The Tools & Tactics Used in Intimate Partner Surveillance:
An Analysis of Online Infidelity Forums

Emily Tseng, Rosanna Bellini, Nora McDonald, Matan Danos, Rachel Greenstadt, Damon McCoy, Nicola Dell, Thomas Ristenpart

Intimate Partner Violence (IPV)

physical, verbal, emotional, economic or sexual abuse, including harassment or stalking, by a current or former spouse or significant other

In the U.S., **1 in 3 women** and **1 in 6 men** report experiencing IPV.

(Source: CDC's National Intimate Partner and Sexual Violence Survey)

Intimate Partner Surveillance (IPS)

the deliberate monitoring of an intimate partner with or without their knowledge
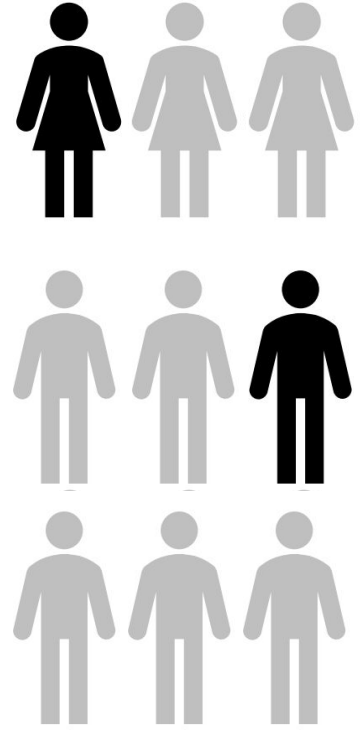
Prior work has studied IPS victims' experiences,

Dimond et al. '11, Woodlock et al. '16, Matthews et al. '17, Freed et al. '17, '18

and uncovered ecosystems of IPS apps online,

spyware, Chatterjee et al. '18; **creepware**, Roundy et al. '20

which has led to direct interventions that help victims.

clinical computer security, Havron et al. '19, Freed et al. '19

But how do we study *abusers'* perspectives?

Our contribution

First study of how abusers share IPS tactics in online forums

| For-profit companies are using forums to promote spyware products | Organic discussion on infidelity forums often *escalates* abusers' attacks | Technically savvy posters provide abusers with 1:1 support & custom tooling |

Online communities are enabling and often escalating the complexity of abusers' IPS attacks

Our dataset*

Five publicly available forums

Forum A	1,608 posts
Forum B	8,932 posts
Forum C	183,381 posts
Forum D	7,540 posts
Forum E	4,952 posts

Infidelity forums

"I think my girlfriend's cheating on me. How do I read her texts?"

Cellphone forums

"How do I track location without an iCloud password?"

*Data are available for research use on request.

In some forums, spyware spam dominates

- Forums D and E overrun by spam posts designed to mimic organic Q&A

- In Forum D, one user contributed 94% of posts, nearly all of which were the same ad for a specific spyware tool

- Likely an SEO strategy for that tool

"How do I track location without an iCloud password?"

"[REDACTED] is the number 1 spying tool. Use [REDACTED] to get calls, texts, location, and more, 100% free. Email [REDACTED] to get started."

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Manual analysis of the infidelity forums was laborious & emotionally taxing...

- 3 researchers independently coded 250 forum threads each, evenly split across the 3 forums

- Research team met throughout to develop and refine a codebook

...but produced rich insights.

Forums can *escalate* abusers' attacks

"Hey guys, I read my girlfriend's texts, and I think she might be cheating on me with her coworker. How do I read her emails? Is there a way for me to see her location at all times? And how can I find where her coworker lives?"

De-escalation

"You've already damaged her trust by reading her texts. What good will reading her emails do?"

Escalation

"A voice-activated recorder is cheap and easy to get. Make her think everything's normal, then monitor her. Good luck."

Composite example of IPS-relevant threads in an infidelity forum

Abusers collaboratively develop attacks across 4 distinct categories

- **Tools requiring physical access**
  keyloggers, screen recorders, GPS trackers, audiovisual recorders, cellphone backup tools

- **Tools not requiring physical access**
  shared phone plans, cloud storage, reverse lookup directories, router monitoring tools

- **Coercion and subterfuge**
  catfishing, shoulder-surfing, emotional manipulation

- **Outsourced attacks**
  hiring a PI

Technically savvy posters are widening access to IPS attacks

- Code snippets and GitHub repos containing custom config files for router monitoring tools

- Detailed instructions for using the free tiers of professional security products to mount MitM attacks

- Offers for 1:1 technical support with spyware installations

"It's amazing how much someone will confess if they know you're tech-savvy..."

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Online forums can be a valuable source of threat intelligence in IPS.

Our work is already informing interventions helping victims at the [Clinic to End Tech Abuse](#).

Further work is needed to:

- Understand more deeply how people justify abuse
- Automate forum analyses, as seen in cybercrime
- Investigate commercial marketing of spyware
- Develop forum policies encouraging *de-escalation*
- Ensure security experts account for the threat model in IPS

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Emily Tseng, *Cornell Tech*

Rosanna Bellini, *Open Lab, Newcastle University*

Nora McDonald, *U. of Maryland, Baltimore County*

Matan Danos, *Weizmann Institute of Science*

Rachel Greenstadt, *New York University*

Damon McCoy, *New York University*

Nicola Dell, *Cornell Tech*

Thomas Ristenpart, *Cornell Tech*

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Emily Tseng
et397 [at] cornell [dot] edu

@emtseng

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