



THE ROLE OF IOT IN THE CONTEXT OF INTIMATE PARTNER VIOLENCE

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On the one hand, we study **how and why gendered assumptions** mould our technological systems and affect their representation, design, as well as usage and control.

Gender & Tech



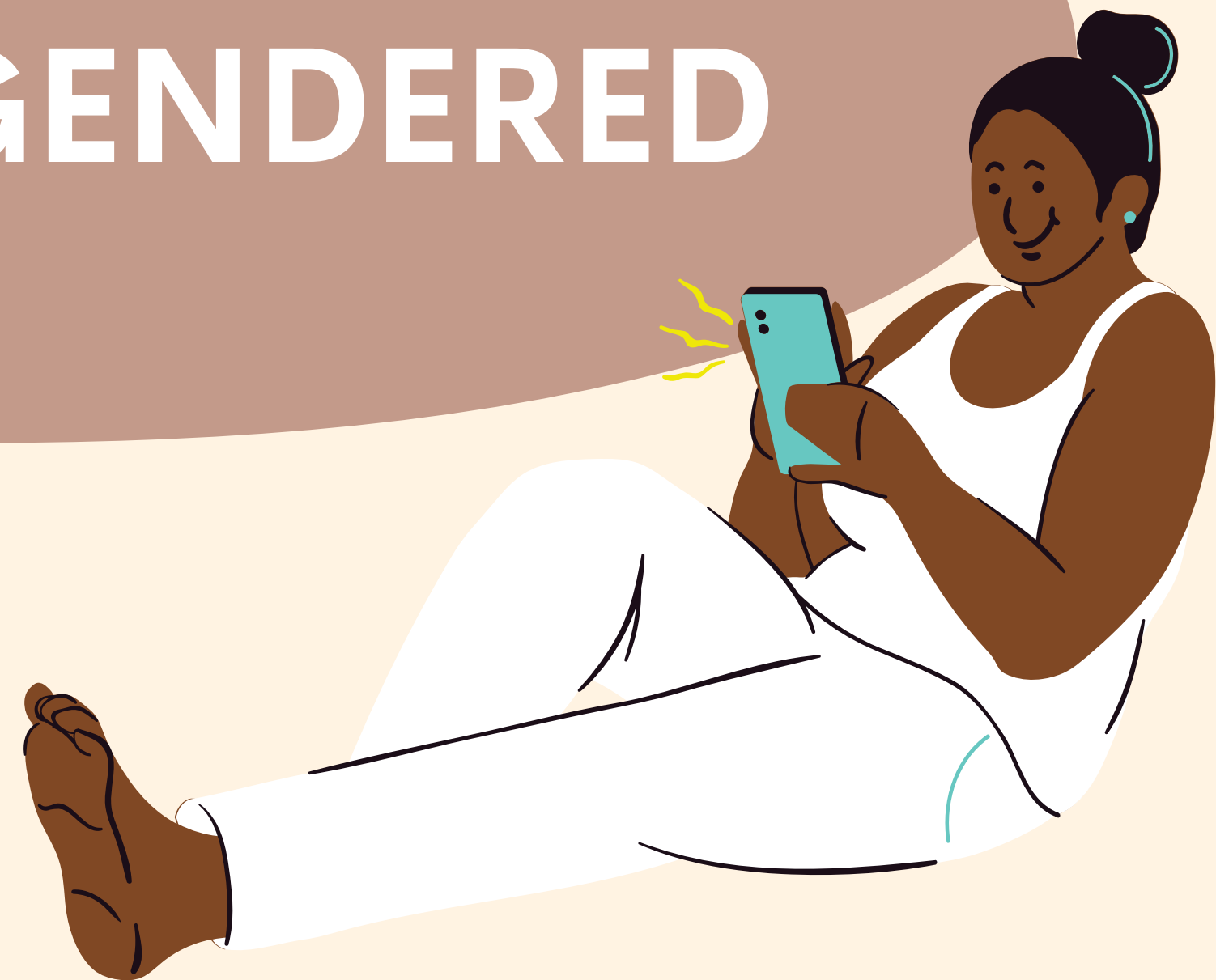
On the other hand, we examine the dynamics that **enable digital technologies to construct and reinforce** gender and other social categories such as race, class, age, or sexuality.

