Aug 10th, 12:00 AM

The Challenges of Using of Information Technology to Counter Human Trafficking

Stacie Petter
Baylor University, stacie_petter@baylor.edu

Laurie Giddens
Southern Illinois University Edwardsville, lgidden@siue.edu

Michael Fullilove
DeliverFund, michael.fullilove@deliverfund.org

The Challenges of Using of Information Technology to Counter Human Trafficking

Completed Research

Stacie Petter
Baylor University
stacie_petter@baylor.edu

Laurie Giddens
Southern Illinois University-Edwardsville
lgidden@siue.edu

Michael Fullilove
DeliverFund
michaelhfullilove@gmail.com

Abstract

In our society, many social entrepreneurs have endeavored to create and distribute technology designed to impact society for good. In this paper we highlight technologies used to counter human trafficking, namely sex trafficking. While these technologies offer significant promise to identify both victims and perpetrators of human trafficking, there are significant reasons why users (i.e., law enforcement officers) resist using information systems that may help with rescuing victims and bringing traffickers to justice. Based on interviews with (1) members of a non-profit organization that trains law enforcement officers to use information systems to counter human trafficking and (2) law enforcement officers, we identify several reasons why law enforcement officers fail to use new information systems or adapt their existing use of information systems to counter human trafficking.

Keywords

Human trafficking, user resistance, law enforcement, interviews.

Introduction

Modern day slavery, often referred to as forced labor or human trafficking, occurs when an individual is required to perform work or a service through the means of force, fraud, or coercion (Trafficking Victims Protection Act 2000). There are three common forms of human trafficking: sex trafficking, labor trafficking, and trafficking for the purpose of organ removal (Polaris Project 2020; UNODC 2015). Sex trafficking is forcing another individual to perform a commercial sex act such as prostitution or pornography (Polaris Project 2020). Up to $100 billion in profits are generated worldwide for individuals, organizations, and nations due to sex trafficking (International Labour Organization 2014) using at least twenty-five different business models that exploit individuals through sex trafficking (Polaris Project 2019).

The United States Congress passed the Trafficking Victims Protection Act of 2000 (TVPA), among other legislation, to define human trafficking and enable traffickers to be prosecuted in federal courts (Axam and Leonardo 2017). Many governmental organizations, non-profit organizations, and social entrepreneurs in the United States promote public awareness of human trafficking (e.g., Unbound at www.unboundnow.com), rescue victims (e.g., Polaris Project at www.polarisproject.org), help survivors reorient to a new life after being trafficked (e.g., One More Child at www.onemorechild.org), support law enforcement in the prosecution and conviction of human traffickers (e.g., DeliverFund at www.deliverfund.org), and develop information technologies to identify children being trafficked online (e.g., Spotlight created by Thorn at www.thorn.org).

In this study, we partnered with a non-profit, DeliverFund, that trains law enforcement officers on the use of information technology to identify victims and traffickers. DeliverFund has created their own information system, the Platform for the Analysis and Targeting of Human traffickers (P.A.T.H.), to

document and visualize trafficking networks by recording information related to victims and potential traffickers (DeliverFund 2020). In the initial meeting between DeliverFund senior leadership and the researchers, one major concern expressed by DeliverFund was the lack of use of P.A.T.H. by many law enforcement officers post-training. As information systems researchers, we embraced this collaboration as a means to study user resistance in a unique context and deepen current knowledge of user resistance. Thus, we performed an in-depth case study with DeliverFund regarding their training programs for law enforcement officers. The purpose of this initial study with DeliverFund was to *identify the barriers that prevent law enforcement in using their information system, P.A.T.H., to counter human trafficking*. Preliminary results suggest several themes that highlight reasons law enforcement officers resist using new information technologies to counter human trafficking.

Due to page limitations, we provide a brief background on our context by discussing the actors in human trafficking, the role of information technology to counter human trafficking, and a short discussion of user resistance research. Then, we present our research method to study our research objective. Next, we present our findings by integrating our insights from our data analysis considering user resistance research. We conclude with a discussion of the implications of this work.

Background

The Use of Information Technology to Enable Human Trafficking

Technology, namely the internet, is used by traffickers to facilitate human trafficking. Traffickers identify, locate, and recruit victims through social media, exploit victims through online marketplaces, and conduct transactions with electronic payment systems (Inter-agency Coordination Group Against Trafficking in Persons 2019). In a study of 206 child sex trafficking survivors, 75% indicate they were trafficked online (Thorn and Bouché 2018). Escort services is the most common business model used by human traffickers in the United States based on the number of potential trafficking cases reported to the National Human Trafficking Hotline (Polaris Project 2019).

