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The Role of Computer Security Customer Support in Helping Survivors of Intimate Partner Violence

Yixin Zou, Allison McDonald, Julia Narakornpichit, Nicola Dell, Thomas Ristenpart, Kevin Roundy, Florian Schaub, Acar Tamersoy

Intimate partner violence (IPV)

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[CDC's 2011 National Intimate Partner and Sexual Violence Survey]
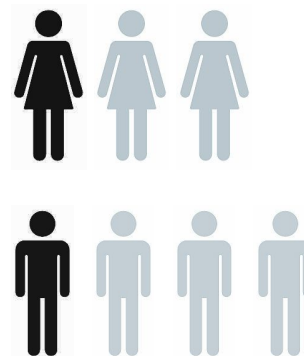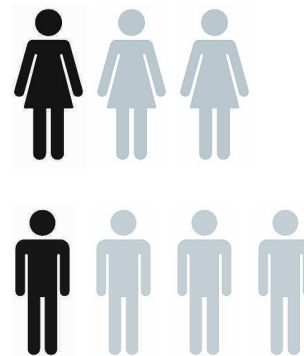
Image source: Tseng et al., 2021

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For the transgender community, the rate of experiencing IPV is over **1 in 2**.

[National Center for Transgender Equality's 2015 US Transgender Survey]

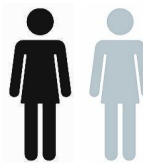Image source: Tseng et al., 2021

IPV enabled by digital technologies

❏   Account or device compromise
❏   Harassing messages
❏   Revenge porn
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[Matthews et al., 2017; Freed et al., 2018; Levy & Schneier, 2020]

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10% of respondents reported **using an app to monitor** the SMS / phone calls / emails / photos of an intimate partner.

[NortonLifeLock's 2020 Online Creeping Survey]

TRACKING
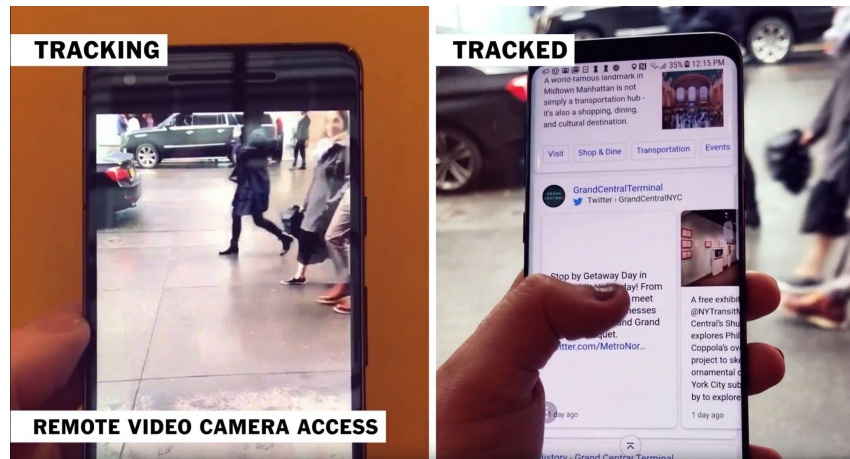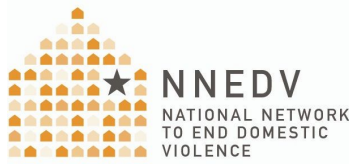
TRACKED

REMOTE VIDEO CAMERA ACCESS

Image source: The New York Times

Why security customer support?

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Security clinics for IPV survivors exist but they are provided **on a limited scale**. [Tseng et al. 2021]

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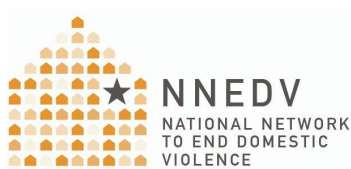
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Computer security support agents specialize in products **crucial to IPV survivors** (e.g., antivirus), and they deal with help requests with **issues beyond products**. [Sharif et al., 2019]

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However, helping IPV survivors requires extra caution and care...

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What are the opportunities and challenges for computer security customer support to help IPV survivors?

Overview of methods

1   **2**   **3**

Analysis of support chat records

Focus groups with IPV professionals

Focus groups with support practitioners

Overview of methods

1 ——— **2** ——— **3**

Analysis of support chat records

Focus groups with IPV professionals

Focus groups with support practitioners

Understand **if** support agents receive IPV cases and **how** they handle these cases.

