

# **Stalking 2.0:** The Use of Technology to Stalk

## **OVW** Funding

This project was supported by Grant No. 2017-TA-AX-K074 awarded by the Office on Violence Against Women, U.S. Department of Justice. The opinions, findings, conclusions, and recommendations expressed in this program are those of the author(s) and do not necessarily reflect the views of the Department of Justice, Office on Violence Against Women.

A pattern of behavior directed at a specific person that would cause a reasonable person to feel FEAR for the person's or the safet of others; or suffer substantial emotional distress.



# What's so scary?



# Technology does not cause stalking.







# The majority of stalking victims experienced both in-person stalking and technology-facilitated stalking.

Messing, J., Bagwell-Gray, M., Brown, M.L., Kappas, A., & Durfee, A. (2020). Intersections of Stalking and Technology-Based Abuse: Emerging Definitions, Conceptualization, and Measurement. Journal of Family Violence 35(1): 693-704.

## SLII Framework

## SURVEILLANCE

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LIFE INVASION

## INTIMIDATION

### INTERFERENCE

Logan, T.K. & Walker, R. (2017). Stalking: A Multidimensional Framework for Assessment and Safety Planning, Trauma, Violence and Abuse 18(2), 200-222.

### SURVEILLANCE

Smart home devices
Tracking software/GPS
Cameras/recordings
Monitoring activity online
Access to accounts

## LIFE INVASION

Unwanted contact
online, texts, calls
Impersonating victim
Hacking victim accounts

## INTERFERENCE

- Posting private photos or info
- Spreading rumors
- •Doxing, swatting
- Controlling accounts
- •Posing as victim and creating harm

## INTIMIDATION

•Blackmail

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- Sextortion
- •Threats release false private info
- Threats interfere with property,
  employment, other
  Threats harm online

# Should victims just log off?

#### **DELETE ACCOUNT?**

Delete account and all data? This cannot be undone.



"...the victim's attempts to distance themselves from their stalker actually frustrate or anger the stalker, leading to an increase in the physical threat to their lives."

Quinn-Evans, L., Keatley, D.A., Arntfield, M., & Sheridan, L. (2019). A Behavior Sequence Analysis of Victims' Accounts of Stalking Behaviors. Journal of Interpersonal Violence 00(0): 1-19.

### Phone Calls

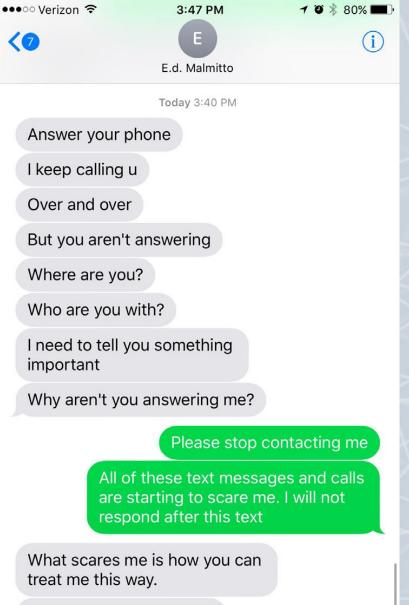


abusive to her and her children. I counted over 70 phone calls from between 2130 hours on 07/13/2016 and approximately 0100 hours on 7/14/2016, and over 90 text messages during the same time frame.



## **Text Screenshots**

\* Overlap screenshots
\* Capture time and date
\* Take a picture of the contact info
\* Consider apps like Tailor or Stitchlt



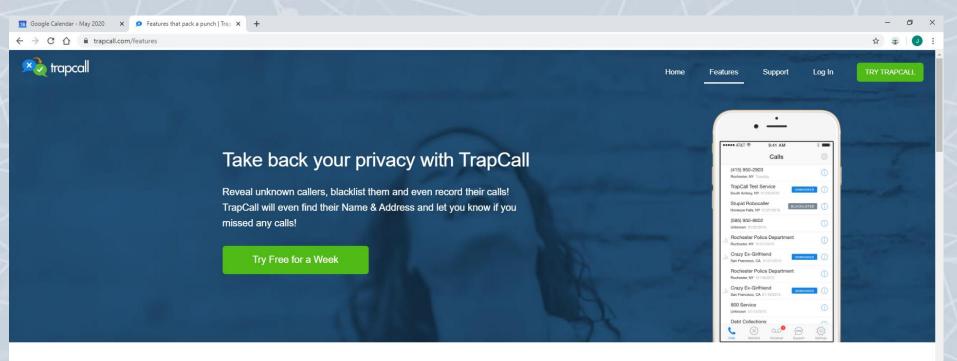
ANSWER YOUR PJONE!!!



