Use of New Technologies for Consistent and Proactive Screening of Vulnerable Populations

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ACKNOWLEDGEMENTS

LIST OF ACRONYMS AND ABBREVIATIONS

AAPTIP   Australia-Asia Program to Combat Trafficking in Persons

AI   Artificial Intelligence

CCIF   Command Centre for Combatting Illegal Fishing

COMMIT   Coordinated Mekong Ministerial Initiative against Trafficking

FLRs   Frontline Responders

ICAT   Inter-agency Coordination Group Against Trafficking in Persons

IGO   Inter-governmental organisation

ILO   International Labour Organisation

IOM   International Organisation for Migration

MoJ   Ministry of Justice (Thailand)

MoL   Ministry of Labour (Thailand)

MoU   Memorandum of Understanding

MSDHS   Ministry of Social Development and Human Security

NGOs   Non-Governmental Organisations

PIPO   Port in Port Out Inspection Centre

RTN   Royal Thai Navy

SDGs   Sustainable Development Goals

UN   United Nations

UN-ACT   United Nations Action for Cooperation against Trafficking in Persons

VSD   Value Sensitive Design

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INTRODUCTION

Forced labour and human trafficking are global, complex, and dynamic issues affecting millions of individuals. Addressing this problem has been identified as a key target of the United Nations Sustainable Development Goals (Target 5.2, 8.7, 16.2). Latest figures put the number of victims of human trafficking at 24.9 million [1]. However, because of the hidden nature and often opaque infrastructure that underpins forced labour and human trafficking activities, existing estimates tend to mask and under-report the extent of the problem. Identifying victims of forced labour and human trafficking and accounting for instances and prevalence of the problem are some of the bottlenecks where much work is needed. In this regard, a first step in addressing this problem is to build robust data regimes that can provide an empirical base from which policy makers can derive actionable insights.

The decreasing cost of Information and Communications Technologies (ICTs) and increasing mainstreaming of new technologies have resulted in wider application of digital tools to address global problems such as human trafficking and forced labour. There is currently a high level of interest from within the donor community, businesses, governments, and international organisations in using new technologies such as artificial intelligence, block chain, and machine learning to address development challenges and improve the collection of data. This has resulted in a variety of test cases and proof of concepts showing how new technologies can be used to address different social problems. When purposefully configured and informed by inclusive design principles, new technologies can play an important role in supporting key stakeholders to begin to address these problems.

OVERVIEW

This report specifically focuses on the use of new technologies in identifying potential victims of forced labour and human trafficking and uncovering patterns of exploitation. The report does not consider other applications of new technologies in the context of a migrant's journey from recruitment to re-integration. Though not directly considered in this report, those issues will benefit from critical examination in future reports moving forward.

Section 1 of this report begins by providing an overview of the current migration landscape and the different legal and regulatory regimes that inform safe and orderly migration at the global level. Looking specifically at victim identification, this section then examines the different ways new technologies can help identify victims and collect data about human trafficking.

Sections 2 to 4 draw from our field work in Thailand chronicling the development and deployment of Apprise - an expert system for consistent and proactive screening of vulnerable populations. Lessons from the field are then captured in section 5 of the report, while section 6 provides an overview and a cautionary tale of how new technologies can be employed to address social issues.

Finally, Section 7 provides recommendations for different stakeholders including governments, policymakers, businesses, researchers, and advocacy groups in deploying new technologies aimed at screening vulnerable populations.
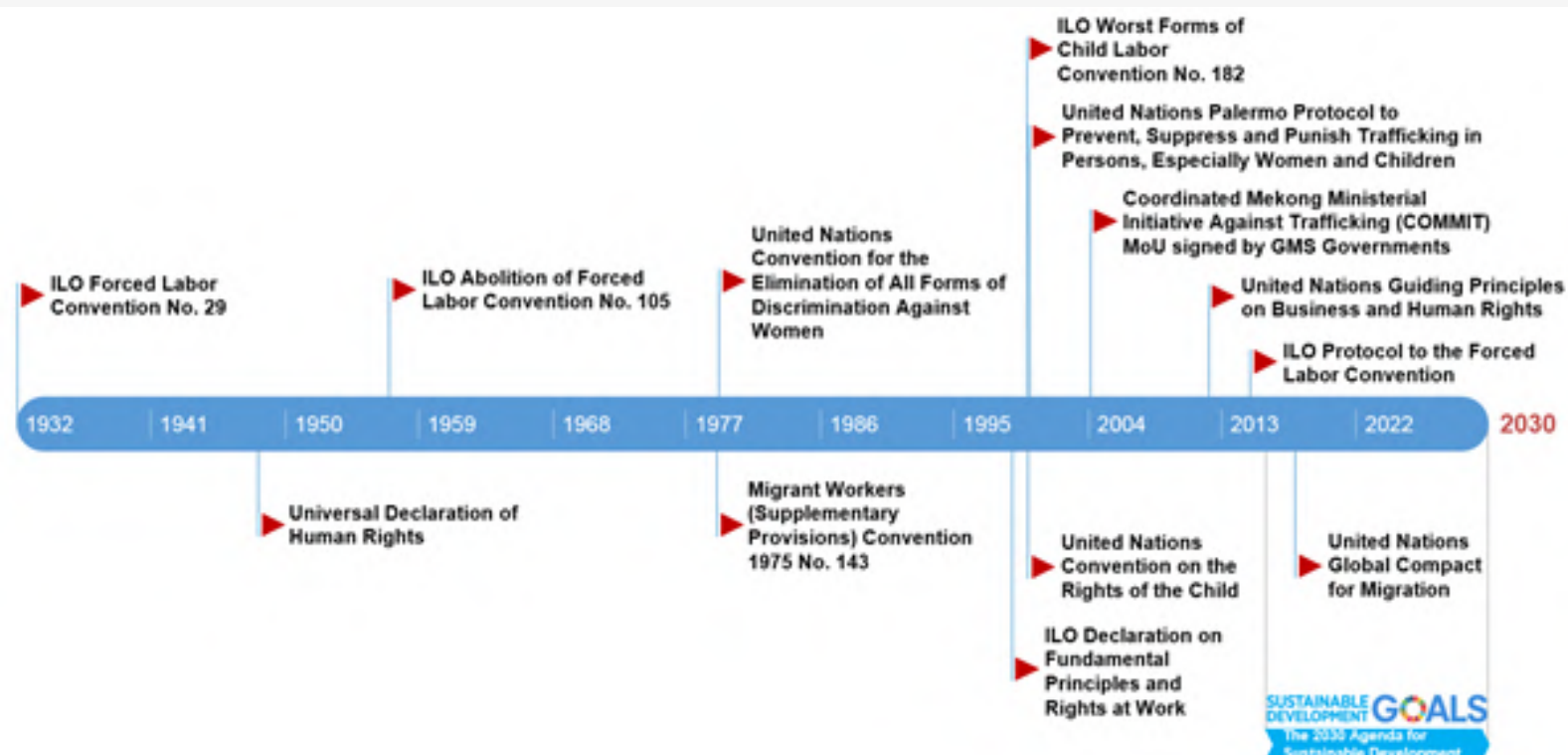
LEGAL AND REGULATORY FRAMEWORK

Figure 1. International standards, protocols and conventions on forced labour and human trafficking

There are several relevant instruments of international law that address forced labour and human trafficking, as seen in Figure 1, from which we draw the legal context of this report. The 1930's Forced Labour Convention recognises that forced labour is "all work or service which is exacted from any person under the menace of any penalty and for which the said person has not offered himself voluntarily" [2]. Most recently, the Palermo Protocol (2000) defines trafficking as: "the recruitment, transportation, transfer, harbouring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation" [3].

