
DATA CHALLENGES IMPACTING HUMAN TRAFFICKING RESEARCH AND DEVELOPMENT OF ANTI-TRAFFICKING TOOLS

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BACKGROUND ON HUMAN TRAFFICKING

Human trafficking is a complex, thriving crime with a foothold in every country. Despite legislation and increasingly robust efforts to raise public awareness, an estimated 40.3 million people are subjected to some form of modern slavery, according to the 2017 Estimates of Modern Slavery by the International Labour Organization and the Walk Free Foundation, in partnership with IOM.

Today, increased access to personal technology enables perpetrators of human trafficking to more easily recruit victims and connect with buyers. New technologies, such as smartphones and mobile money transfers, have given human traffickers another medium through which to run their operations, extort ransoms, and receive payment, all while remaining anonymous.

Fortunately, advancements in technology also have the power to help combat human trafficking. Information and communications technologies can serve as powerful tools to disrupt modern slavery, identify, and prevent exploitation, and provide additional insights and data on how this crime is manifesting around the globe. Technology plays a significant role in addressing data gaps and increasing the efficiency of data sharing, leading to more effective use of resources and coordination between law enforcement, businesses, government, and civil society.

Given the magnitude of the problem and the complexity of tackling it, there is a need for expediency, increased stakeholder engagement, and collective effort in backing the right technologies at the right time to enable maximum impact.

OVERVIEW OF TECH AGAINST TRAFFICKING

[Tech Against Trafficking](#) (TAT) is a coalition of companies collaborating with global experts to help eradicate human trafficking and modern slavery using technology.

By tapping into their technical expertise, capacity for innovation, and global reach, the company members of TAT – Amazon, BT, Microsoft, and Salesforce – believe that technology can and must play a major role in preventing and disrupting human trafficking and empowering survivors. Together, this group has committed to working with anti-trafficking experts to identify and support opportunities to develop and help scale promising technologies.

Tech Against Trafficking is supported by a network of Advisors, which includes: The Global Initiative Against Transnational Organized Crime, GSMA, the International Organization for Migration (IOM), Organization for Security and Co-operation in Europe (OSCE), techUK, University College London, and the World Business Council for Sustainable Development (WBCSD).

The RESPECT Initiative, led by the Global Initiative Against Transnational Organized Crime, serves as the Research Lead for the group, while BSR acts as the Secretariat.

TECH AGAINST TRAFFICKING VISION

Technology presents a massive opportunity for the anti-trafficking field. Effective, thoughtfully deployed technology solutions can be catalytic for organizations hoping to advance and scale the impact of their work – it can connect disparate actors across geographies, share data to facilitate the identification of victims and traffickers, improve case management and survivor care, and raise awareness in at-risk communities.

However, the anti-trafficking ecosystem is largely siloed, and collaboration and engagement between the organizations deploying these technologies is minimal. Over the past three years, we have helped to advance and scale the work of individual organizations looking to utilize and deploy technology, while simultaneously creating the connective tissue to bring together organizations and technology tools operating across the anti-trafficking sector and lead them to systems-level change more effectively.

THE ACCELERATOR PROGRAM

The Tech Against Trafficking Accelerator represents TAT's flagship program. Launched in 2019, this collaborative program advances and scales the work of organizations with promising technology solutions by providing resources and support from our TAT member companies. These resources may include technical expertise, network access, mentorship, access to funding, and educational opportunities, to accelerate the growth, scale, and resulting impact of high-potential tech solutions.

For the inaugural Accelerator, the Tech Against Trafficking members and advisors worked with the Counter Trafficking Data Collaborative (CTDC), an initiative of the International Organization for Migration (IOM), to explore and promote best practices around data anonymization, privacy, and security.

The CTDC, an initiative of the International Organization for Migration (IOM), is a global human trafficking data hub, publishing harmonized data from counter-trafficking organizations around the world.

Initial results from the Accelerator with CTDC can be found [here](#).

ACCELERATOR IMPACT

Over the course of the Accelerator, TAT and CTDC partnered on workstreams related to privacy-preserving mechanisms, data standards, and increased platform engagement.

The privacy-preserving workstream explored a critical challenge: How can victim case data and its analysis, essential to developing strategies to combat trafficking, be shared in ways that protect the privacy of the victims represented in the data?

