

The Trafficking-Technology Nexus

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Within some public policy and scholarly accounts, human trafficking is increasingly understood as a technological problem that invites collaborative anti-trafficking solutions. A growing cohort of state, non-governmental, and corporate actors in the United States have come together around the shared contention that technology functions as both a facilitator and disrupting force of trafficking, specifically sex trafficking. Despite increased attention to the trafficking-technology nexus, scant research to date has critically unpacked these shifts nor mapped how technology reconfigures anti-trafficking collaborations. In this article, we propose that widespread anxieties and overzealous optimism about technology's role in facilitating and disrupting trafficking have simultaneously promoted a tri-part anti-trafficking response, one animated by a law and order agenda, operationalized through augmented internet, mobile, and networked surveillance, and maintained through the integration of technology experts and advocates into organized anti-trafficking efforts. We suggest that an examination of technology has purchase for students of gender, sexuality, and neoliberal governmentality in its creation of new methods of surveillance, exclusion, and expertise.

Introduction: Prop 35

On November 6, 2012, California voters overwhelmingly backed the passage of Proposition 35—the Californians Against Sexual Exploitation Act (Almendrala 2012). Whether out of moral conviction or the result of uninformed confusion, by passing Prop 35, Californians signed-off on a sweeping legislative agenda, one that included (i) stiffer penalties and steeper fines for traffickers, (ii) the juridical classification and registration of convicted traffickers as “sex offenders,” and (iii) the requirement that traffickers-cum sex offenders provide law enforcement with their online identities and information about other Internet activities (California Secretary of State 2012). Proponents

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of the measure viewed it as a key way to strengthen the state's response to human trafficking—a term which broadly refers to exceptionally exploitive labor practices.¹

Whereas Chris Kelly, the proposition's co-sponsor and former Chief Privacy Officer of Facebook cited the passage of Prop 35 as a dual victory for advocates of human trafficking and child safety alike (Joseph and Tucker 2012), opponents of the measure, including the American Civil Liberties Union (ACLU) and the Electronic Frontier Foundation (EFF) underscored its overgeneralizing terms, broad definitional reach, and violation of sex offenders' constitutional rights to free speech. Immediately following its passage, the ACLU and EFF filed a class-action lawsuit to curb implementation of one part of Prop 35 dealing with online registration requirements.² The lawsuit not only raises pressing constitutional questions (Risher 2013), but puts into sharp focus how public concerns about trafficking and voter anxieties about suspected traffickers' use of technology have colluded in advancing new legislative and criminal justice tools geared toward enhancing the surveillance of suspected traffickers and prospective victims alike. Prop 35 also raises questions about the kinds of interventions—technological or otherwise—that are assumed to assist those deemed most vulnerable to trafficking.

We begin with the passage of Prop 35 because it is a key exemplar of pressing developments taking shape in the United States; chiefly the growing, albeit uninterrogated assumption that technologies of the networked, connective, and mobile variety play a central role in *facilitating* human trafficking. Attendant to these assumptions lies a corollary set of expectations that technology can be leveraged to *disrupt* trafficking, and that the efficacy of such disruption hinges on the promotion of public-private partnerships, heightened collaboration between state, non-profit, and corporate actors, and stepped-up internet and mobile surveillance of individuals suspected of facilitating and being victimized by the phenomenon. Yet these trends raise important questions: what does it mean when a topic beset by empirical contestation is situated as a problem whose source and solution is imagined in technological terms? What are scholars to make of nascent trends where concerns about trafficked persons' exploitation have fostered new state and non-state collaborations and authorized intensified methods of surveillance for suspected traffickers and at-risk victims?

In Pardis Mahdavi's book, *From Trafficking to Terror* (2014), she highlights how Prop 35's passage relied upon moral and racialized panics not dissimilar to those that have accompanied the wars on terror, trafficking, and white slavery. For Mahdavi, an analysis of Prop 35 demonstrates how public concerns about trafficking have discursively framed some people as victims in need of rescue and others as "villains in need of monitoring or surveillance" (Mahdavi 2014, 8). Our article similarly looks to Prop 35 in an effort to examine how its passage has authorized new forms of surveillance, both for individuals deemed to be "at risk" of being trafficked and for those suspected of being traffickers

themselves. In the sections that follow, we take up these concerns in more detail by examining what we refer to as the trafficking-technology nexus.

