

Intimate Partner Violence, Technology, and Stalking

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This research note describes the use of a broad range of technologies in intimate partner stalking, including cordless and cellular telephones, fax machines, e-mail, Internet-based harassment, global positioning systems, spy ware, video cameras, and online databases. The concept of “stalking with technology” is reviewed, and the need for an expanded definition of cyberstalking is presented. Legal issues and advocacy-centered responses, including training, legal remedies, public policy issues, and technology industry practices, are discussed.

Keywords: *cyberstalking; intimate partner stalking; technology*

During the past decade, domestic violence advocacy organizations have heard stories from increasing numbers of survivors whose abusers are using technology to stalk them. These stories, and others that resulted in news coverage or court cases, illustrate the various ways that stalkers and abusers use technology to control and harm their victims. As a result, several national survivor advocacy projects, including Safety Net: The National Safe and Strategic Technology Project and the Stalking Resource Center, were created to respond to the use of technology in intimate partner stalking. This article examines the use of technology in intimate partner stalking and describes experiences of survivors and the need for advocacy-centered responses, including training, legal remedies, and changes in public policy and technology industry practices. Because people surviving abuse differently identify themselves, the terms *victim* and *survivor* are interchangeably used. *Stalker*, *abuser*, and *offender* are also interchangeably used to refer to perpetrators of intimate partner violence—a category encompassing domestic violence, sexual violence, and stalking that targets a current or former spouse, boyfriend, girlfriend, or significant other (Greenfield & Rand, 1998).

Intimate partner violence often includes a range of behaviors that utilize psychological threat and intimidation and physical victimization. Domestic violence has been conceptualized as creating a pattern in which the central issue is control to create dependence, promote social isolation, and inhibit a victim's reality testing (Rogers, Castleton, & Lloyd, 1996; Walker, 1984). This pattern of control includes limiting the use of technologies intended to promote better communication. Thus, abusers often limit victims' access to transportation, monitor telephone calls and letters, and engage in stalking to track the victim's whereabouts (Brewster, 2003). As technology has expanded to include cellular telephones, Internet communications, global positioning system (GPS) devices, wireless video cameras, and other digitally based devices, abusers have used these tools to frighten, stalk, monitor, and control their victims. The technology is new to many advocates and victims, necessitating that advocates learn about and address these high-tech tactics, but always in the larger context of a victim's stalking experience. The rapid expansion and availability of new information technologies poses new threats to both victims and domestic violence service providers. Increasing advocates' understanding of stalking with technology will assist them in assessment and safety planning with survivors.

Stalking With Technology

The term *cyberstalking* has been used to describe a variety of behaviors that involve (a) repeated threats and/or harassment, (b) by the use of electronic mail or other computer-based communication, (c) that would make a reasonable person afraid or concerned for his or her safety (D'Ovidio & Doyle, 2003; Fisher, Cullen, & Turner, 2000). Westrup (1998) suggests the definition should also include behaviors that are perceived as unwelcome and intrusive. Research on cyberstalking has identified many forms of computer and telecommunication-based harassment, including,

- Monitoring e-mail communication either directly on the victim's computer or through "sniffer" programs.
- Sending e-mail that threatens, insults, or harasses.
- Disrupting e-mail communications by flooding a victim's e-mail box with unwanted mail or by sending a virus program.
- Using the victim's e-mail identity to send false messages to others or to purchase goods and services.
- Using the Internet to seek and compile a victim's personal information for use in harassment (Finn & Banach, 2000; Kranz, 2001; Ogilvie, 2000; Spitzberg & Hoobler, 2002).