The TAT team developed a solution that provides access to more data, more accurate data, and the means to analyze it more deeply than otherwise possible. This novel solution uses machine learning to generate a synthetic dataset which represent statistical properties of the sensitive dataset rather than actual (potentially identifiable) individuals, precomputes them in a way that doesn't reveal small or precise counts (which may also be identifying), and creates a data interface that allows the user to explore the structure of the data. This solution is now being applied to the full IOM dataset and has been [published](#) and made available to the field, setting a new privacy standard for the analysis of human trafficking data.

As a continuation of this work, in August 2021, CTDC and Microsoft [released](#) the largest public dataset that can be used to fight human trafficking – representing data from over 156,000 victims and survivors of trafficking across 189 countries and territories (where victims were first identified and supported). The records in the Global Synthetic Dataset do not correspond to individuals and each is instead constructed from common attribute combinations. This preserves the privacy of individuals impacted by human trafficking while still allowing for the critical analysis of trafficking data.

The data standards workstream addressed data standards/consistency across the field by publishing a global data standard related to victim case management. The Human Trafficking Case Data Standard (HTCDS) was developed and [published](#), along with guidance for its implementation.

The standard will enable organizations around the world to collect and potentially share information related to human trafficking cases in a consistent way. The HTCDS is intended to be a reference for organizations handling cases related to human trafficking, technology service providers and independent software vendors (ISVs).

HTCDS will attract data contributions and partnerships from across the anti-trafficking sector which should enable efficiencies in data analysis, case processes such as referrals and data privacy.

As described on the HTCDS website, the primary motivations behind HTCDS are:

1. Provide common definitions and language describing important aspects of trafficking case data. This will enable more precise comparisons across datasets and geographic regions, as well as helping professionals and leaders describe situations using common language and terminology.

2. Support interoperability and data exchange between systems, services and organizations. This includes process-centric integration as well as aggregate data analysis such as that provided by the Collaborative Trafficking Data Collaborative (CTDC).
3. Unlocking innovation by encouraging technology organizations to develop new systems and services based upon the standard.
4. Reduce the costs associated with developing case management systems by providing tools to accelerate the development of systems based upon the standard.

The HTCDS standard intends to support the major principles behind open data standards. These are described fully in the [OpenStand resource](#) and referenced in ODI's open standards guidance.

As with other open data standards, the HTCDS is a voluntary standard whose success will depend upon a community developing and implementing the standard so that it remains relevant and useful.

A principle of the HTCDS is that the standard remains as agnostic as possible to the technical solution selected by organizations for implementation. This is to ensure organizations have the broadest range of technology options available, but also to ensure the standard does not preclude new technological advancements developed in the future.

DATA CHALLENGES

Through our work, we have had the opportunity to think strategically about how to capitalize on the use of data and technology to advance the field as a whole.

A large part of our focus has been on enabling data collection, aggregation, and the generation of useful insights and analysis for stakeholders across the ecosystem in ways that do not compromise the safety and security of the individuals whose information is contained within the data.

However, throughout our engagements, we have noted that data is often discussed in isolation, without consideration of the broader anti-trafficking ecosystem of service providers and victims.

Below are five things we recommend keeping front of mind as we pursue new advancements and explorations with human trafficking data.

1. **What will data help achieve?** The anti-trafficking field frequently cites the need for more data without specifying the questions that need to be answered to build strategic programs capable of delivering system wide impact. As a field, we need to ask: What key questions will the data help answer? What will the data be used for? What will it enable practitioners to achieve?

We have an extractive approach to data collection and use. Researchers, policymakers, technologists developing new tools or solutions often ask non-profits and direct service providers to provide sensitive information and data about their beneficiaries without an explanation of how it will be used, aggregated, stored, shared, or how it will benefit them.

There is a need to reframe our approach to data to ensure that the organizations and individuals providing the data understand and consent to how it will be used, that the appropriate privacy and protection measures are in place to protect sensitive information captured within the data, and that we consider how the collection and use of their data will help advance their work. The emphasis should be less on how we build a system that can analyze data, and more on how research and data can empower the work of people and organizations across the anti-trafficking field.

2. **Fit for purpose tools.** Advancements in research, increased data collection and aggregation, and sophisticated technology tools need to be translated or adapted for the specific contexts in which they will be used.

Large datasets, off-the-shelf tools, and broad research questions are often unable to answer specific questions or meet the needs of policymakers, law enforcement, or service providers operating on the ground. Researchers, data scientists, and technologists will need to work closely with these groups to ensure that they are appropriately integrating the considerations and needs of stakeholders who will be translating their work into real-world applications.