The practices associated with exploitation in this context comprise sexual exploitation, forced labour, and slavery.

At the broader level, part of the targets of the UN SDGs is the eradication of forced labour and ending of modern slavery and human trafficking (SDG 8.7). Another landmark agreement - the Global Compact for Safe, Orderly, and Regular Migration - outlines different ways various stakeholders can contribute in ensuring safe, orderly, and regular migration. These international instruments provide the legal impetus to address the problem of forced labour and human trafficking at the global, regional, and national levels.

VICTIM IDENTIFICATION

In 2018, 85,613 victims of human trafficking were identified and subsequently helped, correlating to only 0.3 % of the total number of victims worldwide [1]. Identification of victims of human trafficking remains an ongoing concern and is one of the key areas where gaps exist, as identified by the UN Global Compact for Safe, Orderly and Regular Migration. This concern is articulated in the Migration Compact with the following needs [4]:

• the need for monitoring migration routes and hotspots which can be exploited by human trafficking networks;

• the need for better cooperation at bilateral, regional and cross-regional levels on identification of victims of trafficking in persons;

• the need for sharing relevant information and intelligence through transnational and regional mechanisms;

• the need for addressing the vulnerabilities of women, men, and juvenile migrants, at risk of becoming victims of human trafficking and other forms of exploitation by focusing on aspects such as prevention and identification of potential victims and addressing specific forms of abuse and exploitation.

Despite growing attention to human trafficking, we have yet to account for a complete picture of the scale and scope of the problem. While several estimates of the global prevalence of human trafficking have been developed over the years, we argue that more focus should be placed on uncovering patterns of exploitation and

victim identification to support the development of evidence-based policy through micro-level data [5]. The identification of victims is a crucial step in the fight against the crime of human trafficking [1]. Besides the humanitarian aspect - victims have often endured brutal treatment and only if identified can be rescued and rehabilitated - victim identification is pivotal from a legal, judicial and policy standpoint too. International law provides victims of crime with a fundamental right of access to justice which cannot be exercised if identification does not occur. At the investigative level, survivors are essential to provide intelligence and evidence with which law enforcement can better understand how trafficking networks operate, then investigate and detain the exploiters. Finally, in the words of survivor Melanie Thompson:

"SURVIVORS ARE TRULY LIVED-EXPERIENCE EXPERTS AND WITHOUT THE EXPERTISE THAT WE POSSESS […] THE POLICIES AND SOLUTIONS THAT ARE ESTABLISHED WILL NEVER BE 100% EFFECTIVE." [6]

- Melanie Thompson, Survivor

PROBLEMS WITH CURRENT PRACTICES OF VICTIM IDENTIFICATION

The gap between the estimated number of victims and the ones who are identified shows that victim-identification practices are failing. Conceptual ambiguity and misunderstandings among different stakeholders about human trafficking compound the problem of accounting for its instances and prevalence. For example, signs of trafficking such as psychological coercion are not as recognised and easily identifiable or visible. Weak enforcement of the law and corruption add another level of complication to tracking victims of human trafficking. Another issue is the non-availability of high quality, comparable, and comprehensive data that are systematically and regularly collected. While efforts to have a global repository of data on human trafficking are currently under way, such as the ones

spearheaded by the Counter-Trafficking Data Collaborative which rely on case-level data contributed by various counter-trafficking organisations around the world, we are still far away from developing a global and robust data regime on human trafficking.

As the first point of contact of potential victims of human trafficking and forced labour, front-line responders (FLRs) play a key role in improving victim identification practices. FLRs are individuals who have higher exposure to potential victims in or close to their exploitative environments and are thereby in a position to come in contact with potential victims, assess their needs, and respond. FLRs can be members of the civil society, governments and the business community, including NGO workers, educators, healthcare providers, law enforcement, prosecutors, judicial officials, child welfare officials, labour inspectorates, and many others. In our projects, we have mostly been in contact with four types of FLR: NGO workers doing outreach in migrant worker communities; social auditors tasked with assessing the working conditions within brands' supply chains; labour inspectors investigating and enforcing workplace compliance; and law enforcement officers.

THE GAP BETWEEN THE ESTIMATED NUMBER OF VICTIMS AND THE ONES WHO ARE IDENTIFIED SHOWS THAT VICTIM-IDENTIFICATION PRACTICES ARE FAILING.

TECHNOLOGY AND VICTIM IDENTIFICATION

When it comes to its impact on human trafficking, we can perceive technology as a double-edged sword as it can, on one hand, facilitate the work of exploiters, and, on the other hand, amplify the efforts against them and towards victim-identification. The Inter-Agency Coordination Group Against Trafficking in Persons (ICAT) notes various ways technology can harm victims of human trafficking.

For example, digital tools can be used: (i) to increase the anonymity online of traffickers, (ii) to facilitate recruitment and exploitation of victims, (iii) to facilitate transactions and access venues, and (iv) to expand traffickers' means of control over their victims [7]. However, the same report also notes various positive uses of technology to fight human trafficking such as (i) improving data aggregation and analysis; (ii) using block chains for traceability and provenance; (iii) using AI and machine learning to make predictions or recommendations in identifying victims; (iv) using facial recognition technology to search for photos of victims of human trafficking; and (v) using technology to engage workers and survivors [7]. This shows that technology, when designed for social good, could help address social issues such as human trafficking.

In the area of victim identification, there is wide scope for application. The United Nations Office on Drugs and Crime notes that technology has a role to play in improving data availability and support the capacity of FLRs: "The use of smart-phones, internet and social media can significantly improve the investigation capacity of frontline officers"[8, pp. 22–23].

Considering this premise, our research starts by analysing current problems with victim-identification and then proceeds to propose a potential role for digital technology to support frontline responders to identify workers in vulnerable situations. This work draws from a three-year, multi-sectoral and multi-stakeholder engagement in anti-trafficking, as the next section will further elaborate.

RESEARCH METHODS

This research draws on empirical evidence collected over a three-year period in Thailand. Through continuous engagement with multiple stakeholders, we use a critical realist case study approach to examine the potential for digital technology to support proactive and consistent screening of workers in vulnerable situations. As a methodology, the case study enables a context-specific understanding of a "system to generate knowledge and/or to inform policy development, professional practice and civil or community action" [9, p. 21]. Using critical lens, this method helps to question social structures that surround or limit one's actions, with the purpose of understanding how to change these structures [10, p. 110]. A key advantage of case studies is that they can combine a diversity of research methods and techniques, including qualitative and quantitative, to generate evidence [11], [12].