According to the National Institute of Justice, more than 1 million women are stalked annually (Tjaden & Thoennes, 1998). Because so many cases are unreported, the actual number of women stalked is likely much higher. Recognition of intimate partner relationships is important to the discussion of stalking and cyberstalking because 59% of female stalking victims were stalked by an intimate partner and 81% of women who were stalked by a current or former intimate partner were also physically assaulted by that partner (Tjaden & Thoennes, 1998). There are no studies that accurately document the extent of cyberstalking; however, the number of reports related to online harassment is increasing (Fremouw, Westrup, & Pennypacker, 1997; Lee, 1998). A nonprofit organization, Working to Halt Online Abuse (WHOA, 2004), reports that it receives approximately 50 to 100 requests a week for guidance and support to stop cyberstalking. A study of college students revealed that 9.6% reported that they had received repeated e-mails from a significant other (spouse, boyfriend or girlfriend, partner) that “threatened, insulted or harassed” (Finn, 2004).

Thus far, research on the use of technology in stalking has focused on cyberstalking. The term is, however, too limited because a number of other information technologies are also being used to intimidate and control victims. Consequently, there is a need for a broad-based definition of cyberstalking in legal and research undertakings (Bahm, 2003). The term *stalking with technology* will be used in this research note to indicate stalking with any of a wide variety of information-based technologies.

The Use of Technology to Stalk: Stories From Survivors

No study has specifically addressed the use of technology in intimate partner stalking. The Stalking Resource Center (2003) and the Safety Net Project (Safety Net, 2004), however, have reported news stories and anecdotal experiences related to victims. These self-reported experiences and news stories indicate that technology is regularly and pervasively used in stalking and underscore the need for more resources and research (Southworth, 2002). Based on these stories, the following are technologies that should be taken into account by domestic violence advocates and researchers when considering education, safety planning, prevention, and research activities.

Telephone Technologies and GPS

Most stalking victims regularly use telephones, and some stalkers are adept at tapping telephone lines, reviewing TTY or TDD histories, intercepting calls made on cordless telephones, or using cellular telephone features to obtain sensitive information about their victims.

Caller Identification (Caller ID)

San Antonio—A 23-year-old man has been charged with murdering a former girlfriend after using a Caller ID service to track her down. (“Man Charged,” 1995, p. A33)

Abusers have used caller ID, a telephone service that reveals the telephone number, name, and location of callers, to locate victims in hiding. Caller ID is supported by a telephone line linked to an electronic device that captures information about incoming calls and stores it in the display unit for future use. New caller ID devices offer not only the name and number of the caller but also the exact address of the telephone. Older caller ID devices only provided the telephone number, though Internet telephone directories make it possible to track the exact location of a victim. Moreover, many survivors have unlisted and unpublished phone numbers but still find their personal information published in online directories. *Web Wise Women* (Safety Net, 2004) explains that many businesses sell customer information to these online services and suggests several strategies to prevent victim information from being posted on the Internet. These include educating women about per-call (*67) or permanent call ID blocking, checking with organizations and businesses to be sure that personal information is not published or sold, and requesting that their names be removed when they are found on a database.

Fax Machines

While hiding from an abusive partner, a woman needed to get papers to her abuser. She sent them to him via her attorney from the shelter’s fax machine. Her attorney faxed the papers to the abuser’s attorney, who gave the papers to the abuser . . . and no one ever cut off the fax header. The abuser got the phone number and location of the victim and she had to move again. (Safety Net, 2004, p. 15)

Fax machines print information, such as the sender’s name and fax number, on the top of every page and thus provide location information to a stalker. New fax machines also contain caller ID, creating additional safety challenges for survivors. Women should be educated to use a fax machine that only prints the date and/or page number or to use a public fax machine such as one from a Kinko’s or UPS Store.

TTY and TTD

A prosecutor was working with a victim who was deaf. The prosecutor got a call on his TTY phone and it was supposedly from the victim who said, “If you don’t drop the charges against my boyfriend I’m going to kill myself.” Help was sent immediately to the victim’s home, but to their surprise, she was sleeping the entire time. The abuser impersonated the victim in an attempt to persuade the prosecutor to withdraw charges. (Safety Net, 2004, p. 21)

TTY telephones are text telephones used by the hearing impaired. Deaf and hearing impaired victims have benefited from these devices and the greater accessibility of other electronic communication. However, abusers are also using these devices to impersonate and monitor victims. For example, TTY devices record an exact history of every conversation, which can facilitate the abuser's ability to monitor conversations.