The 4As: Anti-Trafficking Interventions Meet Sociotechnical Innovation

Researchers have begun to explore how anti-trafficking actors understand and utilize technology to disrupt human trafficking (Latonero 2011; Latonero et al. 2012; Musto 2014; Thakor and boyd 2013). Meanwhile, others have documented the growth of a transnational anti-trafficking rescue industry (Agustín 2007; Gallagher 2011), highlighting how organized state, non-governmental, faith-based, and corporate anti-trafficking efforts have advanced a “neoliberal carceral agenda reliant upon punitive systems of control” (Bernstein 2010, 67). To date, little research has examined these trends together, nor explored how and in what ways anti-trafficking technologies in tandem with organized efforts mediated by and through innovative platforms (e.g., machine learning, predictive analytics, mobile and social media technologies, etc.) are reimagining anti-trafficking engagements.³ We argue that widespread anxieties and overzealous optimism about technology’s role in facilitating and disrupting trafficking belie other pressing shifts taking shape in the United States, trends we refer to as the “4As” and which define the contours of the trafficking-technology nexus.

Our utilization of a “4A” framework to account for these trends is purposeful: in policy and advocacy circles, shorthand alliterative slogans circulate to define anti-trafficking “best practices” and are used to bracket the parameters of state and non-state responses. The “4Ps,” for instance, refer to the US State Department’s goal of *preventing* conditions of forced labor, *protecting* trafficked persons, strengthening *prosecutions* of traffickers, and cultivating *partnerships* (US Department of State 2010). The “3Rs” refer to the “rescue, rehabilitation, and reintegration,” of trafficked persons and are cited by governmental entities such as the US State Department as part of a victim-centered approach to trafficked persons’ protection (US Department of State 2011).

In a critical take on the 4P and 3R paradigms of state and non-state anti-trafficking efforts that precede it, we suggest that nascent developments on the sociotechnical front are characterized by “4As.” The 4As denote heightened *awareness* and visibility of particular online sites assumed to promote trafficking, particularly sex trafficking, the *amassment*⁴ of data by law enforcement to pursue anti-trafficking investigations, the *augmentation* of traditional surveillance techniques and tools, and the advancement of collaborative arrangements and technological innovation in the form of *automated* or *algorithmic* techniques.

An assessment of the 4As and the trafficking-technology nexus has purchase for students of gender, sexuality, and neoliberal modes of governance by demonstrating how attention to technology as both the source and solution to it

has simultaneously advanced a tri-part anti-trafficking response, one animated by a “law and order agenda” (Bernstein 2007a, 143), operationalized by surveillant technologies and regimes (Lyon 2010, 330), and maintained through the integration of technology experts and advocates into state anti-trafficking efforts.

Notes on Methods and Methodology

Our examination of trafficking and technology is itself a collaborative endeavor and weaves together our combined research on organized anti-trafficking activities in the United States (Musto 2011, 2013) and ethnographic research on technology, social media, and youth practices (boyd 2014; Palfrey, boyd, and Sacco 2009). The online, ethnographic, and interview-based data that anchor this article were gathered by Musto between June 2012 and January 2014 and derives from her intermittent observations and participation in anti-trafficking trainings, meetings, and forums that involved some discussion of technology. Although most in-person observations primarily took place in the West Coast region of the United States, she additionally participated in on and offline meetings and phone call discussions about anti-trafficking activities in the Midwest, East Coast, and Southwestern regions of the United States. Musto also conducted nineteen interviews and six informal discussions with law enforcement, non-governmental actors, technology innovators, attorneys, and advocates whose work addresses trafficking in the United States. Interviews were open-ended and discussed a range of topics, including participants’ perceptions of technology and how collaboration with other actors shaped their work.⁵

Beyond the practical negotiations of conducting research on a topic beset by discursive complexity and morally charged ideology (Vance 2011), we offer a few additional notes about our engagement with the subjects under review. First, we approach these topics with an interest in expanding scholarly understanding about trafficking and technology given the sizeable number of sociotechnical initiatives that have developed in recent years and since scholarly assessments of these efforts remain limited. While not intended as a generalizable assessment of all U.S.-based anti-trafficking activities focused on technology, our research offers preliminary insight as to how technology in general and sociotechnical innovation in particular are shaping anti-trafficking activities in the United States.