### **Unidentified Caller**



## \*67 Calls: TrapCall (trapcall.com)



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#### Say 'No' to blocked calls. Forever.

With TrapCall's patented technology you will always know who is behind anonymous blocked caller ID. Just decline the call and let us work our magic. Calls ring back to you unmasked in just a few seconds.

0



O Support 10:14 AM

5/18/2020

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40%

#### Here's how to unmask calls with TrapCall



## **TrapCall Limitations**

- \* ONLY works for \*67
- \* Offenders may have unregistered phone or use google voice or other apps
- \* Is there context in the calls that points to the offender
- \* Changing phone numbers isn't always a good solution

## Spoofing



violation. The sponded to a comptaint about a protection ofder phone numbers and he believes she has an application that allows her to do that. He handed me his cell phone and I read through some of the text messages

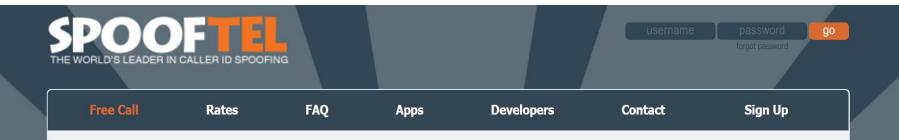






How can you remain anonymous when you call someone? The best way is by using SpoofCard. With SpoofCard you can change your CallerID to

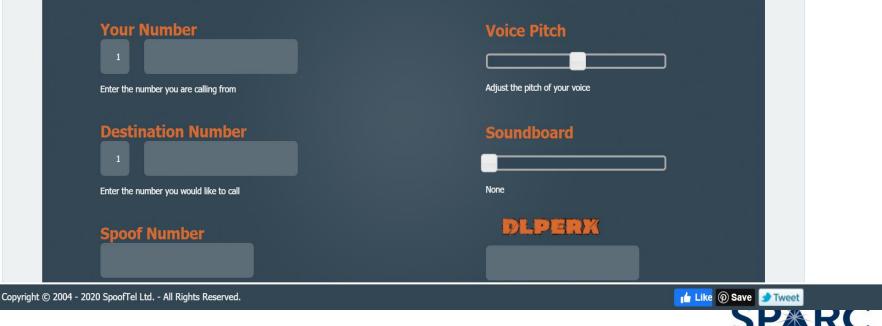




#### FREE CALLER ID SPOOFING TRIAL

It is more important than ever to protect your personal information and it all starts with a telephone number. A caller ID spoofer allows you to tweak how your phone number shows up through incoming calls.

It has never been easier to fake caller ID displays, maintaining your privacy and protecting your information. When you want to spoof a call, it involves more than a changed number. At SpoofTel, our services come along with a voice changer option.



# Spoofing: What You May Hear

- "Numbers I don't recognize call and harass me."
- "I keep getting hang-up calls from random numbers."
- "It shows up as my mom/friend/someone I know, but it is the offender calling."
- "I know it's the offender, but it doesn't sound like them."
- "I blocked the offender, but they just keep calling me from different numbers."
- "People are saying I called them, but I didn't."

## Evidence with a SpoofCard

\* Phone records from: victim, "friend", and suspect
\* Victim's records show "friend" called
\* Friend's records show no call
\* Suspect's records show a call to SpoofCard