Calling Cards

An advocate was being stalked by an abuser who threatened her life because she helped his wife obtain a protection order. He obtained her information from the Department of Motor Vehicles for one dollar, and continues to harass her with phone calls and messages. Thus far, law enforcement has been unable to confirm the caller and his location because the abuser is using a prepaid phone card. (Safety Net, 2004, p. 28)

Increasingly, stalkers are using the anonymity of prepaid calling cards to harass their victims. If the calling card is not activated with a credit card, linked to a discount card, or billed to a person's long-distance carrier, it is difficult to trace someone making calls with a prepaid card.

Cordless Telephones

A victim advocate in a rural state picked up her cordless phone and heard the conversation of her nearest neighbor who lived over a mile away. She realized how easy it would be for abusers to eavesdrop on their victims' most private conversations. (Safety Net, 2004, p. 23)

Cordless telephones can be used as listening devices, and conversations can be intercepted by baby monitors, some walkie-talkies, and other cordless telephones. In addition, a strategically placed radio scanner in a parked car can pick up a cordless telephone call from a nearby home (Privacy Rights Clearinghouse, 2002).

Cellular and Wireless Telephones

Although many survivors benefit from telephone donation programs, cellular and wireless telephones pose some challenges as well. Similar to cordless telephones, conversations on older, less sophisticated, analog cellular telephones may be intercepted by radio scanners. Although more recent digital wireless telephones are more private, digital cellular telephones may switch to analog mode when used in remote areas without digital coverage. According to the Privacy Rights Clearinghouse, analog cellular services have been available for 25 years, transmit through the air using radio waves, and are accessible across 95% of the country. Digital services, available since 1995, convert the signal into the ones and zeros of computer code and are harder to intercept.

Though considered a lifeline to many victims, a cellular telephone can (inadvertently or intentionally) become a listening device. Many users have bumped their cellular telephone, had it call the last person dialed, and unknowingly broadcast their interactions. Cellular telephones can be converted into a listening device using a basic setting available on most telephones. In addition, a family's cellular telephone billing records can provide a survivor's entire calling history to an abusive partner.

The wireless industry is currently developing a directory of all cellular telephone customers, but customers will only be added if they choose to "opt-in" for this service. An opt-in practice is more responsive to the safety needs of intimate partner and other stalking survivors than an opt-out approach and reflects the increasing interest of the Cellular Telecommunications & Internet Association and others in the industry to create policies that proactively respond to the needs of survivors.

GPS and Location Services

A Wisconsin article reported that a woman found it impossible to escape her ex-boyfriend. He would follow her as she drove to work or ran errands. He would inexplicably pull up next to her at stoplights and once tried to run her off the highway. When he showed up at a bar she was visiting for the first time, on a date, [she] began to suspect [her ex-boyfriend] wasn't operating on instinct alone. The article reported that the stalker put a global positioning tracking device between the radiator and grill of the survivor's car. (Orland, 2003)

GPS devices are small devices that use satellite navigational technology to give precise worldwide positioning and pinpoint locations. Originally designed for the U.S. Department of Defense, this technology has been adapted and is now affordable and available for consumer use. These devices vary as much by price as they do by size and appearance, including appearing as a small black box, a portable unit, or even a small chip in a wristband. Stalkers have used these devices to track their victim's location via real-time Web site updates or fee-based online monitoring services.

