TECHNOLOGY AND ITS DANGER TO DOMESTIC VIOLENCE VICTIMS: HOW DID HE FIND ME?

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"The information superhighway world we live in is a two-edge sword for survivors. The whole goal of escaping an abuser is to do just that, escape. After one has gone through the trauma of leaving, often with small children in tow, how horrifying it is to wake up to the reality that you can't escape at all. The Internet doesn't hide anyone." —A Survivor¹ in Texas²

¹ Since people surviving abuse identify themselves differently, in this article the terms "victim" and "survivor" are used interchangeably. "Stalker," "abuser," and "offender" are also used interchangeably to reference 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.

 $^{^2}$ Cindy Southworth et. al, A High-Tech Twist on Abuse: Technology, Intimate Partner Stalking, and Advocacy 2 (2005).

I. INTRODUCTION

Domestic abuse is about control.³ Abusers will go to great lengths to maintain power and control over their victims.⁴ The most dangerous time for a victim of domestic violence to leave is when she takes steps to leave the abuser.⁵ Many victims are stalked relentlessly for years after having escaped from their partners.⁶ Batterers who stalk their former partners are the most dangerous and pose the highest lethality risk.⁷ In fact, 54 percent of femicide victims reported stalking behavior to the police before the victims were killed by their stalkers.⁸

Each year seven million victims are assaulted, raped, or stalked by a current or former partner, conservatively. 60.8 percent of female stalking victims and 43.5 percent of men reported being stalked by a current or former intimate partner. Eighty-one percent of women who were stalked by a current or former male partner are also physically abused by that partner. Seventy-six percent of femicide and 85% of attempted femicide victims reported at least one episode of stalking within one year of the violent incident. A woman is more likely to be murdered in the few weeks after leaving her abusive partner than at any other time in the relationship. Stalking is revealed to be a correlate of lethal and near lethal violence against women and, coupled with physical assault, is significantly associated with murder and attempted murder. Although "the average duration of stalking is 1.8

³ Laurie S. Kohn, The Justice System and Domestic Violence: Engaging the Case but Divorcing the Victim, 32 N.Y.U. Rev. L. & Soc. Change 191, 210 (2008).

 $^{^5}$ Id. at 204–205, n.63; see also Martha R. Mahoney, Legal Images of Battered Women: Redefining the Issue of Separation, 90 MICH. L. REV. 1, 5–6 (1991).

⁶ SOUTHWORTH, *supra* note 2, at 3.

⁷ See id. ("[I]n one review of women killed by intimate partners, 76% of the murders were preceded by one or more incidents of stalking.")

⁸ Judith M. McFarlane et al., *Stalking and Intimate Partner Femicide*, 3 HOMICIDE STUD. 300, 310 (1999).

⁹ PATRICIA TJADEN & NANCY THOENNES, EXTENT, NATURE, AND CONSEQUENCES OF INTIMATE PARTNER VIOLENCE 57 (2000).

MATTHEW J. BREIDING ET AL., PREVALENCE AND CHARACTERISTICS OF SEXUAL VIOLENCE, STALKING AND INTIMATE PARTNER VIOLENCE VICTIMIZATION – NATIONAL INTIMATE PARTNER AND SEXUAL VIOLENCE SURVEY, UNITED STATES, 2011 1, 9 (2014).

¹¹ McFarlane, supra note 8, at 301.

 $^{^{12}}$ Id. at 308.

¹³ *Id*. at 311.

 $^{^{14}}$ Id. at 311–12.

years,"¹⁵ it takes but a matter of seconds to track and trace a device location—and the victim holding that device.¹⁶

This paper will look at the current trends in technology as it pertains to domestic violence and the dangers technological advancements can have with regards to victims. In Part II, we will discuss the recent developments in technology that have surfaced in the past few years. Part III will focus specifically in location technologies as I believe that this is the biggest downfall that technology brings into the realm of domestic violence. Part IV will discuss the current legal stance of this issue and new legislation that is unfathomably beneficial to victims and abuse centers nationwide. Part V discusses benefits of technology and how we can use these benefits to uplift and encourage victims. Part VII will discuss recommendations that should be followed coming into this next phase of technological advancement. Finally, we will conclude in Part VII. Before we begin, if you believe you are in immediate danger, call 911 for emergency assistance. Also, if you or anyone you know is a victim of domestic violence, please seek help.

II. DOMESTIC VIOLENCE IN THE DIGITAL WORLD

Technology has become essential to everyday life in the 21st century.¹⁷ It is nearly impossible for the average American to go about his or her daily life without the use of technology.¹⁸ Technology has become more than a form of entertainment; it has become a form of staying connected with loved ones and reaching out to those we hold dear.¹⁹ As of January 2017, 95 percent of Americans had a cellphone, of which 77 percent were smartphones.²⁰ Close to 80 percent of Americans use the Internet daily, with almost 12 percent of Americans accessing exclusively

 $^{^{15}\,}$ N.Y. Office of the Attorney Gen., Stalking: Realities and Responses 3.

 $^{^{16}}$ Id. at 5.

 $^{^{17}}$ Mary G. Leary, Fighting Fire with Fire: Technology in Child Sex Trafficking, 21 Duke J. Gender L. & Pol'y 289, 291 (2014).

¹⁸ See Meena H. Duerson, 84% People Can't Spend a Day Without Their Phone, N.Y. DAILY NEWS (Aug. 16, 2012), http://www.nydailynews.com/life-style/addicted-phones-84-worldwide-couldn-single-day-mobile-device-hand-article-1.1137811 ("84% of people surveyed . . . said they couldn't go a single day without their mobil e device in hand.").

¹⁹ Using Technology to Stay Connected with Your Senior Loved Ones, MED. ALERT ADVICE, https://www.medicalalertadvice.com/articles/using-technology-to-stay-connected-with-your-senior-loved-ones/.

