

Human Trafficking Screening in Humanitarian Relief and Development

Hannah Thinyane

United Nations University, Institute in Macao. Casa Silva Mendes, Estrada do Engenheiro Trigo No 4, Macao SAR, China
hannah@unu.edu

Abstract

Human trafficking is a problem of global concern, with estimates suggesting that approximately 25 million men, women and children are trapped in these situations of severe labour exploitation worldwide. The eradication of these exploitative situations has been listed as one of the targets in the 2030 Sustainable Development Goals, yet much progress is needed to meet this goal of decent work for all. Identifying victims is a critical first step in supporting workers to exit these work environments. This paper describes the design and evaluation of Apprise, an expert system we developed and have been using in Asia Pacific to support stakeholders to identify victims of labour exploitation and human trafficking. It draws four key recommendations for using expert systems in humanitarian relief and development: a comprehensive understanding of who defines the 'good' in AI for 'social good' interventions; a consideration of human rights implications of AI systems; broad participation by stakeholders in the design of the system; and an understanding of the way that digital technology will be used to amplify human intent.

Introduction

Over the last few years, the world has been shaped by major migration and displacement events. While almost two thirds of the 272 million international migrants migrated for work purposes, significant numbers were displaced due to conflict (e.g. within and from Syria, Yemen, and South Sudan), extreme violence (e.g. Rohingyans fleeing to Bangladesh), economic and political instability (e.g. in Venezuela), and climate change (e.g. China and USA) (IOM 2019). Regardless of the push and pull factors that incentivise people to move, all except the very few independently wealthy must seek work to provide for themselves and their families. While this strategy has benefited millions of internal and international migrants, it has also given rise to exploitative working conditions, as booming markets and rapid urbanization have resulted in a constant demand for

cheap labour (Benach et al. 2011). These workers are often forced to fill dangerous, dirty, or degrading jobs, which are able to exist due to weak labour governance in the destination cities and countries (Zimmerman and Kiss 2017). The exploitation that they face can range from payment under minimum wage and discrimination to more severe kinds of exploitation such as hazardous work, long hours, physical confinement, and violence.

In popular media, the phrases 'labour exploitation', 'forced labour' and 'human trafficking' are used interchangeably, so a clarification of these terms is essential at this point. In this work we draw on Skřivánková's continuum of exploitation (Figure 1) (2010) that defines 'decent work' and 'forced labour' as two ends of a continuum. The International Labour Organization defines forced labour as "all work or service which is exacted from any person under the threat of a penalty and for which the person has not offered himself or herself voluntarily" (ILO 1930). Any situation between the two end points represents violations of labour and /or criminal law and is referred to as labour exploitation.



Figure 1: Continuum of exploitation. Adapted from (Skřivankova 2010)

These exploitative situations include "compromising conditions that deny fundamental principles and rights at work, put at risk the lives, health, freedom, human dignity and security of workers or keep households in conditions of poverty" (ILO 2015, 1). Using this continuum, we can see human trafficking as a process, consisting of a series of

exploitative acts that move the worker towards a situation of forced labour.

Global estimates suggest that approximately 25 million people are trapped in situations of forced labour or human trafficking (ILO and Walk Free 2017). The most recent figures indicate that in 2019, only 0.2% of the total number of victims of human trafficking were identified and subsequently helped. We refer to this figure heeding the caution of researchers such as Weitzer who note that “it is impossible to satisfactorily count (or even estimate) the number of persons involved or the magnitude of profits within an illicit, clandestine, underground economy at the macro level” (Weitzer 2014). Instead, we refer to it to illustrate that: there are a large number of people, often migrant workers (Zimmerman and Kiss 2017), in situations of forced labour and human trafficking that are currently unidentified and subsequently unable to be helped; that current identification techniques are failing the vast proportion of victims of human trafficking; and that the data that has been collected, comes from a very small proportion of cases.