Stalkers can also manipulate telephone-based instant messenger services and location services associated with wireless telephone service plans to track their intimate partners. In 2001, the Federal Communications Commission mandated that by 2005 all wireless carriers must install GPS into cellular telephones to facilitate 911 emergency responses. Enhanced 911 is designed to provide the telephone number and exact location of a wireless telephone 911 caller. Although carriers are still rolling out this new feature and it is not yet available in most communities, some wireless providers are offering optional location services that allow subscribers to see the location of family members through a "buddy list." This technology can be useful to victims of stalking because law enforcement and emergency personnel services can more easily locate them. On the other hand, it also inadvertently increases surveillance options for abusers and stalkers ("Cell Phone Tech," 2004).

Computer and Internet Technology

A New England woman planned to escape her violent husband. She secretly found a new home for herself and her two daughters and sent an email to a friend asking for help moving. She thought she had deleted the email, though it sat in her email program's "deleted mail folder." Her husband found the email, learned that she was planning to flee for safety, and killed her. (Safety Net, 2004, p. 69)

Stalkers have adapted new computer and Internet tools to monitor and control their victims. Initially, abusers used low-tech monitoring options such as looking at Web site browser history and reading deleted e-mail, but now stalkers are increasingly using more sophisticated but broadly available spy ware software and hardware.

Spy Ware Software and Keystroke Logging Hardware

In September 2001, a Michigan man was charged with installing spy software on the computer of his estranged wife. He installed a commercially available software program on her computer at her separate residence. Without her knowledge, the program sent him regular emails reporting all computer activity, including all emails sent and received and all Web sites visited. He was charged with using a computer to commit a crime, eavesdropping, installing an eavesdropping device, and unauthorized access. He pled guilty to eavesdropping and using a computer to commit a crime and received two years probation. (Wendland, 2001)

Computer monitoring software—spy ware—was originally developed to monitor children's Internet use. Spy ware has multiple definitions. One refers to the "ad ware" that marketing companies use to learn Internet searching habits of users. Another definition refers to personal surveillance of computer and Internet activities, such as the monitoring that occurred in the 2001 Michigan case. Stalkers and abusers can use these programs to monitor the activities of their victims. Spy ware can be installed by having physical access to the computer or through remote installation by hiding the program as an e-mail attachment. There are hundreds of different software programs available for purchase and freely accessible on the Internet. These programs vary, but most record all computer activities. Many programs take pictures of the computer screen every few seconds, thus recording attempts to hide computer histories and e-mail from an abuser.

In addition to software programs, hardware devices called "keystroke loggers" that plug into the keyboard and back of the computer are readily available. These tiny devices contain small hard drives that record every key typed, including all passwords, PIN numbers, Web sites, and e-mail. Software programs intended to identify spy ware are not able to identify many software monitoring programs or any hardware loggers. The best prevention is for victims to use a safer computer at such places as a public library.

Hidden Cameras

The Supreme Court of New Jersey found that the defendant's video surveillance of the victim (his estranged wife) in her bedroom presented a prima facie case of stalking and harassment under the New Jersey Domestic Violence Act. The defendant acted "purposefully or knowingly" against a "specific person." He "repeatedly maintained a visual proximity" to the victim. Based on the prior history of violence and threats, a reasonable person in the victim's situation, knowing what the victim knew about her estranged husband, would have feared bodily injury as a result of the defendant's conduct. This case was remanded on due process grounds, but the finding of stalking was affirmed. (*H.E.S. v. J.C.S.*, 2003)

Cameras have become more powerful, affordable, smaller, and easier to disguise. Tiny wireless high-resolution cameras can be hidden in smoke detectors, children's lamps, or behind a pin-sized hole in a wall. These minicameras can be wired or wireless and can be installed anywhere and activated remotely. Web cameras provide continuous viewing or can record to a computer hard drive for later viewing. According to the Privacy Rights Clearinghouse (2002), inexpensive wireless cameras are relatively easy to install and monitor by voyeurs nearby who intercept the wireless signal. Images can be picked up as far as 300 yards from the source, depending on the strength of the signal and the sensitivity of the receiver.