Through the Accelerator Program, the Tech Against Trafficking member companies and partner organizations found that exploring a narrow, bounded set of questions or challenges

from a single stakeholder helped generate nuanced, relevant solutions that could then be expounded upon to create universally applicable tools with customization options for a wide range of actors and use cases.

3. **Support the “Data Ecosystem”.** Data cannot be considered in isolation. A well-funded, well-resourced, collaborative data ecosystem is needed to support greater understanding and analysis of human trafficking at the global level.

Funding. The processes, systems, and infrastructure for data collection, aggregation, analysis, and storage have ongoing operating costs and fees, and require specific skillsets and expertise to maximize their utility.

Direct services organizations are best positioned to collect and share data; however, restrictive philanthropic and government funding criteria often make it difficult for organizations to secure sustained funding that will allow them to set-up these systems and technical infrastructure, cover ongoing operational costs, or hire individuals with the expertise to maintain them.

Investments in such systems can be difficult to justify to donors, as they do not directly correlate with traditional impact metrics. While the collection and analysis of human trafficking data provides invaluable insights, guidance, and direction for the field, the “number of lives saved” or “beneficiaries supported” by technical infrastructure or data experts is difficult to quantify and is therefore often not a defensible expense.

This often prompts organizations to explore revenue-generating opportunities that will provide flexible, non-restricted funding, or rely on volunteers and corporate donations of technical systems and expertise.

For those organizations or tools that are successful in finding initial funding, we need to ensure that they receive ongoing support to stay up and running. TellFinder, launched in 2014, is a great example of state-of-the-art technology, designed by leading practitioners and researchers, with demonstrated real world impact that has now been shut down due a lack of ongoing funding.

Collaboration. Furthermore, increased collaboration is needed between direct service providers, large anti-trafficking organizations and multi-lateral institutions, policymakers, and data scientists and technologists.

Human trafficking data comes from victims lived traumatic experiences. It is not typically captured and collected through large institutions, but through direct service providers and organizations that have established relationships and trust with victims and survivors of human trafficking. These direct service providers are structurally positioned to act as a lever within the larger data ecosystem.

To advance data capture and collection, larger institutions need to first identify groups on the ground that have established trusted connections with victims and invest in supporting and developing relationships with these organizations. They can then work to increase information exchange and data sharing but will need to ensure that 1) there is adequate transparency between parties, 2) that protection mechanisms are put in place for how this data is collected, stored, and analyzed, and 3) that the direct service organizations are benefitting from the outcomes of data aggregation and usage.

Data scientists and technologists can help aggregate and analyze data once collected. Much of the data collected on human trafficking is messy. It's unstructured, unorganized, biased, observational, and private. Expertise is required to develop high standards of evidence from data.

They can also work to implement measures to ensure privacy and confidentiality are maintained, however many lack the human trafficking expertise to understand nuances in the data or translate it to the needs of practitioners operating across the anti-trafficking sector.

Working together, anti-trafficking experts, data scientists, and technologists can create systems and tools that are accessible to a range of actors, so they can access the data they need, and make sure they are correctly interpreting the information based on their specific context or use case.

If technologists absorb the burden of building, but more importantly maintaining, best in class data collection tools for the front lines, we will have access to unprecedented insights. And with new analytical frameworks and tools that can be deployed across contexts, we have the opportunity to empower practitioners and policymakers alike with access to information that will have a material impact on the issue of human trafficking.

To move forward, we need to break out of the narrow funding structures that create barriers to progress and limit innovation. If we value a rich data ecosystem, we will need to explore mechanisms that support the development and maintenance of new technological systems and infrastructure, encourage cross industry collaboration, and provide funding and support to those maintaining and adding to technological assets across the sector.

4. **Conduct due diligence.** Despite best intentions, data, research, and technology solutions collected or created for socially beneficial uses may still be misinterpreted, mismanaged, misused, or abused in ways that result in human rights harms.

Actors across the anti-trafficking ecosystem have a responsibility to understand and address the potentially adverse impacts that may come with the pursuit of large-scale data collection, research projects, and new technological advancements.

This includes conducting due diligence on research, data collection and use, and technologies pursued by government, law enforcement, companies, and service providers, to identify, avoid,

prevent, and mitigate all potential adverse human rights impacts in accordance with the UN Guiding Principles on Business and Human Rights.