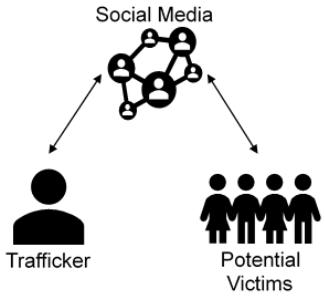
In the escort service business model scenario of human trafficking, the primary actors are the trafficker (sometimes referred to as a "pimp"), the victim, and the buyer (sometimes referred to as a "john"). Each actor uses information technology to enable victimization and transactions to take place. Many traffickers use social media to find, groom, and recruit potential victims (Sarker 2015). Some traffickers target victims looking for fame, money, freedom, independence, or a new start. The interaction of the trafficker and victim through the use of information technology is depicted in Figure 1, Panel A. These traffickers lure the victim with false promises and later coerce and/or force a victim to perform sexual services for the trafficker's financial gain using a combination of psychological, emotional, and/or physical abuse (often accompanied with drugs) (Nichols and Heil 2015).

Once a trafficker forces or coerces an individual to perform services as a sex worker, the trafficker or the victim will post online advertisements for sexual services[1]. Usually, photographs of the sex workers are posted in the online advertisements along with descriptions of services, service rates, and contact phone numbers to set up a "date". Buyers will go to online advertisement sites and will search for a potential "date". The buyer will often use text messaging to chat with the "date", who may be the victim or the trafficker. During the chat session to set up the "date", details will be arranged, such as the location, the time, the services to be offered, and the cost of the service. Either the victim or the buyer will travel to the designated location, services will be performed, and a financial transaction occurs (see Figure 1, Panel B)[2]. It is estimated that online escort advertisements are posted at a rate of 150,000 per day (Thorn 2020).

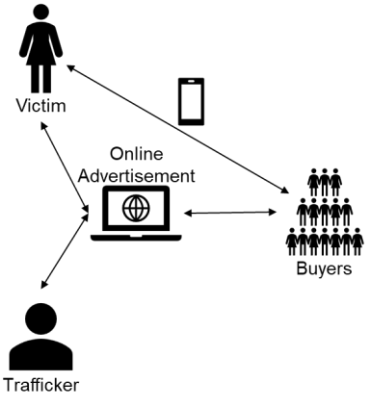
[1] Sites that enable individuals to post online advertisements for sexual services include advertisements posted by sex workers that have chosen to engage in sex work (i.e., non-victims), but also may include advertisements for individuals that are being forced to perform sex work on behalf of their trafficker. In the subsequent description of the escort service business model, we focus on the case in which the sexual services are performed by a victim of human trafficking.

[2] The description and panel represent the least complex relationship between a victim and trafficker. In many cases, a trafficker has multiple victims. Also, some victims may be "promoted" by the trafficker to groom, recruit, and sell the services of new victims. In this scenario, the victim becomes a trafficker. Also, worth nothing is that victims, sex workers, traffickers, and buyers may be of any gender.

Although these online activities by traffickers, victims, and buyers create a digital footprint of activity, there are still challenges to law enforcement agencies that seek to reduce and eliminate human trafficking (Finn and Stalans 2016). Law enforcement often struggle to identify and rescue victims and prosecute human traffickers for several reasons, which include: difficulty in identifying if trafficking activity is taking place, victims refusing to testify against their trafficker, or prosecutors failing to bring forward charges if the circumstances in the case may create challenges in achieving a conviction (Farrell and Pfeffer 2014; Heil and Nichols 2014; Nichols and Heil 2015).



Panel A (Identifying Victims)



Panel B (Conducting Transactions)

Figure 1. Role of Information Technology in Human Trafficking

The Use of Information Technology to Counter Human Trafficking

Some information technologies used to counter human trafficking seek to reduce demand by targeting buyers (e.g., discouraging the purchase of sex online). For example, Freedom Signal is a chat bot created to pose as a sex worker. With this technology, law enforcement officers post a fake online advertisement with a phone number to the chat bot. An unknowing buyer texts the number from the advertisement to setup a meeting and negotiate the location and rates. The chat bot captures the exchange for law enforcement and concludes the chat session by providing information to the potential buyer regarding the laws that could have been violated had the bot been a person (particularly a minor) and/or issues related to sex trafficking (Rosenberg 2019).