²⁰ Mobile Fact Sheet, PEW RES. CTR. (Jan. 12, 2017), http://www.pewinternet.org/fact-sheets/mobile-technology-fact-sheet/.

from their mobile devices.²¹

Adding to the already epidemic rates of domestic violence abuse, technology is providing abusers new tools by which to further abuse their victims.²² "Technology gives abusers more methods of controlling and monitoring victims."²³ There is now a culture of "Digital Stalkers," where one can track anyone through the use of technology.²⁴ Hidden software, which is virtually undetectable, is being installed to monitor ex-lovers' computers and other devices.²⁵ Even a simple Google search for the nearest shelter can lead to unimaginable threats to the victim's safety.²⁶ Among the many types of technological advancements, one that has recently received legislative attention is the idea of location tracking using GPS technology.²⁷

In 2006, one year before the iPhone was released in 2007, the Department of Justice Office on Violence Against Women funded a Supplemental Victimization Survey to provide information about technology misuse by abusers. According to data published in 2006, 34 percent of stalking victims, a projected 1.4 million people, experienced "following or spying," and 32 percent, a projected 1.04 million people, experienced stalkers "showing up at places." In another study, 7.8 percent of stalking victims, a projected 246,351 people, reported that they had been victims of "Electronic Monitoring" and more than 26,000 were projected to

²¹ Pew Research Center, *Internet/Broadband Fact Sheet*, http://www.pewinternet.org/data-trend/internet-use/latest-stats/; see also U.S. *Internet Users Rely on Mobile Devices for Digital Access*, EMARKETER (Mar. 2, 2016), https://www.emarketer.com/Article/US-Internet-Users-Rely-on-Mobile-Devices-Digital-Access/1013649 (demonstrating Americans' reliance on their mobile devices for Internet access).

²² Southworth, supra note 2.

²³ Kaofeng Lee, New Survey: Technology Abuse & Experiences of Survivors and Victim Service Agencies, Tech. Safety (Apr. 29, 2014), http://techsafety.org/blog/2014/4/29/new-survey-technology-abuse-experiences-of-survivors-and-victim-services.

²⁴ Curtis Krueger, *Advocates Aim to Pull Plug on Digital Stalkers*, KITSAP SUN (Feb. 18, 2005), http://web.kitsapsun.com/archive/2005/02-27/34463_advocates_aim_to_pull_plug_on_di.html.

 $^{^{25}}$ Id

²⁶ Kim Horner, Abuse Victims Urged to Cover Online Tracks; Agencies, Groups Worry About Abusers' Use of Technology to Stalk, Dall. Morning News, Jan. 29, 2005.

²⁷ SOUTHWORTH, *supra* note 2, at 3, 6–7.

 $^{^{28}}$ Shannan Catalano, Stalking Victims in the U.S. – Revised 1, 4 (Catherine Bird & Jill Thomas eds., 2012).

²⁹ *Id*. at 4.

have been stalked specifically by GPS.³⁰

Since 2006, the App Store and Google App store have become a highway for stalking and spying apps to make it easier for an abuser to purchase and install apps to stalk their victim.³¹ With the growing use of location technology, perpetrators are tracking victims' location more often and in increasingly varied ways.³² In 2010, the Centers for Disease Control issued its National Intimate Partner and Sexual Violence Survey, which found that 38.6 percent of female domestic violence victims and 31 percent of male victims were "watched, followed or tracked with a listening or other device."³³

In 2012, the National Network to End Domestic Violence (hereinafter "NNEDV") surveyed over 750 agencies and showed that 90 percent of Domestic Violence programs report that survivors come to them for help after abusers intimidated and made threats via cellphone, text messages, and email; 89 percent of abusers harass victims via cellphones; 75 percent of abusers access victims online accounts without permissions; 74 percent of abusers pretend to be someone else to trick the victim via email, phone calls, text messages, or social media; and 72 percent of abusers track victims via GPS.³⁴ In the same study, it is reported that 72 percent of abusers track a survivor's location by smartphone or other devices.³⁵ Survivors most frequently ask for help with cellphones (71 percent), followed by how to manage location privacy, whether through cellphones or other location devices (62 percent), and computer or laptop use (56 percent).³⁶

On Sept. 10, 2014, NNEDV conducted a one-day count of adults and children seeking domestic violence service in the United States.³⁷ This annual census documents the number of individuals who sought services in a single 24-hour period, as well as the types of services requested, the number of service requests that went unmet due to a lack of resources, and the issues and barriers that

 $^{^{30}}$ KATRINA BAUM ET AL., STALKING VICTIMS IN THE U.S. 5 (Catherine Bird & Jill Thomas eds., 2009).

 $^{^{31}}$ See Southworth, supra note 2, at 6–7 (explaining that abusers are using instant messenger and other apps to locate and harass victims).

³² *Id*. at 6

 $^{^{33}}$ Michele C. Black et al., National Intimate Partner and Sexual Violence Survey 31–32 (2011).

 $^{^{34}}$ Lee, supra note 23.

³⁵ *Id*.

³⁶ *Id*.

 $^{^{\}rm 37}$ NAT'L NETWORK TO END DOMESTIC VIOLENCE, DOMESTIC VIOLENCE COUNTS 2014 2–3 (2015).

domestic violence programs face as they strive to provide services to victims of domestic violence.³⁸ Of the 67,646 victims that were reported served on Sept. 10, nine percent of the services were related to technology use (i.e., cyberstalking).³⁹ This is significantly lower than the 72 percent that is reported throughout the year from the combined 1,697 identified domestic violence programs that participated in the 2014 National Census.⁴⁰

III. LOCATION TECHNOLOGIES

Location information about victims of domestic violence and stalking obtained surreptitiously disproportionately endangers these individuals. Geographic location-tracking capabilities have been integrated into all U.S. cellphones, as all U.S. cellphones are required to have a type of location-based technology to enable an emergency dispatch center to find a 911 caller's real-time location. Abusers misuse location technology to hunt down and continuously monitor their victims in several ways, including: (1) family locator services (e.g., Verizon Family Locator); (2) location functionality built into the operating systems of phones, tablets, or cars; (3) freestanding GPS hardware devices; and (4) Stalking Apps sold in the App Store, Google App, or downloaded elsewhere.