5. **Invest in flexible and evolving tools.** There is a need for flexible solutions and support systems that can adapt and evolve in tandem with the ever-shifting nature of human trafficking, the needs of organizations on the ground, and societal trends.

Structures and systems for collecting data are often do not reflect the ways in which direct service providers on the ground collect data. In line with the approach of the HTCDS described above, we need agile tools that can be used and deployed in a range of contexts or by practitioners with varying levels of technical expertise, and that can incorporate new and emerging ways in which human trafficking takes shape in the future.

LANDSCAPE MAPPING AND INTERACTIVE MAP

Beyond the Accelerator, TAT has worked to map the landscape of technology tools being used to combat human trafficking. The coalition conducted global outreach, engaging its networks, including partners throughout the private sector, NGOs, and intergovernmental organizations such as OSCE, UNODC, IOM, ILO and UNGC, resulting in the identification of over 300 anti-trafficking tools. In 2020, TAT published the findings in an interactive map, available to the public and anti-trafficking communities on the Tech Against Trafficking [website](#).

This public-facing research provides the opportunity for future efforts to be truly additive, by offering a directory of existing solutions and attempted strategies so that the ecosystem can learn from existing methodologies and impacts. The impact of the interactive map is three-fold:

1. It serves as a public database of technology tools being used to combat human trafficking. Technology companies, non-profits, service providers, and funders in the anti-trafficking field are benefitting from the map, by understanding how and where technology is being used to combat human trafficking.
2. It reduces the duplication of new tech tools. A number of similar technologies have been developed to identify victims or traffickers, to analyze risk in corporate supply chains, or provide victims with access to services. TAT identified approximately 70 tools working to identify victims or perpetrators of trafficking. Many of the organizations spearheading the development of these technologies were unaware of existing tools or unclear on how to translate them to a new context. This resulted in a duplication of technologies, and the use of valuable funding and resources towards the development of technology that already exists.
3. Moving forward, TAT hopes to promote the map as a communications platform to further the strategic use of anti-trafficking technologies, where organizations creating or using these technologies can share learnings and best practices, provide guidance and advice, and partner to scale the use of effective tools.

In addition to the interactive map, TAT partnered with the OSCE (the Organization for Security and Co-operation in Europe) to put out a seminal report on the use of technology to fight trafficking in human beings: [Leveraging innovation to fight trafficking in human beings: a comprehensive analysis of technology tools](#). The report was launched on 24 June 2020 during a virtual public event. The publication takes stock of technology tools and initiatives developed to combat trafficking in human beings. It is the first known publication to conduct a global analysis of how different stakeholder, including law enforcement, civil society, businesses, and academia can take advantage of technology to advance the fight against the crime of human trafficking. It also provides recommendations to governments, companies, and organizations funding technology projects on how to maximize the value of technology-based solutions.

SUMMARY OF THE OSCE & TECH AGAINST TRAFFICKING REPORT

In June 2020, the OSCE and Tech Against Trafficking published the seminal paper "[Leveraging innovation to fight trafficking in human beings: a comprehensive analysis of technology tools](#)".

This publication highlights the role that technology, and the technology industry can play in combatting human trafficking. The paper showcases the potential dual use of technology solutions, but ultimately focuses on how technology can be used to proactively combat human trafficking – how it can be used to find more victims, conduct better investigations and prosecutions, improve access to services, and engage in better prevention.

Together, OSCE, Tech Against Trafficking, and partners evaluated the 300 technology tools identified during the landscape mapping of the anti-trafficking field, and analyzed how different stakeholders, including law enforcement, civil society, businesses and academia, can take advantage of technology to advance the fight against the human trafficking crime. The paper considers tech tools and trafficking from a strategic perspective – who develops the tools, who are they intended for, what are the objectives of these tools, and where can they provide value. It also addresses ethical considerations, data protection issues, and the need to respect human rights in the use of technology.