Another approach to reduce and eliminate human trafficking is to eradicate traffickers, thus removing the supply of victims (Richmond 2017). The potential financial benefit to traffickers is substantial with the possibility of "earning" up to $200,000 per year per victim and little chance of prosecution (Heil and Nichols 2014). Increasing the risk for the trafficker due to potential arrest and punishment drives up both tangible and intangible costs, which lessens the desire for a trafficker enter or remain in the "industry" of sex trafficking. Yet finding and arresting the trafficker is a challenging approach given that the trafficker is often able to hide behind their victims. Therefore, organizations have developed and repurposed information technologies to counter human trafficking.

Some information technologies use artificial intelligence to scrape photographs from online advertisements to alert law enforcement of a potential minor that is being trafficked (e.g., Spotlight, Traffic Jam)[3] (Mzezewa 2017). Other information technologies may alert users to clues in the photograph that suggest that the person in the advertisement is a trafficking victim (e.g., XIX) (Captain 2019). Using these technologies to identify potential human trafficking victims can lead to the rescuing of victims and/or identifying the trafficker behind the victim. The information system created by DeliverFund, P.A.T.H., provides a means to visualize the networks of victims, traffickers, and other related information gathered through the use of information technology (DeliverFund 2020). Law enforcement officers also use other information

[3] There are criticisms of this use of information technology. For example, some argue that Spotlight (and other similar tools) violate privacy rights of individuals who are not victims of human trafficking and choose to work in the sex industry (VioletBlue 2019).

technologies not specific to human trafficking to identify the true identities of victims, such as Google, Facebook, Instagram, Twitter, license plate readers, criminal databases, among others.

While many of technologies exist to help law enforcement officers counter human trafficking, the availability and use of these information technologies vary across and within departments. Many departments cannot afford the financial costs of these systems. Some information systems, such as Spotlight, are free to law enforcement. Other information technologies are readily accessible and available to law enforcement officers, such as Google, social media, and information systems specific to law enforcement (e.g., criminal databases, license plate readers). Individuals learn how to use these technologies to investigate human trafficking in a myriad of ways, such as transferring personal experiences with social media to this context, internal training offered by the local law enforcement department, small workshops or seminars focusing on specific technologies, or multi-day training sessions.

User Resistance

The information systems discipline has studied user resistance of information technologies for decades (Hirschheim and Newman 1988; Laumer and Eckhardt 2012). Users may resist an information systems in many ways such as not using an information system, sabotaging the technology, blaming the information system for failures, or not giving credit to the information system for successes (Hirschheim and Newman 1988; Martinko et al. 1996; Rivard and Lapointe 2012). In this research, we define user resistance as a choice made by an individual, group, or organization not to use an information system at a current point in time. Within our definition, we are adopting and recognizing the multilevel nature of user resistance (Lapointe and Rivard 2005; Lapointe and Rivard 2007) and ongoing decision making processes to adopt or resist an information system (Laumer and Eckhardt 2012).

Prior research has identified many factors that affect user resistance of new information systems within organizations. Some research has focused on individual attributes, such as one's willingness to change, as a contributor to user resistance (e.g., Laumer et al. 2016a). Researchers found that the role of work processes or the desire to maintain the status quo is a predictor of user resistance (e.g., Kim and Kankanhalli 2009; Laumer et al. 2016b). Threats to one's power or the influence of the information system on political dynamics within the organization may affect user resistance (e.g., Lapointe and Rivard 2007; Markus 1983). Resistance research also suggests that the technical factors of a system contribute to user resistance (e.g., Hirschheim and Newman 1988; Lin et al. 2018). Yet, most studies examining factors that contribute to user resistance focus on scenarios in which a new information system is being introduced in an organization, and often, the new system must be used to complete one's task within firm. Our research study examines user resistance in a new context and extends and strengthens previous findings regarding resistance.

DeliverFund seeks to encourage more law enforcement officers to use their information system, P.A.T.H. We noted several differences between this context and prior research related to user resistance. First, much of the prior research on user resistance has considered resistance at the implementation stage of the information system. Yet, many of the information technologies used for human trafficking investigations (including P.A.T.H.) do not require any formal implementation in that the information technology is cloud-based. Secondly, often the law enforcement officers attending DeliverFund's training represent a small subset of the larger local or state law enforcement agency. While DeliverFund provides P.A.T.H. for free for up to a year, law enforcement officers that want to use P.A.T.H. after the trial period must convince someone in authority to expend the necessary funds to support the licensing costs for the system. Third, each of the law enforcement officers attending training have found workarounds to perform their human trafficking investigations with the information systems currently available to them. While P.A.T.H. can support law enforcement officers to perform their work more efficiently or effectively, a trafficking investigation can still be performed with or without the use of P.A.T.H.

