Human Trafficking and Technology: A framework for understanding the role of technology in the commercial sexual exploitation of children in the U.S.

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Introduction

Networked technologies—including the Internet, mobile phones, and social media—alter how information flows and how people communicate. There is little doubt that technology is increasingly playing a role in the practices and processes surrounding human trafficking: the illegal trade of people for commercial sexual exploitation, forced labor, and other forms of modern-day slavery. Human trafficking has many facets to it and technology's role varies as a result. Yet, little is known about costs and benefits of technology's role. We do not know if there are more human trafficking victims as a result of technology, nor do we know if law enforcement can identify perpetrators better as a result of the traces that they leave. One thing that we do know is that technology makes many aspects of human trafficking more visible and more traceable, for better and for worse. Focusing on whether technology is good or bad misses the point; it is here to stay, and it is imperative that we understand the role that it is playing. More importantly, we need to develop innovative ways of using technology to address the horrors of human trafficking.

To date, there is little empirical research into the role that technology plays in human trafficking. As a result, new interventions and policies are being driven by intuition, speculation, and extrapolation from highly publicized incidents. In order to move towards a more coherent and grounded approach to addressing the role of technology, it is important to begin untangling technology's role in different facets of the human trafficking ecosystem.

In order to narrow the scope of the discussion, this framework document focuses on one aspect of human trafficking: the commercial sexual exploitation of those under the age of 18 that results from U.S.-based demand. We acknowledge that human trafficking is a global problem, that victims are of all ages, and that sexual victimization is part of a broader ecosystem of victimization (including issues of migration, labor trafficking, and organized crime), but we have chosen to narrow the scope of this endeavor for pragmatic purposes. That said, we do not mean to suggest that our efforts to narrow the scope provide clear boundaries or categories. More often than not, it is impossible to separate sex trafficking from labor trafficking and the organized crime networks that are visible in the United States often extend far beyond U.S. borders. Furthermore, not all children experience commercial sexual exploitation in the same manner. There are serious differences between foreign-born 8-year-olds who have been abducted and are sold in the U.S. by "pimps" and 16-year-olds who advertise their own sexual services and claim the identity of prostitute. Thus, it is important to recognize that the commercial sexual exploitation of children as a result of U.S.-based demand is by no means a homogenous dynamic.

Addressing the domain of sex work is complicated, in part because of disagreements about what it means to consent. One way of understanding different dynamics underlying sex work is by segmenting sex work into three categories: choice, circumstance, and coercion. Reasonable people disagree about whether or not vulnerable or marginalized populations—including women—can truly choose to participate in sex work. We are not going to resolve these debates. That said, when talking about children, we are intentionally signaling that even children who perceive themselves to be entering into sex work out of their own volition are being commercially sexually exploited. Still, it is important to recognize that the kinds of interventions needed to help those who are coerced are quite different than what is needed to support those who engage in sex work as a result of circumstance or choice.

For wont of better words, we are using the language of "pimps" and "johns" to identify different categories of perpetrators because these terms are used by victims and survivors. "Pimps" refer to individuals who profit by sexually exploiting others. Some "pimps" offer protection, while others physically control their victims. "Pimps" often help find "johns." "Johns" refers to those who pay to sexually exploit victims. Both "pimps" and "johns" are also classified as perpetrators.

Although most perpetrators are presumed to be men and most victims are presumed to be girls, the gendered nature of human trafficking is messy. Many boys are victimized and some cases suggest that women are sometimes "pimps" (or, more commonly, are referred

to as “madams”) and “johns.” More research is needed to understand the gendered dynamics of the human trafficking ecosystem.

The framework that we are offering in this document is intended to elucidate different facets of the human trafficking ecosystem in order to provide some sense for what we currently know about technology’s role in each. For each of the key facets that we have listed, it is imperative to question how technology reconfigures what is known and what is unknown. Fears and anxieties emerge out of concern that things will get worse as a result of technology. Yet, new opportunities also present themselves. Before we wholeheartedly dismiss—or embrace—technology, it’s important to understand how the challenges and opportunities are entangled.

This is a draft framework; feedback is welcome and encouraged.

Key Facets of Human Trafficking

There are 15 notable facets of the human trafficking ecosystem that have been reshaped as a result of technology. Many of them are intertwined, but not all of the facets that we outline here are relevant to all trafficking cases. There are inevitably parts of the ecosystem that we have not included.