(1) Family Locator Services

Several products have been advertised for the purpose of locating family members via the technology in their family plan.⁴⁴

³⁸ *Id.* at 1.

 $^{^{39}}$ *Id.* at 11.

⁴⁰ *Id*.

⁴¹ See Southworth, supra note 2, at 6. (indicating that victims are at greater risk because stalkers can use sophisticated technologies for tracking).

⁴² NAT'L NETWORK TO END DOMESTIC VIOLENCE, CELL PHONES: LOCATION TRACKING & SHARING, (2011); see also Elaine Seeman et al., The First Step in Modernizing our 911 Emergency Call Centers: Revising the State Enhanced (E) 911 Legislative Funding Scheme to Efficiently Distribute 911 Funds, 2012 U. ILL. J.L. TECH. & POLY 289, 295 (2012) (for discussion of 911 system funding issues).

⁴³ See Aarti Shahani, Smartphones Are Used to Stalk, Control Domestic Abuse Victims, NPR (Sept. 15, 2014), http://www.npr.org/sections/alltechconsidered/2014/09/15/346149979/smartphones-are-used-to-stalk-control-domestic-abuse-victims (indicating some of the ways stalkers can use technology to find their victims)

⁴⁴ See, e.g., Family Locator, Verizon Wireless, https://www.verizonwireless.com/solutions-and-services/family-locator/; see also T-Mobile Unveils Free and Exclusive FamilyWhere Check In Service, T-Mobile (Jan. 31, 2012), https://

Such products are primarily found through cellphone carriers, such as Verizon's Family Locator, T-Mobile FamilyWhere, and AT&T's FamilyMap.⁴⁵ The primary user on the plan usually authorizes these services and has control as to its features.⁴⁶ Unfortunately, abusers tend to be intimate partners who have direct access to a victim's phone plan.⁴⁷ Even without direct access to victim's phone plan, the intimate partner may know enough information to impersonate the victim, access the account, and activate such services allowing the abuser to surreptitiously track and stalk the victim.⁴⁸ One famous example of a family locator service working in the abuser's favor can be seen in the 1995 case of Glenn Helwig.⁴⁹ Using AT&T's Family Finder tracking service, Mr. Helwig followed his estranged wife to her friend's home the day after she arrived, threatened her well-being, and was later arrested for assault charges.⁵⁰

(2) Location Functionality Built into the Operating Systems of Phones and Tablets or Installed Through a Car Manufacturer

Cellphones can be tracked in a variety of ways.⁵¹ Through the use of cellphone towers, through GPS or through network usage information such as connecting to a Wi-Fi network.⁵² In order to leave an imprint of this information, the phone must be turned on and connected to a carrier—extremely easy requirements.⁵³ Many carriers retain location information and store the location

newsroom.t-mobile.com/news/t-mobile-unveils-free-and-exclusive-familywhere-check-in-service.htm; *AT&T FamilyMap*, AT&T, https://www.att.com/shop/apps/familymap.html (for examples).

⁴⁵ *Id*.

⁴⁶ See Set Up My T-Mobile Permissions, T-Mobile, https://support.t-mobile.com/docs/DOC-1694; see also User Permissions for Managing Your Account, AT&T, https://www.att.com/esupport/article.html#!/wireless/KM1009073 (demonstrating that user permissions are generally controlled by a single account).

⁴⁷ See Shahani, supra note 43 (implicating intimate partners as "little brother," in that they can use technology to stalk and control their partners).

⁴⁸ See id. (describing methods intimate partners may use to gain control of accounts and stalk).

 $^{^{49}}$ Justin Scheck, Stalkers Exploit Cellphone GPS, The Wall Street Journal (Aug. 3, 2010), http://www.wsj.com/articles/SB1000142405274870346730457538 3522318244234.

 $^{^{50}}$ *Id*.

⁵¹ Kaofeng Lee & Erica Olsen, *Cell Phone Location, Privacy and Intimate Partner Violence*, 18(6) DOMESTIC VIOLENCE REP. 1 (2013).

 $^{^{52}}$ Id. at 2.

 $^{^{53}}$ *Id*.

information in the device itself.⁵⁴ Examples of such include the location stamp when taking a picture with an iPhone, iPhone's Find My iPhone option, and the location history when calling anyone from the device itself.⁵⁵ This information is fairly easy to access by abusers, especially those living within the same household.⁵⁶ Although most phones have the option to turn off this location-tracking service, many victims do not know of this option, much less how to turn the option off.⁵⁷

Most intimidating of all is the Find My iPhone option within Apple products. Such an option allows for all information that comes to the device not only be stored within the phone itself, but this information is also stored to the victim's iCloud or online account. Moreover, the Find My iPhone option allows for real-time updates on all Apple product locations and directions to find the location. If the abuser has access to such accounts, the abusive party may be able to monitor the phone in real time, stalking the victims every move and readily have directions available to track down the victim.

Therefore, a prime example of how this technology may further hurt victims is seen best through a real-life example. Let's say a victim finally musters up the courage to leave the abusive home and go to a shelter, but because of the commotion surrounding her departure, the victim has forgotten to turn off her location-sharing services, which directly feeds the Apple account information to iCloud being managed by the abuser. If the victim has not turned off her Find My Phone option, the abuser may follow the victim to the shelter and confront the victim, completely undermining the victim's decision to leave the abuser. Now she is in more danger for her attempt to flee than she was previously. Therefore, most shelters recommend that users turn off their location services or completely turn off their phone when seeking help.⁶¹ But forcing victims to disconnect from the outside world when they do decide

 $^{^{54}}$ See id. at 5–6 (explaining how a cell phone camera can store location information).

⁵⁵ *Id*.

⁵⁶ *Id*.

 $^{^{57}}$ See Lee & Olsen, supra note 51, at 3 (explaining how location tracking can go unnoticed).