Research

Teaching

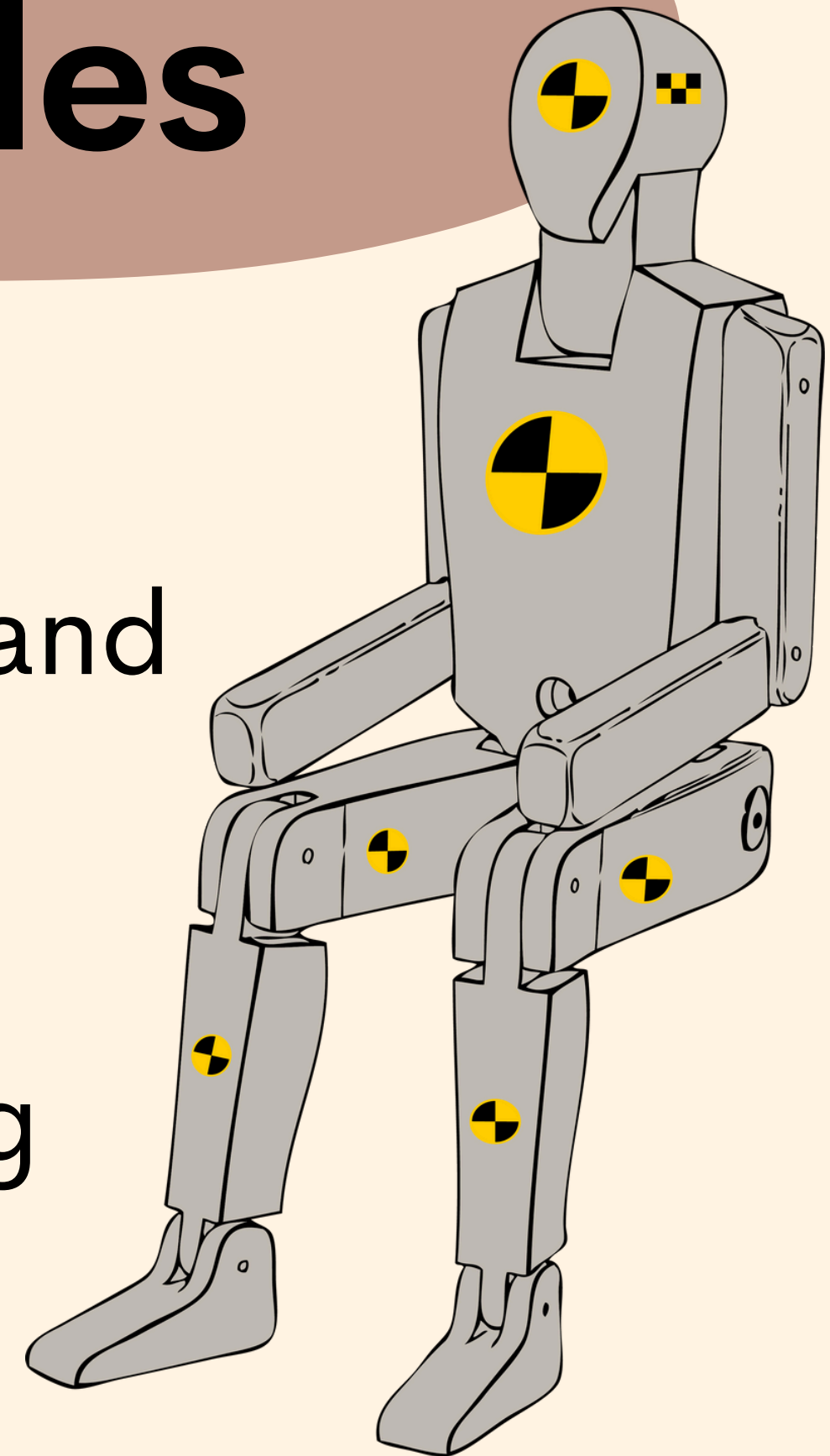
Practice

TECHNOLOGY IS GENDERED



Examples

- Phone size
- Bicycles
- fMRI scans (Kaiser, 2010)
- Advanced Imaging Technology (Currah and Mulqueen, 2011)
- Crash test dummies (Bose et al., 2011)
- "Making things prettier," e.g., by adding different colours, mirrors etc.



Gendered Nature

"women and men have different access to the **creation** of technology, have different access to **decision** making about the development of technology, and have different **experiences** with technology." (Rakow, 1988)

Representation
Design
Usage/Control
Effects



TECHNOLOGY IS ABUSED





A MAN HAS CREATED A MACHINE. NOW THE MACHINE WANTS TO CREATE A MAN...

Demon Seed^{AA}

MGM presents a HERB JAFFE PRODUCTION JULIE CHRISTIE in "DEMON SEED" co-starring FRITZ WEAVER

Produced by HERB JAFFE Directed by DONALD CAMMELL Screenplay by ROBERT JAFFE, ROGER O. HIRSON

Musical Score Composed and Conducted by JERRY FIELDING Filmed in PANAVISION® and METROCOLOR®



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A growing body of work:

- Online harassment
- Cyberstalking
- Spyware
- Image-based abuse

...

TECH ABUSE

Tech permeates every aspect of our life.

Refuge

72%

Women's Aid

85%

Stalking Helpline

100%





Communality

- **Misuse/repurposing**
- **"Conventional" technologies**
- **Women & BAME**
- **"Active" commitment**

Predefined Ideas

- **Perpetrator/criminal**
- **Abuse**