1. Prevention and Education
2. Recruitment and Abduction of Victims
3. Transit, Housing, and Everyday Control of Victims by “Pimps”
4. Retention of Victims by “Pimps”
5. Advertising and Selling of Victims
6. Searching for and Purchasing Victims by “Johns”
7. Money Exchange, Money Laundering
8. Underground Partnerships and Organized Crime Syndicates
9. Identification and Reporting of Victims and Perpetrators
10. Investigation of Illegal Activities
11. Rehabilitation and Recovery for Survivors
12. Prosecution of Perpetrators
13. Rehabilitation for and Control of Perpetrators
14. Political and Policy Activities
15. Anti-Trafficking Partnerships

What follows are brief descriptions of each aspect of the human trafficking ecosystem, along with a set of potential issues to address regarding the role of technology. Neither the description nor the issues are detailed or exhaustive. They are intended to provide a high-level overview and open up possibilities for further investigation.

1. Prevention and Education

Current prevention work and education initiatives leverage broadcast media, both to communicate with potential victims and to help educate the public about issues related to human trafficking (ex: Public Safety Announcements (PSAs) on television and online, smartphone applications, interactive tools such as the International Centre for Missing & Exploited Children's Guide to Online Safety). In-school education initiatives are especially challenging. Social media introduces new opportunities to reach out to potential victims, potential "pimps" and "johns," and the public writ large (ex: reaching youth at risk before "pimps" can reach them). Even traditional PSAs can take on new life when they're spread through social network sites.

Technology does not hinder prevention or education initiatives, but innovative prevention and education organizations can leverage technology to reach new audiences.

2. Recruiting and Abduction of Victims

Many child victims enter into human trafficking through abduction, social coercion, blackmail, or similar threats. Vulnerable populations are often targeted. The recruitment process may take years of grooming. Evidence suggests that social media is sometimes used by perpetrators to identify potential victims. Communications platforms can be used for grooming, coercion, or other forms of deceit (e.g., a "modeling agency" that recruits as a front for a perpetrator). Online content may be used for blackmail. Victims can be threatened with online exposure if they do not comply.

Technology adds new dimensions and points of contact to the recruiting process, especially when vulnerable populations can be more easily identified and targeted. This also introduces new questions for intervention. If perpetrators can identify vulnerable populations, can anti-trafficking agencies also identify those in need? How visible is the recruitment process? Are there ways to identify when children and teenagers are being groomed?

3. Transit, Housing, and Everyday Control of Victims by "Pimps"

The transit, housing, and everyday control of victims often involve significant amounts of coordination between different perpetrators. When new identities are constructed or when victims are drugged, this often involves coordination between other criminal factions. Little is known about how these perpetrators share information or coordinate among themselves, but it is likely that some of their activities leave digital traces. Patterns in credit card transactions, mobile phone calls, GPS patterns, plane tickets, apartment

rentals, and other activities may create new opportunities. Yet, it is also important to acknowledge that criminals work diligently to make these activities untraceable.

Technology is more of a burden for perpetrators in this process precisely because so much effort is put into leaving no traces. New data mining opportunities are presented, but these introduce serious economic and privacy-related concerns.

4. Retention of Victims by "Pimps"

Trafficking victims are retained through ongoing fear, shaming, intimidation, physical abuse, and blackmail. The constant movement of victims can also makes them easier to retain as they are constantly in new and unfamiliar surroundings. The removal of passports keeps victims compliant for fear of prosecution and also removes any proof the victim has of her/his true identity. Technological blackmail—such as the threat of releasing nude videos or photos to loved ones or the threat of using such photos to expose the individual if the act is illegal—serves as a critical mechanism of control. Victims are also often forbidden from using the Internet or mobile phones. In some cases, pimps allow access, but only under strict supervision.

Technology restrictions are often a mechanism of control by limiting victims' access to information and communication with outsiders. This creates complications during recovery because access restrictions are cognitively connected to pimps' efforts to control victims.

5. Advertising and Selling of Victims

Technology is often used to advertise and coordinate the sale of victims. "Pimps" often coordinate the sale of victims, but it is also important to recognize that victims can and do market themselves to potential buyers (sometimes under the control of "pimps"). All major online services—as well as more niche services and underground services (e.g., the "dark net")—are employed in this process. Sometimes, the selling of trafficking victims is mixed with other forms of sex work advertisements such as escort services. Yet, much of what takes place online is highly encoded (like the sale of an expensive teddy bear). Advertisements use code words, which "johns" often learn from online forums for "hobbyists" (ex: 200 roses as a code for price, "new in town" as a code for someone who is underage). Likewise, cell phones are employed to coordinate sales.