Although the eradication of human trafficking and forced labour is listed as Target 8.7 of the Sustainable Development Goals, much progress is still required to meet this lofty goal, specifically in the development of effective responses for trafficking prevention and assistance to victims (Kiss and Zimmerman 2019). Identifying victims is a critical first step in providing this assistance to victims, but is made difficult by a number of factors, including: the hidden nature of the crime; foreign victims fear of detention or deportation by authorities; fear of retribution; corruption; language problems; and a lack of training and resources in the field (Thinyane, Hannah 2019). In this work, we use the term frontline responders (FLRs) to refer to those who come into first contact with victims of labour exploitation, and have the job of assessing their working conditions, and helping them to become aware of and gain access to social services, complaint or grievance mechanisms, and support (for example emergency shelters and legal representation). These stakeholders often include local or federal police, government labour inspectors, health care providers; as well as non-state partners including social workers, inter-governmental organizations (IGOs), non-governmental organizations (NGOs), and civil society organizations (CSOs).

This paper presents a case study of the use of Apprise, an AI-based screening tool to support FLRs to assess labour conditions and vulnerability in precarious work environments. It draws from our 4 years’ experience working with a wide variety of FLRs including: private auditors in supply chains across Asia-Pacific; Royal Thai Navy and Ministry of Labour Inspectors in fishing sector in Thailand; and NGOs, CSOs, and IGOs in fishing and sex work sector in Thailand. From this experience, the paper

draws key recommendations for using AI more broadly in humanitarian relief and development.

Apprise

This section describes Apprise, a screening tool that we developed to support FLRs to proactively screening workers for indications of labour exploitation and human trafficking. This screening tool supports workers to raise concerns on the illegal, undignified, or exploitative employment that they are trapped in. If they choose to exit their current work situation, workers then can have access to help, remediation, and justice. As a complete description of this research is outside the scope (and page limit) of this paper, we summarise the key points here that are needed to frame the subsequent discussion in the remainder of the paper, referring interested readers to (Thinyane, Hannah 2019) for full details.

We undertook a series of consultations with 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 intergovernmental organizations with mandates in migration and / or trafficking. The first stakeholder consultation identified the initial screening phase of victim identification as a critical first step in the process, where technology could potentially play a role. FLRs identified key problems that they face in initial screening as: language barriers / communication; lack of training or common understanding of the indicators of human trafficking; screenings being undertaken in uncontrolled environments, where victims’ privacy could not be guaranteed; and a lack of trust between all parties involved (workers, FLRs and translators - where available). On the latter of these points, 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. 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. Based on this 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.

From this, we developed Apprise, an app that is installed on the FLRs phone, but ultimately is a tool in the potential victims’ hands. When combined with a set of headphones, it offers workers privacy to answer audio questions that are



Figure 2: (a) question list selection (b) language selection (c) introductory video (d) question interface (e) vulnerability summary for NGO / CSO (f) vulnerability summary for state actors

played in their language. It contains screening questionnaires for different sectors of work (Figure 2(a)), with audio questions translated into the most common languages among migrant workers communities in that sector / region (selected by the worker, Figure 2(b)). Once the worker has selected their language, the app begins by playing an introductory video, describing the purpose of the interview, introducing the FLR, and demonstrating how to use the app (Figure 2(c)). It then asks for consent to continue to ask the worker a list of questions. Each list contains a mixture of positively and negatively worded yes/no questions (Figure 2(d)). Branching is included in the question list, enabling different information to be collected based on responses to previous questions. The last question in each list asks the worker if they would like help to exit their work situation. After completing these questions, a vulnerability calculation is performed, and an audio is played to inform the worker of the vulnerability of their situation. They are also given a chance to reconsider if they would like help to exit their work situation based on the outcome of the screening. At this point, the phone is returned to the FLR and the key vulnerabilities are summarised to inform FLRs follow-up investigations.