This research took place mainly in Thailand for a number of reasons. First, we wanted to work in a country in Asia-Pacific, as this region accounts for 62% of the global victims of slavery worldwide [13]. Second, the country selection was dictated by existing networks and connections and interest generated by in-country stakeholders or external stakeholders operating within the country. Finally, prior to the start of the project, Thailand had been implicated in human rights violations particularly in the fishing industry, where exploitative working conditions had come to light, and victims identification practices needed major improvement [14].
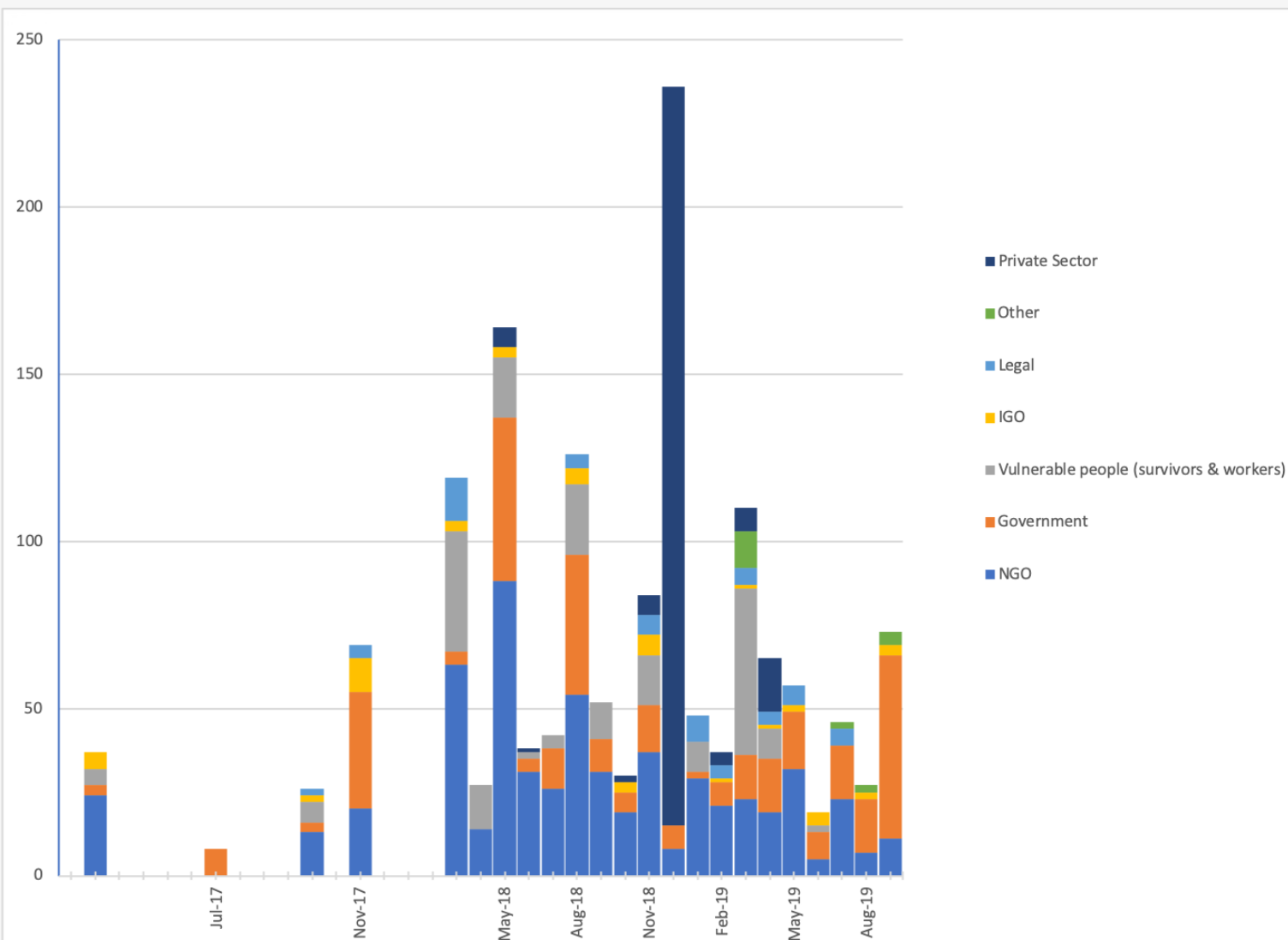
PARTICIPANTS

Figure 2. Number of participants by stakeholder per month.

The participants in this project were people from government, key informants such as non-governmental organisations (NGOs) and inter-governmental organisations (IGOs); factory management; private sector representatives, including auditors; legal advisers; workers and survivors of forced labour and human trafficking. These stakeholders worked in different contexts, such as fishing and seafood processing, manufacturing, sex work, and forced begging. Between April 2017 and September 2019, 1540 participants provided input to this project (Figure 2). This included 598 NGO workers working on the ground with potential victims, and 51 IGO representatives, including from the International Labour Organisation (ILO), the United Nations Action for Cooperation against Trafficking in Persons (UN-ACT), the International Organisation for Migration (IOM), and Australia-Asia Program to Combat Trafficking in Persons (AAPTIP) in Thailand. We worked with a wide variety of government agencies and departments that fall under the following ministries: Ministry of Justice (MoJ); Ministry of Labour (MoL); Ministry of Social Development and Human Security (MSDHS); the Royal Thai Navy (RTN); and the joint initiative Command Centre for Combatting Illegal Fishing (CCCIF).

We also engaged with 263 participants from the private sector, particularly from global corporations including auditing firms, working in the manufacturing industry across Asia. The government and the private sector were key partners in this process not only for helping us understand the jurisdictions and mechanisms in place, but also for their strategic positioning for sustainability, scalability and uptake of the innovation. On top of the advice and support from ILO, indirect stakeholders in this research included two leading human rights law firms in Thailand. We also engaged with 201 vulnerable workers to provide us vital information and feedback through their experiences and perceptions, to increase the potential for helping other victims of exploitation, including survivors of exploitation.

METHODS

We engaged stakeholders directly and indirectly through consultations, in-person or call meetings, training sessions, online surveys, in-person interviews, and focus groups. We collected data throughout these stakeholder interactions. We also conducted document analysis and desk reviews. As part of engaging with stakeholders, a first step was to obtain informed consent. In the case of in-person interviews and focus groups with migrant workers, a translator ensured that the purpose of the study, risks and benefits, and safety and anonymity were understood and agreed by participants.

We began our research using a grounded approach to understand the current problems faced by FLRs, and how they believed technology could support them to overcome these issues. The first consultation was held in April 2017, composed of six focus groups, involving 34 participants. These participants represented a broad range of direct (those who are intended to directly make use of a technology) and indirect (those who will be impacted by a technology) stakeholders, including: survivors of human trafficking; local and regional NGOs; inspectors from Department of Special Investigations; and IGOs with mandates in migration and / or trafficking. These consultations took place in Bangkok, Mae Sot, Samut Sakhon, and Songkhla. The aim of these consultations was to determine how technology could be used to support FLRs to identify victims of forced labour and human trafficking. More specifically, it aimed to answer the following questions:

• How do FLRs currently identify victims of labour exploitation and forced labour, and what problems do they believe there are in this method?
• How do FLRs and migrant workers in vulnerable situations currently use technology, and what factors enable and constrain their use?
• What do FLRs and migrant workers in vulnerable situations view the role of technology could be to alleviate these problems?

As a result of this consultation, we identified the potential for technology to support FLRs and workers in the initial screening phase of victim identification. The design and development of our system, Apprise, is presented in section 4, which highlights the value sensitive and iterative design principles that underpinned the design, development, and evaluation of the system.

NEEDS ASSESSMENT

This section presents the findings of the three questions outlined in the previous section. It begins by outlining FLRs current victim identification process, followed by the problems that they describe facing in the field. The section ends with a discussion on how FLRs believe that technology could support them in their initial screening phase of victim identification.

CURRENT VICTIM IDENTIFICATION PROCESS

Across the different stakeholders, participants described a two-step victim identification process. In the initial screening phase, FLRs come in contact with migrant workers either in person or over the phone. The aim of this phase is to understand if a person shows indications of exploitation and wants help to leave the situation. If the initial screening

identifies vulnerabilities and the worker wants help, the FLR launches an investigation (either themselves or by referring to another stakeholder). The second phase of this process involves working closely with government ministries including MoL, MoJ, and MSDHS. As this process is tightly linked to legal definitions of crime and victimhood, there is less space for creativity and innovation. For this reason, we narrowed the focus of our needs assessment to the initial screening phase of victim identification.