Technology notoriously shifts the advertising/selling process from the street corner to the digital domain, altering the risks involved in this process. The physical and legal risks that victims face online differ. New issues like child pornography and interstate commerce emerge. Yet, there are also many more traces of perpetrators and victims

when their interactions happen through mediating technologies. Traces of such practices can create new risks for both perpetrators and victims, particularly because these traces are often not ephemeral. There is also less risk for those who want to identify victims than there is when physicality is involved, but it is also harder to go from identification to intervention. There is more data generated which can be used later by law enforcement.

(Note: when it comes to the role of technology, this is probably the most complicated process and the one that is most fraught.)

6. Searching for and Purchasing Victims by "Johns"

Just as technology is a site for advertising victimization, so too is it where "johns" look to find victims. They can browse victims online without their victims knowing that they're being browsed. By purchasing online, "johns" often remain invisible to law enforcement who have not yet developed sophisticated digital operations. Knowing where to look online is both simpler and harder than learning where to find victims on the streets. There are also parallels. Finding a victim online requires a form of social capital: knowing where to go and what to ask. The sales process can also differ when "johns" pay upfront.

Technology notoriously shifts the searching and purchasing processes from the street corner to the digital domain, altering the risks involved in this process. While "johns" are more visible to their victims in physical environments, they leave more traces when the process goes digital. There are also new legal risks, including the risks associated with child pornography and interstate commerce. There is less risk for those who want to identify "johns," but it is also harder to go from identification to legal action.

7. Money Exchange, Money Laundering

Human trafficking is a profitable enterprise, often intertwined with other organized crime businesses (including drug trafficking and money laundering). Cash transactions are much harder to trace than transactions that occur through digital means. Credit card transactions from "late night nail salons" connect disparate transactions and form patterns. When exchanges take place online, they sometimes involve digital monetary services, like PayPal. The exchange of non-monetary digital items of value (e.g., status points in video games) can also occur. Additionally, alternative payment markets (e.g., Bitcoin) can be utilized for payments.

It may be easier to exchange money as a result of technology, but the opportunities to trace digital exchanges of money or identify transaction patterns are also extremely great. Banks like J.P. Morgan have begun to find ways of tracing human trafficking money.

8. Underground Partnerships and Organized Crime Syndicates

Criminal syndicates often involve large networks of people who communicate both in-person and online. A host of different illegal practices, including bribery and violence, are used to keep illicit activities hidden. Both "pimps" and "johns" learn about techniques through the Internet and use the Internet to communicate with one another to learn techniques for the illicit trade. "Johns" also communicate to one another through online forums, using encoded messages to rate the services they receive from victims and to help each other engage in these illegal activities. "Johns" and "pimps" can repurpose technology in unexpected ways, such as using gaming technologies like Xbox Live, Sony Online Entertainment, or World of Warcraft to communicate "in game", or by leveraging Skype and other video services to make brief video connections and coordinate online—which is more difficult to trace than mobile phone use. Video services can also be used to broadcast illicit acts, which viewers pay to watch. Single accounts can be used by multiple people, which makes identification more difficult.

Technology provides a new mode through which underground partnerships can be formed and organized crimes can be coordinated. Yet, these interactions leave traces, which can also be identified. Data mining innovation introduces new opportunities. Balancing privacy and criminal tracking remains an issue.

9. Identification and Reporting of Victims and Perpetrators

In order to intervene, it is often necessary to identify victims and perpetrators. This is typically done by—or involving—law enforcement, but various non-profits and average citizens can also be involved (ex: tip lines and hotlines). Visibility is key to identifying victims and perpetrators. It is important to recognize that many who see these illegal and horrible actions taking place often fail to report them, either out of fear of reprisal or a belief that reporting will do no good. Technology companies have a unique role to play in this domain because they often have data that can help identify those who are being victimized.

Technology changes what is visible and what is not, altering the identification process. There are new opportunities for thinking about anonymous reporting and getting the public involved in the identification processes, particularly given that they do not have to be in physical harm. Given the issue of digital traces, there are also opportunities to engage new partners, including technology companies and financial institutions, to coordinate with law enforcement. Digital forensics and electronic evidence provide new opportunities, but also new challenges. Finally, there are countless opportunities for computer scientists interested in developing innovative identification procedures on the large data available.

10. Investigation of Illegal Activities

Although changes are underway, many states have laws that outlaw prostitution, prompting law enforcement to arrest human trafficking victims. "Johns" and "pimps" have historically been less visible to law enforcement because of the dynamics on the street where victims are often found. Technology changes this, both because perpetrators leave traces and because it is possible to set up digital honey traps where perpetrators reveal themselves to law enforcement officers. Technology allows law enforcement officers to more rapidly collect data, but it also increases the amount of data that they must manage.

