

## Big Brother's Big Business

**In a world of fear, American cities and corporations are spending billions on high-tech surveillance equipment. A look at the economic engine and privacy concerns surrounding 'smart cameras' and other devices.**

By [Jessica Bennett](#) | Newsweek Web Exclusive Mar 15, 2006

When the Spotsylvania School Board resolved a year and a half ago to install a vast network of high-tech surveillance cameras in and around the county's 28 public schools, a silent sigh of relief swept through this northern Virginia County of 112,000. Civil liberties didn't seem to be this community's major concern. Rather, with memories of the Washington-area sniper shootings still sharp in their minds (two of the victims were shot there), many welcomed the sense of security. "That [year of the shootings] was the worst fall I have ever spent in my 36-year career as a school teacher and administrator," said Donald Alvey, secondary education director for the school district, who said parents and school officials were terrified of students' vulnerability during sports functions, recess or simply walking home from school. "It was a no-brainer after that that we needed to put cameras in the schools to help kids and parents feel safer."

The 550-lens digital-camera system now in place in Alvey's district is nothing short of "Star Trek" material, and the growing popularity of such systems is testament to the promises of technology that would have seemed impossible just a few years ago. Nationwide, new technology is revolutionizing the way we think about surveillance, and enabling thousands of cameras to be installed in schools, subways, buildings and street corners—by city governments, law enforcement and businesses. It is creating systems that proponents say are cheaper to operate, easier to use, and virtually eliminate the need for personnel to watch over the monitors 24/7. It is also carving out a major niche in the economy. "There are two to three million cameras being installed every year in commercial, government and education centers," says Fredrik Nilsson, the general manager of Axis Communications, a Swedish-based security company that provided Spotsylvania with its cameras. "The more efficient the system becomes, the more cameras there will be."

Video surveillance has become the fastest-growing industry within the major categories of electronic security—with nearly one in four major cities in America investing in new technology, analysts say. It has more than doubled in the last five years, becoming an estimated \$9.2 billion business in 2005 and expected to grow to \$21 billion by 2010, says Joe Freeman, a columnist for *Security Technology & Design Magazine* and founder and president of J.P. Freeman, a market research and consulting firm. "What we have is a huge industry that is attracting competitors from everywhere," says Freeman. "In this world of constant threat, it's almost impossible to predict what might happen ... But the one overarching thing that we know is that security, which used to be a quietly growing industry, is now an international attention of the first order."

Until recently, closed-circuit video (which is still in use by police departments and private businesses in many cities) had been the only option for anyone who wanted to invest in surveillance programs. These systems are VCR based, and require that a human being constantly scan over the images in a room full of

monitors. Tapes need to be changed every six hours or so, and if an incident needs to be reviewed, it could take countless hours to sift through grainy black-and-white footage. Separate cables were often needed for each camera, which proved costly, and to stop a crime in progress, a security employee would need to be looking at the right screen at precisely the right moment.

The future of video surveillance, using so-called "intelligent cameras" and software, is designed to function far beyond what is humanly possible. These systems are Internet-based, so feeds from hundreds of cameras can be combined into a single desktop view, and they can be accessed from anywhere in the world. They are high resolution, and can recognize sounds and movements—if necessary, sending signals to appropriate authorities. Their manufacturers say they can tell if a gunshot goes off: using acoustic sensors to point the camera toward the direction of the shot, and can recognize if a suitcase is left unattended or a car is parked illegally. They can monitor erratic behavior, and create invisible "trip wires" to guard no-trespassing zones. They'll even inform authorities with suggestions on how to respond to what they see.

Such programs—elements of which were used to help solve last summer's London transit bombings—have become models for U.S. cities. Chicago has made recent headlines with its ongoing installation of 2,000 such cameras in its downtown areas, and the city is negotiating with local businesses to link their private cameras to the city system in an effort to form a single, unified network. And many small towns—in states from California to Vermont—have begun using cameras as a way to reduce the need for on-duty officers in local police precincts. "The idea is to utilize smart technology," says Andrew Velasquez, director of Chicago's Office of Emergency Management and Communications. "You can't have thousands of individuals monitoring [individual] cameras. [So] the idea is to employ smart technology that will assist."