Online Databases and Information Brokers

In Texas, a domestic violence survivor whose ex-husband was soon to be released from jail discovered that information about her house, including a photo and map, had been posted online in county property tax assessments. When the victim approached the tax assessment office to have her information removed, she was told that only law enforcement and court officers had the privilege to opt-out of this sort of public online publication of personal information. (Safety Net, 2004, p. 92)

Corporations, courts, and government agencies are selling, sharing, and publishing sensitive information about citizens worldwide. Stalkers are using these publicly available free Web sites and paid information brokers to obtain personal information. In addition to the technology concerns survivors have about the activities of stalkers, survivors are also encountering technology policy barriers that compromise their safety and privacy. Givens (2002) has outlined privacy and safety concerns about open records on the Internet. Survivors have found that within their own communities, critical conversations about privacy and victim safety are being left out of community decisions to publish information that is considered to be part of a public record. A person's consent is not sought when others seek to post sensitive or personal information and oftentimes they are not notified when the information is posted to the Web. Many courts are beginning to publish both indexes of court records and the full documents and case files on the Web, often without providing

any notice to citizens or options to restrict Web access for victims. For example, as of April 2004, in Montgomery County, Pennsylvania, the court publishes the names and addresses of victims (and their children) who obtain protective orders (Safety Net, 2004).

Legal Issues and Legislative Solutions

Stalking has been legally designated a crime only since 1990. However, there have been descriptions of stalking behavior in film, fiction, and poetry during the past several hundred years (Lee, 1998). In the late 1980s and early 1990s, numerous high-profile cases involving celebrities began to catch the attention of the media and public policy leaders. Only then did such behavior begin to be described as stalking (Stalking Resource Center, 2003). California was the first state to pass an antistalking law in 1990 in response to the murder of actress Rebecca Schaeffer and five other Orange County women who were stalked and murdered by former intimate partners. By 1993, all 50 states had enacted stalking laws (U.S. Department of Justice, 1999) and all but 4 states (Idaho, Nebraska, New Jersey, Utah) and the District of Columbia currently have statutes that include stalking through electronic methods (Gregoire, 2004; WHOA, 2005). In several cases, however, state stalking laws have been interpreted to include stalking by video or GPS surveillance. In addition, a few states, such as Michigan and Nevada, prohibit a person from posting a message through electronic medium of communication without the victim's consent that substantially increases the risk of harm or violence to the victim (Medlin, 2002).

The Web site *Cyber-Stalking.net* (2004) provides an overview of federal laws related to stalking by Internet. In 1996, the U.S. Federal Interstate Stalking Law was passed, making it a federal crime to travel across state, tribal, or international lines to stalk someone or to stalk someone across state, tribal, or international lines using regular mail or "any facility of interstate or foreign commerce" (18 U.S.C § 2261A). In 2000, the law was amended to include threats made with electronic communication, such as e-mail or the Internet (U.S. Department of Justice, 2001). In 2000, Congress also passed Amy Boyer's Law, (42 U.S.C. Section 1320 B-23 P.L. 106-553), which prohibits the sale or display of an individual's social security number to the public, including sales over the Internet, without the person's expressed consent. Amy Boyer's Law is named after a young woman who was murdered after her stalker purchased her social security number over the Internet and was able to then track her car license number and place of work. U.S. federal law provides specific protections against threatening electronic communications: 18 USC § 875(c) criminalizes interstate and foreign telephone or electronic communications containing a threat to abduct or injure another individual, 18 USC § 2510-2516 addresses wire-tapping and provides protections against illegally tapping someone's telephone, and 47 USC § 223 of the Communication Decency Act prohibits interstate or foreign

telecommunication that is used with the intent to annoy, abuse, threaten, or harass another. In addition, Title 42 of the Civil Rights Act may be utilized to address online victimization. This statute has been interpreted to prohibit sexual harassment in work environments. Conduct producing a hostile environment is specifically included in this statute. Thus, sexual harassment via e-mail may be prosecuted under this statute (McGrath & Casey, 2002).