⁵⁸ Christian Levis, *Smartphone, Dumb Regulations: Mixed Signals in Mobile Privacy*, 22 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 191, 192 (2011).

⁵⁹ Id. at 194–95.

⁶⁰ *Id.* at 201.

⁶¹ Lee & Olsen, supra note 51, at 1.

to leave their abuser forecloses any communication to aid, family members, and medical professionals.⁶²

In addition to cellphones and tablets, GPS systems and locationsharing services that commonly are installed in cars, such as OnStar or Family Link, may be misused to monitor a victim.⁶³ Abusers may be able to log on to the services website to view a map of the vehicle's location at any time and may even schedule updates or text alerts to update the abuser of the victim's location within the automobile.⁶⁴

(3) Freestanding GPS Devices

Abusers can also use freestanding GPS devices to monitor their victims.⁶⁵ These can come in the form of portable GPS systems, such as those made by Garmin, or small tracking devices, like those used by merchandisers to keep tabs of clothing within the store.⁶⁶ Covert GPS tracking devices are specifically used to track victims while being hidden, for example, in a purse or under a car.⁶⁷ While these products are marketed for legitimate purposes, their uses go beyond legitimate purposes.⁶⁸ Newer products have used more blatant advertising to promote its purpose. Bluewater Security Professionals brazenly pitches: "By installing a vehicle tracker in the car of your husband or wife, you will be able to track their every move and tell what his or her true location is. It would be as if you were sitting right next to them in the passenger seat."⁶⁹

(4) Applications and Spyware

Intimate partners have physical access to their partner's cellphone, which makes installing a tracking program or spyware onto their phone easy.⁷⁰ Spyware tends to be undetected by

⁶² *Id*

⁶³ Damon Lavrinc, OnStar Lets You Track Your Spouse for \$0.12 a Day, WIRED, (Mar. 28, 2012), https://www.wired.com/2012/03/onstart-lets-you-track-your-spouse-for-0-12-a-day/.

⁶⁴ *Id*.

⁶⁵ Shahani, supra note 43.

⁶⁶ Erik Eckholm, *Private Snoops Find GPS Trail Legal to Follow*, THE NEW YORK TIMES (Jan. 28, 2012), http://www.nytimes.com/2012/01/29/us/gps-devices-are-being-used-to-track-cars-and-errant-spouses.html.

 $^{^{67}}$ *Id*.

⁶⁸ *Id*.

⁶⁹ Spouse Tracking, BLUEWATER SECURITY PROFESSIONALS, http://www.bluewatersecurityprofessionals.com/spousetracking.htm.

⁷⁰ Lee & Olsen, *supra* note 51, at 2.

antivirus software so as to be difficult to find and nearly impossible to remove. Other ways to install such programs is to inadvertently install the program without the victim having any knowledge of doing so, as many apps do not verify consent from the person being tracked. According to Women's Aid, a domestic violence charity, 41 percent of domestic violence victims' partners have installed spyware and surveillance apps on the victim's mobile phone without consent. After having installed the app unto the victim's phone, the abuser may either track their victim through a website or through their own personal phones in real time. Such surveillance erodes a victim's sense of safety after leaving the relationship and will lead to a higher probability of women returning to the abusive home for a higher rate of violence.

Most of these apps have additional features beyond disclosing the location of the cellphone. The Some features allow the abuser to be notified if the targeted person goes outside of a certain geographic boundary, be notified if the targeted person goes to or leaves a certain place or address, be sent notifications of a targeted person's location at specific times, or see a history of where the targeted person has gone throughout the day or week. Most of these apps include HelloSpy, mSpy and CyberSpy. Most of these apps and spyware systems allow the abuser access to track the phone's location, read SMS remotely, see the call history, listen to phone calls in real-time, and even use the cellphone as a listening device to hear conversations happening around the user.

MSpy even goes as far as to advertise that is frequently used to track a cheating spouse."80 "mSpy has a step-by-step guide—with

⁷¹ See Daniel B. Garrie et al., The Legal Status of Spyware, 59 FED. COMM. L.J. 157, 162 (2006) (discussing the invasive nature of spyware).

⁷² *Id*

⁷³ Cahal Milmo, *Use of Apps to Spy on Spouses an 'Epidemic'*, TIMES OF INDIA (Dec. 29, 2014).

⁷⁴ Id.

⁷⁵ See KATRINA BAUM ET AL., STALKING VICTIMIZATION IN THE UNITED STATES 6, 8 (Bureau of Justice Statistics, 2009) (discussing the emotional impact of stalking, including cyber-stalking).

 $^{^{76}}$ Lee & Olsen, supra note 51, at 2.

⁷⁷ Id.

⁷⁸ See HelloSpy, http://hellospy.com/; MSpy, https://www.mspy.com/; Cyber Spy, http://www.cyberspysoftware.com/ (for the apps' websites).

⁷⁹ See id. (for discussion of the apps' capabilities).

⁸⁰ See MSPY, supra note 78 (explaining the capabilities of mSpy software); see also Victoria Woollaston, The bunny boiler app: Spy software lets you track a

screenshots—on how to download the app onto an iPhone or Android device, how to activate it, and then how to delete any visible trace of it."⁸¹ The app is stored in a hidden folder, with a nondescript name like "Android.sys."⁸² If the victim happened to find it, they'd just see the iconic green Android robot and think it's part of the phone's operating system.⁸³ The app also uses less data than basic text messaging services like WhatsApp, and is therefore virtually undetectable.⁸⁴ The most powerful feature of mSpy is the eavesdropping function, which allows the abuser to use the phone's speakerphone to start recording, allowing the abuser to hear whatever the victim is saying or whatever is around the victim.⁸⁵ Therefore if a victim decides to see a counselor, the abuser would know almost immediately of what was said, if enabled.⁸⁶

As more technology is created, the more abusers are misusing that technology.⁸⁷ According to a study conducted by Digital Trust, an organization that supports victims of digital abuse, up to 50 percent of abusive partners are using some form of electronic surveillance to stalk their victim.⁸⁸ These technological advancements have helped abusers locate victims and stalk them long after they have decided to leave the abusive situation, prolonging the control and power abusers have over their victim.⁸⁹

Numerous cases have arisen that show just how dangerous such technology can be. Sadly, police officials do not have the training to deal with such cases and do not know how to recognize when such situations occur. 90 On Sunday, June 20, 2010, Sean Burton,

partner's movements, listen in on calls and even lock their phone, THE DAILY MAIL (Nov. 28, 2013), http://www.dailymail.co.uk/sciencetech/article-2514892/mSpy-app-lets-people-spy-partners-calls-texts-track-them.html (where mSpy acknowledges a frequent use of the app).

