"They Look at Vulnerability and Use That to Abuse You": Participatory Threat Modelling with Migrant Domestic Workers

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https://www.usenix.org/conference/usenixsecurity22/presentation/slupska-vulnerability

A Artifact Appendix

A.1 Abstract

To examine the threats perceived and faced by migrant domestic workers (MDWs) to their security and privacy, we designed and conducted five participatory threat modelling workshops with MDWs in the UK. Drawing on the findings of our workshops, we created and disseminated a free online digital privacy and security guide (hosted on GitHub), to make our research outputs accessible to the public as well as organisations that protect migrant and precarious workers in the UK[1]. We developed the guide in collaboration with Voice of Domestic Workers (VoDW), an education and support group run by and for migrant domestic workers, and Migrants Organise, a grassroots platform where migrants and refugees organise for justice. During each workshop, we asked participants whether they had any questions for us on online safety, privacy, and security. We noted down these questions as well as the threats participants had identified and their advice for other MDWs. We then used these as the basis of our online digital privacy and security guide. In making the guide, we focused, where possible, on existing resources, such as the DIY Guide to Feminist Cybersecurity[2], the Citizens Advice online scams helper[3], and Kalayaan's Employment Rights webpage[4]. We made sure to include clear action points the reader could easily implement. We also focused on making the guide easily readable. Lastly, we avoided unnecessary intimidation or victim blaming. For example, we included reminders like "Avoiding surveillance by your employer should not have to be your responsibility. Employers need to understand and respect domestic workers' right to privacy and safety, and refrain from excessive monitoring". To refine and validate the guide, we are continuously soliciting feedback from our computer privacy and security as well as MDW communities on the guide, are incorporating feedback on a regular basis, and plan to organise workshops with MDWs to hear their input on the guide. We also aim to translate our guide from English into other languages. The appendix of our USENIX Security paper describes our guide structure in detail (see Appendix B in the main paper).

A.2 Artifact check-list (meta-information)

- **Security, privacy, and ethical concerns:** Ethical considerations for this study included preserving the anonymity of vulnerable participants. We followed principles of data minimisation, ensuring that the research data that we collected was not connected to participants' identities. In order to do this, we did not video or audio record workshops; we instead relied on handwritten notes which did not include participants' names, as well as used an online platform where participants could submit answers to our questions anonymously. Some participants also participated in our study outside their home and workplace; e.g., in a park, in order to avoid being overheard by employers. Further, the only researchers with access to the personal/contact details of participants were those being involved in data collection and analysis. We also note that although some participants had experiences of being undocumented in the past (as a result of recruitment by our peer researcher), all participants had right to remain at the time of the study.

  Another concern was the potential distress of participants who discussed difficult or sensitive experiences. To mitigate this, we reminded participants that they did not need to answer the questions, and they could take breaks during the study. Further, our peer researcher at VoDW was present at all workshops to make sure that participants felt comfortable.

  Lastly, our research was reciprocal, to make sure participants benefited from the project, particularly as they belonged to a vulnerable group in often precarious employment. We compensated each participant £50, and we attempted to ensure the accessibility of our research outputs through publishing a digital privacy and security guide online. This study was approved by the Research Ethics Committee at the University of Oxford.

- **Output:** We attempted to ensure the accessibility of our research outputs through publishing a digital privacy and security guide online on GitHub: https://github.com/domesticworkerprivacy/ domesticworkerprivacy.github.io/tree/ 33fc93f2a192378180a5f6eb235f384d07c67ced.

- **Experiments:** The appendix of our USENIX Security paper describes the questionnaire we used during our workshops, which can be used in similar future studies in different countries (see Appendix A in the main paper).

The topics discussed in the workshops were as follows:

ASSETS:

1. What kinds of social media or communication technology do you use?

2. How do you feel about using social media and communication technology?

3. What parts of your data or information do you most want to protect?

4. What does being safe mean to you?

THREATS:

1. What are the main threats to your safety, privacy, and security (e.g., threats faced online or in your workplace)?

2. Have you ever worked in a house where there was a camera or some type of a monitoring device? If yes, how did you find out about it? How did you feel about it?

3. Are you worried about being watched online? If so, by who and why?

MITIGATIONS:

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[1] Accessible here: https://domesticworkerprivacy.github.io/
[2] https://hackblossom.org/cybersecurity/
[3] https://www.citizensadvice.org.uk/consumer/scams/ what-to-do-if-youve-been-scammed/
[4] http://www.kalayaan.org.uk/for-workers/ employment-rights/

1. What advice would you give other MDWs to stay safe online?

2. What parts of your safety do you most want to improve?

3. Do you have any questions you want to ask us?

4. What kind of support do you need to be safe?

- **Publicly available (explicitly provide evolving version reference)?:** The first version of the guide is accessible here: https://github.com/domesticworkerprivacy/domesticworkerprivacy.github.io/tree/33fc93f2a192378180a5f6eb235f384d07c67ced.

- **Code licenses (if publicly available)?:** The first version of the guide is accessible here: https://github.com/domesticworkerprivacy/domesticworkerprivacy.github.io/tree/33fc93f2a192378180a5f6eb235f384d07c67ced.

- **Archived (explicitly provide DOI or stable reference)?:** The first version of the guide is accessible here: https://github.com/domesticworkerprivacy/domesticworkerprivacy.github.io/tree/33fc93f2a192378180a5f6eb235f384d07c67ced. No changes have been made.

A.3 Description

A.3.1 How to access

The first version of the guide is accessible on GitHub: https://github.com/domesticworkerprivacy/domesticworkerprivacy.github.io/tree/33fc93f2a192378180a5f6eb235f384d07c67ced. No changes have been made.

A.3.2 Hardware dependencies

N/A.

A.3.3 Software dependencies

N/A.

A.3.4 Data sets

N/A.

A.3.5 Models

N/A.

A.3.6 Security, privacy, and ethical concerns

Please see above in §A.2.

A.4 Installation

Drawing on the findings of our study, we created and disseminated a free online digital privacy and security guide (hosted on GitHub), to make our research outputs accessible to the public as well as organisations that protect migrant and precarious workers in the UK[5]. Our guide is publicly accessible to everyone.

A.5 Experiment workflow

N/A.

A.6 Evaluation and expected results

Our artifact is a digital privacy and security guide. The guide serves as an educational/support platform for MDWs in the UK and other countries, to protect their on- and offline privacy and keep themselves safe. The guide is divided into six main sections. We first explain the guide and its purpose; provide general digital privacy and security advice; describe three main types of privacy threats identified by our MDW participants who took part in our workshops (one section is dedicated to each threat type): government surveillance, online scams and harassment, and employer monitoring; and conclude by arguing that our computer security and privacy community must take into account intersecting forms of marginalisation (due in part to different levels of social and economic power) as well as the broader social structures that foster insecurity. The guide also includes links to further resources that domestic workers can refer to when in need of protection; see the appendix of the main paper for more details.

To develop similar guides with MDW communities or validate our guide, researchers can recruit MDW participants in different countries – bearing in mind the ethical considerations we described above – as well as use the questionnaire we provided above in §A.2.

A.7 Experiment customization

N/A.

A.8 Notes

N/A.

A.9 Version

Based on the LaTeX template for Artifact Evaluation V20220119.

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[5]Accessible here: https://domesticworkerprivacy.github.io/