Room for innovation within a growing market has helped forge surprising new ideas. Some programs offer customers the option of outsourcing video surveillance without the cost or commitment of installing and maintaining the cameras on their own. U.S. Relay, a San Diego-based company, has about 3,000 subscribers to its pay-per-view program, which allows customers to pay for access to the cameras that U.S. Relay has installed, based on time. William Ferris, the president of Dotworkz Systems, from which U.S. Relay is an offshoot, says his clients range from schools to businesses to police departments nationwide. "It's amazing what these cameras are capable of," contends Ferris, who says his company expects to triple its revenue over the next year. "The technology is moving almost faster than the industry can handle."

In New York City, a combination of government and private funds (including \$200 million from the U.S. Department of Homeland Security last year) has created a network of cameras that reaches far into the thousands, spanning subway stations, traffic signals, overhead awnings and private businesses. The Metropolitan Transit Authority, which runs the city's buses, subways and commuter trains, recently signed a multimillion-dollar contract with a major security company—Lockheed Martin—to add 1,000 smart cameras to the system's already 3,000-camera-strong surveillance system, said spokesman Tom Kelly. The New York City Police Department operates an additional 3,000 cameras, the majority of which reside in the city's public housing developments, said spokesman Michael Cohen. But the total number of cameras—both public and private—is hard to gauge.

Bill Brown, a kind of amateur surveillance-camera spotter, estimates the total number of cameras in New York City to exceed 15,000—a figure city officials say they have no way to verify because they lack a system of registry. But Brown, 46, who works as a proofreader, has studied the city's surveillance systems for years. On any given Sunday, you can find him leading tours through the maze of city streets that he describes as New York's "open museum" of surveillance. A member of a performance troop called the Surveillance Camera Players, he has also spent countless hours mapping—by hand—the city's growing camera population. On a recent trip to Manhattan's Times Square, Brown was able to point out, from a single street corner, more than 25 cameras visible to the naked eye. "People are in favor of surveillance when it's presented as a generality," says Brown. "But if you get them to look at specific cameras, then they begin to disapprove."

Debate over surveillance systems has long been a heated subject. But with new systems replacing the old, civil liberties groups are raising additional concerns about the pervasiveness—and room for abuse—within the new technology. As cameras pop up in grocery stores, schools, housing complexes or hospitals, opponents question how it's possible to screen everyone behind a camera. "These new cameras are vastly more sophisticated than the old generation of systems and can be manipulated and moved and magnified in a way that [those] using them can ... do things that heretofore we haven't had to conceive of," says Ed Yohnka, spokesman for the ACLU of Illinois. "The question is, what kind of training are people given to ensure that they aren't using those cameras [improperly]?"

In Chicago, officials say camera operators are required to complete training in civil liberties and the First and Fourth Amendments. And according to a recent poll, Chicagoans appear to be satisfied with that. A February survey of 700 registered Chicago voters found that eight out of 10 were in favor of cameras as a means to combat crime, with 58 percent saying they'd support a new proposal to require cameras in businesses open more than 12 hours. Yet, as civil liberties groups point out, room for abuse undoubtedly still exists: recent cases include a San Francisco police officer suspended after reportedly using cameras to ogle women at the city's international airport; two Arizona casino workers fired for using a company camera to point, tilt and zoom-in on womens' breasts; children filmed undressing in a middle school locker room in Tennessee.

Does the potential protection outweigh the occasional abuse or invasion of privacy? "There's some truth in the [Big Brother] argument," says Freeman, who, ironically, founded his consulting firm in 1984. "We have the interpretation of, 'Are we invading civil rights and right to privacy, or are we protecting America?' How do you interpret these things, and how do you create a balance for them? You have a seesaw with equal weights, [with] privacy on one end and protection on the other. Somewhere, it's going to come down to a debate."

**Assignment- write two paragraphs (3-5 sentences each), that answer the following :**

1. What are supposed to be used for and what benefits are supposed to be gained from them.
2. What are the "costs", meaning potential negative effects or risks of abuse of the cameras and do you believe that the benefits are worth the costs.