To assess the vulnerability of the situation, each question has a predefined weighting and categorical information, based on four principle dimensions of exploitation: unfree recruitment, work and life under duress, impossibility to leave, coercion / penalty or menace of penalty. Each question is also aligned to one of the eleven indicators of forced labour (as defined by ILO (2012b)). The knowledge base takes into consideration the age of the respondent, to pay particular attention to child labour (adapted from (ILO 2012a)), and adapted to different Labour Law frameworks. This contextual adaptation is undertaken as we understand exploitation to be a violation of labour and criminal law, so for many sectors of work, the national labour law has a significant impact on legal definitions of vulnerability. We

provide different vulnerability summary options based on the FLRs different requirements. Figure 2(e) illustrates the interface used by NGOs / CSOs, highlighting indicators of exploitation that were identified in the interview process. Figure 2(f) shows the interface used for state actors, aligning indicators to follow up steps that they can take. Throughout the interview process, no personally identifiable information is collected from workers, to ensure that their privacy and anonymity are maintained.

Once interview responses have been uploaded (when network connectivity is available), FLRs and key personnel within their organization can access and analyze anonymous interview responses. These interview logs in themselves can be a tool for policymakers to develop a nuanced understanding of the sector specific and evolving practices of exploiters. Reported practices of exploitation can be analysed by sector of work, location, language of interview and time, 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.

Discussion and Conclusion

Apprise has been used in the field by frontline responders in Thailand (fishing, seafood processing, sex work), and across Asia-Pacific within supply chains of multinational corporations (manufacturing) since March 2018. This section draws together our findings, presenting key lessons that we learned that would be applicable to consider across many different humanitarian relief settings.

Who defines ‘good’ in AI for social good

Like many ‘wicked problems’, labour exploitation and human trafficking are complex stories involving many characters, few of whom can be stereotyped as ‘all good’ or

'all bad'. Different factors push and pull different actors to undertake actions that they would otherwise not consider under different circumstances. Care must be paid when designing systems to support triage of cases, to understand if this support is in the best interests of the recipients of the service.

This point can be most easily described with reference to our research with sex workers in Thailand. We initially began our study working with state actors, being asked to support them to build their screening capacity. We soon realized that due to widely reported corruption within traditional justice channels (Achakulwisut 2018), workers themselves did not believe that supporting the state's ability to assess their working conditions was 'for social good'. One sex worker organization described the result of recent police involvement in a case of sexual exploitation within their sex worker community:

35 people were put in jail. And then some ... were deported out of the country. They are the ones who are exploited, they need to be the ones who get help, not to be exploited by the government again

At the same time, sex worker organizations also spoke of 'vigilante NGOs' who advertise their work with pictures of armed FLRs who are going to 'save' workers. Once 'rescued' some NGOs provide training services to these workers, to help them transition to a new profession. Sex workers often described that the handicraft skills that they are taught do not provide a livable income, putting them in more precarious positions after 'rescue'. Instead, the sex worker led organizations that we interviewed suggested that triage tools could allow them to support their own communities, understanding the needs of their peers, and in some cases providing access to alternate forms of justice:

there are ... communities where people are being exploited and so we want to familiarize ourselves with that too, so that we can help identify potential victims and also when we're doing our outreach and training and life skills we can help more people about tactics that might be used on them ... [to] help prevent exploitation.

Building on this and stemming from the final question in each question list which asks if workers would like help to leave their work situation, sex worker organizations emphasized that technologies such as Apprise could only be useful if they enhanced their agency. Ultimately, they were interested in using Apprise if it could support them to enhance their understanding of the vulnerability of their work situation, rather than to choose for them what a 'good' outcome would be for someone who faces exploitation. One sex worker described this further, saying that if the application indicates that she is in a vulnerable situation, but she is willing to stay, "would you respect my decision?". This highlights the important concept of supporting the workers' own agency, enabling them to override the suggestion that is provided by the expert system.

This example has illustrated several very different ideas of the 'social good' that triage tools could support within this one sector. This explicit understanding of the social good that our systems seek to support is fundamental to the use of AI, especially within humanitarian relief and development.

Grounding in human rights

After calls in the previous section to consider the very different understandings of 'social good' that exist within a particular context, the question becomes how to determine the impact that a system may have on stakeholders.