Second, we are concerned by how technologically mediated anti-trafficking interventions appear to blur the boundaries between sex trafficking and sex work and subject individuals deemed “at-risk” to new forms of surveillance. Sociotechnical anti-trafficking efforts not only risk perpetuating harms against the people they aim to assist; they may further contribute to interventions that render victims of forced labor and voluntary sex workers similarly vulnerable

to heightened law enforcement surveillance and carceral oversight (Bernstein 2010; Ditmore 2009), punitive efforts we seek to challenge.

Third, we think heightened sociotechnical mediation of anti-trafficking efforts invites scholars and advocates to account for how technology and technological expertise reshapes the contours of anti-trafficking activities. Here it no longer seems sufficient to point out the carceral, anti-prostitution, gender essentialist, and heteronormative leanings of the U.S. anti-trafficking efforts. We do not mean to suggest that technological innovation renders such critiques unimportant or irrelevant. On the contrary, these insights are arguably as important as ever, as are discussions about the racial and class dimensions of anti-trafficking. But what we are suggesting is that the deployment of socio-technical interventions shifts the discursive and material terrain of anti-trafficking in important new ways and failure to “come to terms with the digital” (Bauman and Lyon 2013, 35), the algorithmic (Gillespie 2014), and the networked dimensions of anti-trafficking (Thakor and boyd 2013) not only risks missing out on “whole swaths of significant cultural” (Bauman and Lyon 2013, 35) activities, but it also risks failing to grasp the ways in which technological mediation is changing the terms on which carceral, punitive, and protective anti-trafficking interventions are staged. In the sections that follow, we expand upon some of these themes, draw upon some ethnographic and interview findings and conclude by offering a tentative forecast of what the trafficking-technology nexus suggests for the future of anti-trafficking.

Collaboration, Technology, and Neoliberal Governmentalities

To fully grasp how and why technology has emerged as a key point of interest within dominant anti-trafficking discussions, a brief focus on the role of collaboration is needed. Since 2011, a sizeable cohort of state, non-governmental, and corporate actors in the United States have come together around the shared contention that technology functions as both a facilitator and disrupting force of trafficking, particularly sex trafficking. These developments emerge alongside other trends whereby an ever-expanding network of actors have attached themselves to the trafficking cause and formed new partnerships foregrounded in the belief that human trafficking is everyone’s mutual problem, and that public-private partnerships, entrepreneurial business models, and the cultivation of sociotechnical solutions are the most efficacious ways to respond (Bernstein 2010; *Slavery Footprint—Made in a Free World* 2012; Thorn 2012).

The advent of anti-trafficking collaborations and the creation of cooperative state, non-governmental, faith-based, and corporate networks, task forces, and alliances (Bernstein 2010) follow neoliberal incursions into the management of intimate relations as well as the “privatization of social welfare and marketization of political and social life” (Marchand and Sisson Runyan 2011, 4),

what Lind aptly describes as “neoliberal governmentalities.” For Lind, neoliberal governmentalities “refer to the ways in which NGOs, multinational institutions, and aid agencies and foundations have played new roles in public/private partnerships since the inception of the neoliberal era” (Lind 2011, 53). Applying Lind’s insights to the case of human trafficking, what becomes clear is that some anti-trafficking actors who have come together to address it wield “interpretive power” in distilling what counts as coercive and consensual forms of intimate relations, and determining which types of anti-trafficking interventions are best-equipped to assist individuals identified as victims. It is well-established that state and non-governmental actors have played a crucial role in shaping the political terms of trafficking, both by myopically focusing attention on sex trafficking,⁶ and foregrounding all forms of commercial sex as innately exploitative, dangerous and traumatic (Farley 2003, 2007; Jeffreys 2010; MacKinnon 2011). Of note here is that some actors in the United States have begun to link this exploitation, in part, to the rise of new technologies (National Association of Attorneys General 2013).