We recommend reading the full paper to glean insights from the research, however, we would like to call out several findings particularly relevant to this audience:

Identified trends:

- According to our findings, the private sector and NGOs are the two main stakeholders behind the development of technology tools to fight human trafficking, with governments accounting for a very small percentage of technology efforts and initiatives.
- The number of Victim Case Management and Support tools remains low. The rise in the number of victims detected would seem to imply a greater need for additional tools to support those victims. However, only 6% of identified tools can be classified as victim case management and/or support tools.
- There is a strong concentration of tech tools developed and operating in the Global North despite higher prevalence rates of human trafficking in the Global South. While this could be due to the linguistic limitations of the researchers conducting the analysis, preliminary indications show technology tools being used to combat human trafficking at exponentially higher rates in the Global North than the Global South.
- There is limited awareness of existing technology initiatives in the anti-trafficking field, which increases the risk of duplication of tools, fragmented resources, and disjointed development and use of technology-based tools. For example, we identified approximately 70 different tools focused on victim/trafficker identification.
- Although half of the tools are offered at no cost, the majority (more than three quarters) are proprietary technologies / innovations, creating barriers to replication, scaled impact, and cost-efficiencies.

- Tech solutions in this space do not have to be complex – WhatsApp, Facebook Messenger or dedicated SMS/ text/phone channels provide multiple avenues to communicate with a victim seeking assistance. Messaging apps can provide a straightforward way for victims to communicate in real time with service providers or personal support networks. In fact, most organizations are looking for very simple tech solutions, or are focused on the underlying infrastructure that would allow them to use technology effectively (e.g. laptops, stable internet, etc.). The majority of tools identified are relatively simple, straightforward tech interventions.
- There are limits to what technology can do. Technology is not a substitute for the range of other factors needed to efficiently combat trafficking, such as political will, adequate resources, or commitment from a wide range of actors with the mandate and competencies in this field. It is thus useful to view initiatives in terms of the specific types of counter-human trafficking work to which they can contribute.

Recommendations:

The publication provides a set of general recommendations for all actors involved in the use of technology to combat trafficking, and a more specific set of recommendations for governments. The recommendations are aggregated below, slightly abridged from their original format.

General recommendations

1. Those who are funding, developing, and implementing technology-based solutions should be clear about the purpose of these solutions and why such solutions are preferable to alternatives.

Tech-based initiatives should not be ‘solutions looking for problems’. There are many possible uses of technology in counter-trafficking efforts. It is important to be clear about the specific problem that each technology-based initiative is planning to solve.

2. Those who are funding, developing, and implementing technology-based solutions should ensure that these solutions are fit-for-purpose, taking into account issues regarding access, coverage, and literacy.

Having up-to-date technology and protocols means very little if the people in need are unable to access or use that technology. Victims in remote areas may not have access to the Internet, may not own mobile phones or have limited understanding of how to use them, may lack trust in, or, conversely, have too much trust in certain information sources, or may simply be unable to afford maintaining a mobile phone subscription.

Effective technology must be user friendly. Developers and tech companies may understand their resources on a deep, complex level, but it is not realistic to expect victims, service providers, law enforcement, or the public to become experts in technology every time they want to use a tool. Tools developed for victims or potential victims have to use simple terms and language to be as intuitive as possible in their use. They also have to have simple design

and few menu options in order to avoid confusing users with complicated features and commands. For this reason, new technology must balance cutting edge advancements with a user-friendly format. When developing new tools, technologists should consider the amount of training resources that must go into successful implementation.

3. Those who are funding, developing, and implementing technology-based solutions should address issues of privacy, safety, trust, and retaliation risks.

Target audiences must feel confident that information they provide will not just be used, but be used safely and wisely to improve their situation, and that there is no possibility of adverse or unintended consequences, such as unauthorized access to information by third parties or unauthorized sharing of sensitive or confidential data.

The risk of retaliation for victims of trafficking and others raising issues on their behalf is real. The relevant stakeholders must make sure to assess and mitigate this risk, including through use of technology tools based on anonymized responses, analysis, and management of data by third parties, agreements on non-retaliation from employers, recruiters, etc.

4. Those who are funding, developing, and implementing technology-based solutions should only collect actionable data.

Knowing how the data will be used to advance the cause of the target group is critical to maintaining trust and confidence as well as ensuring the effective use of limited resources. There is little value in collecting data that cannot be used or acted upon. Unnecessary data collection may lead to disengagement and can even be dangerous. For example, there have been instances of resources being spent on developing and publicizing hotlines that are then unable to assist those who call.

5. Those who are funding, developing, and implementing technology-based solutions should align their work with other ongoing initiatives.

With limited resources, efforts should be made to collaborate in sharing existing technology and data. For example, worker surveys can be used to complement audit data or to unearth sensitive or hard to detect information that may be missed by an audit. Likewise, initiatives for identifying child victims of human trafficking for sexual abuse online through facial recognition technology should use information and databases of already existing technology initiatives in this field and not duplicate them.