\* Call the number and record

\* Financial records of suspect

### Location Tracking



# How Do Stalkers Track Location?

### **Property Tags**

#### Access to and/or Shared Victim Accounts



#### Installed Stalkerware



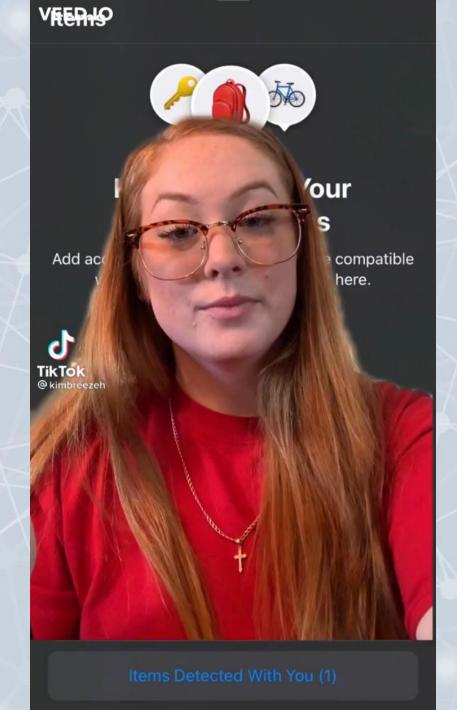
#### **Family Tracking Devices**



#### Social Media Maps/Check-ins



Proxy Stalking



## Air Tags

### **VEED.IO**

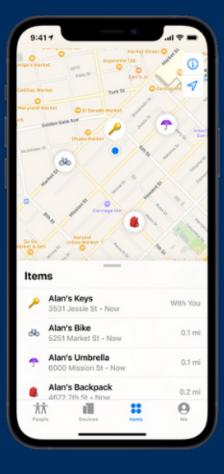


(note: time before notification reduced from 3 days to a few hours since this video was released)

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# Understanding AirTags



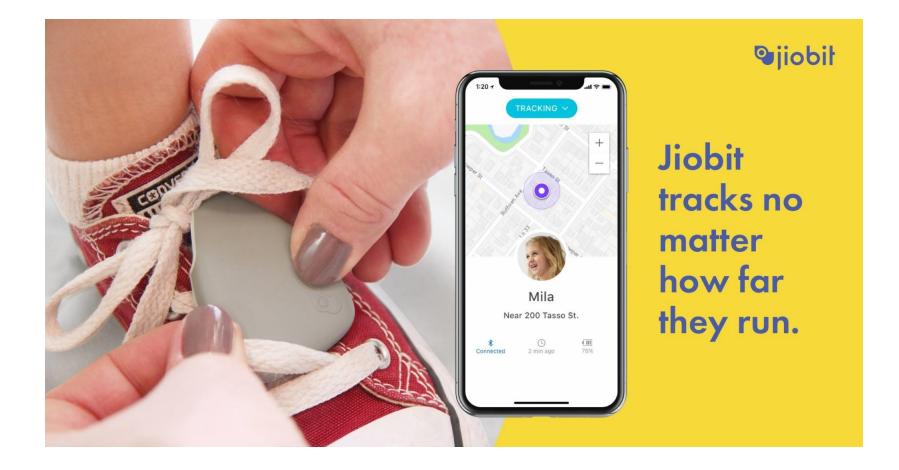
- Shows current location, not location history
- Frequency of the location update varies

   Depends on other devices in range
- While Tile requires people to have downloaded the Tile app for the location tracking to "ping," AirTag "pings" off any Apple device within 800 feet

## **Evidence with AirTags**

- \* Serial number is unique to each AirTag
- \* Serial number is on physical device, but will not show up on phone
- \* Contact <u>lawenforcement@apple.com</u> to check device registration
- \* Check financial records of suspect
- \* Contextual evidence

## **Child Trackers**







How It Works

Product

Community

#### You're Not The Only One With Resolutions...

Make it a great year for you and your best friend with a Tagg GPS Plus Pet Tracker

