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Ten Technologies That Deserve to Die

Some technologies are so blatantly obnoxious that the human race would rejoice if they were summarily executed. A humorist and science fiction writer offers some candidates.

Illustration by Tim Bower.

By Bruce Sterling
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Technologies die rather routinely—seen a Conestoga covered wagon lately?—but it's rare for them to be singled out and righteously put to death. Some technologies, however, are so blatantly obnoxious that the human race would rejoice if they were obliterated. A wise society would honor its young technical innovators for services rendered in annihilating obsolete technologies that are the dangerous hangovers of previous, less advanced generations. Let me offer some candidates.

1. Nuclear Weapons
One can make some sound arguments for nuclear power—medical radioisotopes are quite handy, while far-traveling spacecraft can barely function on anything less—but there is no reason for us to go on pretending that we need to fry entire chunks of continents. Not only are nuclear weapons technically clumsy, but they betray a blatant death wish better suited to al-Qaeda than a civilization.

Nowadays, a well-organized state can deftly obliterate any conceivable target with exquisite GPS accuracy. Conventional "daisy cutters" and cluster bombs can be scaled up to any size or potency that the military might need. This leaves nuclear bombs with only one ideal function: terrorism. They are excellent weapons for nongovernmental predators to deploy against centers of government. They are

quite useless for governments to deploy against terrorists. So why are governments still manufacturing these expensive, dangerous, easily stolen objects?

If all nuclear weapons vanished tomorrow, the world's current military situation would not be affected one whit. The U.S.A. would still be military top boss. Yet we'd be much less likely to wake up one morning to find Paris or Washington missing.

2. Coal-Based Power

Coal isn't so much a "technology" as a whole school of them, all of them bad or worse. Coal was the primeval fuel of the industrial revolution. Coal powered the first steam engines, whose killer app was pumping stagnant water out of coal mines. It powered the railroads, whose killer app was moving coal.

Unfortunately, we've been doing this coal trick for some two hundred years now, and coal is getting uglier by the day. If your accountants rival Enron's, you can claim that coal is a cheap fuel. Add in acid rain, climate damage, and medical costs, and it swiftly becomes dead obvious that coal is a menace. Coal spews more weather-wrecking pollutants into the air per unit of energy than any other fossil fuel. Extracting coal destroys vast tracts of land. Coal mining is one of the world's most dangerous jobs.

If coal vanished tomorrow, we'd miss it: the U.S. would lose a quarter of its energy supplies. But that shortfall, daunting though it is, cannot compare to the ghastly prospect of blackened skies over China and seas rising out of their beds. The sooner we rid ourselves of this destructive addiction, the less we will have to regret.

3. The Internal-Combustion Engine

I have to confess that, as a former denizen of the 20th century, I'll miss the loud, soul-stirring THRAAAAGH of a two-stroke motorcycle. And liter for liter, calorie for calorie, gasoline is truly the queen of liquid fuels. Nevertheless, if you stand inside a closed garage with any internal-combustion engine, it will kill you. That is bad. Even the best such engines emit an eye-watering stink.

Internal-combustion engines are big and clumsy. They are hard to tune, and they waste a lot of effort carrying their own weight. They've got a great incumbent fueling system built into place, but they need to be replaced by hydrogen and fuel cells, technologies that are simpler, safer, and cleaner. If you need really loud, macho engine noises, why not just record them and play them on your car stereo?

4. Incandescent Light Bulbs

In reality, these sad devices are "heat bulbs." Supposedly a lighting technology, they produce nine times more raw heat than they do illumination. The light they do give, admittedly, is still prettier than the eerie glow of compact fluorescents and light-emitting diodes. But it's still a far cry from the glories of natural daylight. Plus there's the cost of light bulbs, their fragility, the replacement overhead, the vast waste of energy, glass, and tungsten, the goofy hassle of running air conditioners to do battle with the blazing heat of all these round little glass stoves…let's face it, these gizmos deserve to vanish.

They will be replaced by a superior technology, something cheap, cool, and precisely engineered, that emits visible wavelengths genuinely suited to a consumer's human eyeball. Our descendants will stare at those vacuum-shrouded wires as if they were whale-oil lanterns.

5. Land Mines

The planet is already cluttered with well-meaning nongovernmental organizations protesting land mines. Their plaint makes perfect sense when you realize that land mines are ideally suited to blowing up peacemakers once a war is over.

During a war, few soldiers step on land mines, because mines are placed by enemies waiting with rifles. Once the armies demob, though, and armies always do, land mines don't kill combatants anymore. They kill livestock, the brighter and more exploratory kinds of children, and the men and women who wander around after soldiers, attempting to restore the planet to habitability.