Draw actionable recommendations that both cater to the **needs of IPV survivors** and consider the **real-world constraints** of customer support.

Preliminary analysis of support chat

Chat records from a large consumer-facing computer security company.

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My ex-husband hacked my phone. He keeps getting my account passwords. I have changed phones so many times and got a restraining order on him, but he still managed to do this. Help me please.

Please do not worry about these problems if you have [product] installed. We will do everything we can to help you further.

Image source: flaticon

Focus groups with multi-stakeholders

Five sessions with **professionals who support IPV survivors** (n=17)

❏ Present three chat scenarios
❏ Discuss how customer support can **better serve** IPV survivors

Image source: inbound hype

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❏ Present three chat scenarios
❏ Discuss how customer support can **better serve** IPV survivors

Four sessions with **customer support practitioners** (n=11)

❏ Present IPV professionals' suggestions
❏ Discuss potential **constraints** and **challenges** for implementation

Image source: inbound hype

Our findings

IPV professionals suggested **three principles** that computer security customer support should adhere to in interacting with IPV survivors.

Acknowledge the limits of security software	Provide IPV tech advice with caution and boundaries	Make external referrals

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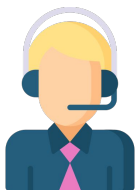
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> " The goal should be to **hear** and **be honest** about the limitations of what [product] can or cannot do in those moments. (P11, attorney) "

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" The goal should be to **hear** and **be honest** about the limitations of what [product] can or cannot do in those moments. (P11, attorney) "

" Acknowledge that 'this is scary' and that 'it sounds like you're having a really hard time.' (P2, counselor) "

Image source: flaticon

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Advise with caution & boundaries

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Have a safety check-in

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→ If not safe, offer to reconnect on a safe line. Let them decide.

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Avoid giving advice on topics not trained for

Examples of out-of-scope advice: comprehensive IPV-related counseling, safety planning, legal advice...

Image source: flaticon

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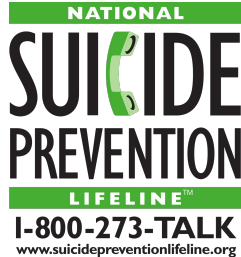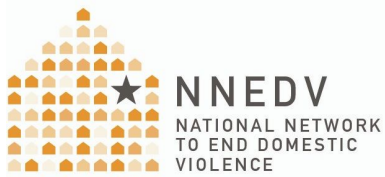Make external referrals

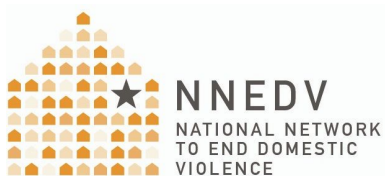# Make external referrals

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A feasible idea that builds on companies' existing practices, e.g., directing scam victims to government agencies.

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Give survivors the agency to decide, and avoid harmful labeling

" I'm not going to say 'you are a survivor of domestic violence'...You want to give them the opportunity to **call it in whatever ways they want**. (P14, counselor) "

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Our contributions

Three recommendations to better address tech-enabled IPV via computer security customer support, verified by support practitioners.