The next section highlights the key problems that FLRs described in the initial screening phase of victim identification.

PROBLEMS IN INITIAL SCREENING OF WORKERS

We identified four key problems in initial screening of workers, regardless of sector of work. Perhaps the most obvious was communication, as migrant workers and FLRs often have different language fluencies. Stakeholders noted that migrant workers were often most susceptible to labour exploitation, and translators were required to be present in the initial screening process. Scheduling and resourcing problems were widely recognized in the field, as a FLR would not know which language workers would speak, so could not guarantee that they would have a translator with them who could speak the required languages. Participants noted that there is such a diverse range of languages spoken by migrant workers, that it is impossible to take enough translators with them to ensure they can communicate with whomever they encounter. FLRs also noted that while they may have passing knowledge of regional languages and dialects, they are often unable to ask or respond to 'profound questions' from workers. Other participants mentioned that translators may show unsympathetic views towards other ethnic groups from their home country, which coloured the accuracy of their translations. This all adds to the communication-divide experienced in initial screening of workers.

Adequate training was also raised as being crucial to underpin any form of frontline operations. FLRs described that while some practices were common across different sectors, there were also key differences that needed to be understood. As exploiters change their practices of exploitation to avoid detection, FLRs also noted that they needed to understand these changes for their initial screening tasks. In one consultation, participants described cases they knew of, where FLRs only looked for signs of physical violence, an exploitative pattern that had been prevalent but had more recently evolved to wage withholding and identity document retention.

A lack of trust between all parties involved (workers, FLRs and translators - where available) was also raised by participants. They noted that due to the mental and physical abuse that workers had often suffered, they were guarded in approaching and trusting the intentions of FLRs. At the same time, FLRs mentioned a lack of trust in workers' motives, with some stating they were "wasting our time", "just not pleased with their boss" or "just want to get off a boat." Stakeholders also noted that they could not verify the accuracy of translations in the field and spoke frequently of cases of translators who had been bribed by exploiters to mistranslate workers responses.

FLRs described how initial screening sessions are conducted in uncontrolled environments, where the worker is surrounded by other actors whose allegiances are unknown. This lack of privacy has a severe impact on the truthfulness of the information disclosed. Due to a fear of retaliation, FLRs noted that workers often lie about the severity of their situation. The participants also suggested that there was a possibility of the workers being trained to answer questions in a specific way so as not to implicate their employer. This was particularly evident from the results of our social auditor survey, where "workers appearing to be coached" was one of the top three concerns for auditors when conducting worker interviews.

POTENTIAL FOR TECHNOLOGY TO SUPPORT VICTIM IDENTIFICATION

Across the consultation series, FLRs brainstormed on potential uses of technology to support them to overcome the issues that they raised with their current practice. The suggestions they came up with can be categorised as: collecting evidence of abuse; locating potential victims; and screening workers. In the case of the former, FLRs suggested using networks of cameras to surveil for indicators of exploitation, or to document physical evidence of abuse. They suggested using video feeds and other phone-based sensors to locate potential victims.

Numerous FLRs suggested the use of technology to overcome communication issues and screen workers. They envisioned a tool that could understand all languages and be able to translate natural language from any language into another. While this is currently technically infeasible, we used this need as a basis for developing and refining our solution. Participants described other screening problems that they faced including "a lack of knowledge and understanding on human trafficking" in the field. Another participant drew on the mental state of victims of human trafficking and forced labour, noting "Trauma is traumatizing. They [the victims] need someone to help them think logically, especially when traffickers are feeding them the opposite." She expanded on this further saying that "a predefined and vetted list of simple questions could provide the logical reminder to the victim that may be missing in their situation." Combining these suggestions together, we identified the potential for a mobile phone-based, multilingual, expert system to support FLRs and workers to communicate during the initial screening phase of victim identification.

SUMMARY

FLRs are tasked with being alert to signs consistent with indicators of trafficking and exploitation. However, even establishing this very first contact proves challenging for a number of reasons, including communication barriers, inadequate training, a lack of trust and a lack of privacy during the FLR-potential victim exchange. This section has demonstrated the need for the use of technology to support FLRs and workers in the initial screening phase of victim identification. The next section describes the design and development of the system we created in response to the problems raised by FLRs.

"VICTIMS NEED SOMEONE TO HELP THEM THINK LOGICALLY, ESPECIALLY WHEN TRAFFICKERS ARE FEEDING THEM THE OPPOSITE."

- A front-line responder

APPRISE
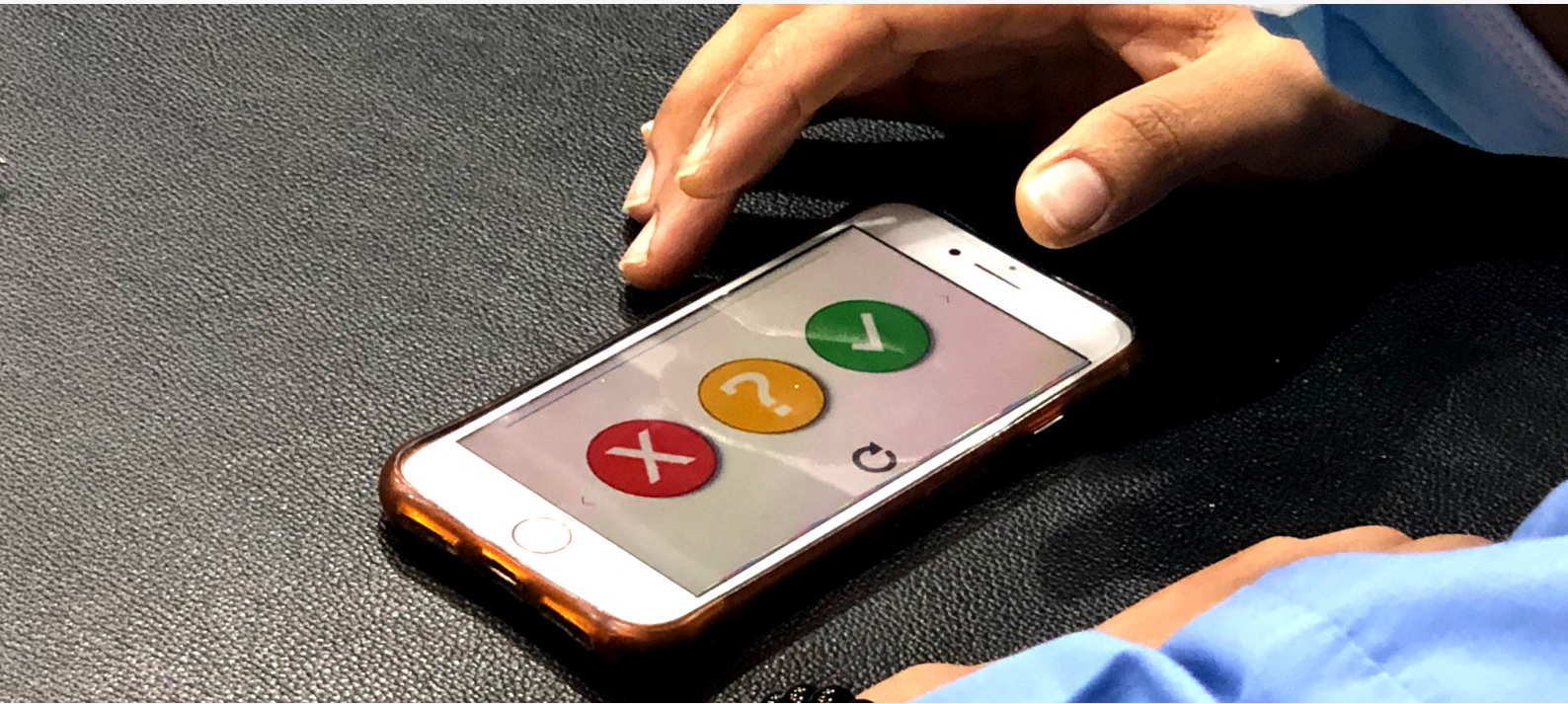
This section describes Apprise, a screening tool that we have developed to contribute to the protection of vulnerable populations, by supporting FLRs in proactively and more efficiently screening workers and detecting and responding to cases of labour exploitation and forced labour. This screening tool supports workers to raise concerns on the illegal, undignified, or exploitative employment that they are trapped in. Apprise generates an anonymized log of screening responses, which in itself can be a tool for policymakers to develop a nuanced understanding of the sector specific and evolving practices of exploiters. This information can be used to support the development of evidence based-policy, which in turn can support the prevention of future trafficking situations by ensuring effective law enforcement and protection practices.