Furthermore, by assuming that it is primarily women and girls trafficked into sex slavery, anti-trafficking actors have consolidated dominant expectations that certain sexual behaviors are extra-ordinarily risky and therefore require more robust multi-professional intervention by the state and its allies. In so doing, they have rendered invisible different kinds of exploitation that cisgender and transgender men, women, and children may experience (Vance 2011, 936). Understanding the mechanics of how these neoliberal governmentalities function is important to broader discussions about the NGO-ization of anti-trafficking efforts and the role that transnational actors play in shaping the discursive and material terms of sex workers’ and trafficked persons’ intimate relations, subjectivities, and agency (Musto 2008, 2011). Yet these trends are also crucial for unpacking how technology shifts scholarly understanding about trafficking, particularly sex trafficking, because technology creates new forms of visibility, surveillance, exclusion, and expertise.

Awareness and Visibility: Backpage 2.0

When technology and trafficking are referenced in mainstream media, the discussion tends to focus on the role of online classifieds advertising sites in facilitating sex trafficking of underage youth (Kristof 2012). Here public commentators—ranging from journalists to anti-trafficking advocates, policymakers, and attorneys general—have cited Backpage and Craigslist as key facilitators of sex trafficking online, suggesting that third-party entities have directly profited from the commercial sexual exploitation of children (California Department of Justice 2012)—or what is now referred to as domestic minor sex trafficking (DMST)—and benefitted from the anonymity afforded by the internet⁷ (National Public Radio Staff 2013).

Some law enforcement agencies have linked the prevalence of DMST to the existence of online classified ad sites. In a 2012 report released by the California Attorney General⁸ and the California Department of Justice, for instance, the authors write: “nowhere is the growth of sex trafficking on the Internet more apparent than on classified advertisements sites” ([California Department of Justice 2012](#), 25). A broad coalition of child safety and anti-trafficking advocates have also rallied against Backpage (and Craigslist predating the closure of its Adult Services Section in 2010), arguing that the mediated technologies these sites support make it far too easy to advertise the services of exploited individuals and for sellers to connect with potential purchasers. While no conclusive data exist as to whether online classified sites increase experiences of exploitation—and although it is plausible to assume that any number of technologies may be used by individuals in any number of activities defined as criminal—what online classified ad sites like Backpage provide anti-trafficking actors is a visible and widely accessible platform through which to make their anti-trafficking claims ([Musto 2014](#)). By designating certain technologies as potentially dangerous vectors for exploitation and criminality, anti-trafficking actors have expanded their “interpretive powers” ([Lind 2011](#), 53) by conjoining technological concerns with an anti-prostitution, law-enforcement agenda. The newfound framing of trafficking as a technological problem also reproduces discursive expectations that anti-prostitution sentiments—what are commonly referred to as “abolitionist” feminist perspectives ([Chuang 2010](#))—in tandem with criminal justice interventions ([Bernstein 2010](#)) are the most efficacious way to respond.

It is notable that the very technologies (e.g., online classified ad sites) that have made trafficking visible and which have expanded the terms on which anti-trafficking claims are made ([Thakor and boyd 2014](#)) are the same platforms some attorneys general and advocates are working to shut down. This is paradoxical because the visibility and non-password protected accessibility of online classified ad sites like Backpage have allowed law enforcement, technology innovators, and non-state actors to occupy, trawl, mine data, and monitor individuals seen at risk for trafficking as well as those suspected of trafficking and pimping. Groups can use data gleaned from a site like Backpage for a variety of purposes. Some anti-trafficking actors in Canada, for instance, have devised an outreach effort based on scraping data off of the site to connect with potential victims of trafficking.⁹

