PRACTICE RESEARCH IN SOCIAL DESIGN: DEFINITIONS CONTEXTS FUTURES

Case Study #4

Technology-facilitated Intimate Partner Abuse

Author: Dr Jocelyn Bailey
Project Researcher: Dr Roxanne Leitão

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Overview

University of the Arts London (UAL) PhD student Roxanne Leitão's doctoral research aimed to better understand how existing and near-future digital technologies are used as tools for abuse and surveillance within the context of intimate partner abuse (IPA), and to design support solutions for survivors. She deployed a co-design methodology, working with IPA survivors and support workers from non-governmental organisations (NGOs), to generate up-to-date insights about this social issue, which itself is constantly evolving in line with the development of new technologies including smart home devices. This produced a series of ideas for improving the support available to survivors of abuse regarding digital privacy and security management, and for improving the interpersonal privacy afforded by smart home devices. In the final stage of the project, she developed a chatbot designed to assist victims/survivors in managing their digital privacy and is now hosted on an ongoing basis by a domestic abuse NGO, Refuge.

Case study methodology

This case study series is intended to represent the diversity of design practice research in social and sustainable design across UAL, and to articulate its contribution to both real-world challenges and academic research. It uses the conceptualisation of practice research in design, developed in 'Practice research in design: Towards a novel definition'.[1] Each case study is based upon a semi-structured interview with a researcher, as well as reviewing related literature and documentation from the project.

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[1] Kaszynska, P., Kimbell, L., & Bailey, J. (2022) Social Design Institute Working Paper. Practice research in design: Towards a novel definition. London: UAL Social Design Institute.

Project context

Victims of domestic abuse are increasingly reporting that abusers are using digital consumer technologies to further harass, control, intimidate, and threaten them. This – known as 'technology-facilitated intimate partner abuse' - might mean tracking victims' locations, hijacking and/or monitoring their devices and accounts, or threatening to release intimate photographs. Third sector organisations who support domestic abuse victims are not always prepared, nor do they routinely have the in-house expertise, to help and advise on issues of digital privacy and security. Part of the problem here is the widespread belief that technology is neutral of values and politics, which means that in an industry dominated by whiteness and masculine perspectives, the needs and perspectives of women and people of colour are often rendered invisible. The motivation for the research therefore was around enabling victims and support workers to take back control of cyber-privacy and security issues.

Research context

The recent increase in technology-facilitated abuse within the context of IPA means that research and design - in the context of academia or professional practice - have not yet reached an in-depth understanding of the issue and ways to address it. Studies have emerged over the past decade in Australia and the US, whilst studies in the UK on technology-facilitated IPA have been less frequent. The majority of extant work on these questions comes from disciplines like sociology and criminology. This project, however, while drawing on insights from these bodies of knowledge, is situated within socially engaged co-design, and participatory design. While top-down approaches are common in other research and design methods, where the researcher/designer studies and intervenes in a community without necessarily collaborating with the community itself, social design often employs co-design methods to work alongside communities in creating shared understanding, knowledge, and solutions to shared issues of concern. In relation to this, the project engages with questions around the practice of 'infrastructuring.'[2] Infrastructuring is the practice of 'identifying, designing and supporting social, technical and spatial infrastructures' that enable a design project to occur and for longer term changes to be realised[3] and the ethics of undertaking co-design practice in sensitive contexts and with vulnerable people. It also speaks more generally to research around intimate partner abuse and technology-facilitated abuse, such as cyber-stalking, monitoring, and harassment, 'stalkerware' and hacked or hijacked accounts, and

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[2] Dantec, C.A.L. and DiSalvo, C., 2013. Infrastructuring and the formation of publics in participatory design. Social Studies of Science, 43(2), pp.241-264.
[3] Ehn P (2008) Participation in design things. In: PDC '08: Proceedings of the tenth conference on participatory design, Bloomington, Indiana, 30 September–4 October 2008. New York: ACM Press, pp. 92-101.

revenge porn, as well as victims' own use of technology. Finally, it engages with research around smart home technology and its impact on privacy.

Core research questions

Can co-design with victims of technology-enabled domestic abuse:

- make a difference to understanding where the system of getting help and support breaks down?
- help enable the production of viable innovative design solutions to address this national (and global) challenge?
- inform how design studies understand co-design as a process of generative inquiry in addressing complex social problems?

The aims of this project were to:

- Contribute to the theoretical understanding of co-design methods for working alongside vulnerable participants.
- Contribute to knowledge on the ethics of co-design with vulnerable participants.
- Assess whether design can develop effective IoT-based support solutions for domestic abuse (DA) victims of cyberstalking and abuse.

Approach and methods

In line with the aims of the project, a co-design methodology was adopted, broadly following the Design Council's 'Double Diamond' process for design and innovation projects. Accordingly, in the *Discover* phase, data from online DA discussion forums, followed by semi-structured interviews with support workers and survivors, were analysed to *Define* the problem space of technology-facilitated IPA. In the *Develop* stage, survivors and support workers were involved in a series of co-design workshops looking at the threats and design opportunities posed by current, or near-future, consumer smart home technologies. One of the co-developed ideas was selected and developed into a functional chatbot. In the *Deploy* phase, a co-evaluation of the prototype was conducted alongside participants, and then implemented live on Refuge's website. A process of handing over ownership of the chatbot ran alongside design and development, in order to ensure that the NGO was ready to host and maintain the output once the research project reached an end.

