

SPECTRAL LINES

The All-Seeing Eye

For most of our history, privacy was a luxury—we were too busy just staying alive. Clustering together in caves, our distant ancestors knew who the best hunters were, and who was sleeping with whom. Later, in the fiefs, villages, and towns, everybody knew who was dependable, who was a drunk, who had money. Amid such intimacy, anonymous sociopathology was pretty hard to pull off.

Later on, when we didn't really need to huddle for security, we came to see privacy as "a fundamental human right," as a columnist put it in London's *Evening Standard* a year and a half before the 9/11 attacks. We became obsessed with privacy, at least in developed countries, to the point that the United States had to pass a law so that a family could be informed when a convicted child molester moved in next door.

In New Zealand, which has a cabinet-level Privacy Commissioner, privacy laws have restricted studies of suicide—which is puzzlingly common among men there—and of reports on cervical cancer. The restrictions prompted one parliamentarian last year to angrily ask his colleagues, "How many people have to die for the sake of our view of privacy?" And in Australia, a newspaper seeking information from the government a couple of years ago on how much money members of Parliament were spending on travel was told it could have the information—for the price of AUS \$1 million.

Those may have been humanity's high-water marks for privacy. As the four articles in this special report make clear, our ideas about privacy, and our privacy itself, seem to be under siege. In the opening article, "Sensors and Sensibility," Senior Associate Editors Jean Kumagai and Steven Cherry trace the assault to several connected technology developments. One is the percolation throughout our world of new or hugely improved sensors, such as radio-frequency ID tags, tiny digital cameras, cellphone-locator technologies, and minute Global Positioning System receivers. Another is the emergence of enormous databases of personal information, along with software that rapidly combs through those databases, finding connections and making inferences about people. The third is the availability of a cheap, easy way to instantly spread personal information and data gathered by sensors to every corner of the planet: it's called the Internet.

Combine some of these elements and you get, for example, a means of tracking anybody carrying a cellphone. Mix and match them again and you get a U.S. Internet site that tells you how much your neighbors are donating to political organizations and which groups are getting their money. Another combination gives you the fragmented but globally available photo documentary of the abuses in the Abu Ghraib prison in Iraq.

There's much, much more to come. Starting this summer, making a simple airline reservation will automatically send queries ricocheting around huge private databases in the United States; in addition, increasingly powerful government computer systems will continue to monitor e-mail traffic flowing through Internet service providers in the United States. No wonder, then, that to some observers and activists, all this looks like an all-out attack on privacy, prompted by post-9/11 paranoia.

But to see it that way is to miss the larger and more interesting view of what's happening to us now, and where we're going in the future. In "We Like to Watch," Senior Associate Editor Harry Goldstein spends time with advocates of a transparent society. They insist that we have nothing to fear about revealing our quirks, pathologies, and personal data, so long as absolutely everybody is doing it—including our commercial and federal overseers. Our own loss of privacy will be a small price to pay for what we'll get in return, these advocates say.

And it's not just about making it harder for terrorists to "blend in." With transparency, our business transactions will be simpler and more secure, and our knowledge about our environment, community, and leaders will be much more detailed. When almost anybody can become a "Little Brother," recording experiences and sharing them with the world, the entertainment possibilities will be endless.

Now factor in technology that is just over the horizon: a vastly more sophisticated Internet, unobtrusive wearable computers, and lightweight video monitors worn over the eyes like spectacles or contact lenses. Here's where life really starts to get interesting. In an always-on world, anybody can know a lot about anyone or anything, at any time. Nobody thinks twice about it.

We decided that the most compelling way to convey this world was with fiction (hey, it's July, after all, and the beach beckons). We found the ideal author in Vernor Vinge, who's not only a Hugo Award-winning novelist, but also a former IEEE member and computer science professor. Vinge carefully wove his story, "Synthetic Serendipity," around reasonable extrapolations of existing technology, as detailed by Harry Goldstein in his follow-up piece, "Mike Villas's World."

More than a century ago, the journalist E.L. Godkin argued that privacy was "one of the luxuries of civilization." In coming years, technology may convince us that there is a luxury we want even more: absolutely unrestricted access to information and all that goes with it. ■