Research Method

To examine the barriers preventing law enforcement officers from embracing P.A.T.H. to counter human trafficking, we conducted an in-depth, qualitative case study using an inductive approach (Walsham 1995). DeliverFund allowed us to observe training, interview staff, and contact members of their training programs for interviews. When possible, we conducted interviews with participants prior to attending training to learn about their expectations and goals related to this course. We also interviewed participants two or three

months post-training to learn about their process for human trafficking investigations and to discuss their use (or non-use) of P.A.T.H. and other information technologies.

Table 1 provides an overview of the data collected to date as part of this research effort. Two researchers participated in observing training sessions, interacting with participants during training, and conducting interviews. Most interviews were conducted by one researcher, but several interviews had two researchers present. Nearly all interviews were recorded and transcribed; however, whenever recording was not possible, the researchers took extensive notes. A total of 53 semi-structured interviews were conducted prior, during, or post-training with training participants and DeliverFund staff.

Data Source	Data Collection Approach	Data Gathered
Observation; Interaction with Training Participants & DeliverFund Staff	Observed 16 days of training during 3 different multi-day training sessions at DeliverFund	Notes on training methods and informal interactions with trainees and staff
Interviews with DeliverFund Training Participants	Pre-training: 12 phone, 2 email Training/Post-training: 16 phone, 13 in-person, 1 email	Notes and/or transcripts (if allowed to record)
Interviews with DeliverFund Staff	7 interviews via phone & in person	Notes and/or transcripts
Interviews with DeliverFund Technology Partners	3 interviews via phone & in person	Notes and/or transcripts
Usage Records for Trainees	System generated	Last login date for P.A.T.H.

Table 1. Data Collection Summary

We performed a preliminary analysis of our data by reflecting on the insights and notes from our interviews and observations iterating between our data and the literature (Klein and Myers 1999). We examined the user resistance literature, which illuminated common themes in our data. We then reanalyzed our data using existing research as a lens to explain emergent themes in our data (Charmaz 2006). We reached theoretical saturation on many issues related to barriers associated with the use information systems to counter human trafficking. As a result, we were able to identify some key insights consistent with user resistance literature.

Findings

We identified four major barriers that affect the use of information systems to counter human trafficking. The next sections discuss barriers faced by participants regarding the use of P.A.T.H. to counter human trafficking as well as insights from training participants that chose to use P.A.T.H. post-training.

Lack of Time with Technology

Few of the training participants we interviewed are fully devoted to investigating human trafficking cases. Most of the participants have a job title and role that requires them to investigate crimes that involve a range of offenses, which may or may not include human trafficking. For some participants, work related to countering human trafficking is considered outside of their primary role. This is problematic since some the information technologies presented by DeliverFund during training are specific to investigating human trafficking cases. P.A.T.H. was developed specifically for the purpose of human trafficking; therefore, law enforcement officers attending training that are unable to investigate many human trafficking cases have less opportunity to use the technology. Many participants expressed a desire to investigate more human trafficking cases, but competing demands did not allow these law enforcement officers to take advantage of the new information systems and knowledge gained during DeliverFund training unless a report of human trafficking was made to the law enforcement agency and the case was assigned to the officer. As such, training participants were not able to use P.A.T.H. on a regular basis during the course of their investigations. For example, when discussing the constraints of adopting new information systems to counter human trafficking with the supervisor of an agency who attended a DeliverFund training, he explained his perception of the situation:

> *We aren't held back by technology, we are held back by manpower. We don't have dedicated people to work the [human trafficking] cases.*

For many DeliverFund training participants, user resistance to P.A.T.H. occurs due to the large number of competing priorities that prevent law enforcement officers from applying technological skills and knowledge. Users expressing this sentiment often noted the value in using P.A.T.H. to counter human trafficking, but lacked the time or human resources available to work human trafficking investigations. In many agencies, if an officer is working on a human trafficking case, this means another case is not being investigated. Conversely, if non-human trafficking crimes are being investigated, then human trafficking is being ignored. The user resistance literature has suggested that reasons users choose not use an information system is due to the technology (Hirschheim and Newman 1988), structural (Markus 1983), or personal (Laumer et al. 2016a) factors associated with using the information system. In our case, we noted that the choice to not use P.A.T.H. occurred because the law enforcement officers were unable to devote the necessary time to investigate human trafficking cases.

