Call for input on the use of technology in facilitating and preventing contemporary forms of slavery

Author Phil Bennett, Independent anti-trafficking technology consultant

https://www.linkedin.com/in/philbennett/

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Introduction

Since the advent of consumer-based internet technologies such as social media, smart phones and messaging, digital technology has become an increasingly important consideration in efforts to tackle modern slavery and human trafficking. The 2020 study by OSCE and Tech Against Trafficking¹ of more than 300 tools showed there had been a sudden acceleration in apps and systems being constructed by civil society around the world over the last few years as the cost to develop technology had fallen. Yet overall, our collective response has continued to be slow, disconnected and lacked strategy. There have been pockets of innovation, however these have often been underfunded, short-term and continue to be outmanoeuvred by criminals.

Tackling human trafficking can be likened to a river which needs a dam constructed. Human trafficking is a flowing system and is enabled by a supply of vulnerable communities plus a demand for illegal and cheap labour. Agitators of trafficking include weak legal systems, weak law enforcement systems, money flows, corruption, etc. In general, throwing a rock into the river will cause a brief disruption to the river but is unlikely to permanently stop the flow. Similarly, a focus on just one aspect of the causes of trafficking is unlikely to change the overall picture significantly (at least, not without huge scale). For example, if a programme to reduce economic vulnerability in a community may support people in that community, but if traffickers can simply recruit from the next village, district or state, then the intervention becomes the proverbial rock in the river.

The dynamics of the use of technology by criminals

There is no doubt that technology is being used widely by traffickers and abusers worldwide. Although attention is often given to the use of custom and exotic technologies, most technology-enabled trafficking uses consumer-level technology which is secure and cheap. An example is how drug gangs use feature phones to control children along "county lines" in the United Kingdom. We can see that that in many cases the use of technology by traffickers mimics the use of technology by similar legal enterprises. This helps them remain hidden (in plain sight) and avoid attention from authorities. Examples:

- Traffickers using message boards to identify and recruit vulnerable people for illegal construction work, just as legitimate companies do to identify and recruit workers legally.
- Traffickers using social media platforms to identify potential customers and using cheap video broadcasting hardware to conduct commercial sexual exploitation.
 Similar types of technology are used by legitimate service companies such as learning/education platforms.

A note on the potential risks of recent advancements in artificial intelligence

The most disruptive technology in recent times is artificial intelligence (AI). AI is the popular term to describe computer software which can use models and algorithms to perform tasks that were, until recently, only possible by humans. It will become increasingly difficult to

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¹ https://www.osce.org/cthb/455458

recognise humans from digital machines—using images, video, voice (sound) and text. Generating content for the purpose of deception, such as those used in the recruitment of trafficking victims will become trivial. Recruitment via digital channels could be achieved at scale—including conversations which impersonate trusted friends and family. (Similar techniques could also be used for romance fraud, sexual extortion, etc.). Establishment of international safety guidelines on the use of AI, particularly large language models, is essential.

The response by technology companies

Companies whose platforms are routinely used by traffickers have developed various countermeasures, mainly focused on detection and interception. However, as a strategy, relying on discretionary efforts by technology companies instead of implementing robust legal safety requirements is unlikely to yield the improvements so desperately needed. This is due to the nature of the commercial dynamics of company competition, revenue/profit, and risk management, as explained below:

- Much of the technical expertise in these companies is in the global north and therefore there is a risk of bias toward safety systems limited to the English language, rather than the many hundreds of other languages used by millions of users.
- Regional and language bias may also result if safety systems are deployed to manage corporate reputational risk, which is likely to be significantly greater where safety affects users living in the country where the company is headquartered.
- So far, the efforts by technology companies to implement safety systems have largely been deployed in an era of high revenue growth and profit. If this changes, then safety systems may be one of the first discretionary costs to be cut. Indeed, some companies have already experienced financial distress recently which has resulted in reports of substantial reductions in spending on safety systems².
- Technology companies often have limited expertise in the various nuances of human rights issues around the world. Many large social networks for example only have a few hundred employees.
- Competition is extremely dynamic in the social media sector. This means that safety systems are unlikely to be deployed if it will cost market-share. For example, in 2012, Instagram only had 13 employees, yet had 30 million users, when they were bought by Facebook for \$1billion³. So large technology companies are competing against small and agile competitors with much small (if any) investments in safety systems.

As advances in technology accelerate, it is vital to consider the implications of weak legal safety requirements. A worthy first step would be to consider mandating social media companies above a certain size to offer every user a free identity verification using trusted third-party services. This would empower users to make choices related to trust based upon other users' choice on whether to remain anonymous or not.