In 1992, in an effort to create enforceable and constitutional antistalking laws, Congress passed legislation requiring the U.S. attorney general to develop model antistalking laws for distribution to the states (U.S. Department of Justice, 2001). As noted above, however, there is still considerable variation in state stalking statutes. In 2004, the Stalking Resource Center launched a model initiative focused on analyzing the state stalking codes. The project seeks to develop common language that nationwide legislators can adopt to make existing stalking laws more inclusive of the use of technology to stalk and to further define specific legal aspects to make the requirement of intent clearer.

The Stalking Resource Center (2003) recommends that states review their laws to ensure that they prohibit and appropriately punish acts of stalking accomplished through technology and offers the following guide for those interested in revising their state's current stalking codes:

- Stalking laws should define the conduct that constitutes stalking as broadly as possible without being unconstitutionally vague.
- States should ask three questions:
 1. Will the language used in the law cover all conduct and communications that future advances in technology may generate?
 2. Does the law require or imply the need for direct physical contact between the perpetrator and the victim, or can electronic monitoring and surveillance be considered stalking?
 3. Does the law cover third-party contact initiated by the stalker?
- Law enforcement organizations should be encouraged to address the full range of technologies used as part of stalking and the co-occurrence of non-technology-related crimes when technology is misused in intimate partner stalking (Stalking Resource Center, 2003). In addition, law enforcement, prosecutors, and judges will need periodic training about the use of new technologies used in stalking and in the application and changes of related laws.

Education and Advocacy

Education about technology for domestic violence advocates and for the organizations with which they interact is essential to providing safety and services for survivors. Most domestic violence advocates have had little or no training related to

the use of technology as a component of intimate partner violence. A concerted effort is needed to organize training opportunities in local communities. Training should focus on the technologies previously discussed and include domestic violence advocates, volunteers, and board members and law enforcement and legislative groups. Table 1 lists a variety of organizations that may be helpful in organizing training and providing training materials.

Domestic violence organizations should assess their own policies and procedures related to technology. First, screening for possible difficulties related to stalking or harassment with technology should become part of intake protocols. Education about technology should be incorporated into development of safety plans with survivors (Safety Net, 2004). In addition, agencies should review their data-collection and data-sharing policies to keep victim data out of the hands of stalkers, abusers, and members of the public. Finally, domestic violence agencies should review their communication, technology, and confidentiality policies to ensure that they include and address all forms of technology.

Advocacy and consciousness raising are needed with government agencies, community groups, and other entities that publish or share sensitive information about survivors and the general public, especially if these are published on the Internet. This should include courthouse publications, voter records, and residence information. For example, in Texas, when a survivor learned that only law enforcement and court officers could have their property tax records restricted from Internet publication, she urged her state legislator to address this problem. Her initiative changed the law in Texas for thousands of survivors (Safety Net, 2004). The Texas Council on Family Violence (2003) summarizes H.B. 2819: "Victims of family violence whose batterer has been convicted of a felony or Class A misdemeanor can now request that their home address information held by a tax appraisal district remain confidential." Finally, advocates should examine their state's stalking law and analyze the variables suggested by the Stalking Resource Center.

Need for Further Research

Both quantitative and qualitative studies are needed to improve our understanding of the use of technology in intimate partner violence. In her summary of research issues related to cyberstalking, Spence-Diehl (2003) includes the need for generalizable studies of incidence data, documentation of the types and frequency of cyberstalking behaviors, examination of the relationship between terrestrial and cyberstalking, development of cyberstalker profiles and histories, and outcome studies related to intervention strategies that support victims and eliminate or reduce cyberstalking. In addition, qualitative studies of the stories of survivors are needed to promote understanding of the day-to-day experiences of survivors, the coping mechanisms used, and the short-term and long-term impacts on survivors. A national

Table 1
Resources for Addressing Technology in Intimate Partner Stalking

Resources for Advocates

The Safety Net Project (<http://www.nnedv.org>) at the National Network to End Domestic Violence. Provides information, training, and consultation to advocates, collaborative agencies and organizations, and the community on issues related to use of technology in intimate partner violence.