Lack of Investment in Technology

During their training with DeliverFund, participants were instructed on several new information systems as well as taught different ways to use existing or known information systems (e.g., search engines, social media) to identify victims and traffickers. After training, many law enforcement officers share that it is unlikely that financial resources will be expended by their departments for new information systems, including P.A.T.H. once the free trial period ended. For example, when asked about departmental support for resources and technology, one participant responded:

> *I feel supported, but the money is the bottom line, I guess. If [supervisors] think it is too expensive, they're not going to do it no matter how much it benefits your investigations.*

Another participant expressed a similar idea.

> *We could always have better tools. We could always have better technology. There's always better stuff out there, but that costs money. Sometimes your department is just not willing to pay that.*

Within this theme, we find that at an individual level, there is a willingness to adopt P.A.T.H., but the highly constrained resources within law enforcement agencies can limit the availability of the technology for users. Despite this grassroots support for adopting and using a new information system by one or more members of a law enforcement agency, top down financial support to purchase or train new personnel on these information systems is lacking.

Lack of Support from Collaborators

Law enforcement officers investigate cases of human trafficking, and these cases are conveyed to a prosecutor (at a local, state, or federal level) who decides if a case will be pursued to arrest the trafficker. Therefore, the information systems used by law enforcement officers can impact the work and actions of others. Several law enforcement officers interviewed shared experiences when their use of other information technologies (not P.A.T.H., specifically) was met by resistance from those downstream in the process. For example, one participant shared a situation in which they found a new, innovative way to use a technology which allowed the law enforcement officer to generate multiple cases. The quantity and nature of the cases put additional pressure on the local prosecutor:

> *I literally was getting cases left and right…. So, all of a sudden, the [prosecutor] calls me one day and she's freaking out [and saying] I don't think we can do this…. There were a couple weeks that we're kind of like, well crap, 'is she going to throw all my cases out or whatnot?'.*

The above quote demonstrates how limitations of resources downstream affect the law enforcement officer's use of a new information system. If the officer continues to use the information system to generate a large number of cases, it creates additional effort and requirements on the part of the prosecutor and other stakeholders in the criminal investigation and prosecution process. Essentially, through the use of the information system, the law enforcement officer is creating work overload for others within the law enforcement ecosystem. The work overload experienced downstream can disincentivize the law enforcement officer from continuing to use the information system.

Law enforcement officers also shared scenarios in which the prosecutor expressed concerns regarding the use of different types of information technology for human trafficking cases. As one law enforcement officer shared:

> *I think sometimes because prosecutors will get into the mindset of well this department only does it this way. When you bring in a new way, they're like, "Oh, you can't do that." I'm like, "Who says I can't? Because [the legal] standard says I can, but you're just used to them doing it this way, and you don't want to do it my new way." I would say that would be the only barrier as far as certain collaborations.*

Prior research related to user resistance of information systems has focused on the resistance of the direct user; however, indirect users of the information can also affect a person's choice to use a new information system (Lapointe and Rivard 2005; Lapointe and Rivard 2007). While these examples are not specific to P.A.T.H., the salience of potential downstream resistance by collaborators in the process can create barriers to the use of a new information system among users.

Lack of Integration with Work Process

The most common theme related to the lack of use of P.A.T.H. is the concern that this information system is not part of their natural work process. When law enforcement officers investigate a human trafficking case, the officers take notes during their investigation. The officers enter their notes into the local agency's case management information system that enables other officers within the agency to share information. However, for cases that require interaction across agencies (which frequently occurs in the context of human trafficking), then multiple case management information systems will likely have records related to the same case. These case management systems are not integrated across agencies, which results in information about a human trafficking case being stored in multiple information systems. For some training participants, P.A.T.H. represents yet another information system that is not integrated with any other records management system. For example, one participant shared the following sentiment about P.A.T.H.:

> *I think it is adding to the workload. Currently with the big case that I worked, I am currently working [with] five traffickers and 13 juveniles… The problem is I enter in all this information, and it's an active case so it continues to grow….I have other cases, right?… The problem is, I have to then stop my workload in a record management system and then go back into the past system editor and everything I just entered into it. I have to reiterate it into a different system.*

For others, the introduction of a new information system just reminds them of their age and the challenges of learning something new. Consistent with the notion that a new information system is depletes one's personal resources (Chen et al. 2009), if the new system is not part of their required process, the user will not devote time and energy to learn the new system. Several training participants expressed their difficulty in keeping up with the various information technologies needed to investigate human trafficking cases. As one training participant shared:

> *Yeah, because I'm not like young young. But I'm not old enough to where… I mean, I know enough about the internet, I know enough about apps, I knew about Snapchat and Facebook. But until I really got in it and really started diving in, I literally was like I felt like I was 90 years old because what I thought I knew, I know nothing. I knew 1% of what I should have known, or what I know now. And even now I really don't feel like I know maybe but 30%. There's just so much and every time you knock one down, five more pop up. Meaning, like you knock down one site, there's five more that come up….It's just hard to keep up with all of them.*

Given the scarce resources and time available to law enforcement officers due to their complex work, any additional activity or task that it outside the boundary of what is required or necessary can be difficult to adopt. The participants we spoke in this theme were not necessarily hostile or uninterested in the idea of using a new information systems that provides value, but the law enforcement officers expressed concerns that using P.A.T.H. was superfluous or inconsistent with their work process.

Lack of User Resistance

We wish to note that several training participants continue to use P.A.T.H. and other information technologies presented post-training. In these cases, there was a sense of increased benefits and support

for using the information system, thus countering the potential for resistance. Some departments and agencies see the value in using new information systems or innovating their use of existing information to gain the ability to accomplish their goals. One participant found value in using P.A.T.H. because it provided the resource of being able to visualize and communicate the relationships among victims, traffickers, buyers, phone numbers, online ads, and other sources of evidence:

> *That visual aid can really assist in showing the structure of, look, this is somebody that is connected to all these things and where do all these connections go back to? And hopefully, you would be able to demonstrate that there is, at the center all this, the trafficker. He is in control of perhaps whatever financial account you've identified, he's in control of the email that's posted the ads, here's all these phone lines and they all come back to him.*

Others shared how the value provided by adopting P.A.T.H. could create benefits for prosecutors, thus enabling better collaboration among the law enforcement ecosystem. Because P.A.T.H. provides a visual mapping of the actors and evidence, it can make it easier for the prosecutor to understand the evidence on a case. Further, the visual depiction of the case is helpful when presenting evidence to a jury. As one training participant noted regarding using P.A.T.H. for prosecution of traffickers.

> *I use it for organization, so I just start with whatever - generally with a picture of a female, like hey, this person may be being trafficked. And then we'll spider off from there…then when it comes time for trial preparation, it is a very good way to organize everything into one very clear, non-handwriting format.*

These counterexamples in which P.A.T.H. was used by training participants after training provides insights regarding how we might potentially remove barriers that prevent the use of new information systems to counter human trafficking.

Discussion and Conclusion

The study of user resistance or barriers to use of information systems is not a new topic within the discipline of information systems (e.g., Hirschheim and Newman 1988; Laumer and Eckhardt 2012). Our study represents a unique context to study information systems resistance in that users work in complex, governmental agencies with scarce resources available for competing goals. Furthermore, we consider the idea of user resistance in a scenario in which there is no organizational mandate or organization-wide implementation of a new information system. In our context, individuals can make a personal choice to use a new information system. Our analysis indicates that in this context, user resistance is not attributed to the technology or due to the user's inability or unwillingness to learn a new information system, but rather user resistance is more attributable to environmental factors which prevent or discourage users from engaging with the new information system.

Theoretically, this research offers an important contribution to understand why even when there are shared goals or potentially important benefits of an information system (i.e., reducing or eliminating human trafficking), the potential benefits of the information system do not necessarily drive information use for all. User resistance research has recognized the need to consider both user resistance and acceptance across multiple levels of analysis, and our results demonstrate that use of information systems is impacted by individual and organizational and cross-organizational factors. Focusing only on the individual's choice to adopt or resist fails to consider how other actors and levels of analysis can impact the choice to use or resist an information system (Lapointe and Rivard 2007). We contribute to the resistance literature by identifying areas of resistance at and across multiple levels of analysis and demonstrate how user resistance can occur outside of large, top-down organizational information systems implementations.

Over twenty-five years ago, Markus and Keil (1994) used a case study to highlight that a "build it and they will come" approach does not work when designing information systems for an organization. Many organizations still fall victim to this reasoning. When organizations develop information systems for social good to address an important problem, a fallacy may emerge that the potential value of the new information system will outweigh the reasons for an individual not to use the information system. While many training participants found value in P.A.T.H. and other information technologies discussed during DeliverFund training, the challenge was that others within their community (e.g., top management, prosecutors) would be impacted by the officer's adoption of an information system. The compounding effects of having too little

time and severe resource constraints further exacerbate the decision to use the information system. Those who wish to develop or implement information systems for good will have to consider more than just the features and functionality of technology, and there is a need to examine the context and environment in which the system is to be used.