Anti-trafficking technology deployment models and examples

Anti-trafficking technology has been deployed in various ways. Examples are:

² "Charities' dismay as Twitter disbands safety group" https://www.bbc.co.uk/news/technology-63907708

³ https://www.protocol.com/newsletters/sourcecode/facebook-instagram-acquisition

- Multi-tenant service models. This is where a platform is provided and operated by one
 company and made available as a service to other companies, therefore avoiding each
 company building their own systems. Examples are RecollectiV VCMS⁴ and Praxis
 Pathways⁵ based in India which help NGOs manage victim case data safely and
 effectively.
- Market-based interventions. This is where analysis of a visible market can be used to scale a response. Examples are web-scraping analysis of adult services websites which can be used to support appropriate law enforcement and targeted interventions by NGOs. Example: Marinus Analytics Traffick Jam⁶
- B2B engagement: This is where centralised secure technology platforms are used to provide either process-centric or community-collaboration type connections between businesses. Example: Freedom Collaborative⁷ and Unseen's Business Portal⁸
- B2C engagement: This is the use of technology to engage with members of the public (citizens). There are a variety of solutions that have been used to connect with migrants, workers, potential victims of trafficking, etc. Examples include modern slavery helpline technologies used by Polaris⁹ and Unseen¹⁰, various worker-voice solutions, and Stop the Traffik's use of targeted social media campaigns¹¹
- Open-source technology standards. Although prevalent in private sector industries, open standards are rarely used in the anti-trafficking sector. One example of open data standards is the Human Trafficking Case Data Standard (HTCDS) published by IOM¹².

A note on the use of blockchain to tackle modern slavery

Blockchain has been seen as an attractive option for tackling modern slavery—particularly in supply chains. The main features of blockchain that have driven this optimism is:

- Blockchain is decentralised which means there isn't a requirement to trust one single company or entity who might host the database.
- Data added to a blockchain is immutable and so provides assurance of integrity.

However, in the author's opinion, the value of blockchain in the fight to tackle modern slavery remains unclear and potentially worsens modern slavery, for the following reasons:

• Many attempts at deploying blockchain to tackle a particular issue related to modern slavery have been implemented and controlled by just one organisation. Although decentralised technologically, from a governance perspective the system is managed centrally like any other conventional database which could negate the promised trust benefits of blockchain.

⁴ https://www.recollectiv.org/vcms-program-overview

⁵ https://www.discoverpathways.org/

⁶ https://www.marinusanalytics.com/traffic-jam

⁷ https://freedomcollaborative.org/

⁸ https://www.unseenuk.org/business/

⁹ https://polarisproject.org/national-human-trafficking-hotline/

¹⁰ https://www.modernslaveryhelpline.org/

¹¹ https://www.stopthetraffik.org/what-we-do/prevention-programs/

¹² https://github.com/UNMigration/HTCDS

- Although the immutability of data on a blockchain is attractive, modern slavery is a human issue and trusting a database means you must first trust the person putting the data onto the database. Blockchain does not solve this human component.
- Blockchain projects can be expensive to build and operate due to the technical skills required and the cost per transaction.
- Blockchain has caused an enormous spike in the demand of computer chips. Many require rare earth materials which are often mined by vulnerable communities.
- Cryptocurrencies have been used by traffickers because financial transactions can happen with less risk to criminals. It is more difficult and expensive for law enforcement to detect and prosecute crypto-enabled crime.
- Power requirements of blockchain are enormous (currently equivalent to Thailand's
 entire power output). This will have contributed to climate change and therefore
 potential vulnerability of communities in the future.

Looking forward

There have been and continue to be various barriers which are limiting the scope and potential impact of using technology to tackle modern slavery. The OSCE/TAT report¹³ highlighted a number of issues including various duplicate technical solutions and lack of NGO technical capacity in regions of the world with highest prevalence of trafficking. There are still many NGOs, particularly in the global south without access to basic modern IT equipment and software, including laptops, smart phones, and records managements systems. This can result in weaker digital security which can potentially put survivors in their care at risk.

To turn "systems thinking" into "systems action" requires the assembly of regional data and process infrastructures that link people and organisations across sectors. A comparison with some private sectors shows where efficiency and speed have been achieved through various technology integration hubs Consider the airline industry: when a person books a flight, they are using websites which in turn use hubs that assemble the flight data from various companies in a standardised format. The infrastructure handles the complex international process involving airline scheduling, security, identity, etc. spanning various organisations. Then why have we made it so difficult for victims and survivors to find relevant support, and then navigate themselves through the various support processes? Unlike an airline customer, a victim or survivor has rare access to their data and cannot easily influence their own journey.

In the private sector examples, the customer (buyer) has been central to the development of the systems and consequently the customer experience is generally very good. Unfortunately, survivors haven't been central in the anti-trafficking sector and so the natural movement toward infrastructures that drive efficiency and support do not exist in the most part. Today, although some scale has been achieved using technology with the operating and deployment models described previously, organisations mostly operate separately (and sometimes even in competition with each other). Change is required so that coordination of anti-slavery resources and efforts between research establishments, civil society, NGOs, private sector, and various law enforcement agencies make the total impact of the sector more than the sum of its parts.

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¹³ https://www.osce.org/cthb/455458

Process hubs would link case-based processes spanning prevention through to reintegration support. They would empower survivors with control over their own data and enable them to navigate their care using integrated referral systems. Information hubs would use research teams to develop technology to process data acquired, whilst preserving privacy¹⁴, through either data trusts¹⁵ or alternative secure data sharing arrangements. This would output data, analytics, or simply information in relevant formats. This would inform organisations to help ensure a coordinated response to regional trafficking issues. This "last mile" of analytics would see a gentle movement toward real-time insights, wired into workers activities across the entire anti-trafficking sector.

https://techagainsttrafficking.org/accelerator-outcomes/
 https://theodi.org/article/what-is-a-data-trust/