THIS SCREENING TOOL SUPPORTS WORKERS TO RAISE CONCERNS ON THE ILLEGAL, UNDIGNIFIED, OR EXPLOITATIVE EMPLOYMENT THAT THEY ARE TRAPPED IN.
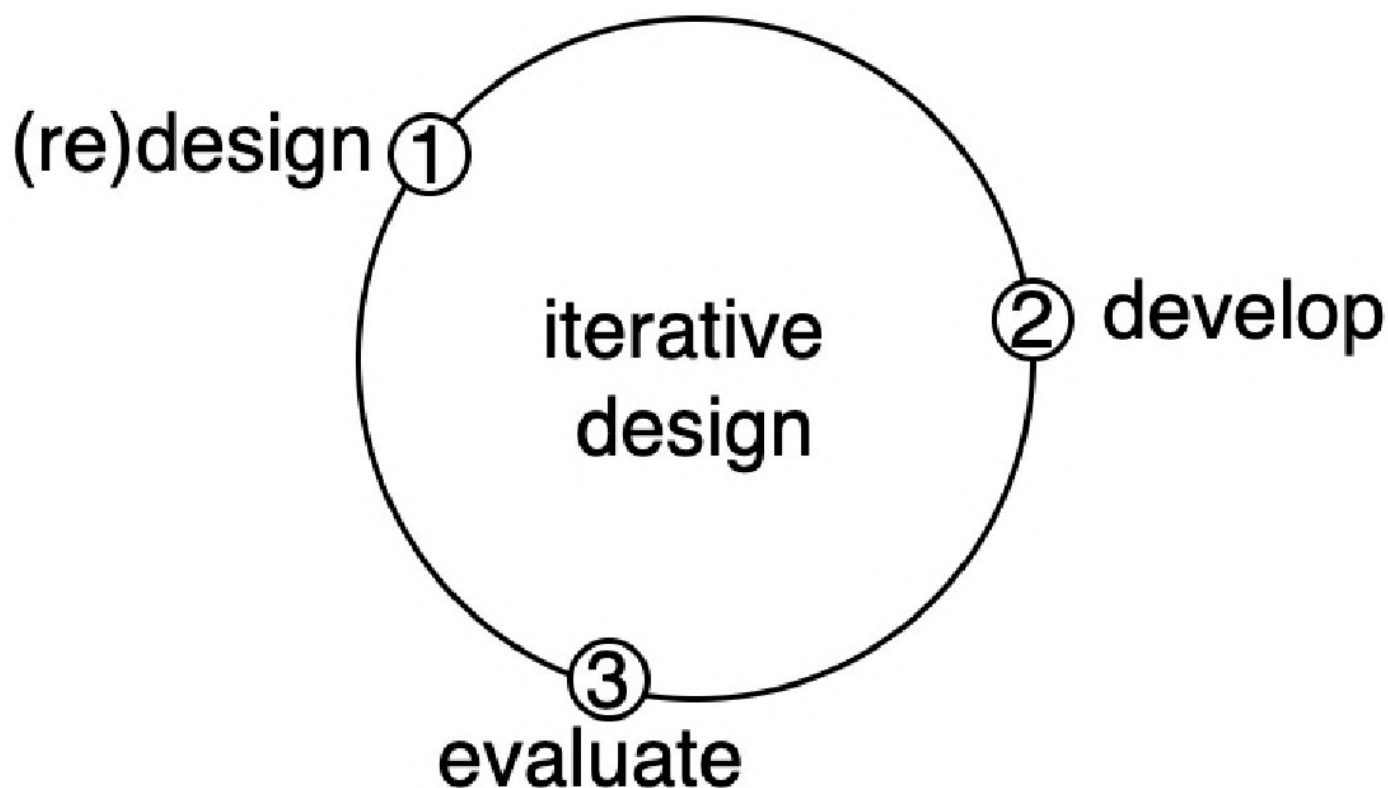
DESIGN

Figure 3. Iterative design process

This research takes a Value Sensitive Design (VSD) approach, which is defined as "a theoretically grounded approach to the design of technology that accounts for human values in a principled and systematic manner throughout the design process" [16, p. 2]. This approach is based on the understanding that all software and algorithms contain and propagate the biases and assumptions of their designers. Instead, VSD suggests that ethical reflections are proactively integrated into each step of the design process.

At the end of the first consultation, we identified the potential for a mobile phone-based, multilingual, expert system, to support FLRs and workers to communicate during the initial screening phase of victim identification. While this app would be installed on the FLRs phone, it would ultimately be a tool in the potential victims' hands. The app would use an inference engine to allow workers and FLRs to understand the severity of the worker's situation. It would also allow FLRs to understand if the worker signalled that they would like help to exit the situation.

We used an iterative design process (figure 3) throughout the development and refinement of Apprise. Using this approach, researchers worked with target users to design Apprise. After developing a prototype of new features, the system was evaluated with target users and a new design was made based on the findings from the evaluation. This cycle continued for a year-long period to refine key features of the system, ensuring it was tailor made for the target audience. The next section presents the outcome of this design process.
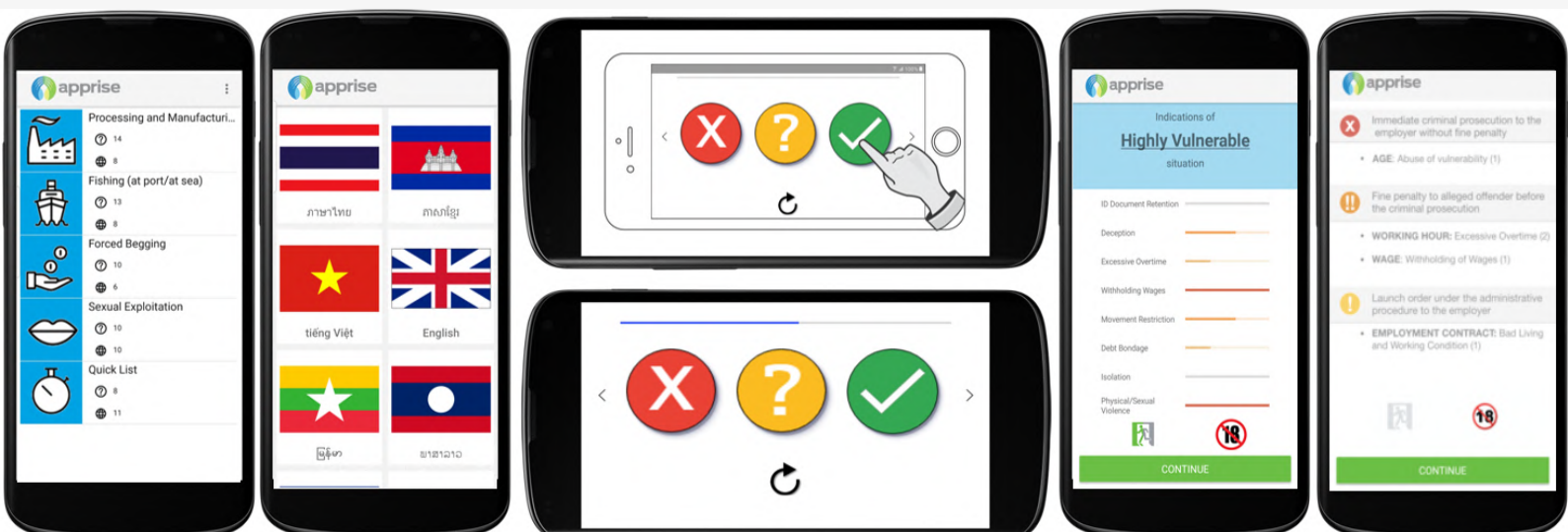
USER INTERFACE