- 81 Shahani, *supra* note 43.
- 82 *Id*.
- 83 *Id*.
- 84 *Id*
- 85 See Lisa Vaas, mSpy Now Selling Phones Pre-loaded with Spyware, NAKED SECURITY (Mar. 17, 2014), https://nakedsecurity.sophos.com/2014/03/17/mspynow-selling-phones-pre-loaded-with-spyware/ (discussing the availability of spyware that records audio).
 - 86 Shahani, *supra* note 43.
- ⁸⁷ Jamie Doward, *Spyware and Malware Availability Sparks Surge in Internet Stalking*, THE GUARDIAN (Feb. 28, 2015), https://www.theguardian.com/society/2015/feb/28/spyware-malware-surge-internet-stalking-digital-trust-gps.
 - 88 *Id*
- ⁸⁹ The New Cyberstalking, Domestic Shelters (Mar. 28, 2016), https://www.domesticshelters.org/domestic-violence-articles-information/the-new-cyberstalking#.WeK-XROPL 9.
 - 90 Harold J. Geistman Jr., Police Responses to Stalking 51 (2003) (thesis,

from Philadelphia, installed a tracking device on the car of his estranged wife's new partner, James Stropas. 91 Between time of installation and Monday morning, the location of the device was checked via the laptop in Burton's van 147 times. 92 Using the GPS to hunt down Stropas, Burton murdered James Stropas in a parking lot by stabbing him over 70 times. 93 In 2011, Andre Leteve used his family AT&T provider GPS location services to track his wife in Scottsdale, Arizona.⁹⁴ After tracking down his wife, Leteve shot and killed his two children and turned the gun on himself.95 In 2011, Dmitry Smirnov methodically stalked and murdered his former girlfriend after first researching whether Illinois has the death penalty. 96 After determining that the state had abolished the death penalty, he drove to the Chicago area, attached a GPS device on the victim's car, and followed her for several days. 97 He sat by her car in her office parking lot and murdered her when she left work.98 In 2013, in Petaluma, Calif., Daniel Gonzalez Perez used a smartphone application to track a victim through her cellphone. 99 He tracked her to a friend's house and was arrested when he assaulted her.100

Graduate School of Wayne State University).

⁹¹ Jeff Deeney, Jealous Husband Sean Burton Accused of Murder, DAILY BEAST (July 10, 2010), http://www.thedailybeast.com/articles/2010/07/10/jealous-husba nd-sean-burton-accused-of-murder.html.

⁹³ Marlene DiGiacomo, Woman Loved Both Defendant, Victim in Springfield Murder Case, Delaware County Daily Times (March 24, 2011), http://www .delcotimes.com/article/DC/20110324/NEWS/303249988.

⁹⁴ Curtis Jay & Brendan Keefe, High Technology Makes Cyberstalking Easier Than Ever, Putting Some Kansas City Area Women at Risk (Nov. 23, 2010), http://www.kshb.com/news/crime/high-technology-makes-cyber-stalking-easierthan-ever-putting-some-kansas-city-area-women-at-risk.

⁹⁶ Dmitry Smirnov Pleads Guilty, Gets Life in Stalking Murder of Ex-Girlfriend Jitka Vesel, HUFFINGTON POST (Sept. 22, 2011), http://www $. huffing ton post.com/2011/07/23/d mitry-smirnov-pleads-gui_n_907839. html. \\$

⁹⁷ Id.

⁹⁸ *Id*.

⁹⁹ Petaluma Man Arrested for Stalking Woman, CBS (Nov. 13, 2013), http://sanfrancisco.cbslocal.com/2013/11/13/petaluma-man-arrested-for-stalkingwoman/.

¹⁰⁰ Id.

IV. CURRENT LEGAL STANCE

Stalking is a crime in all 50 states, and a federal stalking law also exists. ¹⁰¹ Unfortunately, many stalking laws do not address the use of location-tracking devices or apps. ¹⁰² Using spyware is illegal in the UK, but is usually difficult to prove. ¹⁰³ In the Supreme Court's 2012 decision, *U.S. v. Jones*, ¹⁰⁴ the Court unanimously held that the government violated the 4th Amendment when it monitored a person's movements for four weeks, without a warrant, by means of a GPS device that it surreptitiously attached to his vehicle. ¹⁰⁵ The ruling did not impact the use of the devices by private individuals. ¹⁰⁶

On Oct. 21, 2014, Governor Cuomo enacted GPS-stalking legislation (S.4187C/A.7720B), otherwise known as Jackie's Law. 107 Jackie's Law updated New York's stalking laws to allow law enforcement to pursue criminal charges against those who use GPS or other electronic tracking devices to stalk their victims, taking the onus off the victim and empowering police to take action. 108 Jackie's Law also added the use of a GPS device to the list of actions covered under the definition of "following" in fourth-degree stalking, a Class B misdemeanor, which would help streamline the process of securing an order of protection because stalking offenses can be pursued in criminal court, family court, or both. 109

¹⁰¹ Laurie Salame, A National Survey of Stalking Laws: A Legislative Trend Comes to the Aid of Domestic Violence Victims and Others, 27 Suffolk U. L. Rev. 67, 70–71 (1993).