- **Technologies**



TECHNOLOGY IS CHANGING



GENDER AND IOT

How will the Internet of Things (IoT) **impact** gender-based domestic violence and abuse, and what **socio-technical measures** will need to be implemented in order to mitigate against those risks?



"Smart" Abuse?

Increasingly household devices are now "smart, but..."

- **Disguised** in terms of their ability to sense, accentuate, and collect private data;
 - >> *They look like "normal" devices we are used to*
- They have new, "**enhanced**" functionalities
 - >> *Expanding and exacerbating the reach of coercive and controlling behaviour*





Tech Abuse – Smart, Internet-connected devices present new risks for victims of domestic violence & abuse

1 Wearable devices

Could allow perpetrators to track and monitor movements and other behavioural patterns drawing on GPS signals and other collected data.

2 Phones

3 Laptops and tablets

Accounts between devices are linked and could allow perpetrators to change and review IoT devices' settings via an Internet browser.

4 Remote control of heating, lighting and blinds

5 Security cameras and TVs

Could facilitate remote monitoring and online stalking; video recording could facilitate image-based abuse (such as revenge porn).

6 Smart security

Could provide access to doors

remote monitoring and stalking.

8 Voice control

May enable perpetrators to contact the victim as well as trace and review a person's history of commands and purchases.