The continued growth and existence of modern-day slavery in the form of human trafficking is worth addressing in our society. The good news is that there are many organizations across governments, law enforcement, non-profits, and for-profits that seek to reduce and eliminate human trafficking. Although information technology has created new ways for traffickers to engage in their criminal activity, information technology can also serve as an important tool to improve this element of our society.

REFERENCES

Axam, H., and Leonardo, J. T. 2017. "Human Trafficking: The Fundamentals," *United States Attorneys' Bulletin* (65:6), pp. 3-16.

Captain, S. 2019. "This AI Can Spot Signs of Human Trafficking in Online Sex Ads," *Fast Company*. Published November 4, 2019. URL: https://www.fastcompany.com/90424645/how-image-recognition-ai-is-busting-sex-traffickers

Charmaz, K. 2006. *Constructing Grounded Theory: A Practical Guide through Qualitative Analysis*. London: SAGE Publications Ltd.

Chen, S., Westman, M., and Eden, D. 2009. "Impact of Enhanced Resources on Anticipatory Stress and Adjustment to New Information Technology: A Field-Experimental Test of Conservation of Resources Theory," *Journal of Occupational Health Psychology* (14:3), pp. 219-230.

DeliverFund. 2020. "How DeliverFund Is Fighting Human Trafficking in America." Retrieved February 3, 2020, from https://deliverfund.org/how-deliverfund-is-fighting-human-trafficking-in-america/

Farrell, A., and Pfeffer, R. 2014. "Policing Human Trafficking: Cultural Blinders and Organizational Barriers," *The ANNALS of the American Academy of Political and Social Science*, (653:1), pp. 46–64.

Finn, M. A., and Stalans, L. J. 2016. "How Targeted Enforcement Shapes Marketing Decisions of Pimps: Evidence of Displacement and Innovation," *Victims & Offenders* (11:4), pp. 578–599.

Heil, E. C., and Nichols, A. J. 2014. "Hot Spot Trafficking: A Theoretical Discussion of the Potential Problems Associated with Targeted Policing and the Eradication of Sex Trafficking in the United States," *Contemporary Justice Review* (17:4), pp. 421-433.

Hirschheim, R., and Newman, M. 1988. "Information Systems and User Resistance: Theory and Practice," *The Computer Journal* (31:5), pp. 398-408.

Inter-agency Coordination Group Against Trafficking in Persons. 2019. "Human Trafficking and Technology: Trends, Challenges and Opportunities". Issue Brief 7, Published July 2019. URL: https://icat.network/sites/default/files/publications/documents/Human%20trafficking%20and%20technology%20trends%20challenges%20and%20opportunities%20WEB....pdf

International Labour Organization. 2014. "Profits and Poverty: The Economics of Forced Labour," United Nations, Geneva, Switzerland.

Kim, H.-W., and Kankanhalli, A. 2009. "Investigating User Resistance to Information Systems Implementation: A Status Quo Bias Perspective," *MIS Quarterly* (33:3), pp. 567-582.

Klein, H. K., and Myers, M. D. 1999. "A Set of Principles for Conducting and Evaluating Interpretive Field Studies in Information Systems," *MIS Quarterly* (23:1), pp. 67-93.

Lambert, A. D., and Steinke, C. M. 2015. "Negative Perceptions of Asking for Support in Law Enforcement: Potential Impact on Benefit Avoidance," *International Journal of Police Science & Management* (17:2), pp. 134-144.

Lapointe, L., and Rivard, S. 2005. "A Multilevel Model of Resistance to Information Technology Implementation," *MIS Quarterly* (29:3), pp. 461-491.

Lapointe, L., and Rivard, S. 2007. "A Triple Take on Information System Implementation," *Organization Science* (18:1), pp. 89-107.

Laumer, S., and Eckhardt, A. 2012. "Why Do People Reject Technologies: A Review of User Resistance Theories," in *Information Systems Theory: Explaining and Predicting Our Digital Society,* Y.K. Dwivedi, W. M. and S. S. (eds.). New York, NY: Springer Science+Business Media LLC, pp. 63-86.

Laumer, S., Maier, C., Eckhardt, A., and Weitzel, T. 2016a. "User Personality and Resistance to Mandatory Information Systems in Organizations: A Theoretical Model and Empirical Test of Dispositional Resistance to Change," *Journal of Information Technology* (31), pp. 67-82.

