

Die Gedanken Sind Frei

Security and privacy are twin social goods that exist in perpetual tension: our society has debated the trade-offs between them ever since the first days of social organization. Over the ages, the border between security and privacy has moved back and forth as first one

side and then the other made bold steps forward impelled by events in ideas, economics, technology, and warfare. At present, privacy appears to be in retreat under the threat of terrorism; it seems at times as if we ourselves are destroying the very freedom that terrorists find so threatening.

In this issue, we'll look at some radical views of privacy's future through the eyes of several influential science-fiction (SF) writers. In *The Light of Other Days* and *The Transparent Society*, we see two radical visions of a world in which privacy as we know it has entirely ceased to be. Unlike George Orwell's *1984*, in which despotism armed with two-way television eradicates privacy, these books describe privacy falling victim to technological innovation.

Privacy is just an illusion

In *The Light of Other Days*, Arthur C. Clarke and Stephen Baxter explore the implications of wormholes, tunnel-like connections between two regions of space-time. Starting with speculations based in comparatively current research in theoretical physics, the authors create a world in which the wealthy and powerful megalomaniac Hiram Patterson sponsors the development of a "Casimir Engine" to produce the negative energy suitable

to stabilize a wormhole. From this development comes the WormCam, a technology that lets people capture images from anywhere in the world—even across the universe.

With the WormCam, Clarke and Baxter envision a world in which anyone can observe anything in real time, thus creating the permanent possibility that one or more unseen witnesses could observe any event. The notion that an event is private to its participants does not exist. Clarke and Baxter move on to explore additional implications: when Bobby, one of Hiram's sons, challenges his physicist brother David to explain the WormCam, they realize that not only can it span space, but time as well. Privacy is henceforward an illusion; the only people who ever had it died before the WormCam's invention.

In another sequence of episodes, we discover that the total absence of privacy doesn't mean that truth rules and the miscarriage of justice is now a thing of the past. The megalomaniac Hiram Patterson manipulates the justice system to frame Kate Manzoni, driven by animosity about her professional activities as a reporter and her personal involvement with his son Bobby.

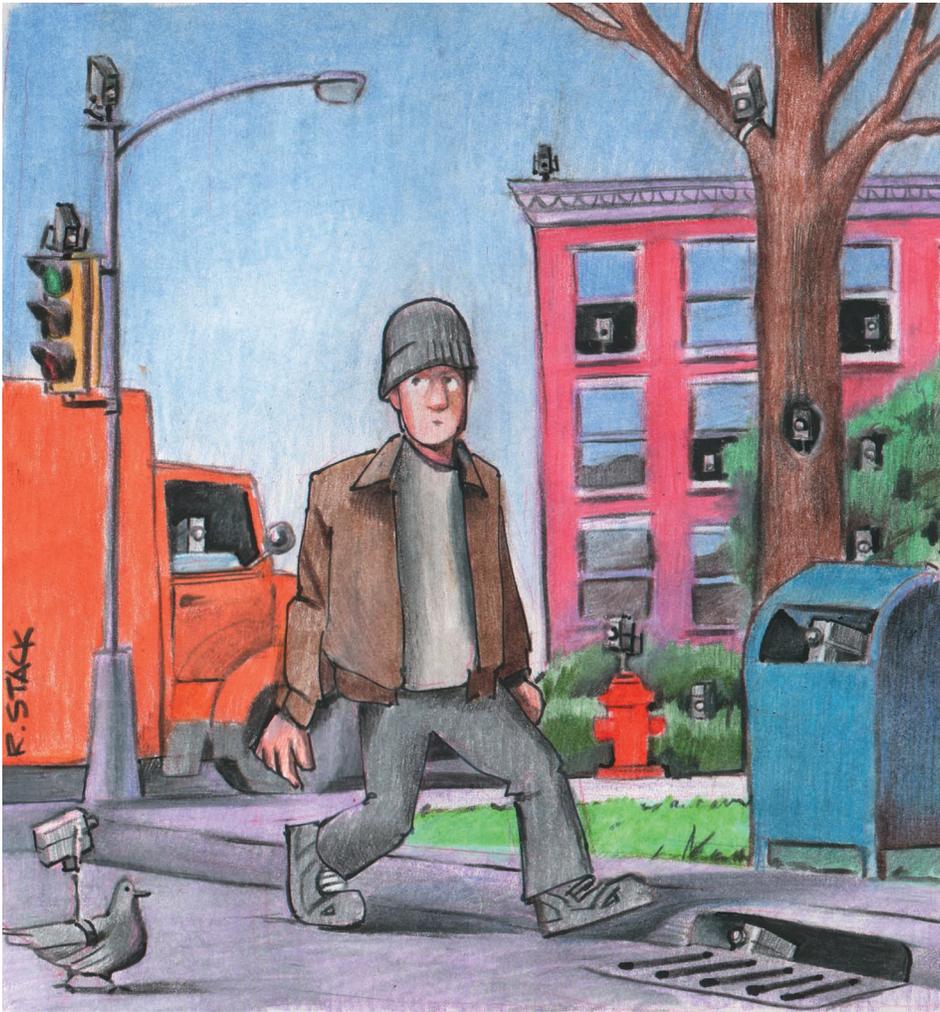
How would people react to the loss of all possible privacy? The book cleverly shows a range of responses,