All of this was however supported and preceded by substantial infrastructuring work, wherein the researcher volunteered for, and received training from, three different London-based NGOs specialising in supporting victims of domestic abuse.

This took place for a year before any recruitment for co-design took place, allowing the building of mutual trust, and the situated learning necessary for the research to proceed in a context-appropriate and sensitive manner.

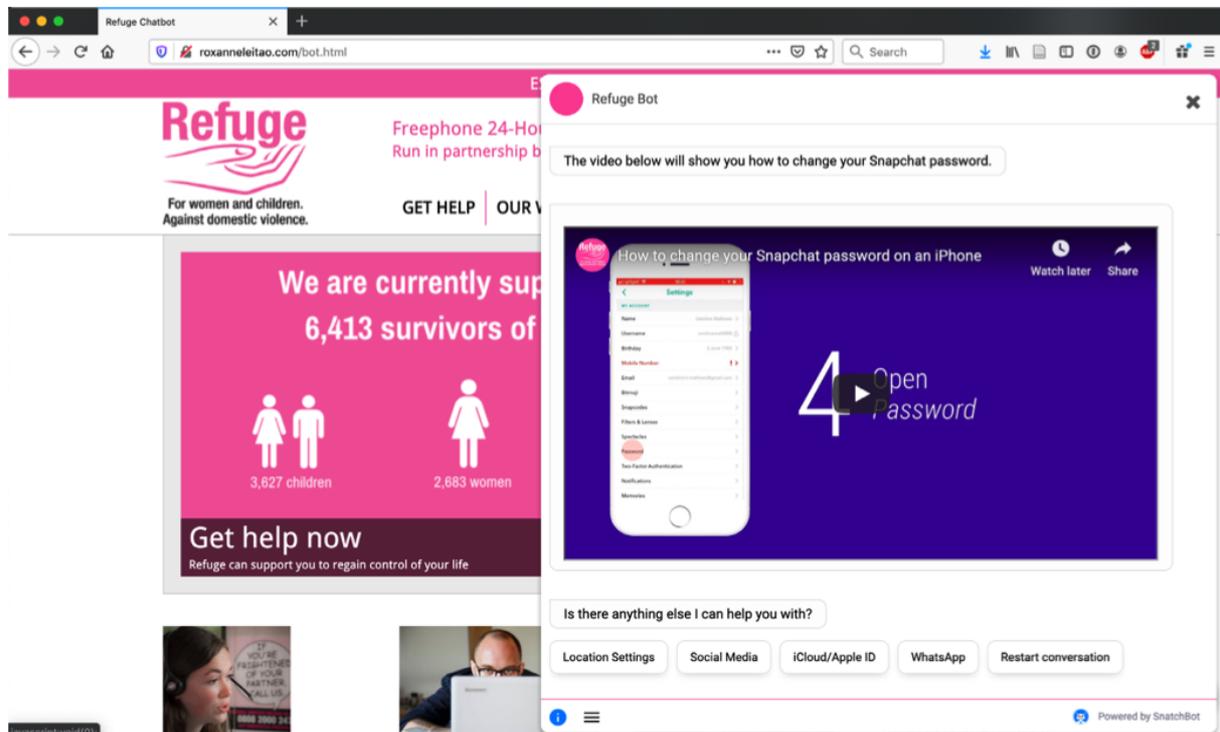## Outcomes: what did the practice research produce?

Image: Screenshot of Refuge *Chatbot* in action

For the site...

This project provided a range of up-to-the-minute insights around where the system of getting help and support breaks down. The participants generated – via the co-design workshops – several ideas for addressing surveillance and abuse enabled by smart home devices. And it resulted in one being taken forward in the form of a chatbot, designed to assist victims/survivors in managing their digital privacy settings across social media (Facebook, Instagram, Snapchat, and Twitter), Whatsapp, Google Maps, and Apple ID. The bot presents a series of initial options to users, such as location settings, social media, Whatsapp, and then allows users to drill down to more specific information needs, such as how to block another user on Facebook. Once the user has identified the specific piece of information they require, the chatbot responds with an animated video containing instructions on how to modify those specific settings or perform a particular task. The project also produced new knowledge for the site in the form of context-specific know-how: staff at the NGO gained new skills in order to maintain the chatbot.

For design practice...

The project produced a set of smart home device design guidelines that put privacy first, freely available on [Roxanne Leitão's website](). It also produced new insights around infrastructuring, co-design with victims of domestic abuse, as well as the practicalities of conducting a co-evaluation of a co-design project.

For research...

Interviews and co-design workshops provided new insights around how intimate surveillance and abuse enabled by smart home devices starts, and is perpetrated on a daily basis, as well as the current response to intimate surveillance and abuse. It also – through developing and evaluating an intervention – provided new knowledge about the role that a medium such as a chatbot can appropriately play in this context. This is a crucial difference as compared with other disciplinary approaches to researching this complex social problem: the ability to intervene in a space, and then understand – through data – whether or not the intervention is successful. This highlights the added value of co-design as a process of generative inquiry in addressing complex social problems.

Further reading and resources

- Roxanne Leitão (2021). 'Technology-facilitated intimate partner abuse: Addressing the issue through co-design with survivors and support workers'. PhD thesis. University of the Arts London.
- [Roxanne Leitão's website]()

Researcher biography

Roxanne Leitão is a design lead currently working in health tech and with previous experience in fintech. She completed her PhD in interpersonal surveillance using co-design methodologies with victims of abuse in 2021.