and classrooms in the United States that every year since 1982 the American Library Association, together with other library, journalism, and publishing groups, has co-sponsored “Banned Book Week” during the last week in September – a chilling reminder that even in a democracy, the right to write and read requires constant vigilance.

The newest agent of change

Elizabeth Eisenstein (1980) called the printing press an agent of change, but Ted Kaczynski was thinking about the computer, not the printing press, when he picked the targets for his teknofear campaign, for the computer has become the new agent of change in the world, the source of the technological revolution that so troubled the Unabomber. The computer can reach farther than the printing press, vastly increasing readership while sidestepping the controls of conventional publication: text can be uploaded to the internet without government licensing and oversight (in most parts of the world), bypassing editorial judgment, peer review, or fact checking, even avoiding so basic a publishing process as copy editing. The internet is a true electronic frontier where everyone is on their own: all manuscripts are accepted for publication, they remain in virtual print forever, and no one can tell writers what to do.

Governments seek to regulate access to the internet and to control its content, which can be on one hand educational, enlivening, and enlightening, and on the other hand politically, morally, and economically destabilizing. But controlling so unwieldy a phenomenon as the World Wide Web isn’t easy to do. As a result, computers have the potential to create exactly the kind of anarchy that Kaczynski calls for in his Unabomber Manifesto, but because the internet is technology-based, and technology is by Kaczynski’s definition an instrument of mind control, it’s an anarchy that the Unabomber cannot approve of. It is ironic, then, that his manifesto is widely available online, where he himself has become something of a populist, anti-establishment icon. In cyberspace, Kaczynski’s ideas can reach readers who find them sympathetic, as well as those who see them as evil or simply crackpot. Kaczynski fascinates those neo-Luddites who have carved out a space of their own within the technology they oppose.
Rage against the machine

The intense rejection of technology by the likes of Zerzan, Sale, and Kaczynski is certainly not a new phenomenon, and the fear of mechanization prompts both actual and mythical rage against machinery. For the Unabomber, and perhaps for others, the target of that rage is sometimes the people who are seen as technologically complicit as well. At the start of the industrial revolution, bands of European workers rose up to protest working conditions, and in some cases they apparently wrecked the machines that they feared would throw them out of their jobs. In England these technology foes were called Luddites, after the weaver Ned Ludd, who may or may not have actually existed, and who may or may not have actually destroyed a loom.

Ned Ludd, sometimes called Captain, General, or even King Ludd (or Lud), is supposed to have taken a sledgehammer to his loom sometime in the 1790s. He did this because he found the increasing mechanization of the art of weaving alienating, or possibly because the machine threatened his livelihood. One version of the story has it that Ludd broke his loom in a fit of pique because it wasn’t doing what he wanted it to do – a response that those of us who have dealt with recalcitrant computers might sympathize with.

Stories have Ludd doing either more or less mechanical damage, at a variety of times or locations in the English midlands. But whatever Ludd may have done grew in the retelling until it reached the stature of a heroic act of worker resistance. One man’s destruction of machinery that was perceived as displacing workers came to be celebrated in ballads, stories and poems, and twenty years after Ludd’s name first began to garner fame, the Luddites took up their namesake’s rage against the automated loom. Like Ludd, they were weavers in and around Nottinghamshire, and they feared that the increasing mechanization of the textile industry was costing them not so much their artistry as their jobs. From 1811 to 1813, these workers sporadically attacked the new textile mills, wrecking some of the stocking frames and mechanical looms that were replacing hand weaving.

The Luddite rebellions were disorganized, unfocused and ultimately ineffective, but they produced a strong response from the British government. In 1812 a group of Luddites was shot down by government forces, and the following year there was a widely-publicized trial after which many Luddites were either hanged or transported. The Luddite rebellions fizzled out as the British economy improved and jobs became more plentiful, but Luddism – never a coherent doctrine but rather an agglomeration of objections to technologically-mediated economic change – came to be romanticized as a grass-roots, anarchic resistance to modernization, a last-ditch defense of handicraft against mechanical production. The name Luddite came to signal stubborn resistance to inexorable progress.

In nineteenth-century France the technology fighters – many of them also weavers – became saboteurs, a name which suggests its origin in the wooden shoes, or sabots, worn by the working classes. One story has it that in 1831, rioting silk workers in Lyons threw their sabots into the mechanized looms to shut them down. Although the Lyons silk revolt resulted in over 160 deaths among workers, and the militia was called in to restore order, the sabot story is not confirmed in the more detailed histories of the rebellion. A competing account, and perhaps a more accurate one, has disgruntled French railway strikers in 1912 cutting the sabots, shoe-like clamps holding the tracks in place, and the
Oxford English Dictionary locates the first English use of sabotage in 1910, in reference to these same strikes. The website of Book It, the Pizza Hut literacy program popular with American school children because they earn free pizzas for reading books, conflates the English and French sabotage myths, reporting them not as milestones in the development of technology or the first rumblings of worker resistance, but as a “fun fact about clothing and accessories”: that the English Luddites wrecked looms with their wooden shoes (www.bookitprogram.com). Not everything on the web or on the page is necessarily accurate.