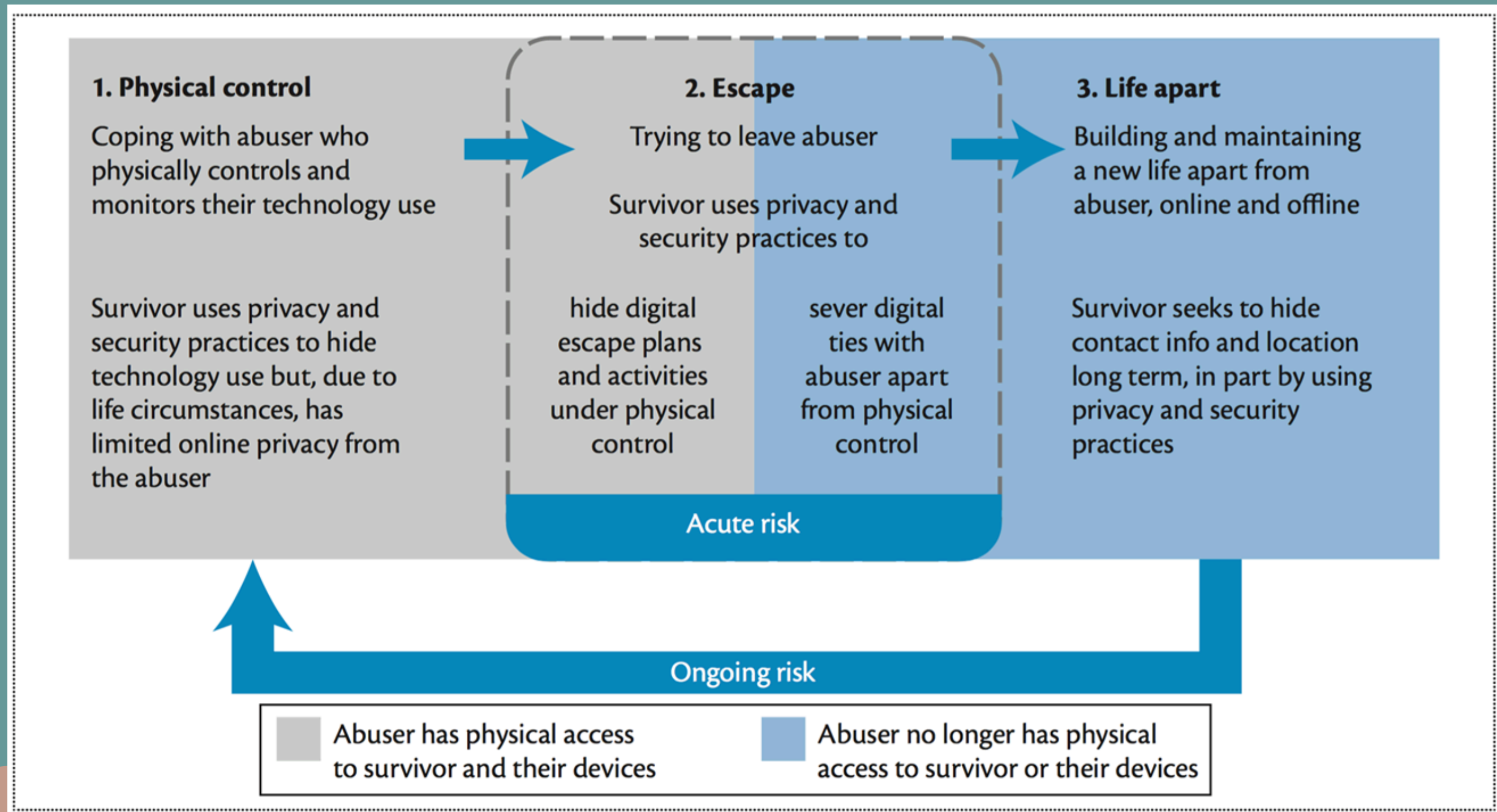
9 Router

Connects all smart home devices to the Internet.



- Voice control
- Audio recording
- Video recording
- Data collection
- Shared accounts
- Location tracking
- Remote control
- Social media
- Machine learning