¹⁰² Julia Dahl, "Stalker Apps" Are Legal, but Maybe Not for Long, CBS NEWS (Oct. 13, 2014), http://www.cbsnews.com/news/stalker-apps-are-legal-but-maybe-not-for-long/; Casey Quinlan, Stalking by Cellphone, CRIME REPORT (Apr. 2, 2015), http://www.thecrimereport.org/news/inside-criminal-justice/2015-04-stalking-by-cellphone.

¹⁰³ Robert C. Piasentin, Unlawful? Innovative? Unstoppable? A Comparative Analysis of the Potential Legal Liability Facing P2P End-Users in the United States, United Kingdom, and Canada, 14 INT'L. J.L. & INFO. TECH., 195, 211 (2006).

¹⁰⁴ United States v. Jones, 565 U.S. 400 (2012).

¹⁰⁵ *Id.* at 402–403, 413.

 $^{^{106}}$ See id. at 402-403 (establishing that GPS use in question was by law enforcement).

¹⁰⁷ Sen. Timothy M. Kennedy, Governor Cuomo Signs Jackie's Law, Authored by Senator Kennedy and Assemblywoman Peoples-Stokes, to Crack Down on GPS Stalking and Domestic Violence, N.Y STATE SENATE (July 23, 2014), https://www.nysenate.gov/newsroom/press-releases/timothy-m-kennedy/governor-cuomosigns-jackies-law-authored-senator-kennedy.

 $^{^{108}}$ *Id*.

¹⁰⁹ *Id*.

In 2014, U.S. Sen. Charles Schumer proposed federal legislation that would build on Jackie's Law. 110 Under Schumer's proposal, covert use of GPS trackers would be illegal except for use by law enforcement officials, parents of minors, and in specific cases of patients suffering from dementia or similar diagnoses. 111 The bill was referred to the Senate Judiciary Committee, but no further action has been taken. 112

In the U.S., a movement has arisen to stop the marketing and creation of "Stalker Apps." Hammad Akbar, creator of StealthGenie, a mobile spyware application that intercepts electronic communications using smartphones, was arrested and charged for making an app that he marketed as "undetectable." 114 In 2008, the Federal Trade Commission (FTC) successfully banned CyberSpy spyware application after the Electronic Privacy Information Center (EPIC) lodged a complaint. 115 The FTC, following on the complaint submitted by EPIC, filed a complaint with the U.S. District Court, and the ban was put in effect within the same month. 116 CyberSpy Software, according to the EPIC complaint, promoted illegal surveillance, failed to warn customers of the legal dangers arising from misuse, and encouraged Trojan Horse email attacks. 117 This ban did not lead to the indictment of any specific individual. 118 Carlos Enrique Perez-Melara, the creator of a spyware program called "Loverspy," was indicted for various counts relating to his creation of the spyware. 119 Loverspy allowed users to break into the victims' computer and illegally

¹¹⁰ Teri Weaver, Beginning Today, NY's Stalking Law Restricts Using GPS to Track Someone, SYRACUSE POST-STANDARD (Oct. 21, 2014), http://www.syracuse.com/news/index.ssf/2014/10/ny_stalking_law_now_includes_use_of_gps_tracking_devices.html.

¹¹¹ *Id*.

 $^{^{112}}$ S.2933 - A bill to prohibit the unauthorized use of electronic tracking devices, Library of Congress, https://www.congress.gov/bill/113th-congress/senate-bill/2933?q=%7B%22search%22%3A%5B%22S.2933%22%5D%7D&r=2.

¹¹³ See James Warren, Pols Go After Smartphone Apps that Enable Stalkers, NEW YORK DAILY NEWS (Jun. 8, 2014), http://www.nydailynews.com/news/crime/pols-smartphone-apps-enable-stalkers-article-1.1821264 (for discussion of legislative efforts to counter stalking).

¹¹⁴ Dahl, *supra* note 102.

¹¹⁵ FTC v. CyberSpy Software, LLC, 2009 WL 2386137 (M.D. Fla. 2009).

¹¹⁶ *Id*.

¹¹⁷ *Id*.

¹¹⁸ *Id*.

¹¹⁹ Creator and Four Users of Loverspy Spyware Program Indicted, U.S. DEP'T OF JUSTICE (Aug. 26, 2005), https://www.justice.gov/archive/criminal/cybercrime/press-releases/2005/perezIndict.htm.

intercept the electronic communication of others.¹²⁰ Mr. Perez fled the country after the indictment was filed but not before being added to the FBI's Cyber Most Wanted List.¹²¹

Sen. Al Franken has been leading the fight for the investigation of these spyware apps since 2011.¹²² On Nov. 10, 2015, Sen. Franken presented a bill to the 114th Congress that would outlaw apps that allow a user to monitor a person's location via GPS tracking.¹²³ His bill is called the Location Privacy Act of 2015 and has since been referred to the Judiciary Committee on Privacy, Technology and the Law.¹²⁴ Sen. Franken said in a statement: "Currently there is no federal legislation banning the secret collection of location data. My bill would finally put an end to GPS stalking apps that allow abusers to secretly track their victims." ¹²⁵

Previous legislation, the Electronic Communications Privacy Act, allowed companies and commercial entities to attain location information and give this information for free or sell to almost anyone. Papelications such as Tinder and WhatsApp all collect and share user location data without the user's affirmative consent. Privacy Protection to protect consumers and victims. Privacy Protection Act of 2015 requires that companies get permission from the user before collection location data and before sharing it with others. Privacy Protection Act of Act also requires any company collecting location data to post online information they are collecting and how you can stop the collection of such information. The most important proposition of the Act is that it completely bans the development, operation, and sale of GPS stalking apps and establishes an Anti-Stalking Fund at the Department of Justice.

Critics of the Location Privacy Protect Act argue that the

¹²⁰ Id.

¹²¹ FBI Adds Hacker Who Helped Catch Cheating Lovers to the Most Wanted List for Cyber Criminals, DAILY MAIL (Nov. 7, 2013), http://www.dailymail.co.uk/news/article-2490775/FBI-adds-hacker-helped-catch-cheating-lovers-Most-Wanted-list-cyber-criminals.html.