SHOP NOW

FEATURED ON



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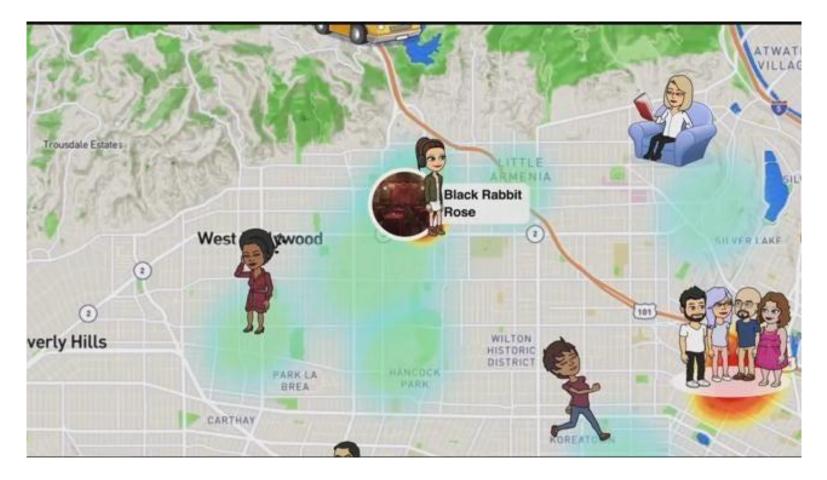


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## SnapMap

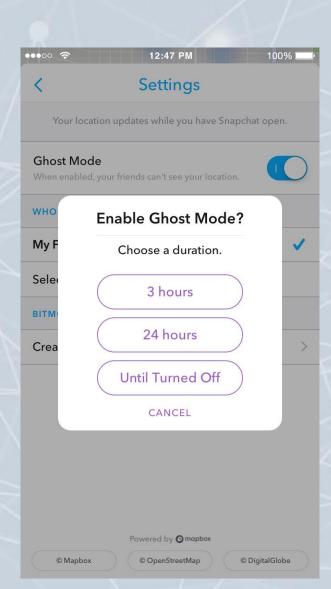




## SnapChat Ghost Mode

Ghost Mode allows you to turn your location on and off on the Map

- \* Only Me (no one sees you)
- \* Select Friends (you choose who sees you)
- \* My Friends (all your friends can see you)



## **GPS Documentation & Evidence**



- Tracking software
- Tracking websites

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## Phone

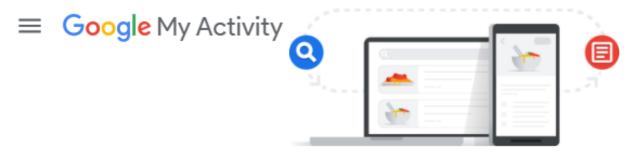
- Apps
- Websites
- Call-in numbers
- Texts

## **Financial Data**

- Equipment purchase
- Real time tracking service charge

# Google/Apple Data

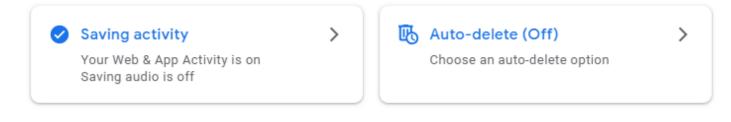




## Web & App Activity

Your Web & App Activity includes the things you do on Google services, like Maps, Search, and Play. It can also include things you do on sites, apps, and devices that use Google services or your voice and audio recordings. The activity you keep is used to give you more personalized experiences, like faster searches and more helpful app and content recommendations.

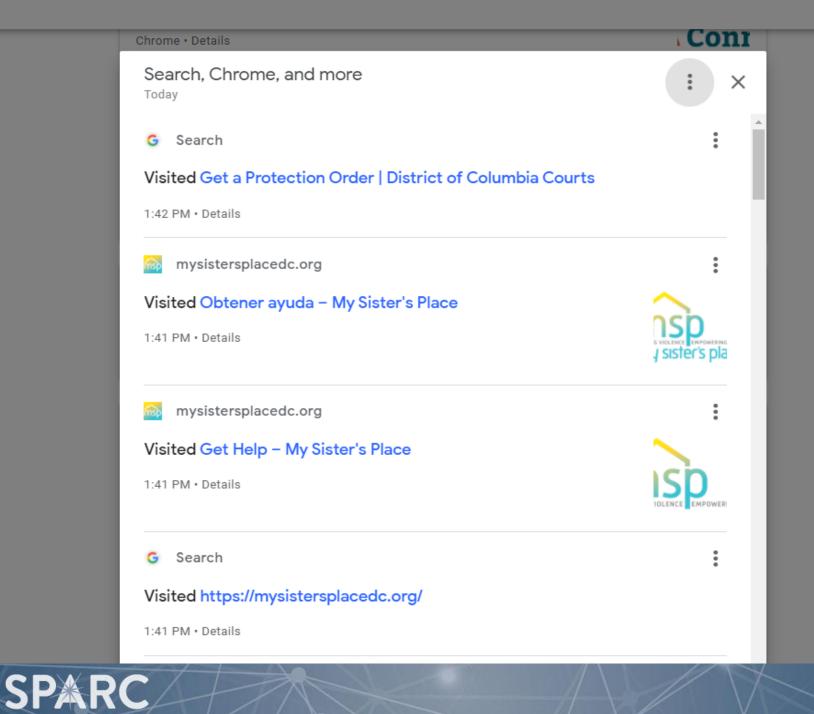
You can see your activity, delete it manually, or choose to delete it automatically using the controls on this page. Learn more