just the sort of thing a complex society populated by creative people might develop in the face of such a stimulus. Many people accept the loss of privacy fatalistically and go on with their lives as if nothing had happened. Others experiment with radical challenges to accepted mores, for example, by becoming public nudists. Yet others counter the WormCam by shrouding themselves in black robes and meeting in darkened rooms where they communicate solely via gestures communicated from hand to hand by touch. In this fashion, they defeat the WormCam, or at least hold it at bay, by depriving it of photons, the only material it can detect and transmit.

Most writers would be content to stop here, but Clarke and Baxter explore two more elements, each interesting in its own right. One concept is technology that connects information systems directly to the human nervous system. At first, its developers seek the ultimate in virtual reality—not an unattractive vision. However, having enabled individuals to commune with computers, they then extend this ability to let people interconnect their nervous systems with others. The authors portray this as alien and frightening—ultimately, a Borg-like mind begins to emerge. This idea is not original to Clarke and Baxter, nor is it carried off particularly well, but it's nonetheless engaging, like the rest of the book.

The authors' other conceptual vision is historical DNA mining. One character programs a computer system to follow trails of mitochondrial DNA back from child to parent to grandparent to great-grandparent and beyond, thus es-

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tablishing a contextual path back through history. This concept is quite powerful, and the authors do a good job of imagining the unraveling of evolution as explorers follow their ancestors back to bacteria in the primordial ooze. Some very clever twists emerge from this theme, but we'll draw the curtain to preserve the plot from spoilage.

Finally, what SF story would be complete without a giant asteroid approaching and threatening to end all life on Earth? I don't know how Clarke and Baxter managed to shoe-horn so much potboiler material into 300-plus pages without contracting a case of terminal triteness, but they did. What carries the book, however, is the brilliance of the conceptual visions, not the quality of writing, plotting, or dialogue.

Don't ask, don't tell

By contrast, David Brin's *The Transparent Society* is a relatively staid collection of nonfiction essays exploring the challenges to privacy—or the notions of it—implicit in emerging technological trends. Brin is chiefly known in SF circles as the prolific author of hard SF novels such as *Sundiver*, *Startide Rising*, and *The Uplift War*. He's also a deeper thinker, though, as *The Postman* exemplifies.

The premise that Brin develops in *The Transparent Society* is that modern technology—from miniaturized surveillance cameras to data mining—has already eliminated our naïve notions of privacy. The question, Brin argues, is not whether we'll have privacy in the future, but under what terms its elimination will proceed. Before you deny his asser-

tion, reflect on your ability to use Google to search for people you know or are about to meet. Think about the burgeoning use of video-surveillance technology by both police agencies and corporations. Brin elaborates two lines of argument in urging action to establish new ground rules for the management of information about people.