¹²² Dahl, supra note 102.

¹²³ See Location Privacy Protection Act of 2015, S.2270, 114th Cong. (2015) (for text of the bill).

 $^{^{124}}$ *Id*.

 $^{^{125}\,}$ Dahl, supra note 102.

¹²⁶ 18 U.S.C. § 2510 (1986).

¹²⁷ Levis, supra note 58.

¹²⁸ Location Privacy Protection Act, supra note 123.

 $^{^{129}}$ Id.

¹³⁰ *Id*.

¹³¹ *Id*.

legislature is too broad and may stifle legitimate uses.¹³² Critics further warn of unintended consequences, and although the legislation is helpful in the context in which presented, the proposition will likely not be sufficient to fully address the issue and may require substantial changes in mobile operating systems.¹³³ Critics argue that location-tracking technology have legitimate purposes, which can help law enforcement officials track down stolen cars, runaway children, and members who suffer from ailments such as Alzheimer's.¹³⁴ Furthermore, critics state that the legislation tries to regulate data instead of specific uses of data, bordering a constitutional issue of being overbroad and allowing too many instances to be blanketed in.¹³⁵ The mobile advertising industry, which relies heavily on geographic data provided by location tracking, will be greatly affected by the legislation.¹³⁶

V. BENEFITS OF LOCATION TECHNOLOGY

Although technology may be misused for purposes such as stalking, there are also benefits. The most obvious benefit is that, by the use of location technology, the victim may use this technology for easier access to websites with helpful information as to how to protect one's self. Also, the victim may use maps for directions and also may be able to send alerts to others when in dangerous situations. May be misused, potential victims may make their locations known to law enforcement personnel when in emergency situations. For example, tracking technology allows law enforcement officials to follow and track abuser movements and location that may leave a trail for later prosecution if the offender violates a protective order. It

¹³² Ernie Smith, *Ad Group: Privacy Bill Could Target More Than 'Stalker Apps'*, ASSOCIATIONS NOW (Jun. 9, 2014), http://associationsnow.com/2014/06/adgroup-privacy-bill-target-stalker-apps/.

¹³³ Id

¹³⁴ Derek P. Richmond, Can You Find Me Now?—Tracking the Limits on Government Access to Cellular GPS Location Data, 16 COMM. L. CONSPECTUS 283, 285–86 (2007).

¹³⁵ *Id.* at 297.

¹³⁶ Richmond, supra note 134, at 290.

 $^{^{137}}$ Southworth, supra note 2.

¹³⁸ *Id*.

¹³⁹ *Id*.

¹⁴⁰ Krueger, *supra* note 24.

¹⁴¹ Richmond, *supra* note 134, at 283–84.

While electronic monitoring of criminals on probation is a great strategy, and may be used with domestic violence cases, there are a number of reasons why electronic monitoring is not widely used. 142 First, there are many other criminal justice responses that may be used before electronic monitoring may be set in place, including the effective use of protection orders and the use of criminal sanctions. 143 Secondly, electronic monitoring may be difficult when the domestic violence case is rare or complex. 144 For example, if the abuser were a stranger to the victim, such as an anonymous stalker, the electronic monitoring would not be effective. 145 The reason being is that electronic monitoring should target the location of the offender in relation the location of the victim. 146 But having such electronic monitoring in place in these kinds of cases would take the focus away from the abuser and place the burden on the victim to stay away from the abuser's exclusionary zone. 147

Another relatively new technological way of helping survivors to stay safe is the new emergence of survivor apps. 148 These apps use location tracking to contact law enforcement quicker and lead them to the victim's precise location. 149 These apps also allow for a safer way to keep records of violence and usually have information of local help centers at the touch of your fingertips. 150 Three emerging survivor apps are SafeTrek, ICE BlackBox, and iMatter. 151 With further funding, domestic violence apps may be able to include software detection software, safety planning archives, and a service locator with map directions. 152 Unfortunately these apps are usually not free, and a victim must buy a subscription to access certain features. 153 This just leads us

¹⁴² Helen Rubenstein, Watching New Laws on Violence Against Women Globally: Does Electronic Monitoring Work? GLOBAL RIGHTS FOR WOMEN (Jan. 21, 2015), http://globalrightsforwomen.org/2015/01/21/watching-new-laws-on-violen ce-against-women-globally-does-electronic-monitoring-work/.

 $^{^{143}}$ *Id*.

¹⁴⁴ *Id*.

 $^{^{145}}$ Id.

¹⁴⁶ *Id*.

¹⁴⁷ *Id*.

¹⁴⁸ More Domestic Violence Apps to Check Out, DOMESTICSHELTERS.ORG (Sept. 21, 2015), https://www.domesticshelters.org/domestic-violence-articles-information/more-domestic-violence-apps-to-check-out#.VsVQyhhly-S.

¹⁴⁹ *Id*.

¹⁵⁰ *Id*.

¹⁵¹ *Id*.

 $^{^{152}}$ *Id*.

¹⁵³ See id. (providing an example of an app that is free to download, but requires

back to our previous argument.¹⁵⁴ The abuser usually has physical access to the victim's electronic device and may able to find these apps and possibly put the victim in grave danger.¹⁵⁵ Also, if the victim does decide to buy these features, the abuser may be able to check bank accounts to see what the victim has spent money on.¹⁵⁶ Furthermore, to make a victim pay for these apps takes for granted that we are assuming the victim has access to funds, and she has any monetary autonomy.¹⁵⁷

VI. RECOMMENDATIONS

Survivors of abuse and all other users should be informed about how their location information will be used, disclosed, and shared in a transparent manner. Knowing how their information will be used will empower the victim and allow for the victim to properly strategize once s/he makes the decision to leave the abuser. While gathering consent should be the first step, consent is not enough. As stated before, intimate partners usually have direct access to their partner's phone, allowing them opportunity to consent. The device cannot know if the actual user is consenting or if the abuser surreptitiously consented to the terms while installing the application. After having consented once,

a monthly subscription to access the features).