6. Those who are funding, developing, and implementing technology-based solutions should consider whether a suitable application is already available before developing a new one.

OSCE and Tech Against Trafficking research identified more than 300 technology-based initiatives and these are only the ones that are currently public. Resources should not be spent duplicating work where existing remedies already exist. Instead, actors should seek to share relevant data and technologies, and aim innovative work at solving problems that lack existing efficient tools.

7. Those who are funding, developing, and implementing technology-based solutions should keep up to date with changes in both technology and the human trafficking context.

Technology-based solutions must stay up to date with new developments, particularly: (1) changes in applicable legal frameworks; (2) emerging new forms of exploitation; and (3) potential counter-responses by perpetrators to actions that affect their operations and revenue.

8. Those who are funding, developing, and implementing technology-based solutions should ensure the active engagement and participation of the target group in the development process.

Efforts by various stakeholders, however well meaning, may unintentionally make the lives of trafficked persons and vulnerable people worse rather than better. Many migrant workers, for example, are hugely dependent on overtime in order to save money and be able to return home as soon as they can. Developing tech tools for assisting the enforcement of low overtime caps without consulting workers can extend their stay in a foreign country considerably, which is not necessarily in the best interest of workers. Another example is the use of technology tools to promote more formalized recruitment processes aimed at increasing worker protection. Many such processes involve significant delays and costs, often placing workers in sizeable debt and increasing rather than decreasing their vulnerability to exploitation and abuse. It is essential to be aware that survivors, victims, or potential victims' perceptions of their own welfare may be different from those trying to help them.

Another reason why victims and survivors of trafficking in human beings should be directly engaged in the development of technology tools to combat human trafficking is because they have the knowledge about the modus operandi of criminals and have witnessed how traffickers are misusing technology for their own advantage. This information is extremely important for the success of the anti-trafficking response and victims'/survivors' voices should serve as the primary resource when developing technology tools. Victims are the ultimate beneficiaries of all interventions in this field and they should play an important role in the development of tools designed to end human trafficking.

9. Those who are funding, developing, and implementing technology-based solutions should test assumptions and measure outcomes.

While there are no universally agreed estimates of the size of the human trafficking problem, it is generally accepted that efforts to date have resulted in: (1) the identification of only a small proportion of victims of trafficking; and (2) the investigation and successful prosecution of an even smaller number of traffickers. Furthermore, there is little evidence that traditional trafficking prevention programmes based on awareness raising and alternative livelihoods have been effective in reducing the number of people being drawn into trafficking. With this in mind, the field must consider not if/when technology was used, but rather, assess the resulting impact or effect of that technology.

That is, did the “good” that was envisioned in a “tech for good” application actually happen? Technology may help in finding and understanding a problem better, or to gather accurate data, but the problem itself must still be addressed.

It is important to underline that the process of assessing outcomes begins during the design stage. Evaluations of counter-human trafficking work frequently highlight that the original design relied on a series of assumptions that were not supported by available evidence, and thus it was likely from the beginning that the intended outcomes would never be met.

Recommendations for Governments:

1. Governments are encouraged to consider supporting the effectiveness of technology-based solutions with accompanying evidence-informed policy.

Notable examples are: (1) mandating and supporting faster official labour recruitment processes to make workers less susceptible to recruitment-induced, coercive debt obligations; (2) promoting ethical online recruitment to reduce reliance on exploitative sub-brokers in rural areas; and (3) enhanced laws and policies for regulating online temporary recruitment agencies, including cross-border.

2. Governments are encouraged to develop international and/or national minimum standards for confidentiality in relation to the technology enabled provision of assistance and support to victims.

There are considerable risks related to the mismanagement, unauthorized use, and sharing of personal data stored on online resources of victims and all the individuals involved in a trafficking case. Since this type of data can be collected and managed by different, state and non-state entities, governments should develop international and/or national minimum standards for confidentiality related to the technology enabled provision of assistance and support to victims to ensure that there is a harmonized framework that would be used similarly by all stakeholders involved.

Recommendations relating to the role of government as law enforcer:

3. Governments are encouraged to consider increased resourcing of technology-based solutions for government entities entrusted with identifying trafficking cases.

This includes supporting: (1) labour inspectors to use technology applications to verify conduct and ensure national labour laws are being upheld; and (2) law enforcement to vastly increase their abilities to counter online sexual exploitation and recruitment of victims through online fraudulent employment offers.