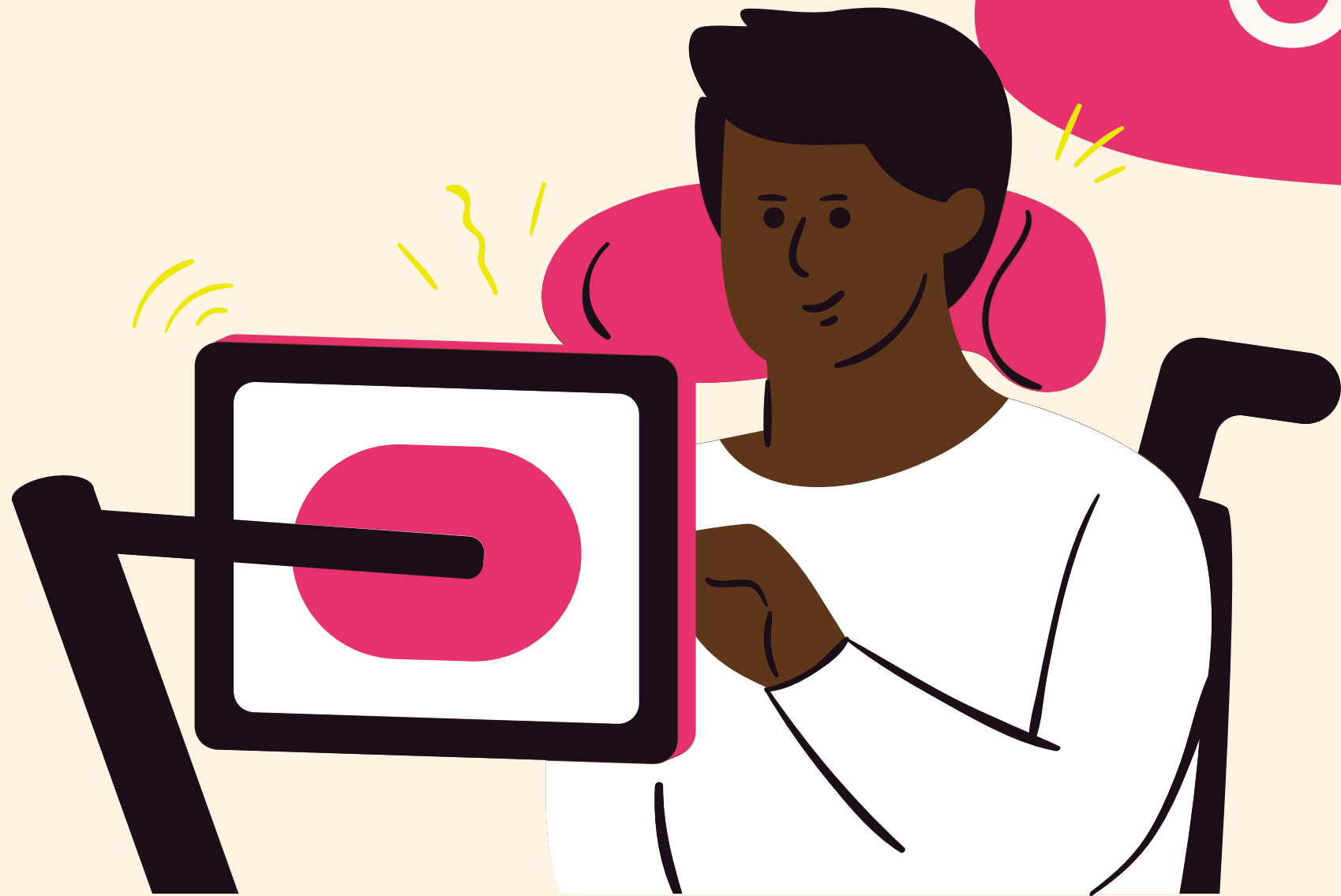
The perpetrator is a "UI-bound adversary"




Risk Trajectories

Underestimation

Overestimation





Final Pointers

Support Sector

Tech Industry

Government Policy



Working Group

**IEEE – P2987: Recommended Practice for Principles
for Design and Operation Addressing Technology-
Facilitated Inter-personal Control**



NEWSLETTER

Subscribe to **keep up to date** on our research progress, and the latest developments in the space of technology-facilitated abuse (policy, academia & practice), the Internet of Things, and training and support opportunities!



Q & A



Thank you.

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