Figure 4(a-e). Apprise screenshots

After logging in, the FLR selects the list of questions (Figure 4 (a)). The FLR then hands the phone, along with a set of headphones, to the worker. The worker is presented with a screen with a list of flags and language names (Figure 4 (b)). When a flag is selected, the name of the language is played, in that language. The worker confirms their choice by selecting a button that appears at the bottom of the screen. At this point, an introductory video is played. The video describes the purpose of the interview; demonstrates how to use the interface; and asks for consent to continue (Figure 4 (c)). If the worker agrees to continue, Apprise cycles through each question in the list, playing the audio recording of each question in the workers' preferred language. For each question, users can respond: yes; no; I don't know, or can skip forward / backward through the questions in the list (Figure 4 (d)). The last question in each list asks if the worker would like help to exit their work situation. After completing the questions, the system calculates the vulnerability of the worker's situation. Apprise informs the worker of the vulnerability of their situation and prompts them to reconsider if they want to stay (or leave). After storing this response, a prompt is played, asking the worker to hand the phone back to the FLR.

The FLR is then provided with a summary of the vulnerability rating (Figure 4 (e)), indicating: the overall rating, the rating per category; the reported age of the worker; and if they would like help to exit their situation. When configured to do so, Apprise will provide feedback that correlates vulnerabilities described by workers with the respective legal framework and follow-up actions that the law prescribes. Screening responses are stored on the FLRs mobile phone, along with the date, time, location, and language of interview. When they next have network connectivity, screening responses are uploaded to the FLRs account and deleted from the mobile phone.

Care was paid in the design to ensure that the workers responses could not be overseen or overheard (when used with headphones).

Firstly, when questions are played, there are no visible signs of what question the worker is responding to. The system also randomly selects between question equivalents, so the question list order cannot be memorized. Finally, in the vulnerability rating screen (Figure 4 (e)), the exact questions and responses are not displayed. We iterated through and field tested a number of different designs for this screen to find an acceptable balance between privacy and specificity. An earlier design provided a higher-level summary of the findings of the screening, but FLRs found that it was so high level that they could not use the information to direct any further on-site investigations while in the field. As an example, Figure 4 (e) suggests that there were vulnerabilities identified in withholding wages, and physical / sexual violence.

As part of the pre-intervention assessment for each rollout, a bespoke user interface is developed to suit the specific requirements of the FLR. For example, when Apprise was rolled out to support supply chain social compliance audits, the system was tailored for use by auditors and company employees assessing factories. As such we added a grouping (factory code) to allow FLRs to group and view responses by facility. This eases the data analysis process and enables tracking of factories' performance over time.

APPRISE PROVIDES FEEDBACK THAT CORRELATES VULNERABILITIES DESCRIBED BY WORKERS WITH THE RESPECTIVE LEGAL FRAMEWORK AND FOLLOW-UP ACTIONS THAT THE LAW PRESCRIBES.
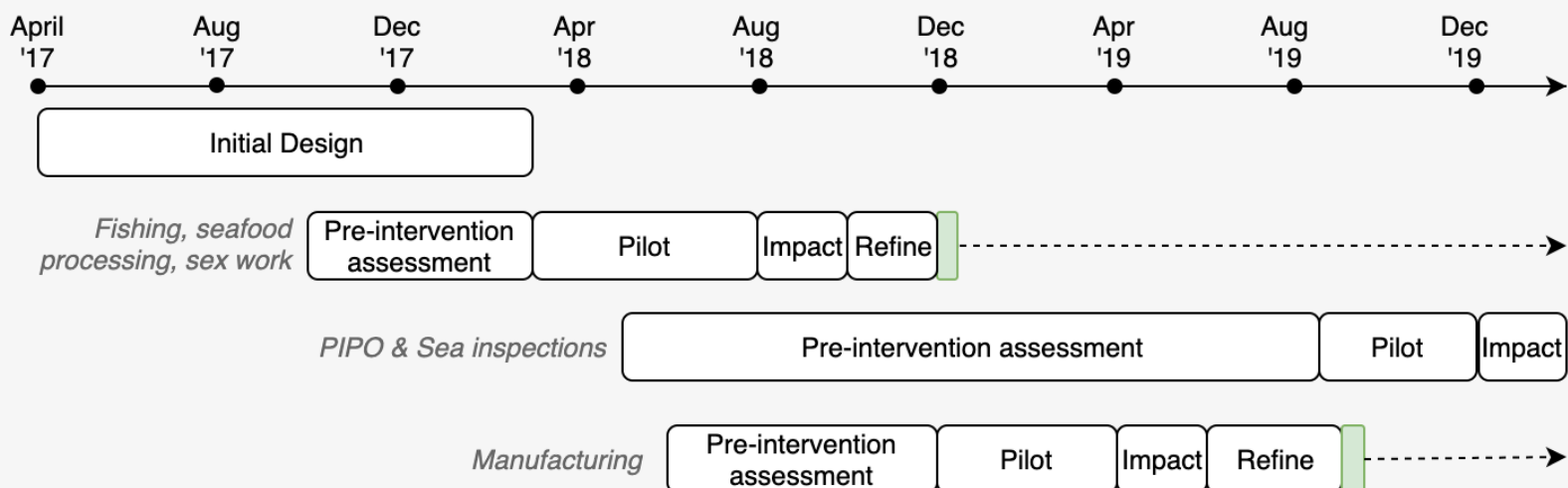
MONITORING AND EVALUATION

Figure 5. Timeline indicating sector-based rollouts of Apprise

As well as the evaluations that were undertaken as part of the iterative design process, we incorporated sector specific impact assessments in the fishing, seafood processing, sex work and manufacturing sectors. Each of these assessments established a baseline prior to rollout, a midterm observation, and an end line assessment. Those rollouts that have been completed are indicated (Figure 5) with a green square showing the launch date, and a dotted line showing continued use by FLRs.

The first of these studies aimed to understand how Apprise could support NGOs in their outreach activities. It included participants from three sectors (fishing, seafood processing, and sex work), across Thailand: Samut Sahkon, Chonburi, Rayong, Songkhla, Mahachai, Pattaya, Bangkok and Chiang Mai.

The second study worked with CCCIF. Its' aim was to understand how Apprise could support the inspection of fishing vessels at government inspection centres (Port In Port Out Inspection Centres – PIPO), and during sea inspections. At the time of writing this report, the impact assessment of this study was being completed.

The third study focused on the manufacturing sector, through partnerships with global corporations. Corporations used Apprise as part of their social compliance audits in supply chains that reached across Asia. Auditors used Apprise as part of their in-person audits, in order to inform their on-site investigations.

