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Every Step You Take . . . Every Move You Make . . . My GPS Unit Will Be Watching You

Technology may be ushering in a golden age of stalking, in which predators use GPS, cellphones and other devices to track and terrorize.

By Michael Rosenwald

They fell for each other in grade school, in the sweetest of ways. In fifth-grade music class, she played saxophone; he played the snare drum. In high school biology, she held the frog while he wielded the scalpel. It was the sort of love story immortalized endlessly in romance novels and Top 40 long-distance dedications. "I thought when I married him it really would be 'till death do us part," she says now, still surprised that the marriage ended after 19 years. Ultimately, the romance had sputtered to a close, as so many love stories do. Unlike most love stories, though, this ending involved satellites.

One day, six months after she filed for divorce, the woman's husband, Robert Sullivan, was searching the Internet when he came across an ad for the TravelEyes Tracking Unit, a GPS device that, when installed in a vehicle and later removed and connected to a computer, shows a digital map of every stop and turn the car has made, and even its speed. A person employing such a device knows as much about the car's recent whereabouts as he would if he'd been riding in it himself. Sullivan immediately placed an order; it seems he felt he could put such a contraption to good use.

This all unfolded five years ago in a small Colorado city near Boulder. He was a maintenance worker at a factory. She worked with handicapped students at the nearby university. They were, by her description, just simple people raising two sons and paying their bills, living the sort of anonymous existence politicians exalt when making pronouncements about "the American people." But among

law-enforcement officials and victims' advocates, their story, and particularly Robert Sullivan's role, has become notorious. GPS—the Global Positioning System, which pinpoints a user's location by triangulating radio signals emitted by an array of satellites—was making its journey from military use to civilian ubiquity. At the time, GPS devices were being marketed to track delivery trucks and rental cars; early adopters were carrying them along on wilderness hikes to serve as high-tech breadcrumbs. In a stroke of inspiration, Sullivan co-opted the technology for his own purposes, and in so doing helped to steer stalking into the 21st century.

It was a remarkably undemanding mission. The Internet had made it possible to purchase novel gadgets of virtually any sort, regardless of where one lived. Sullivan didn't even install the device himself—he had his kids do the job. He called his wife over to the house, where they talked about the divorce proceedings. Meanwhile their teenage boys, whom Sullivan had convinced were being abandoned by their mother, went outside to “change the oil” in her car. Instead they installed the TravelEyes unit.

“You have the antenna with a plug on it, and you just plug it right into the unit,” Sullivan's older son would later recall from the witness stand during his father's trial on stalking charges. “My mom's car was an Oldsmobile. It had a glove box that . . . popped open, and there is a panel—like a box you could pull out—and that's how you gained access to the fuse box. So I . . . put some Velcro on the back of this and on the back of the antenna and . . . attached the unit under there, and set the panel back in.”

The device was now activated. “As you can see,” said Sullivan's son, who was then 19, “it's pretty simple.”

Four years after Robert Sullivan became America's first documented GPS-enabled stalker, we are faced with a classic technology dilemma, as perfectly legal and useful devices are turned to less savory ends. GPS units help to track rental cars, Alzheimer's patients, wandering children, wandering cattle, wandering fur coats. Miniature video cameras monitor babysitters, and keystroke-recording software monitors children's Internet use. But just as drug dealers appropriated beepers and terrorists the Internet, these technologies and more are being embraced by a new breed of high-tech stalker.

Four out of five stalkers are men, according to a 1999 study published in the *American Journal of Psychiatry*. The study sorted stalkers into five categories. “Rejected” stalkers are usually ex-partners motivated by anger over a breakup—people like Sullivan. Three other kinds of stalker are also sexually or romantically motivated but have not dated their victims: “intimacy seekers” fancy themselves in love and want a relationship; “incompetents” are awkwardly seeking a first date; and “predatory” stalkers—perhaps the most dangerous—are planning an assault. Then there are “resentful” stalkers, who aren't seeking sex or love and

want only to make their victims miserable.