The wide availability of digital data is both a blessing and a curse. It can help law enforcement investigate criminal activities, but there is often too much for law enforcement to manage. This creates new opportunities for thinking about how to manage data traces at scale. Legal issues surrounding the collection of data—especially with respect to honey traps—also raise serious concerns.

11. Rehabilitation and Recovery for Survivors

Rehabilitation programs for survivors often ban communication between those who were victimized and their perpetrators, particularly given that victims often hold allegiance to their "pimps." "Running away" is a huge concern. Heavily monitoring and controlling survivors' freedoms, access to information, and communication are common parts of the early recovery process. Thus, technology is often barred during this period. When repatriation is involved, there are often unique challenges. As survivors recover, they may shift to focus on school, work, and other everyday activities, which often require the use of technology.

Technology connects people to information and other people. When there is a need to break connections, technology can get in the way. Yet, technology can also be used to forge new connections and introduce new information. Banning technology may make initial sense, but because technology use is important to school and workplace advancement, it's crucial to help survivors find ways to use technology to their advantage, while not putting themselves at further risk.

12. Prosecution of Perpetrators

The prosecution process often relies heavily on testimonies of victims. Given the increase of data traces, technology introduces new types of evidence for the prosecution process. Yet, judges are often ill equipped to analyze electronic documentation of abuse. There are also serious questions about the validity of such evidentiary material.

Technology introduces new forms of evidence, but judges often know little about how to use this data. There are new opportunities to explore how technology can be used as a part of the prosecution process, particularly.

13. Rehabilitation for and Control of Perpetrators

Rehabilitating perpetrators is fraught and it is unclear whether or not such initiatives work. "John Schools" are sometimes used to keep first time offenders from repeat offenses. The schools raise awareness about trafficking and forced prostitution. In rare cases, "johns" also enter voluntary treatment at rehabilitation centers. Some states use online sex offender registries, which can be as detailed as providing a photo of the individual and even the location of her/his home. Many online services ban registered sex offenders from participating on their site. Public announcements through technology are sometimes used as a form of public shaming and a way to inform communities that a sex offender is living in their neighborhood. One common form of punishment is also to restrict access to technology. Jails often ban—or heavily curtail—the use of technology. Technologies like GPS bracelets are often used to track the movements of perpetrators.

Technology can be used as a source of information for perpetrators and also as a tool for public shaming. It can allow perpetrators to maintain communication lines with their victims, putting them in violation of their rehabilitation process without necessarily making their violations visible. It can also be used as a mechanism of surveillance that allows the State to regulate the movements of a convicted perpetrator.

14. Political and Policy Activities

Political organizations and policy makers are paying special attention to how technology is being used in human trafficking. Technology also complicates various political issues, most notably by complicating jurisdiction. Concerns about privacy, anonymity, and 3rd party liability also emerge. Given that technology is often "new" and because it often makes practices more visible, technology often plays a central role of regulatory interventions, even when it doesn't make sense.

Most policy initiatives focus on how technology is used in victimization, rather than how technology can or should be used in identification, intervention, and prosecution. There is little assessment about the effectiveness of policies that focus on technology. In short: do they address the problem or do they simply make it less visible?

15. Anti-Trafficking Partnerships

Many anti-trafficking organizations express a desire to share information with one another, with survivors, and to allow survivors to connect with each other. Information sharing among anti-trafficking actors could lead to better rehabilitation and preventative practices as information is shared quickly online. Anti-trafficking organizations sometimes work collaboratively and have expressed a desire to be able to more easily communicate with possible collaborators, although not all organizations are happy to cooperate with all other organizations. In particular, collaborations between law enforcement agencies and non-profits are often fraught. Anti-trafficking sites are often active in social media and blogging in order to gain support and spread information.

Technology provides new opportunities for partners to communicate and coordinate. There are unique opportunities to build tools that engender new partnerships. While there are plenty of technological opportunities here, they are often stymied by political disagreements between various anti-trafficking groups.

Conclusion

This framework is by no means complete. Its purpose is primarily to begin to untangle some of the different facets of the human trafficking ecosystem in which technology can or does play a role. Much more work is needed to better understand the different facets introduced here, how technology is or can be employed, and where opportunities and pitfalls exist. We hope that—in collaboration with scholars and the anti-trafficking community—we can collectively work to better understand the dynamics presented here so as to help those who are exploited and victimized.

We welcome your feedback on this framework. If you are researching the intersection of technology and human trafficking, please reach out to us. You can contact us at httech@microsoft.com

This framework document was created as a background document for a Request for Research Proposals. To learn more, visit: http://research.microsoft.com/en-us/collaboration/focus/education/human-trafficking-rfp.aspx