The next section presents case studies describing key findings drawn from the three studies.

LESSONS FROM THE FIELD

From the three studies and rollouts, we collected a significant number of impact stories and uses for digital technology in proactively and consistently screening of vulnerable populations. In this section, we present a few case studies that demonstrate how Apprise contributed to improve the initial screening issues identified, including communication, training, trust and privacy. These case studies reflect the different industries and where the tool was tested, including fishing, manufacturing and sex work.

COMMUNICATION

We had identified communication constraints as a main issue affecting the screening of workers. While testing Apprise in the field, we found that the tool enables communication with workers from a variety of backgrounds and ethnic groups without the need of a translator, and that it promotes inclusivity of workers who usually wouldn't be selected to be interviewed due to language barriers.

CASE STUDY A: COMMUNICATION WITH MIGRANT WORKERS

NGOs that support sex workers across different sex hotspots in Thailand described encountering language barriers within migrant populations. Sex workers in Thailand are a particularly mobile community, with different flows of international workers arriving seasonally based on the preferences of tourists. Within one year of piloting Apprise with languages such as Burmese, English, Khmer, Lao, Lisu, Lahu, Mon, Shan Thai and Vietnamese, we were asked to add support for the following languages for the sex work sector: French, Kiswahili, Russian, and Uzbek. There were no translators available for these languages, with one NGO noting that "inevitably something will get lost in communication along the way". Screening tools such as Apprise can aim to bridge this communication divide, to enable workers to signal for help if they choose.

CASE STUDY B: UNOFFICIAL TRANSLATORS

When conducting labour inspections at fishing docks in Thailand, a lack of available translators inhibits the ability of inspectors to interview fishers that do not speak any Thai. In one case encountered in the field, an inspector sought the help of a Burmese woman, who was working as the boat's cook, to assist with translations for oral interviews with Burmese fishermen. In this type of situation, it is impossible to verify the accuracy of the translated questions and responses, presenting a barrier to effective identification and response. Even if the use of an unofficial translator is well-intentioned, it cannot serve as a substitute for a systematic process of interviewing and data collection. Apprise overcomes this communication challenge by using a rigorous process of translating and verifying questions. Once verified, the phrases are recorded and verified a final time. This ensures accuracy, internal consistency, inter-rater reliability, and test-retest reliability of interviews.

CASE STUDY C: 20 YEARS WORKING IN FACTORIES BUT NEVER INTERVIEWED

Apprise allows FLRs to speak to workers who had never been interviewed before. During a social audit in a 200-worker factory in Thailand, the vast majority of the workers selected for the Apprise and in-person interviews had never been interviewed by an auditor. The app was the first time for many workers to report on their working conditions. For example, a 40 something -year-old female Thai worker had been working for over 20 years without ever talking about her working conditions. The worker had been working for 10 years in the current factory and previously had worked for 10 years in another factory. She was nervous as this was the first time she had ever been asked to speak to an auditor.

TRAINING

Having identified the lack of training among frontline responders on how to detect exploitation, investigate cases and draw recommendations, we aimed to understand whether Apprise could support frontline responders in making more informed decisions. The following case studies illustrate how the tool provided information during labour inspections, which guided further investigation and informed recommendations.

CASE STUDY D: A TOOL IN THE HANDS OF THE POTENTIAL VICTIM

Once properly trained to administer Apprise, fishing labour inspectors say that it can be an effective tool to assist them in the process of inspection. As soon as fishermen have completed the interviews with Apprise, if there are any red flags indicated by the app, the inspectors can immediately request that the worker's time and work load be reduced to address potential vulnerabilities. As one inspector in Thailand put it, "the results of the interview collected from Apprise will help to see patterns of issue or risk in each boat or employer. The information can be a reference in a case that requires further interview." When in the hands of FLRs, Apprise can be an effective tool that helps to identify potential victims of labour exploitation.

CASE STUDY E: FORCED PREGNANCY TESTING AMONG FACTORY WORKERS

In two factories in Thailand in March 2018, several female workers said "yes" to a question on pregnancy testing. In one factory, the auditor went and did in-person interviews to investigate and spoke to a female worker who told them that they had been required to do a pregnancy test as part of the factory pre-employment health check-up, while another female worker also did the required health check-up but wasn't made to do a pregnancy test. The auditor then brought up this issue with the factory management, who said that there were no specific requirements for the health check-up workers underwent prior to starting working at the factory. The auditor then recommended the factory management to clarify their health check-up requirements to specify that female workers would no longer be tested for pregnancy. In another factory, the auditor asked the factory management to see the health check-up requirements, but pregnancy testing wasn't mentioned in the list. An explanation for some female workers being subjected to pregnancy tests could be that often workers are recruited by agencies that will impose their own health check-ups. This case demonstrates that Apprise helps inform FLRs, in this case an auditor, to further investigate specific issues that otherwise they wouldn't be able to access.

APPRISE HELPS INFORM FLRS, IN THIS CASE AN AUDITOR, TO FURTHER INVESTIGATE SPECIFIC ISSUES THAT OTHERWISE THEY WOULDN'T BE ABLE TO ACCESS.

TRUST

Reiterating the importance of trust for effective self-disclosure, this case study highlights why trust between the worker and the FLR matters, with implications for the use of Apprise as a tool.

CASE STUDY F: WHY TRUST MATTERS

Trust is a critical factor in soliciting truthful responses from potential victims of forced labour or human trafficking. If respondents don't trust the individual collecting their information, or believe that their information may be misused, then data collection efforts will be hampered and cases of exploitation may fail to be identified. For example, when fishermen working in Thailand were asked whether they would use Apprise if the phone was given to them by someone they didn't know, they universally indicated that they would not be willing to answer any questions. As one fisherman stated, "like when you just walk alone and give me the phone and ask me to give an interview, I won't be willing to answer the questions." However, the fishermen followed this up by saying that they would be much more willing to use Apprise if the phone was given to them by someone they trusted, such as an NGO worker or an officer that they have known for some time. Since workers already fear reprisal from their employers when answering questions regarding their working conditions, ensuring that Apprise is administered by a trusted source is a key consideration in implementation.

TRUST IS A CRITICAL FACTOR IN SOLICITING TRUTHFUL RESPONSES FROM POTENTIAL VICTIMS OF FORCED LABOUR OR HUMAN TRAFFICKING.

PRIVACY

Privacy remains a vital aspect for effective screening of potential victims of exploitation. One of the case studies presented shows that ensuring the privacy of the screening session can enable worker reporting in strict work environments where workers are monitored by their managers. The other case study speaks to the importance of privacy of the screening as workers fear reprisals and wish to keep their reporting private and confidential.

CASE STUDY G: UNDERCOVER INTERVIEWING IN BARS

An organisation based in Thailand that supports sex workers adapted Apprise for interviewing sex workers in bars. Because NGOs in Thailand do part of their outreach in bars, they usually send male workers undercover, pretending to be customers in order to be able to speak to sex workers. When testing Apprise, workers from this NGO would take a phone with them during these undercover outreach missions and use Apprise   to discreetly conduct interviews with sex workers. An NGO worker told us : "So we had an undercover agent as well, and he went to the bars […] he could still play his part as a customer, but then he could show her… and it looked like they were playing on the phone. Sometimes they would take a selfie or something."From this case, we can see how versatile Apprise can be in multiple environments and contexts. It would allow FLRs to reach communities and workers with greater privacy, enhancing discretion and security of the screening.

APPRISE ALLOWS FLRS TO REACH COMMUNITIES AND WORKERS WITH GREATER PRIVACY, ENHANCING DISCRETION AND SECURITY OF THE SCREENING.