In previous work we have called for the use of international legal frameworks such as the International Bill of Human Rights to assess the potential human rights impacts of AI systems prior to rollout (and preferably development) of a system (Thinyane and Sasseti 2020). This approach is a significant change from ethics frameworks which are often non-legally binding and developed to serve the best interests of the select minority who created them (Raso et al. 2018). Legal frameworks such as the International Bill of Human Rights (which itself is composed of Universal Declaration of Human Rights, International Covenant on Economic, Social and Cultural Rights, and International Covenant on Civil and Political Rights) were developed through transparent and legitimate processes, and have become the foundation of many human rights declarations, conventions, bills, and constitutional provisions.

Broadening participation

Within our work, we undertook a year-long consultative process to understand what exploitation looked like in different sectors. In formal work, labour law can be used as a basis for what is legal, and then by extension, what is exploitative and illegal. However, we also understood that law is slow moving and does not reflect the rapid changes and current practices of exploitation that can be experienced in the field. In our work in the fishing sector, we met with state actors, but also IGOs, CSOs, NGOs, survivors of exploitation, and vulnerable workers, to understand how people are currently being exploited. These findings informed what we referred to as proxy indicators for sector-specific laws, which we then codified to form the expertise (or knowledge base) within the expert system.

In informal work, we again used these broad consultative processes to understand what exploitation looks like to workers within the sector. While not codified in the same way as formal work, there is often an understanding within the community of what acceptable labour conditions are. When using AI in humanitarian relief and development, we recommend this broad perspective and recognition of expertise.

Amplification of intent

Our final recommendation in this paper draws from Agre's assertion that digital technology in itself is neither a positive or negative force, but at best will be used to amplify the intentions of those that use it (Agre 2002). Building on this, Toyama explains that "People have intent and capacity, while technology is merely a tool that multiplies human capacity in the direction of human intent" (Toyama 2011, 77).

Drawing from our experience with auditors in supply chains, we understand that we work with brands and corporate social responsibility experts that are inherently motivated to make positive change in the labour conditions of workers in their supply chains. In these cases, they aim to use Apprise to identify any exploitative conditions in order to address them and provide remediation. In other cases, the same technology could be used to provide inaccurate information about conditions of work. Employers could coerce workers to provide inaccurate responses to screening questions. Or workers themselves could try to use the interview to make false reports about the conditions of their work.

Within humanitarian relief and development contexts, it is important to remember that digital technology (and in this case, specifically AI systems) will not bring about systemic change in and of themselves. Any initiative must be supported by robust transparency and accountability structures, to ensure that it is being used for the purposes for which it is intended. In the case of expert screening tools such as Apprise, this could include standard operating procedures detailing actions to be taken when a case is identified as showing vulnerability, as well as broader accountability to external parties.

Conclusion

This paper has presented insights derived from our four year engagement in Thailand and other countries within Asia Pacific, innovating and inventing technologies to support FLRs to screen workers in vulnerable situations. It described our system, Apprise that we developed and that has been used in the field to identify exploitation with fishing, seafood processing, manufacturing, and sex work. The paper draws key recommendations for researchers, academics, and program officers who are interested in using AI within humanitarian relief and development. First, by reflecting on the complex nature of problems that we see in humanitarian relief and development, the paper suggests that stakeholders take a step backwards, to reflect on who defines what 'good' is in AI for social good. Next, the paper suggests using key international frameworks such as International Bill of Human Rights, to identify the impact that an AI system would have in complex environments.

The paper then suggests that for expert systems, a broad consultative process could be used when codifying the knowledge base, recognizing expertise from diverse actors. Finally, recognizing that technology is neither positive or negative, but can be used to amplify user's original intent, this paper calls for comprehensive accountability structures as well as standard operating procedures to inform FLRs follow-up actions.