4. Governments are encouraged to consider increasing resources and training for national and local law enforcement and service providers to support more effective use of technology-based solutions.

Governments should allocate sufficient resources for law enforcement and service providers to be able to benefit from specialized technology tools which could scale up the fight against human trafficking, including the necessary software, hardware, and training.

The provision of such technologies must be accompanied with training not only on the direct use of tools but their ethical use with the respect of human rights and data protection.

Furthermore, in accordance with the UN Guiding Principle on Human Rights, due diligence should be conducted on technologies deployed by law enforcement and service providers, to identify, avoid, address, and mitigate all potential adverse human rights impacts that may arise from the use of the technology.

5. Governments are encouraged to consider increasing resources and training for policymakers, law enforcement, service providers, NGOs, and academia to understand the myriad ways in which technology is being misused by traffickers.

The modus operandi of technology-facilitated trafficking in human beings has its specific characteristics. Technology allows traffickers to hide their true identities, increase their anonymity online and exploit victims in new ways. These new developments have important consequences on the response to human trafficking and can increase the difficulties to identify traffickers and bring them to justice.

As a result, all those involved in combating trafficking in human beings – policymakers, law enforcement, service providers, NGOs and academia – should be trained to better understand how technology is being misused by traffickers. Efficient responses to technology facilitated human trafficking cannot be developed unless the relevant stakeholders have a good understanding on how traffickers use technology for their own advantage.

Recommendations relating to the role of governments as investor:

6. Governments are encouraged to consider expanding their support for partnerships with tech companies and businesses to invest in research and development, and to incentivize scaling.

Governments should establish strategic partnerships with the technology sector in order to develop new innovative solutions to combat human trafficking and scale the response. As the Inter-agency Coordination Group Against Trafficking in Persons (ICAT) highlights in its issue brief on human trafficking and technology “future success in eradicating human trafficking, in its many forms, will depend on how countries and societies are prepared for, and equipped to, harness technology in their responses”. Success in this field cannot be achieved without the expertise, knowledge, and capacity for innovation of the technology private sector.

7. Governments are encouraged to consider increasing investment in multi-lateral institutions and other coalitions that bring together multiple stakeholders from various disciplines to collectively counter-human trafficking with the assistance of technology.

Trafficking in human beings facilitated by technology is global in nature and in some cases perpetrators could be located in one country, the victim in another one and the ICT

infrastructure which enables the recruitment, control, advertising and exploitation of the victims in a different country. Therefore, a multi-lateral response is needed, along with coalitions built to efficiently address trafficking at the global level. Governments are encouraged to be proactive in this regard as it is first and foremost the responsibility of states to combat human trafficking.

Examples of multi-lateral institutions and coalitions established to tackle technology-enabled human trafficking already exist, Tech Against Trafficking is one such coalition, however, there are also a number of platforms focusing specifically on trafficking of children for sexual exploitation online. WeProtect is a global alliance led by the UK government and supported by a large number of countries, technology companies and civil society organisations and which has the goal to end child sexual exploitation online.

8. Governments are encouraged to consider placing greater emphasis on measuring the results of projects supported by technology.

Many existing reports on projects using technology-based solutions focus on the technology itself rather than the outcome of the intervention it supported. This encourages a focus on technology as an end in itself, rather than as a means. In the supply chain management field, for example, ample technology is already available to determine if a supplier is treating its workers fairly. However, both governments and companies often do not act upon this. While technology is being applied by some law enforcement departments to combat human trafficking, resources need to be increased to match the global scale of the problem.

Recommendations relating to the role of government as buyer:

9. Governments are encouraged to consider using technology tools to assess, identify, and mitigate human trafficking risks in government procurement and also engage workers in their supply chains to prevent exploitative practices.

Governments are some of the biggest spenders in national economies and they spend financial resources to provide public services. Many public resources are being spent on procuring goods and services from economic sectors where the risks of human trafficking are high such as construction and infrastructure, telecommunication, food, agriculture, healthcare etc. Since governments have a large number of direct suppliers, thousands or tens of thousands, it is very difficult to manage human trafficking risks without advanced analytical capabilities. This shortcoming is magnified by the large workforce in government supply chains which can span the globe. Therefore, procurement and sustainability departments are advised to use advanced technology tools to conduct thorough due diligence and improve government procurement transparency.