CASE STUDY H: AVOIDING FACE-TO-FACE INTERACTION

Apprise confers several privacy advantages to workers who are being interviewed. One Thai fisherman shared a hypothetical scenario regarding the use of Apprise with us in an interview. "Suppose there is a security concern related to the labour. Even if the worker faces a harsh or negative situation, they can still continue to appear as though they are working without the awareness of the employer." Fisherman and labour inspectors alike have commented on the way Apprise ensures privacy in the screening. A Cambodian fisherman told us in an interview: "I don't like telling my story repeatedly to others. I know that it is important to talk to them but it is bitter to talk about things I wish to forget. Sometimes a face-to-face conversation is much harder than I expected. My privacy is protected when the interview is done without others knowing my answer."

"I DON'T LIKE TELLING MY STORY REPEATEDLY TO OTHERS. I KNOW THAT IT IS IMPORTANT TO TALK TO THEM BUT IT IS BITTER TO TALK ABOUT THINGS I WISH TO FORGET. SOMETIMES A FACE-TO-FACE CONVERSATION IS MUCH HARDER THAN I EXPECTED. MY PRIVACY IS PROTECTED WHEN THE INTERVIEW IS DONE WITHOUT OTHERS KNOWING MY ANSWER."

WAYS FORWARD

POTENTIAL FOR NEW TECHNOLOGIES

In recent years, the size and amount of data available, being collected, and analysed have increased exponentially. This has been accompanied by greater interest and ascribed faith in the use of new technologies, including machine learning, big data, and artificial intelligence to support data-driven decision-making especially in policy making processes. New technologies have both enabled: (i) new ways and systems of analysing data; and (ii) new ways of collecting data, especially from non-traditional sources, allowing the mapping of hidden populations, such as workers in vulnerable situations.

NEW TECHNOLOGIES FOR BETTER ANALYSIS

Apprise demonstrates the agile, modular, and efficient nature of new technologies and the way in which they can be deployed to collect more data and shed light on social problems. As a modular expert system, Apprise can be tweaked to allow for machine-learning capabilities to be embedded in the system to support improved detection of human trafficking. The potential application of many new technologies lies in their ability to combine their different functionalities to resolve a specific

task assigned to them. Apprise is not unique in this sense. In many innovation labs embedded in different international organizations and public sector organisations, new technologies are being trialled to crowdsource and map public sentiments on various issues, improve livelihoods, and achieve the SDGs. While systems incorporating new technologieshave the potential to unpack, collect, and analyse data in previously uncontemplated ways, one must remain aware of the potential risks and various ethical considerations when deploying such tools. The fanfare surrounding these new technologies must always be tempered with a critical reflection on their limitations and applicability.

PEOPLE, NOT TECHNOLOGY

A technology-centric approach often neglects the fact that people operate and configure these new technologies potentially carrying with them harmful biases of their creators. While AI and blockchain can indeed be designed for social good, they can also be designed for social harm and inflict multiple layers of injury. In this regard, new technologies can only be as good as the people who create and manage them.

For the case of Apprise, there was a conscious effort to integrate the feedback and views from different stakeholders in designing the system through an iterative process, especially in ensuring that the voices of migrant workers and survivors of exploitation were included. The features of Apprise were borne out of multiple consultations. Design principles that were centred on the needs of the stakeholders themselves were also considered in the process of developing Apprise. These considerations are important when appropriating tools and processes inculcated with new technologies.

Furthermore, these considerations are even more relevant in the context of traditionally marginalised populations, often hidden and hard to reach, such as potential victims of human trafficking and forced labour. Victim-centred technologies such as Apprise, that allow real-time collection of data and mapping of these hidden populations, are needed to reflect how to effectively reach the most vulnerable through their networks and realities, contributing to identifying and mapping the phenomenon of human trafficking and forced labour [17].

POTENTIAL FOR MISUSE

Rules, regulations, and guidelines are only beginning to catch up with the legal and ethical considerations that arise from using new technologies. The resulting grey space gives rise to a number of issues that need to be considered when using new technologies. In the case of Apprise, careful thought was given to the risk of harm to people should personally identifiable information be disclosed. Some of the privacy issues that were considered include: (i) the ways data is collected; (ii) the ways data is stored; (iii) the ways data is analysed; and (iv) the ways data is disclosed.

DECENTRING NEW TECHNOLOGIES: A SYSTEMS APPROACH TO SOLVING A PROBLEM

The high expectations placed in new technologies are often tied to a myth that they can, by their very nature, solve many social ills. At their core, new technologies are simply tools that could potentially be used to address an issue. While new technologies can be part of a package of solutions to address a problem, they are rarely a solution in themselves. In other words, the utility and potential of new technologies to address social problems depend on the intervention system to which they are embedded. In addressing a social issue, the problem that is being addressed should not be lost in the novelty of new technologies. Systems, supported by a collection of tools, need to remain core to policy interventions. In encouraging greater accountability in the detection of human trafficking, Apprise is but one of the many pieces of the puzzle that supports this goal.

RECOMMENDATIONS

Having chronicled the development and deployment of Apprise, as well as the lessons learned from the field, the final section of this report sets out various recommendations for different stakeholders in deploying new technologies for identifying victims and uncovering patterns of exploitation.

FOR GOVERNMENTS AND POLICYMAKERS

• Consider how new technologies, such as Apprise, can fit into existing systems to address data gaps in human trafficking and labour exploitation among migrant populations. At the same time, being cautious of the potential for misuse of technology, particularly for unethical harvest and use of data regarding vulnerable people such as migrants (data governance).

- Examine different sustainability models when integrating new technologies, particularly the financing and maintenance of new systems.

• Develop victim-centred policies that address the key barriers to effective victim identification: communication, training, trust, and privacy.

• Improve data collection and analysis mechanisms to understand the dynamics of migration, at-risk populations, sector-specific practices of exploitation and how these vary across time and regions.

- Consider the role of micro-level data, such as that collected by Apprise, in informing responsive policy.

- Adopt international guidelines, such as ILO Indicators of Forced Labour, to ensure validity and comprehensiveness of victim identification.

FOR BUSINESSES

• Enable a variety of anonymous, neutral, and effective internal reporting mechanisms for workers, improving existing grievance channels or creating more effective ones. Ensure that inclusive and safe worker interviews take place in corporate social auditing. In particular, ensure that migrant workers' feedback is included and that individual interviews are preferred to group interviews. Equip auditors with tools like Apprise Audit to support this goal.

- Enhance forced labour training provided to auditors, including interviewing and follow-up guidelines.

- Ensure that concerns raised by the workers are addressed and resolved timely. Review follow-up protocols frequently, making sure that lessons learned from previous cases are integrated.

- Retain worker feedback data safely, organise it consistently, analyse it periodically and integrate it into supply chain risk assessment review.

FOR RESEARCHERS

• Produce high-quality research grounded on rigorous and participatory methodology, in order to include multiple stakeholder voices in the design of case studies and consultations.

- Use human principles for the design of technological artefacts and solutions, centring design on the needs of the beneficiaries.

- Consider the role of trust between FLRs and potential victims when collecting respondent driven data.

- Adopt technology to overcome communication constraints and improve inclusivity of sampling base.

FOR FRONT LINE RESPONDERS

• Always take into account barriers such as language, trust, and privacy when conducting training and outreach activities.

• Consider the use of tools such as Apprise to increase outreach capacity to vulnerable groups that are underserved because of these barriers.

• Improve data collection and analysis for mapping vulnerabilities within their target populations and building on evidence to support their communities, raise awareness and attract funding.

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