Tech Abuse Enabled by ~~Internet~~ SPY of Things Devices

Awareness.
Empowerment.
Safety.

ABUSE

1 in 4 women and 1 in 10 men suffer intimate partner abuse (IPA)

97% of IPA experience tech abuse

Tech abuse involves "technology being used for malicious purposes within abusive relationships"

COMMON DEVICES

- Ring Doorbell
- Amazon Echo
- Google Home Hub
- Smart thermostats
- AirTags
- Smart TVs
- Smart plugs
- Fitness trackers and smartwatches
- Smart locks
- CCTV cameras

HARMS THREAT MODEL

HARASSMENT
blasting music, sounding alarms, ringing doorbells, adjusting lights

ACCESS/ INFILTRATION
adding user access, factory resetting devices

RESTRICTION
removing user access, changing language, restricting controls

MANIPULATION
disabling notifications to hide malicious actions, coercive control

SURVEILLANCE
most common abuse type; audio and video recording, logging activity

TURK AND HUTCHINGS STUDY (2025)

- **25** Participants
- Adversary Modeling (Participant Classification): non-technical, UI-bound, and technically-skilled
- Six stations with IoT devices for participants to exploit
- **72** malicious uses discovered *(only 7 required technically-skilled abuser)*

Conclusion: technically-skilled adversaries are NOT considered a likely threat model

COMBATING TECH ABUSE

3 Tech abuse clinics in the U.S.

Use of detection apps – Fing (scans WiFi network for devices) and IoT Assistant (identifies nearby IoT devices)

Low-tech solutions to fight low-tech attackers

- Change privacy settings
- Reset passwords (especially WiFi password)
- Multi-factor authentication
- Review log history

Clinic to End Tech Abuse. *General IoT and Smart Home Device Security Tips.* 2022. https://82beb9a6-b7db-490a-88be-9f149bafe221.filesusr.com/ugd/9e6719_11dec6cea7554684b50b56f73ec8a985.pdf.

Kieron Ivy Turk and Alice Hutchings. "Spy-oT: Understanding How Users Learn to Use Internet of Things Devices for Abusive Purposes." *Proceedings of the 21st Symposium on Usable Privacy and Security (SOUPS).* 2025. 185–203. https://www.usenix.org/system/files/soups2025-turk.pdf.

USENIX. "Technology Abuse Clinics for Survivors of Intimate Partner Violence." Video. 2023. https://www.youtube.com/watch?v=IHUEWsGrIS4.