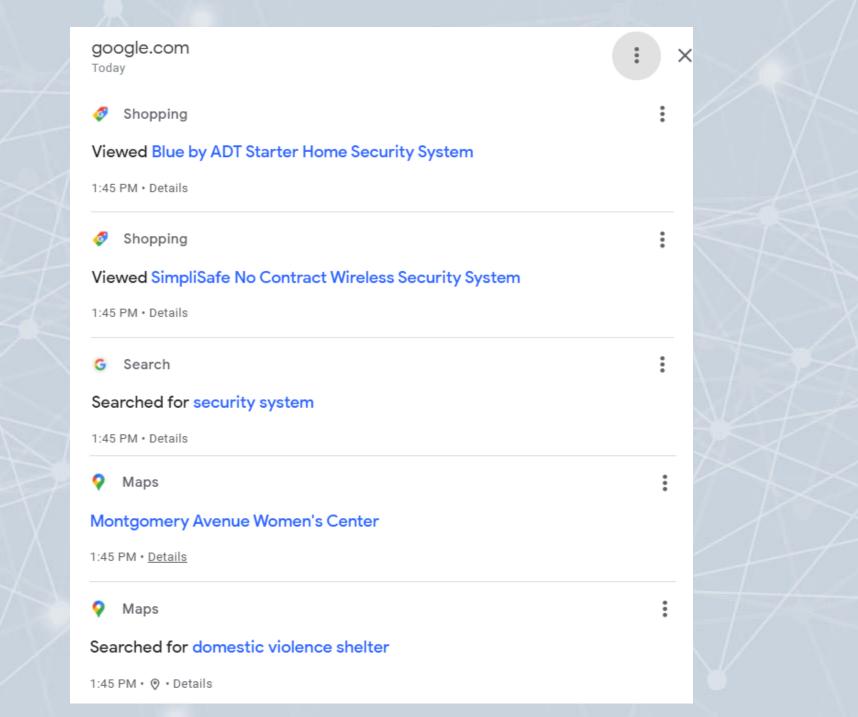


Google protects your privacy and security. Manage My Activity verification

#### Q Search your activity







#### Reservations

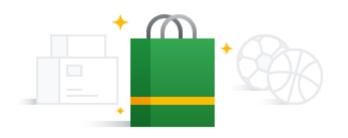
Your past and upcoming reservations for flights, hotels, and events made using Search, Maps, and the Assistant



#### Manage reservations

#### Purchases

Your purchases, including deliveries and other online orders, made using Search, Maps, and the Assistant