Whatever its origins, sabotage in response to economic or technological development remains rare but prominent today: environmental activists in the American Southwest burn down new housing developments and attack SUV dealerships; animal rights supporters trash research laboratories and harass researchers at home; and opponents of globalism disrupt economic summits. By the 1990s, the neo-Luddite target had become computers, not mechanized looms, though most modern followers of Ludd or Kaczynski are less demonstrative, wrecking neither machinery nor lives, but contenting themselves instead with complaints about the impact that computers have on contemporary life, or simply unplugging their machines.

Don’t try this at home

Using the technology of the mass media helped Ted Kaczynski get his words before the public, and it helped catch him as well. But the Unabomber could not have carried out his anti-technology campaign without the technology of bomb making. True, his devices were home-made, the product of an individual craftsman, not a munitions factory. But all non-military bombs are either home made or stolen, and it would be difficult to argue that one goal of the do-it-yourself bomber is to restore craft, artistry and human dignity to the manufacture of explosives.

The Unabomber took home bomb-making to the extreme, preferring to fashion his own components out of scraps of metal and wire, rather than using easy-to-find, mass-produced, and untraceable parts from hardware or electronics stores. Kaczynski encased his bomb components in wooden boxes whose parts he cut, sanded and fit together. His sense that hand-made is better than store-bought is common among those who are suspicious of technologies. Kaczynski ignored the fact that manufactured literally means ‘hand made,’ but more important, he forgot that hand-made is also technological, and that explosive devices, no matter how lovingly crafted, are machines for blowing people up.

Although Ned Ludd’s loom-breaking was well-publicized, we don’t know if he was actually much of a weaver. It is also fair to argue, despite the objections of the first Luddites, that mechanized looms produced better stockings, not just cheaper ones. As far as the quality of the Unabomber’s work goes, we know that it was uneven. Some of his early bombs misfired because, though he had a Ph.D. in mathematics, he was an indifferent engineer. One expert who examined the completed device and the many bomb parts found in Kaczynski’s shack when he was arrested reported that Kaczynski’s craftsmanship was not of the highest quality either:

He polished and sometimes varnished his wood pieces, but it was clear, from the skewed corners and amateurish joints, that he was not a trained woodworker. “He’s not a craftsman,” Don Davis, a top postal inspector in San Francisco, said months ago. “His cuts aren’t straight. They don’t make
right angles. He spends a lot of time; he does a lot of polishing and sanding to make it feel nice; but they don’t look really craftsmanlike.”

[Gibbs 1996]

Both the dwelling that he built for himself and Kaczynski’s handmade wooden bomb-casings left a lot to be desired. Although wood had come to symbolize for Kaczynski the superiority of natural materials worked by hand (he once targeted a victim named Wood to push home this point), even worse for his reputation as a back-to-basics, throw-away-your-power-tools kind of guy, the Unabomber’s joinery was actually pretty sloppy stuff.

Not that it’s any consolation for his victims or their families, but Ted Kaczynski’s woodworking couldn’t have been much worse than his prose. The Unabomber’s writing style is wooden, plaintive, droning and clumsy, and his argumentation is unfocused, repetitive and not particularly sophisticated. To put it mildly, despite the fact that Kaczynski had among his possessions a copy of Strunk and White’s *Elements of Style*, which stresses the need for brevity and clarity, the Manifesto is not a page turner (Perrone 2005). Here’s one example: with regard to the overzealous, technophilic belief that science will cure all the ills of the world, Kaczynski can only manage the schoolyard retort, “Yeah, sure” (par. 170). Concisely put, to be sure, but this is not Tom Paine, not Karl Marx. Ted Kaczynski – a.k.a. the Unabomber – may have proclaimed himself a terrorist in the war against technology, but the man proved more dangerous than his words, and his is not the manifesto to build a revolution on.

**Reversing the digital wave**

As part of the plea agreement with the federal government, the evidence against the Unabomber, including his journals, was suppressed. Those journals might shed more light on the reasons why Kaczynski hated technology so passionately. Despite its length, his manifesto is fairly unhelpful on that subject, not going much beyond blanket claims that technology is incompatible with freedom, that good technologies don’t offset bad technologies, and that, in a sort of Zen of bombing, only by completely disrupting the industrial-technological complex can balance be restored to the world. In his manifesto, Kaczynski equates technology with mind control, accuses scientists and computer engineers of belonging to the power elite, and predicts that the government will soon start regulating the genetic constitution of children.