Until not long ago, stalkers had to resort to mundane tactics such as driving by their target's house, stealing phone bills from the trash, or even working for a utility company to access sensitive information. But now, for the cost of a decent dinner, you can buy anyone's complete address history over the Internet. Aerial photos can be downloaded for the price of cake and a cup of coffee. Technology has given stalkers unparalleled access to what they covet most: information. Type *track* and *spouse* into Google, and you get dozens of sites whose links say *track and catch your cheating spouse*.

Stalking today is not only easier, it's virtual—which dramatically lessens the chance of getting caught in the act. No longer does the stalker have to sneak out in the middle of the night to check the car's odometer; the GPS (viewed live on a PDA or cellphone) tells him exactly where the car has been. He doesn't have to beat people up for e-mail passwords; he can simply install a software program that records every word his victim types, including passwords, log-ins, credit-card numbers and e-mail messages. The camera in the bedroom? It's hidden in a cheap alarm clock.

Because law-enforcement agencies track stalking crimes without regard to the methods employed, no one knows the precise number of such cases. But reports of high-tech stalking are beginning to stack up. In 2002 a Wisconsin man named Paul Seidler one-upped Sullivan by installing a live GPS system under the hood of his ex-girlfriend's car. Rather than report her travels after the fact, this unit sent text messages to Seidler's cellphone revealing her current location. Thus informed, he made a habit of pulling up alongside her car unexpectedly. A rejected California suitor began impersonating in online chat rooms the woman who had spurned him. He described an elaborate rape fantasy, providing the woman's address and instructions on how to short-circuit her alarm. It didn't take long for men to start hounding her. And in New Hampshire, Amy Boyer was the victim of a man who got a fleeting glimpse of her in the eighth grade, became obsessed, and later set up a Web site about her. There he described purchasing personal data (her Social Security number, addresses and so on), noting: "It's obscene what you can find out about people on the Internet." The only thing Liam Youens's Web log didn't describe was how he shot Boyer and himself to death one afternoon in 1999 after she left work.

The general public has remained largely unaware of the problem. "We don't have a sense of moral outrage yet," says Tracy Bahm, director of the Stalking Resource Center at the National Center for Victims of Crime. "Many people haven't heard about this. But when they do, their jaws drop. They cannot believe it exists. And people really don't know how far gone it is—the hidden cameras in sprinkler heads and smoke detectors. Most people have absolutely no idea what's possible."

Until, that is, they get a peculiar feeling—a sense, like the one that crept up on Robert Sullivan’s wife, that someone knows too much about their whereabouts. In early 2000, several weeks after she moved out, her husband started asking questions that were disturbing in their specificity. “Why were you at this place for 30 minutes?” she says he would ask. If she didn’t go to work, he would ask her about it. She found herself constantly looking over her shoulder, but there was never a sign of him.

Eventually, she moved into a new home. “I had just been there half an hour, starting to take the few things I had with me into the duplex, and he came to the door and made some threats,” she recalled during his trial. “I didn’t know that he knew where I was moving to. I had been real cautious, trying to make sure nobody was following me—watching in my rearview mirror, taking alternate routes to get places, going to a different grocery store.”

Petrified, she checked her purse, shoes and jacket pockets to see if he had planted a bug. “Oh my god, what is happening to me?” she thought. “To know somebody knows where you are every second of the day and how many seconds you are at each stoplight and to yet not know how they were able to figure it out—it’s a frightening feeling,” she told the court. “You are always constantly being watched and under surveillance. It gave me stomachaches, it made me not sleep really well. It’s not a comfortable feeling.”

The entrepreneurs who sell spy devices on the Internet are not exactly covert about their intentions. “So many people in this country do not understand that men are not devils. Women do cheat. People cannot accept that in this country,” says Brad Holmes. So he developed a product called CheckMate, which, for \$49.95, makes it possible to test a pair of underwear for drops of semen. The test is a by-product of Holmes’s faith in an almighty commandment: a partner’s right to know. “I’ve always believed that,” he told me. “I do. I really, really do. And now there’s a product for that.”