Laumer, S., Maier, C., Eckhardt, A., and Weitzel, T. 2016b. "Work Routines as an Object of Resistance During Information Systems Implementations: Theoretical Foundation and Empirical Evidence," *European Journal of Information Systems* (25:4), pp. 317-343.

Lin, T.-C., Huang, S.-L., and Chiang, S.-C. 2018. "User Resistance to the Implementation of Information Systems: A Psychological Contract Breach Perspective," *Journal of the Association for Information Systems* (19:4), pp. 306-332.

Markus, M. L. 1983. "Power, Politics, and MIS Implementation," *Communications of the ACM* (26:6), pp. 430-444.

Markus, M. L., and Keil, M. 1994. "If We Build It, They Will Come: Designing Information Systems That People Want to Use," *MIT Sloan Management Review*, (35:4), pp. 11-25.

Martinko, M. J., Henry, J. W., and Zmud, R. W. 1996. "An Attributional Explanation of Individual Resistance to the Introduction of Information Technologies in the Workplace," *Behaviour & Information Technology* (15:5), pp. 313-330.

Mzezewa, T. 2017. "Hacks That Help: Using Tech to Fight Child Exploitation," *The New York Times*. Published November 24, 2017. URL: https://www.nytimes.com/2017/11/24/style/sex-trafficking-hackathon.html

Nichols, A. J., and Heil, E. C. 2015. "Challenges to Identifying and Prosecuting Sex Trafficking Cases in the Midwest United States," *Feminist Criminology* (10:1), pp. 7-35.

Polaris Project. 2019. "The Typology of Modern Slavery: Defining Sex and Labor Trafficking in the United States." URL: https://polarisproject.org/wp-content/uploads/2019/09/Polaris-Typology-of-Modern-Slavery-1.pdf

Polaris Project. 2020. "Human Trafficking." Retrieved 2020 January 28, from https://polarisproject.org/human-trafficking/?gclid=CjwKCAiA1L_xBRA2EiwAgcLKA5bW6aGfxMSbQjoCHOFSQqdTr-2_hJGS7x2EtFEnW9CO0r5oKnv7_hoCpYsQAvD_BwE

Richmond, J. C. 2017. "The Root Cause of Human Trafficking in Traffickers," *The Human Trafficking Institute*, Fairfax, VA. URL: https://www.traffickinginstitute.org/wp-content/uploads/2017/06/Root-Cause-2-pager_web.pdf

Rivard, S., and Lapointe, L. 2012. "Information Technology Implementers' Responses to User Resistance: Nature and Effects," *MIS Quarterly* (36:3), pp. 897-920.

Rosenberg, T. 2019. "A.I. Joins the Campaign against Sex Trafficking," *The New York Times*. Published April 9, 2019. URL: https://www.nytimes.com/2019/04/09/opinion/ai-joins-the-campaign-against-sex-trafficking.html

Sarker, S. 2015. "Use of Technology in Human Trafficking Networks and Sexual Exploitation: A Cross-Sectional Multi-Country Study," *Transnational Social Review* (5:1), pp. 55-68.

Victims of Trafficking and Violence Protection Act of 2000.2000. United States House of Representatives Bill #3244.

Thorn. 2020. "Child Trafficking Statistics." Retrieved February 6, 2020, from https://www.thorn.org/child-trafficking-statistics/

Thorn, and Bouché, V. 2018. "Survivor Insights: The Role of Technology in Domestic Minor Sex Trafficking," URL: https://www.thorn.org/wp-content/uploads/2019/12/Thorn_Survivor_Insights_090519.pdf

UNODC. 2015. "Trafficking in Persons for the Purpose of Organ Removal," United Nations, Vienna, Austria. URL: https://www.unodc.org/documents/human-trafficking/2015/UNODC_Assessment_Toolkit_TIP_for_the_Purpose_of_Organ_Removal.pdf

VioletBlue. 2019. "Sex, Lies, and Surveillance: Something's Wrong with the War on Sex Trafficking," Engadget. Published May 31, 2019. URL: https://www.engadget.com/2019/05/31/sex-lies-and-surveillance-fosta-privacy/

Walsham, G. 1995. "Interpretive Case Studies in Is Research: Nature and Method," *European Journal of Information Systems* (4:2), pp. 74-81.

Wolverton, C. C., and Cenfetelli, R. 2019. "An Exploration of the Drivers of Non-Adoption Behavior: A Discriminant Analysis Approach," *The DATA BASE for Advances in Information Systems* (50:3), pp. 38-58.