There is something to be said for the practice of automating bombs so that people can get killed without any human intervention. After all, there's a long technical trend there, and it strongly favors advanced societies with engineers over those among us who merely pick up hoes and axes in fits of tribal rage. But it's stupid to manufacture and spread lethal devices that don't know when a war is over.

Illustration by Tim Bower.

6. Manned Spaceflight

One hates to see this dazzling technology go, but when one resolutely sets the romance aside, there's not a lot left. Thanks to decades of biological research, it's now quite clear that flying around the solar system is bad for one's health. Without the healthy stresses of gravity on one's skeleton, human bones decay just as they do during prolonged bed rest, while muscles atrophy. Cosmic rays blast through spacecraft walls and human bodies, while solar flares will fry astronauts as diligently as any nuclear bomb. I won't mention the fact that spacecraft are inherently rickety and dangerous, because that's a major part of their attraction.

China is about to send her first "taikonaut" into orbit, to belatedly become the world's third manned space power. As a test of national will and skill, Chinese spaceflight is vastly preferable to, say, invading Taiwan. I promise to watch Chinese manned spaceflight with great interest, and I might even buy the mission patch and decals, but frankly, there isn't much there there. There haven't been men or women out of low-earth orbit in some 30 solid years. We don't seem to miss them in any way that is quantifiable.

There is little point in stepping onto the moon, leaving flags and footprints, and then retreating once again. The staggering price of shipping a kilogram into orbit has not come down in decades. In the meantime, unmanned spacecraft grow smaller and more capable every year. Until we bioengineer ourselves to enjoy cosmic rays, or until we've got rockets that can lift a Winnebago made of solid lead, this technology belongs on the museum shelf.

7. Prisons

It's rather out of style to suggest that people who transgress might be rehabilitated if treated decently. But even if criminals are to be relentlessly punished, removed from the sight of decent people, and kept in a giant, two-million-person ghetto, there are better, cheaper, and more efficient ways than the ones we have.

Newfangled electronic-parole monitors and ubiquitous computing offer plenty of opportunities. These certainly needn't be seen as sissified kinds of constraints; they could be just as cruel and unusual as anyone might like.

Lose your American internal visa (formerly known as a "driver's license") and you soon find that merchants won't take your credit, that aircraft won't transport you, that for all your sunny smiles and good behavior, you are under heavy constraints. American airports have become incarceration centers in all but name, plus you can get a drink there and listen to Muzak. So why do we go through these same ritual gestures with the iron bars, uniforms, and transport trucks? Technically, it's redundant.

8. Cosmetic Implants
There is something scarily aberrant about puffing up living human flesh by implanting large amounts of an alien substance. Not that people will sacrifice vanity—of course that is out of the question—but any truly advanced medical technology would simply grow the flesh into the desired shape, using the human metabolism, as opposed to injections of window putty. Silicone's mimicry of flesh—and the same goes for gel, saline, and collagen—is too crude for genuinely cosmetic purposes.

9. Lie Detectors
They just plain don't work. They might have some vague use in increasing the psychological stress of a subject under interrogation, but galvanic skin response and heart rate have little to do with the process of lying. The use of lie detectors is basically a voodoo ritual that allows large institutions to lie to themselves about the trustworthiness of their employees.

Even if lie detectors did work—say, with newfangled nuclear magnetic-resonance brain scans—they would become an Orwellian intrusion. Furthermore, there would likely be a social revolution as major actors in society, from top to bottom, had to admit to fabricating their lives out of spin and wishful thinking. The official public version of our means, motives, and opportunities is severely divorced from the private world of our interior thoughts. If we were forced to confront and reveal our brain functions through technological means, most of us would soon discover that we led half-baked lives of quiet intellectual desperation, in which very little thought of any kind ever took place.

10. DVDs
The DVD was the most eagerly adopted electronic consumer gizmo in history, but I'd feel bad if I failed to complain about the evil of these things. First and worst, DVDs are unbearably frail. Any benefit one gets from "clearer pictures"—on what HDTV superscreen, exactly?—is quickly removed by the catastrophic effects of a single thumbprint or scratch. Plus, just like CDs, DVDs as physical objects will prove to warp and delaminate.

Most loathsome of all is the fiendish spam hard-burned into DVDs, which forces one to suffer through the commercials gratefully evaded by videotape fast-forwards. The Content Scrambling System copy protection scheme doesn't work, and the payoff for pirating DVDs is massive, because unlike tapes, digital data don't degrade with reproduction. So DVDs have the downside of piracy and

organized crime, without the upside of free, simple distribution. Someday they will stand starkly revealed for what they really are: collateral damage to consumers in the entertainment industry's miserable, endless war of attrition with digital media.

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