Many products, in fact. Holmes, who recently went through a divorce of his own, has turned his company into a sort of 7-Eleven for jealous mates. Besides the semen kit, he sells listening devices, GPS trackers and spy cameras. Customers—some 15 percent of whom are women—often buy all the products at once. In an apparent effort to capitalize on a need he has helped create, Holmes also offers a full slate of countermeasures—devices that can detect spy cameras and bugs, should someone become suspicious that covert products are being used on them.

Holmes’s is one of dozens of such Internet businesses. Greg Shields owns a company in Cincinnati called Track & Spy. Business is brisk, he says; he claims to log \$2,000 in sales per day, working just an hour or so. “I go to the gym a lot, play racquetball, go shopping. When I’m not in the office, my calls forward to my

cellphone. I've sold GPS devices while sitting on the beach. This is kind of like being retired. Sometimes you get bored, but it's better than working." When I reached him on the phone, he seemed to be in a grocery store.

Shields sells clock radios that were purchased from Wal-Mart, then reengineered by his distributor to surreptitiously enclose a video camera. On his Web site he describes the product, which sells for \$379, as a "nanny cam" but adds that "suspicions of infidelity or extramarital affairs can be verified" and that "this unit does extremely well in normal low bedroom lighting environments." The tinted plastic on the front of the clock is dark enough to conceal the hidden camera, the promotional text promises, yet transparent enough for the camera to capture clear images. Nor is it possible to detect any of the tinkering that turned a cheap clock into a Trojan horse: "There are no extraneous cables . . . [just] the exact same AC power cable that the manufacturer of this AM/FM alarm clock radio supplied."

Shields also sells a \$495 GPS tracking device similar to the one Sullivan used, and, for \$1,199, the higher-tech, wireless version—the kind Paul Seidler employed, which allows its owner to follow the whereabouts of a car in real time without having to physically retrieve the device and download its data.

I asked Shields whether he thought his customers could get in trouble for using GPS to harass someone. He said he tells people that if they own the vehicle on which they install it, they're in the clear. "It's the rule of thumb," he said. I asked him whether he thought selling these products was a good idea, given that people are now using them for stalking. "I'm not liable for the way someone else uses my products," he said. "People can sell beer, and, depending what the customer does with it, that could be harmful too, right?"

Among the potentially harmful products on the market are digital voice changers, which disguise the caller's voice; Maxwell SmartDstyle pens bearing video cameras; and sound amplifier/recorders, which make it possible to overhear and record even whispered conversations. Meanwhile, most newer-generation cellphones have location capability for 911 purposes—so that emergency workers can find people when they call for help—but several companies, including uLocate and AT&T Wireless, offer services that let friends and family log on to a Web site to get a phone's location. In August, a man in Los Angeles was arrested for hiding his cellphone underneath his ex-girlfriend's car and tracking her movements through just such a Web site. Very small GPS-type units are featured in some watches; advocates are concerned that they'll soon be embedded in any number of products. Also worrisome: In September a company called Star38 announced a Caller IDDcircumvention service that would enable customers to manipulate the phone number that is displayed by a recipient's Caller ID. A stalker who knows that his victim will screen his calls can have another phone number—such as the victim's mother's number—show up on her Caller ID instead of his own.

Less obtrusively, a person can install Spector Pro 5.0, software that records on the computer's hard drive every keystroke typed. If the spy doesn't have frequent access to the computer he wants to monitor, he can get eBlaster 5.0, which sends reports over e-mail. Both programs offer stealth mode, in which they reveal no trace of their existence. Some spy software programs even have remote-installation capabilities: They can be sent as an e-mail attachment to the person the user wants to monitor, and will install themselves if clicked on. A spokesperson for SpectorSoft, which makes Spector Pro and eBlaster, says the programs are useful for parents who want to keep an eye on kids' computer use, but the company's Web site is full of testimonials like this one, from "Bill": "I found out EXACTLY what my EX-fiancé was doing. Notice I said EX?"

Gadgets don't turn people into stalkers, but they do enable them to get information more quickly, potentially accelerating dangerous behavior. "On the night of February 15th, when I left the house, he followed me out," Sullivan's wife told the court. "He told me if I don't dismiss the divorce case that he is going to burn all my clothes, that they were all piled in the backyard and he had gas back there. And he was yelling at me when I left. I drove away, and he called me on my cellphone about five minutes later. There were sirens on the phone when I was talking to him, and he said the fire department was on the way, that all my clothes were burning."