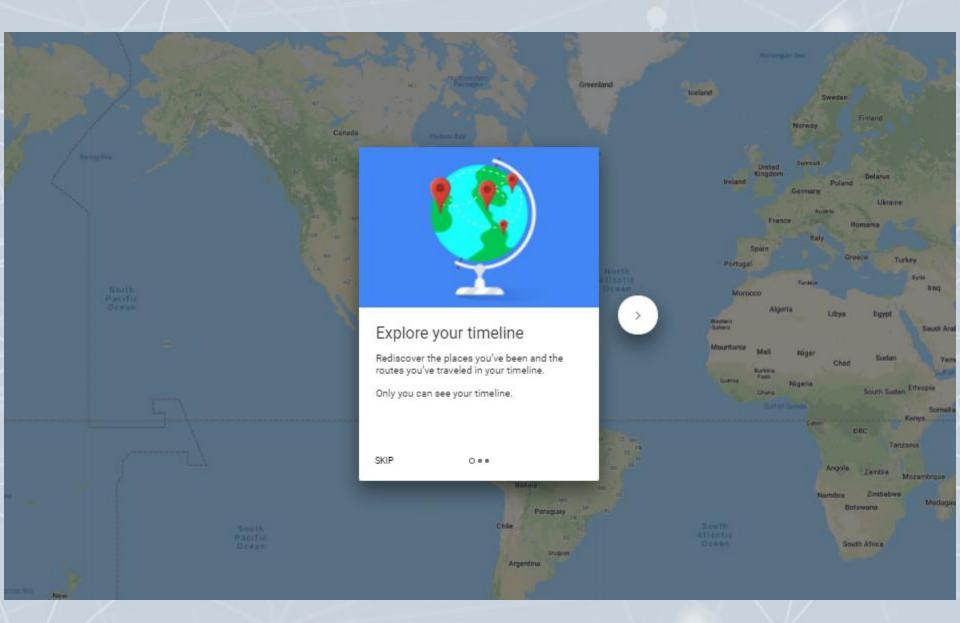
#### Manage purchases

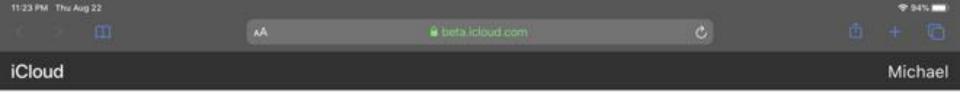
#### Payment methods

With Google Pay, you can save payment info for more secure payments online, for your Assistant and in store



#### Manage payment methods







#### Good evening, Michael.

Account Settings >





Find iPhone

## Stalkerware



# What is Stalkerware?



 Commercially available software used for spying

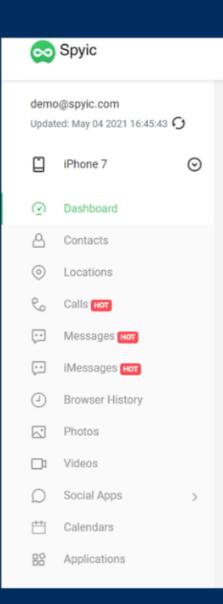
- Made for individual use
- Typically hides itself from the list of installed programs and does not display any activity notifications





# About Stalkerware

- Physical access to the device is almost always required for installation
- Can be on both Apple and Android devices, but more common on Android
- Best to assume all activities on device are being monitored





# **Minimizing Installation Risk**

- Keep the device within reach at all times
- Keep device locked with hard-to-guess PIN
- Ensure screen locks after a short duration
- Don't enable device's auto-unlock feature when in range of home WiFi
- Install antivirus and perform regular device scans



# Stalkerware: What You May Hear



- "They hacked my phone."
- "They hacked my account/s: e-mail, Facebook, Instagram, Snapchat..."
- "They're reading my texts."
- "They are listening to my calls."
- "They seem to know everything I've done on my phone."
- "They know my passwords and logins, even though I just changed them."
- "They have and/or are referencing pictures of me I took on my phone."
- "They keep showing up where I am."

advised recently strange things have been happening and the person whom she is currently dating has been having weird things happen to him as well. She

auto-tracking feature on her phone. She said "he always knows where I am at. He texts me telling me exactly where I am at!" She has blocked his profile but

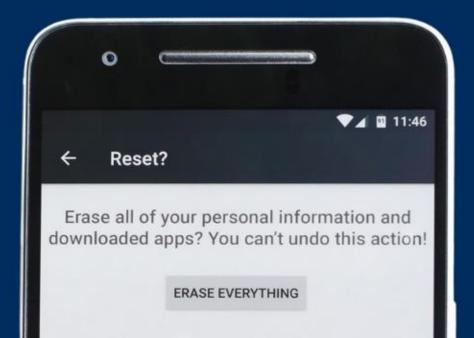
She was texting a friend when her phone shut off in the middle of the text. Stated that she turned her phone back on and a green android symbol popped



# **Removing Stalkerware**

All actions may cause potential safety concerns!