References

- Achakulwisut, Atiya. 2018. "Corruption Is Embedded in the Sex Trade." *Bangkok Post*, January 16, 2018. <https://www.bangkokpost.com/opinion/opinion/1396586/corruption-is-embedded-in-the-sex-trade>.
- Agre, Philip E. 2002. "Real-Time Politics: The Internet and the Political Process." *The Information Society* 18 (5). <https://www.tandfonline.com/doi/abs/10.1080/01972240290075174>.
- Benach, Joan, Carles Muntaner, Carlos Delclos, María Menéndez, and Charlene Ronquillo. 2011. "Migration and 'Low-Skilled' Workers in Destination Countries." *PLOS Medicine* 8 (6): e1001043. <https://doi.org/10.1371/journal.pmed.1001043>.
- ILO. 1930. Convention C029 - Forced Labour Convention, 1930 (No. 29).
- . 2012a. *Hard to See, Harder to Count: Survey Guidelines to Estimate Forced Labour of Adults and Children*. Geneva.
- . 2012b. "ILO Indicators of Forced Labour." WCMS-203832. Geneva, Switzerland: Special Action Programme to Combat Forced Labour, ILO. http://www.ilo.org/wcmsp5/groups/public/@ed_norm/@declaration/documents/publication/wcms_203832.pdf.
- . 2015. "Unacceptable Forms of Work: Results of a Delphi Survey." Geneva, Switzerland: International Labour Organization. https://www.ilo.org/wcmsp5/groups/public/---ed_protect/documents/publication/wcms_436504.pdf.
- ILO, and Walk Free. 2017. "Global Estimates of Modern Slavery: Forced Labour and Forced Marriage." Geneva, Switzerland: International Labour Office (ILO).
- IOM. 2019. "World Migration Report 2020." Geneva: International Organization for Migration. https://www.un.org/sites/un2.un.org/files/wmr_2020.pdf.
- Kiss, Ligia, and Cathy Zimmerman. 2019. "Human Trafficking and Labor Exploitation: Toward Identifying, Implementing, and Evaluating

- Effective Responses.” *PLOS Medicine* 16 (1): e1002740.
<https://doi.org/10.1371/journal.pmed.1002740>.
- Raso, Filippo, Hannah Hilligoss, Vivek Krishnamurthy, Christopher Bavitz, and Levin Yerin Kim. 2018. “Artificial Intelligence & Human Rights: Opportunities & Risks.” *SSRN Electronic Journal*.
<https://doi.org/10.2139/ssrn.3259344>.
- Skrivankova, Klara. 2010. “Between Decent Work and Forced Labour: Examining the Continuum of Exploitation.” York, UK: Joseph Rowntree Foundation.
<https://www.jrf.org.uk/report/between-decent-work-and-forced-labour-examining-continuum-exploitation>.
- Thinyane, Hannah. 2019. “Supporting the Identification of Victims of Human Trafficking and Forced Labor in Thailand.” *Communications in Computer and Information Science* 933.
- Thinyane, Hannah, and Francisca Sasseti. 2020. “Towards a Human Rights-Based Approach to AI: Case Study of Apprise.” In *Evolving Perspectives on ICTs in Global Souths*, edited by Don Rodney Junio and Cecile Koopman, 1236:33–47. Communications in Computer and Information Science. Cham: Springer International Publishing.
https://doi.org/10.1007/978-3-030-52014-4_3.
- Toyama, Kentaro. 2011. “Technology as Amplifier in International Development.” In *Proceedings of the 2011 IConference*, 75–82. Seattle, Washington: ACM Press.
<https://doi.org/10.1145/1940761.1940772>.
- Weitzer, R. 2014. “New Directions in Research on Human Trafficking.” *The ANNALS of the American Academy of Political and Social Science* 653 (1): 6–24. <https://doi.org/10.1177/0002716214521562>.
- Zimmerman, Cathy, and Ligia Kiss. 2017. “Human Trafficking and Exploitation: A Global Health Concern.” *PLOS Medicine* 14 (11): e1002437.
<https://doi.org/10.1371/journal.pmed.1002437>.