Sullivan was soon calling his wife obsessively—13 or 14 times a day—asking her to drop the divorce proceedings. *Come back home. Come home.* Once, she says, when Sullivan had her on the line, he walked over to a paper shredder and inserted her diploma. The message, say victims' advocates, is simple: *If I can shred your diploma, I can shred you.*

Sullivan's wife went to the police. While she was there, he called her cellphone. A police officer picked up and asked Sullivan to stop by. He did, and at some point he told the officer that he had installed the GPS device. Echoing Greg Shields's "rule of thumb," Sullivan insisted that it was legal because he owned the car. The reality is that installing the device was technically legal, but the way he used it to harass his wife was not. The police charged him with stalking.

His trial began one Friday in October 2000, before Judge James H. Hiatt. It was a surreal affair that demonstrated the divide between a tradition-bound legal system and the world of affordable high-tech gadgetry that is available to aid criminal behavior. During opening arguments, the prosecutor struggled to explain the facts of the case: "The defendant purchased a tracking device, a global—it's called a GPS—global positions satellite tracking device is that—what that stands for," he faltered.

The legal system has had to scramble to keep up with the technology being

adopted by stalkers. Almost every state has passed a cyberstalking law, but most deal mainly with electronic communications and not surveillance technologies such as miniature cameras and GPS devices. And most of the laws still rely on the traditional definition of stalking, in which the pattern of behavior is only a crime if the victim is aware of it and feels threatened. But technology adds previously unimagined new twists to the ways in which a person's privacy and peace of mind can be violated.

Judge Hiatt found Sullivan guilty. "Of all the people in the world," he wrote of Sullivan in his decision, "this was the last person that Ms. Sullivan wanted to have this kind of knowledge, and I would think it would be a frightening experience to know that he knows all this stuff and to not know how or why he knows it. That would be serious emotional distress to any reasonable person."

Sullivan appealed. He argued that his wife wasn't under active surveillance because he didn't know her whereabouts until *after* he had downloaded information from the GPS unit. The appeals court responded, essentially: Bunk. The court interpreted "under surveillance" to include "electronic surveillance that records a person's whereabouts as that person moves from one location to another and allows the stalker to access that information either simultaneously or shortly thereafter."

Victims' advocates such as Tracy Bahm are lobbying for more states to adopt that definition and to follow the example of Wisconsin, where anti-stalking legislation that went into effect in April expands the banned activities to include "photographing, videotaping, audiotaping, or, through any other electronic means, monitoring or recording the activities of the victim." Also, instead of having to make the case that the victim had a reasonable fear of injury or death, the new Wisconsin statute, like Colorado's, requires only that prosecutors prove that the stalking caused someone "to suffer serious emotional distress." Bahm is helping draft a prototype anti-stalking law to serve as a model for legislators around the country. The goal is to find language that's flexible enough to anticipate the misuse of technologies that don't yet exist. "It should cover all forms of stalking we can contemplate—direct and indirect," she says, "and be written in a way that anticipates that there will be technology in the future that we can't contemplate now, and we should not have to amend our laws every year to address the new technology."

Sullivan received a three-year suspended sentence—he served 57 days in jail and then was put on probation for four years. It was a wrist slap typical of domestic violence cases. "You can go to jail for doing drugs but not for stalking your wife," says Cindy Southworth of the National Network to End Domestic Violence, an organization representing state domestic-violence groups. But Sullivan violated his probation by using drugs and possessing a gun and is now in prison little more than an hour's drive from the home of his ex-wife and her

new husband. He'll be out as early as this summer. For now, he communicates indirectly with his ex-wife in any way possible, including by filing lawsuits against her so that she'll be served with papers bearing his name. "I get messages from him through my sons, through their girlfriends," she says. "He claims he's made me what I am, that I owe him. He tells my sons everything would be fine if I just came back home. The last thing he said to me was that he'd ruin me. Now he'll forgive me for everything I've done. He says I need to keep the family together. He's never going to let this go."

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