¹⁵⁴ See supra Part V (for discussion of the negative implications of electronic monitoring systems).

¹⁵⁵ Lee, *supra* note 51, at 2–3.

¹⁵⁶ SOUTHWORTH, *supra* note 2. "Abusers can monitor their victims' cell or wireless telephone use through the call history on the telephone and through billing records."

¹⁵⁷ See Natalie Matthews, Why Women Need Personal Safety Apps, ELLE (May 1, 2014), http://www.elle.com/culture/tech/news/a14941/womens-safety-apps/ (pr oviding examples of the costs associated with the use of such apps).

¹⁵⁸ See CTIA, BEST PRACTICES AND GUIDELINES FOR LOCATION-BASED SERVICES 1 (2010) (explaining that location-based service providers "must ensure that users receive meaningful notice about how location information will be used, disclosed and protected").

¹⁵⁹ *Id.* at 1, 3.

¹⁶⁰ See id. at 1, 5 (discussing the need for the location-based service to ensure both consent from the user and notice to the user about their location information).

 $^{^{161}}$ Lee, supra note 51, at 2–3.

¹⁶² Anita Ramasastry, Senator Franken Wants Us to Know When Our Apps Are Tracking Us: Why This Is a Sensible Thing for Congress to Require, JUSTIA (Dec. 18, 2012), https://verdict.justia.com/2012/12/18/senator-franken-wants-us-to-know-when-our-apps-are-tracking-us (indicating that an abuser can install applications onto a victim's phone very quickly and discreetly, consenting to terms during installation without the victim knowing).

reminders of the use of the user's location is needed at differing times so that the victim have a higher probability of knowing the status of their location. This reminder may be taken in many forms such as text messages, software updates, or even notifications within the actual phone itself that alert the user to the location services being activated. 164

Another type of warning that would be easy to implement and would inform victims of potential dangers would be to implement a warning message on the homepage of shelters and emergency responses. 165 The home page of the Texas Council on Family Violence warns visitors: "Safety alert: Computer use can be monitored and is impossible to completely clear." 166 The web site of the Family Place in Dallas offers a "click here" prompt, which explains to visitors how to erase their computer trails without leaving evidence of what website was just visited. 167 The warning message may advise users to find a safe computer or to call its toll-free hotline. 168 Such a mandatory implementation would be cost effective, easily implemented, and can have immense benefits. 169

Moreover, the interception of tracking location and the interception of electronic communication should be criminalized. ¹⁷⁰ By criminalizing these acts, not only do you empower the victim, but you also provide a guideline for law enforcement officials to use that has never been in place before. ¹⁷¹ The proceeds of whatever criminal action that is taken against the abuser should be allowed to fund anti-stalking efforts. ¹⁷² One anti-stalking effort should be to equip abuse shelters with untraceable cellphones that may be used by battered women in emergencies, to which the batterers have no way of attaining the contact information. ¹⁷³ The cellphone would be essential to victims as they look for jobs that

¹⁶³ CTIA, supra note 158, at 4.

¹⁶⁴ *Id*.

¹⁶⁵ Horner, supra note 26.

¹⁶⁶ *Id*.

¹⁶⁷ *Id*.

¹⁶⁸ *Id*.

¹⁶⁹ See id. (discussing the implementation of warning messages on shelter and emergency response websites).

¹⁷⁰ See Dahl, supra note 102 (discussing the criminalization of so-called "stalker apps" and the investigations connected to them).

¹⁷¹ States considering the enactment of such criminalization should model the Federal Electronic Communications Privacy Act. 18 U.S.C.A. § 2511 (Supp. 2008).

¹⁷² See Lee, supra note 51 (discussing future anti-stalking efforts that could be made to protect survivors).

¹⁷³ Krueger, supra note 24.

need a phone number to reach the applicant.¹⁷⁴

The federal government should also continue to gather information about such GPS tracking devices and support the continuation of certain agencies, such as the NNEDV, for continued information and the production of recent data.¹⁷⁵ Subsequently, we as a nation should train law enforcement personnel as to how to handle such cases from the moment of response.¹⁷⁶ Police should be aware of such technologies and the impact they have on the victim.¹⁷⁷ Even more than just detecting, police, social workers, and advocates should be taught how to use technology to fight abuse and give control back to victims.¹⁷⁸ Such courses have been implemented before, and should be implemented again with an ever-updating format to keep up with technological advancements.¹⁷⁹

Lynn Rosenthal, the former White House advisor on violence against women once said, "We knew there could be another side of the story, where the technology is used to save lives." ¹⁸⁰ Multiple organizations such as NNEDV, The Women's Services Network (WESNET), and SafetyNet offer training nationwide. ¹⁸¹

VII. CONCLUSION

The emerging use of technology and the advancement of technology presents a danger to domestic violence victims. Apps and spyware systems allow abusers to stalk and monitor their victim without the victim ever knowing. Such technology cripples victims, making them virtually incapable of seeking help without having their every move monitored. I strongly urge Congress to support Sen. Franken's proposal of the Location Privacy Act of 2015. Such an act will not only empower victims, but also punish the abusers for their actions. While electronic monitoring may be useful to track abusers' movements when in violation of protection orders, the same electronic monitoring technology may be used by

¹⁷⁴ *Id*.

¹⁷⁵ Karen Oehme et al., Unheard Voices of Domestic Violence Victims: A Call to Remedy Physician Neglect, 15 GEO. J. GENDER & L. 613, 626 (2014).

¹⁷⁶ *Id*.

¹⁷⁷ *Id*.

¹⁷⁸ Krueger, supra note 24.

¹⁷⁹ See id. ("A national wireless industry foundation announced last week that it will grant \$500,000 for training programs around the country designed to teach police, social workers and advocates how to use technology to fight abuse.").

¹⁸⁰ *Id*.

¹⁸¹ Oehme, supra note 175.

abusers to further control their victim. We must continue to train our law enforcement personnel and raise awareness for victims to be well informed when they finally decide to leave.