Other groups use online classified ad sites stage their own cyber investigations. One police officer Musto interviewed discussed a local faith-based organization that performs its own online classified ad site investigations and then passes the information they gather along to law enforcement (Interview, June 21, 2013). In a subsequent interview with a member of the faith-based group, the interview participant explained to Musto that her organization has developed their own procedure for identifying victims of trafficking. She relayed that some of their efforts focused on online classified ad sites and in

situations involving minors, information they gathered would be passed along to law enforcement, a finding that is consistent with what the police officer Musto interviewed also described (Interview, September 27, 2013). This type of non-state-sanctioned cyber practice broadly resembles how other non-profit groups have publicly described their engagement with online classified ad sites like Backpage, using it to directly connect with ad posters by phone (City Paper 2012). In each case, the goal is to strengthen law enforcement responses.

These examples underscore a few notable points: first, online classified sites are venues through which non-state actors make anti-trafficking claims. Second, online classified ad sites allow non-state actors to conduct their own cyber investigations, some of which may be couched as a necessary response to assisting law enforcement agencies facing diminished budgets, a general climate of austerity and resource scarcity, or who may simply lack the political will to dedicate resources to trafficking investigations. Third, and perhaps most crucially, the awareness and visibility of particular sites creates a venue through which non-state actors expand the boundaries of the state by serving as its investigative eyes and ears, on the street (Change.org 2013) and online. In so doing, they create new venues for state and non-state actors to share and exchange information.¹⁰

Taken together, these examples highlight why discussions centered on shutting down particular technological platforms fail to account for the myriad ways in which their visibility has inspired collaborative governmentalities between state and non-state actors, arrangements that ought to instead prompt discussions about what, if any, types of anti-trafficking activities non-state actors should perform and what legal guidelines should dictate the kinds of data they share with the state? These questions are particularly salient in the wake of the 2013 NSA disclosures and in a moment where non-state actors are using an array of innovative and automated technologies to orchestrate their own cyber investigations to set up online stings to “honey trap” individuals suspected of perpetrating sex crimes. In November 2013, the Dutch non-governmental organization Terres des Hommes attracted global attention when information about their automated honey trap was revealed. The honey trap featured Sweetie, an automated character created by researchers and forged in the image of a 10-year-old Filipino girl. While Sweetie was created to draw attention to and curb webcam child sex tourism, the deployment of honey traps may also be used to pursue sex trafficking leads, for instance when law enforcement create fake ads on sites like Backpage to arrest suspected clients (*New York Daily News*, June 14, 2013).

Non-state-sanctioned anti-trafficking activities also raise questions about their impact on individuals seen as vulnerable to online and network-facilitated forms of exploitation and the legal and social repercussions that befall individuals suspected of facilitating such activities. What kinds of remedies are available to voluntary sex workers and trafficked persons alike when

non-state-sanctioned cyber anti-trafficking activities compromise their safety and infringe upon their privacy and human rights?

While it may be useful, as a cursory exercise, to map how particular technologies are used to engage or promote any number of activities,¹¹ a singular focus on the medium alone fails to address these questions as does unapprised optimism about how technology can be leveraged to disrupt trafficking. What technology unambiguously offers is heightened visibility, awareness, and accessibility, and debates surrounding online classified ad sites have solidified expectations that trafficking and trafficked persons can be observed, monitored, and digitally traced to disrupt exploitation in its tracks.

Mediated Interactions and the Amassment of Data Via Digital Traces

The idea that technology needs to be leveraged to more effectively combat human trafficking in general and sex trafficking in particular has garnered heightened attention in anti-trafficking circles throughout the United States. In addition to its ability to render trafficking more visible, technology is also understood as providing new tools to respond. Recent discussions have focused on how law enforcement should “exploit available technology to its investigative advantage,” particularly with respect to cases involving sex ([California Department of Justice 2012](#), 64). A key theme punctuating these discussions is that suspected traffickers, pimps, and “johns” unfairly benefit from the anonymity offered by mobile and networked technologies. Rather than seeing technology strictly as a medium of exploitation, law enforcement and their allies are increasingly looking for new ways to pursue traffickers by using technology to upend their activities ([Latonero et al. 2012](#); [Musto 2014](#), iv). As a 2012 State of Human Trafficking Report released by the California Attorney General describes:

Traditional law enforcement tools should be supplemented with innovative investigative techniques. . .while technology is being used to perpetrate human trafficking, that same technology can provide a digital trail. This digital footprint offers greater potential opportunity for tracking traffickers’ and johns’ communications, movements, and transactions. ([California Department of Justice 2012](#), 7, 65)

The presumed technological visibility of trafficking offers new opportunities for tracing suspected traffickers’ digital footprints; here, the digital and data tracks left by mobile phone calls, text messages, financial transactions, GPS patterns, automatic license plate readers, and geolocation data enable law enforcement to track suspected traffickers and to corroborate relationships between them and the individuals they are suspected of exploiting ([boyd et al. 2011](#), 4; [Latonero et al. 2012](#); [Musto 2014](#)). In order to make use of digital traces, law enforcement and their allies must understand its technical

capacities—what in sociotechnical circles is commonly referred to as a technology’s “affordances.”¹²

Assuming that law enforcement had sufficient technological training and resources to collect and analyze the asynchronous and semi-synchronous digital traces left behind by individuals suspected of trafficking, they could, in principle, have access to a treasure trove of material and an “evidentiary goldmine” with which to build cases against traffickers and pimps (Latonero et al. 2012, 29). As one federal prosecutor relayed: digital evidence has the capacity to “make cases” for law enforcement (Interview, August 16, 2013). Whether cases assumed to involve forced labor are filed under state or federal human trafficking statutes or if instead they are filed under different statutes, child pornography possession or distribution for instance, there has been increased focus on how to collect digital evidence and a corresponding focus on the types of tools and the kinds of partnerships that can augment law enforcement work in this area. There has not, however, been a similar degree of attention to how technologies and innovative tools are being leveraged to observe and keep digital tabs on individuals seen at risk of trafficking, including sex trade involved youth and adults. This is a curious and troubling omission, particularly since law enforcement may look to both groups to gather evidence and may employ different surveillance strategies as a means of gaining access to the digital and mobile phone evidentiary material of the individuals suspected of exploiting them and purchasing their services.

Augmenting Anti-Trafficking Surveillance

Individuals engaged in commercial sex in most parts of the United States have historically been subjected to different forms of “traditional” law enforcement surveillance. For police assigned to units whose investigations focus on prostitution and sex trafficking, surveillance has typically included in-person observation of street-based “tracks” or “strolls” where prostitution and commercial sex are assumed to take place. Framed as a “quality of life” and nuisance abatement issue, such efforts have aimed to move commercial sex “out of public view” and away from schools and other public places. For DMST cases, the tactics of surveillance have largely mimicked those developed to monitor voluntary prostitution, and like adults, youth have similarly been targets of street-sweeps, vice raids, and arrest. While the pretext for becoming objects of law enforcement attention may be couched in rehabilitative terms and may legitimize arresting youth in order to rescue, restore, and empower them (Musto 2013), the outcome for both groups appears to be the same, with both groups subjected to increased surveillance and heightened juridical and psychosocial entrapment by the law enforcement anti-trafficking apparatus. The introduction of federal and state anti-trafficking legislation since the year 2000 offers partial explanation as to why law enforcement have bolstered anti-trafficking

efforts and by extension, anti-prostitution and anti-pornography surveillance tactics in recent years. Technology has not been the sole mitigating factor in this shift. It has, however, offered new opportunities for augmenting traditional surveillance tools by allowing law enforcement to draw from a range of digital, network and mobile platforms and technologies, many of which are imbued with surveillance capacities (Bernstein 2007b; Musto 2013).

The tactics law enforcement agencies may use to supplement traditional surveillance techniques are multiple and constantly evolving. Some law enforcement, for instance, may regularly monitor online classified ad sites and use the information they obtain to set up reverse stings (Musto 2014). Others may create fake social media accounts and online identities in order to befriend, identify, and monitor sex trade involved youth and their suspected trafficker-pimps. One local police officer referred to Facebook in general and his particular account in particular as an “intelligence gathering device.” He noted that his account is useful in that it allows him to continue to monitor some of the girls he previously arrested and whom who he friended under a fictitious name. The same officer cited another case in which his Facebook account made him aware that a kidnapped victim was put back out on the street, and involved again, in his words, in “the game.”