Train customer support agents for IPV cases

Track IPV cases to inform relevant decisions
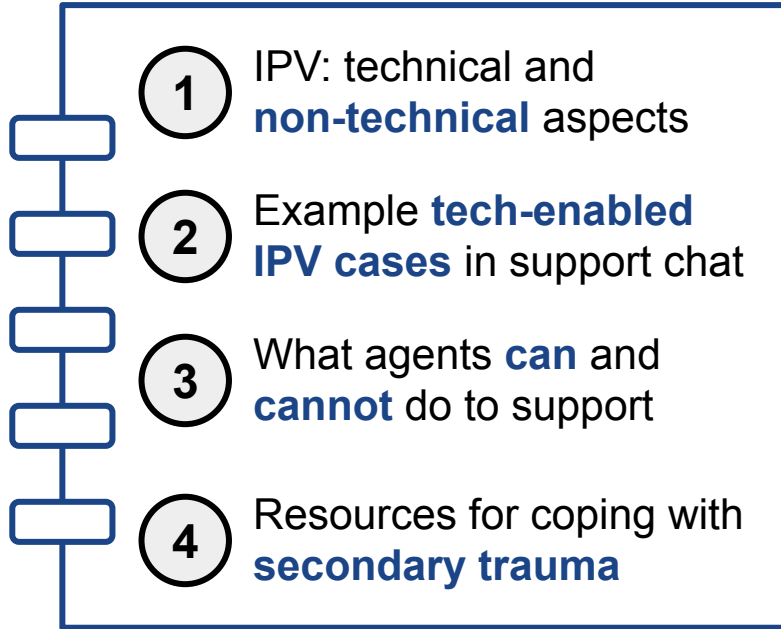
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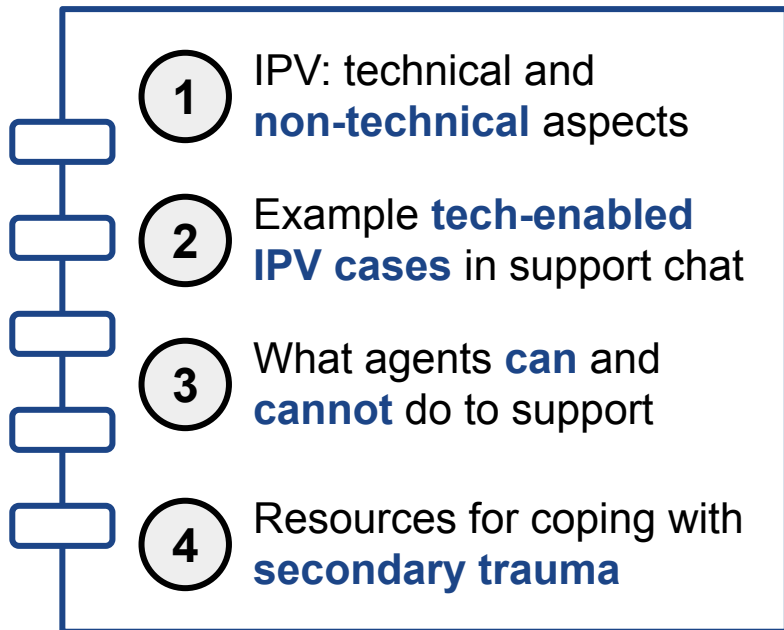
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Train customer support agents

1. IPV: technical and **non-technical** aspects

2. Example **tech-enabled IPV cases** in support chat

3. What agents **can** and **cannot** do to support

4. Resources for coping with **secondary trauma**

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Support practitioners agreed on such training's **necessity**.

"Regular support agents **have no dedicated training** on this...There must be some awareness of these privacy issues and stalkerware. (S10, director)"

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> Regular support agents **have no dedicated training** on this...There must be some awareness of these privacy issues and stalkerware. (S10, director)

> I think [emphatic language] is something that could be done regardless of whether I'm interacting with someone [with] IPV. This should be used **across the board**. (S6, director)

Our contributions

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Train customer support agents for IPV cases

Track IPV cases to inform relevant decisions

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E.g., whether to have **a in-house specialized team** with more capacity and expertise to handle cases transferred from frontline agents

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" I think our founder would have a genuine interest but we'd also need to **balance that with business needs**. We need to get a better sense of how many [IPV] calls we have coming in. (S3, director) "

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Survivor support orgs   Digital rights advocacy

IT security companies

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Join forces with IPV professionals

Survivor support orgs

Digital rights advocacy

IT security companies

An enduring partnership provides **a learning pathway** for both parties, who have complementary strengths.

Join forces with IPV professionals

Coalition Against Stalkerware

NNEDV — NATIONAL NETWORK TO END DOMESTIC VIOLENCE

Survivor support orgs

EFF — ELECTRONIC FRONTIER FOUNDATION

Digital rights advocacy

Malwarebytes

kaspersky

NortonLifeLock

avast

IT security companies

An enduring partnership provides **a learning pathway** for both parties, who have complementary strengths.

Collaborate to deploy **remote security clinics** for IPV survivors.

❏ Support agents: technical issues and basic tech safety tips
❏ IPV professionals: non-technical issues and in-depth safety planning

Image source: corresponding organizations

Three key principles for computer security customer support in interacting with IPV survivors

- ❏ Acknowledge the limits of security software
- ❏ Provide IPV tech advice with caution and boundaries
- ❏ Make external referrals

Three recommendations for computer security companies to better address tech-enabled IPV

- ❏ Train customer support agents for IPV cases
- ❏ Track IPV cases to inform relevant decisions
- ❏ Join forces with IPV professionals

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Questions? Contact **yixinz [at] umich [dot] edu**
More relevant research: **www.ipvtechresearch.org**