Stalking Resource Center at the National Center for Victims of Crime (<http://www.ncvc.org/src>). Their dual mission is to raise national awareness of stalking and to encourage the development and implementation of multidisciplinary responses to stalking in local communities across the country.

Resources for Victims of Intimate Partner Technology Stalking

National Domestic Violence Hotline (<http://www.ndvh.org>; 800-799-7233 or 800-787-3224 [TTY]). The 24-hr hotline provides information and referrals related to domestic violence. Contains a database of more than 4,000 shelters and service providers across the United States, Puerto Rico, and the U.S. Virgin Islands.

Stranger-Related Stalking Resources

CyberAngels (<http://www.cyberangels.org>). A nonprofit group devoted to assisting victims of online harassment and stalking.

Women Halting Online Abuse (WHOA; <http://www.haltabuse.org>). WHOA also educates the online community to develop Web site resources, including creating a safe-site and unsafe-site list to enable Internet users to make informed decisions and providing information about how users can protect themselves against online harassment.

Safety Ed International (<http://www.safetyed.org>). A nonprofit organization assisting the Internet community and providing specific advice, resources, and information to victims being harassed or stalked online.

Privacy Rights Resources

Online Privacy Alliance (<http://www.privacyalliance.com>). A coalition of more than 80 global companies and associations whose purpose is to define privacy policy for the new electronic medium and foster an online environment that respects consumer privacy. Available at this Web site are resources for consumers, model Internet privacy policies, and news stories about recent online privacy violations and issues.

Electronic Privacy Information Center (<http://www.epic.org/epic/>). A public interest research center in Washington, D.C., that focuses public attention on emerging civil liberties issues and seeks to protect privacy, the First Amendment, and constitutional values. Monitors court cases related to technology and cyberstalking.

Privacy Rights Clearinghouse (PRC; <http://www.privacyrights.org>). A nonprofit consumer and advocacy program that teaches consumers how to protect their personal privacy. PRC's services include a hotline to report privacy abuses and to request information on ways to protect privacy and prevent identity theft.

Consumer Identity Theft Resource

Federal Trade Commission, Consumer Affairs Department (<http://www.consumer.gov/idtheft>). A resource site for consumer information from the federal government, including contact information for victims of identity theft or misuse of a social security number and fraudulent credit card accounts.

Network Solutions's WHOIS (<http://www.networksolutions.com/cgi-bin/whois/whois>). An Internet company that provides searches in its registrar database to assist persons in determining the contents of a domain name registration record found in the header of a received e-mail. The result provides the contact information for the sender's Internet service provider and can be used to track e-mail harassment.

collaborative effort is needed to collect stories and reports of technology misuse in intimate partner violence in a centralized location to provide generalizable data. Research is also needed to assess the outcomes of various strategies for informing and training domestic violence advocates to intervene in cases of stalking with technology. Finally, case studies are needed that provide guidelines for successful campaigns to change local and state policies related to maintaining the privacy of survivors' records and clarifying state stalking laws.

Conclusion

As national organizations continue to educate and mobilize the advocacy community, they do so knowing that, along with its benefits, technology brings challenges. The same technology that provides victims and survivors of intimate violence with easy access to information, domestic violence resources, and social support also increases the prevalence of inaccurate information, loss of privacy, identity theft, disinhibited communication, online harassment, and stalking with technology. Ever-changing and increasingly inexpensive technologies make it easier than ever before for abusers to monitor and control their victims. Individuals and human service agencies must work to understand and protect against these dangers. Prevention and education about online and technology safety issues are necessary but not sufficient. In addition to staying informed about current technology, advocates must raise community awareness about the privacy needs of survivors, galvanize communities to work toward legal protections for victims of technology-based abuse, and advocate for legal consequences for those that perpetrate it.

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