- Factory reset
  - Note: this also destroys the evidence
- Change passwords on all apps/accounts when re-installed
- Antivirus can sometimes remove stalkerware





# Non-Stalkerware Possibilities



SHARING SETTINGS

- Phone login and password security
- Cloud/Account Backup
- Family sharing, "find my device"
- ACCOUNT ACCESS \*\*\*-
- Individual accounts: e-mail, social media, dating websites
- Smart device accounts
- Previously shared accounts



- Devices: GPS tracker, key logger, cameras, recording devices
- Friends, family, colleagues

## Social Media & Dating Websites



# **Exploiting Social Media**

## \* Gather information on the victim

- \* Location
- \* Plans

## \* Communicate

- \* Post on victim's page
- \* Post about the victim on their own or other's pages

## \* Create fake sites/Impersonation

# **Portals for Law Enforcement**



#### Request Secure Access To The Law Enforcement Online Request System

Snap Inc. ("Snap") discloses Snapchat account records solely in accordance with our Terms of Service and applicable law. If you are a sworn law enforcement officer or other appropriate governmental entity, you may submit your request for Snap's disclosure of records through this system.

I acknowledge that I am a sworn law enforcement officer or other appropriate governmental entity, and this is an official request.



#### Disclaimer

For use only by SWORN LAW ENFORCEMENT OFFICERS (or other appropriate governmental entities) requesting Snap's disclosure of Snapchat account records. Please note a valid identifier is required in order for Snap to locate a Snapchat account and process your request. We are unable to locate Snapchat accounts based on any of the following: display name, real name, date of birth, street address, social security number, and photos. More information regarding Snapchat usernames can be found in Section IV of our Law Enforcement Guide, available at: https://www.snapchat.com/lawenforcement.

#### https://less.snapchat.com

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# Facebook Documentation \* Capture and save screenshots (PrntScrn) \* Some sites offer a "download your information" service in account settings

https://www.facebook.com/settings

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<ul> <li>General</li> <li>Security and Login</li> <li>Your Facebook Information</li> </ul>	General Account Set	rtings rr information, go to <u>Your Facebook Information</u> .	
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Timeline and Tagging A Location	Username	https://www.facebook.com/dana.fleitman	Edit
Blocking Kanguage	Contact	Primary:	Edit
Face Recognition	Ad account contact		Edit
Notifications     Mobile     Public Posts	Temperature	Fahrenheit	Edit
	Manage Account	Modify your Legacy Contact settings or deactivate your account.	Edit
	Identity Confirmation	Confirm your identity to do things like run ads related to politics and issues of	View

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#### **Download Your Information**

You can download a copy of your Facebook information at any time. You can download all of it at once, or you can select only the types of information and date ranges you want. You can choose to receive your information in an HTML format that is easy to view, or a JSON format, which could allow another service to more easily import it.

Downloading your information is a password-protected process that only you will have access to. Once you've created a file, it will be available for download for a few days.

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If you'd like to view your information without downloading it, you can Access Your Information at any time.

New	File Available Files 1	
Date	Range: October 2, 2017 - October 3, 2017 - Format: HTML - Media Quality: High -	Create File
Your	Information 🕤	Deselect All
8	Posts Posts you've shared on Facebook, posts that are hidden from your timeline, and polls you have created	$\checkmark$
Ø	Photos and Videos Photos and videos you've uploaded and shared	$\checkmark$
0	Comments Comments you've posted on your own posts, on other people's posts or in groups you belong to	V
0	Likes and Reactions Posts, comments and Pages you've liked or reacted to	$\checkmark$
	Friends The people you are connected to on Facebook	$\checkmark$
0	Following and Followers People, organizations or business you choose to see content from, and people who follow you	V
0	Messages	$\checkmark$

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## Nonconsensual Image Distribution









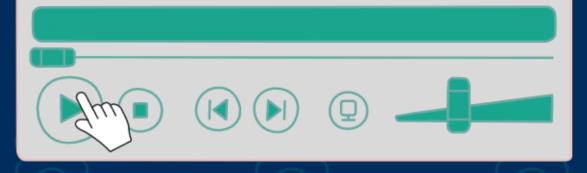




## **16 OF VICTIMS IB-24 YEARS OLD** REPORT THAT THE STALKER SHARED NUDE, SEMI-NUDE, AND/OR SEXUALLY EXPLICIT PHOTOS OR VIDEOS OF THEM

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Brady, P. Q., & Woodward Griffin, V. (2019). The Intersection of Stalking and Sexual Assault Among Emerging Adults: Unpublished Preliminary Results. mTurk Findings, 2018.