Brin's first line of argument is that privacy as we conceive it today is a relatively recent phenomenon, dating from the last 200 years or so. Before that, he contends, people lived primarily in small groups within which very little could be kept from the eyes and ears of the community at large. Although this topic probably bears further exploration by people with deeper research into this sort of historical subject, certainly his point about the nature of privacy is an important one. What exactly is privacy? Is it control of who can see and hear us in various (maybe even embarrassing or delicate) situations?

Brin's second line of argument is subtler. He notes that privacy is already a thing of the past: all that remains is to negotiate the terms under which we live without it. His point here is more substantial because it addresses the fundamental issues of openness and control of information that we deal with today. Technological advances cannot be undone, for example, so is the person looking at images of you as you walk down the street a friend or neighbor, or is it the police? Here's where the argument gets the most sophisticated: "Make the cameras available to all so that anyone and everyone can look at their images," he says. This will ensure that information is not gathered in secrecy and used to extort power. If we expose everything we do to everyone, then greater tolerance will result and no one need fear abuse.

Back in the bad old days, homosexuality was reportedly a disqualification for a security clearance—it was assumed to be a dirty secret and thus exposed you to blackmail.

Today, with the homosexual community increasingly out of the closet, does such a restriction still remain? Extend this notion further and you have Brin's argument—a society in which there is no privacy is one that eliminates blackmail.

Although compelling, this argument is somewhat naïve. Marijuana consumption, for example, exposes those who indulge in it to criminal penalties in most parts of the world, but it still seems widely practiced. One of the more pragmatic ways that our society has developed for dealing with divergent views is to use the veil of privacy as a fig leaf. We pretend things are a certain way and encourage a willful ignorance of contrary evidence. “Don't ask, don't tell,” is this approach's catchphrase. It lets society craft compromises that avoid a strict black-and-white resolution, even though the excluded middle exists and is essential to our peaceful coexistence.

Brin's contention, Pollyanna that he is, is that the only way to survive the end of privacy will be to increase transparency, which will ultimately drive us toward greater tolerance. The alternative, he asserts, is to cede control of information to some powerful elite, whether government or corporate, that will necessarily tend toward corruption and abuse. The world that he suggests will result if we don't insist on openness is much like Orwell's *1984*. The key question is whether openness and transparency will actually result in greater tolerance or if instead we'll inherit a tyranny of the majority. Where does tolerance come from, anyway?

In the worlds these authors paint, we see some possible outcomes to the end of privacy as we currently imagine it. Clarke and Baxter make the most evocative exploration of the implications of a total loss of privacy, although to do it, they had to assume

Influential books.

TITLE	AUTHOR	ORIGINAL PUBLICATION DATE
<i>1984</i>	George Orwell	1949
<i>A for Anything</i>	Damon Knight	1959
<i>The Transparent Society</i>	David Brin	1998 (excerpted in <i>Wired</i> in 1996)
<i>The Light of Other Days</i>	Arthur C. Clarke and Stephen Baxter	2001

a tremendous amount of physics not yet in evidence. Brin's work makes the point that the future contemplated in *The Light of Other Days* might not be all that far off. In both cases, the only thing that remains private—unexamined by others and therefore free of actual or potential social constraint—is thought: what goes on between our own ears. An old German poem entitled “Die Gedanken Sind Frei,” or “Thoughts Are Free,” reportedly dates back to the late 18th century. An English translation of the poem that achieved minor success as a popular song includes the assertions, “No scholar can map them,” and “No hunter can trap them.” It goes on optimistically to warn that thought threatens despotism, with the lines,

And if tyrants take me
And throw me in prison
My thoughts will burst free,
Like blossoms in season.
Foundations will crumble,
The structure will tumble,
And free men will cry:
Die Gedanken sind frei!

I'll leave you with this final question: if we can't share our thoughts, does it matter if they're free? □

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A note

The first Biblio Tech article (“AI Bites Man,” vol. 1, no. 1, 2003, pp. 63–66) discussed Neal Stephenson's *The Diamond Age* and described the plot of a story whose title and author I couldn't retrieve. In the intervening year, inquiry among a variety of friends and SF experts and research via Internet resources has produced an answer. The story is *A for Anything* by Damon Knight, originally published in 1959 and possibly the only novel of Knight's still in print today.

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