In his letter to the *Times*, the Unabomber would have the public believe that his attacks were indeed selective, that he specifically targeted computer scientists and behavioral psychologists for elimination. But if machines were a disaster in Kaczynski’s eyes, life for him was cheap. He claimed that the killing of a business professor with one of the bombs had been a mistake – though Kaczynski insisted that it was a mistake worth making for the good of the larger cause. It was only by killing people, Kaczynski explained in his manifesto, that he was able to attract enough attention to get his anti-computer message before the public.

And yet, despite his monstrous acts and patent insanity, there are Kaczynski fans out there in cyberspace who come back time and again to the fact that he made his own bombs and wrote his own manifesto, as if these feats of self-sufficiency put him in a league with Thoreau, who also adopted an anti-establishment pose and did time both in a home-made cabin in the woods and in jail (in a well-known act of civil disobedience,
Thoreau briefly went to jail for refusing to pay taxes to support what he considered the unjust Mexican War.

Do-it-yourself may be a challenging, more satisfying, possibly less alienating method of getting the goods than off-the-shelf, if it goes right. That explains why Home Depot is always so crowded. But in the end, as many bombers whose products detonate prematurely find out, not all wheels are worth reinventing, and not all d-i-y projects are worth doing yourself.

Luddites on Line

The opening message on the Luddites on Line website (the url of the now defunct site was www.luddites.com) once read, “Welcome to the only place in cyberspace devoted exclusively to Luddites, technophobes and other refugees from the Information Revolution.” In a twist that seems not to have been fully appreciated by the Luddites on Line webmaster, the site boasted that on May Day, 1996 – the day celebrating the revolution of the working classes world-wide – luddites.com was selected by Yahoo or some other search engine as an internet “Cool Site of the Day.” But while the internet continues to thrive, Luddites on Line has vanished.

Most of the neo-Luddite sites that do survive are content to launch sarcastic attacks against computers, or to yearn for the good old days when the pencil was king. The Unabomber went beyond this brand of cultural criticism, signaling a return to the anarchic violence of the early Luddites, and although today Ted Kaczynski might well have chosen the blog rather than the bomb as a way of promoting his ideas, his acts of terrorism did get our attention, and his letter, his manifesto, and his story found homes both in print outlets and in cyberspace.

Unfortunately, many technologically savvy people downplay his criminal behavior, or explain it away as the product of a troubled childhood or bad experiences at Harvard, only to focus sympathetically on his claim that technology and industrialism are inimical to human freedom. A lot of the internet chatter about Kaczynski’s writing takes the position, “Hey, the guy’s got a point, our lives are run by machines.” According to the online Luddite Kirkpatrick Sale (1995), the Unabomber’s assessment of the industrial-technological complex as disastrous should become a national priority. While Sale acknowledges that killing is not a good thing, he nonetheless condones violence when it is directed not at people but at things – hence his own gratuitous Town Hall display of computer-smashing.

But murder is even more inimical to human freedom than machinery is. Opponents of technology rarely mention the true impact of Kaczynski’s teknofear: the killing, the hands and eyes blown away, the terror that people may still feel – even people in no way connected to the Unabomber’s attacks – when unmarked packages show up in the mail. The unstoppable Frankenstein or Terminator notwithstanding, we will always have more to fear from the all-too-real, all-too-crazed kitchen bomb makers than from the imaginary cyborgs whose imaginary deadliness is the product of Hollywood dream factory computers.

However, none of this explains why some people see technology as the beginning of the end and decide that they must take strong measures to oppose it. It is clear that technology has negative as well as positive impact, some of it planned and much of it inadvertent. Just about all of human activity has unintended consequences, and it takes a
great deal of vigilance, planning, and sometimes legal or even extralegal action to clean up the messes we insist on making – the bans on DDT and asbestos are two examples, nuclear weapons treaties and mad cow are two others.

These “Silent Spring” disasters waiting to happen have spurred some of us to imagine that scientific nightmares are lurking everywhere, that every lab and every computer sits poised to push us toward the abyss. But genetic engineering has not produced what its opponents call Frankenfood – at least not yet. And more to the point, although Mary Shelley wrote Frankenstein by hand, and Ted Kaczynski wrote his ramblings by hand as well, the impact of these two undeniably technological artifacts has been different. Frankenstein became a cultural emblem of the dangers of biotech, while “Industrial Society and Its Future,” the actual title of the Unabomber Manifesto, is destined to be little more than a footnote in Kaczynski’s brief reign of terror. And despite the fact that computers and other new communication technologies are dramatically changing the ways we do things with words, from the early experiments in computer-generated poetry to the emails, blogs and instant messages that pervade our personal and professional lives, digital machines have not yet produced anything that remotely resembles frankentext. Still, nostalgia for the old ways won’t go away, and as the next chapter shows, voices continue to proclaim the superiority of the pencil to the pixel.