## **First Order Motion Model for Image Animation**

Aliaksandr Siarohin

Stéphane Lathuilière

Sergey Tulyakov

Elisa Ricci

Nicu Sebe



Advances in Neural Information Processing Systems, 2019

# Resources for Non-Consensual Distribution of Intimate Images

Cyberrightsproject.com Cybercivilrights.org For victims: 1-844-878-CCRI Cagoldberglaw.com Dmcadefender.com Copybyte.com

## Smart Devices









## **Public Data**



# Find Yourself...

\* FastPeopleSearch.com
\* TruePeopleSearch.com
\* PeopleSearchNow.com

# **Internet Privacy Handbook**



\* https://safeshepherd.com/handboo
k/privacy-basics

# Responding to Stalking through Technology



# Technology & Stalking: Big Picture

- \* Believe victims. Offenders can misuse technology a variety of creative ways to access, contact, and monitor their victims.
- \* This technology is out there and it's easy to use. Offenders don't have to be particularly "tech savvy" to terrorize victims through technology.
- \* Build knowledge on privacy/sharing settings across applications and devices. Sharing settings/defaults are often not intuitive.
- \* Ask specific questions about offender contact and knowledge. This can better help you collect evidence and safety plan.
- \* Consider both evidence preservation and victim safety. See if the victim has access to a safer device.
- \* Charge relevant technology-related crimes (when appropriate and applicable).

# Safety Planning and Technology

## Victims may consider:

- Secure passwords
- Hard-to-guess security questions
- Enable 2-factor authentication
- Use a second, safer device when/if possible
- Learn about settings and location-sharing defaults, set these intentionally
- Be mindful of smart device and social media usage

#### STALKING INCIDENT AND BEHAVIOR LOG

Date	Time	Description of Incident	Location of Incident (physical location, technology used, online platform)	Witness Name(s) (attach address and phone number)	Evidence Attached? (photos, video, screenshots, items, etc.)	Report Made To (name, office/org, badge or identification #)





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# Champions for Justice

AEquitas is a nonprofit organization focused on developing, evaluating, and refining prosecution practices related to genderbased violence and human trafficking. We're a team of former prosecutors with decades of experience, working globally to hold offenders accountable and promote victim safety.

About Us

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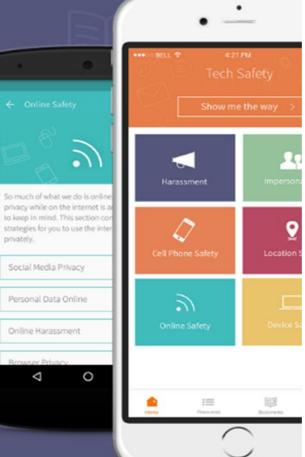


# Tech Safety

Welcome to the Tech Safety App. This app contains information that can help someone identify technology-facilitated harassment, stalking, or abuse and includes tips on what can be done.











#### LAW ENFORCEMENT CYBER CENTER

ABOUT STRATEGIC PARTNERSHIPS FAQ HOME

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#### RESOURCES

Law Enforcement Portals



Partners in state and local law enforcement can access portals for training and resources.

Learn More

Investigative Resources



A compilation of investigative resources including tools, best practices, and documents.

Learn More

#### Cyber Threat Bulletins



Resources that provide updated information on cyber threats.

Incident Reporting



Learn how to report cyber incidents.



Learn More

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# **For Victims**

# Victim Connect resource center





# How are you planning to spread the word?

# LEARN\*TEACH\*SHARE\*REFLECT

StalkingAwareness.org

# www.StalkingAwareness.org

\*Practitioner guides \*Training modules \*Victim resources \*Webinars

FollowUsLegally

Sign Up for our Newsletter!

# Dana Fleitman M.A.Ed.H.D. Training & Awareness Specialist SP&RC







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