Another law enforcement officer spoke of using search incidents to arrest sex trade involved youth in order to seize and search the contents of their cell phone. He explained that an arrest allows him to search the contents of the phone and to locate a phone number of a suspected trafficker or pimp.¹³ He would look through the individuals’ cell phone where “Daddy” or “Big Money” may be listed as contacts. When searching the phone, he would also look for text message exchanges that like, “Daddy I got a date. I made x amount of \$.” For him, these kinds of texts would help provide corroborating evidence of youth’s coercion by suspected trafficker-pimps (Interview, June 21, 2013).

Or law enforcement may ask individuals assumed to be engaged in street-based prostitution to show them their phones or ask them to disclose their social media passwords and/or the passwords of individuals suspected of exploiting them. During ridealongs with a unit charged with anti-trafficking and anti-prostitution efforts, Musto observed this “show me your phone” practice. In one incident, an officer approached a girl who appeared to look, by Musto’s untrained eye, young and under 18. The officer approached her and soon asked: “can I look at your text messages?” He then inquired how long she has been in the game. She told the officer questioning her that she had been working for three months, that she worked alone, and that she does not speak to pimps. Yet the officer did not seem to believe her and later told Musto that pimps “are like magicians. They convince girls they love them. The girls never admit that they have a pimp.”

When people who are stopped by police on the street and asked and then deny having pimps, cell phones and text message exchanges hold particular

salience; they provide police with more information as to whether a person being questioned is affiliated with a pimp or “trafficker.” That these “show me your phone” stops do not necessarily lead to arrests of the individuals assumed to be involved in commercial sex is notable; here law enforcement augment investigations by gathering information (e.g., text messages) that may differ from what the person being questioned chooses to disclose to them. And although individuals approached on the street seemed hesitant to hand over their cell phones and a few questioned why they were being asked to do so, most complied, ostensibly out of fear of arrest.

At the police station and in conducting subsequent research activities, Musto learned more about why cell phones and text messages are so important: one officer described text messages as “golden evidence.” Or as a federal agent who has worked several child sex trafficking cases summarized in an interview: “It [evidence for cases] is just like a big puzzle where you have to link all these pieces together. . . social media, text messages, it’s all part of the puzzle” (Interview, June 29, 2012). But in order to gain access to other parts of the evidentiary puzzle, law enforcement look to individuals presumed to be potential victims of trafficking or those with ties to suspected trafficker-pimps to collect digital and mobile evidence.

In each of these examples, we get a partial glimpse as to how law enforcement are shifting their surveillance tactics and augmenting traditional investigative work. It is difficult to gauge the full extent with which law enforcement is augmenting its anti-trafficking surveillance tactics since some want to, in the words of a federal prosecutor “protect our secrets” (Interview, August 16, 2013). Yet whatever its scope, investigative techniques that rely on technologies in-built with extensive surveillance capacities raise timely privacy and fourth amendment search and seizure concerns (e.g., are youth able to give consent to having their cell phones and social media accounts searched?). They also provoke questions as to how carceral orchestrated anti-trafficking efforts morph and are redefined by new technologies and shifting investigative strategies.

Third-Party Cooperation, Automation, and Algorithmic Innovation

As law enforcement seeks to leverage technology to build cases against traffickers and identify and protect victims of sex trafficking, they may increasingly interface with non-state technology innovators. The augmentation of various types of police work by non-state actors in the trafficking space is still in its infancy and it is therefore too soon to gauge what its overall impact will be. Yet increased interest to the ways in which sociotechnical innovation can be used to address trafficking follows broader neoliberal and policing trends where shrinking federal and state budgets have prompted law enforcement agencies

to look to for-profit data-handling organizations to supplement certain aspects of police work (Ferguson 2013; Lyon 2010, 326). Here law enforcement agencies in the United States may interface with third-party vendors including those who collect and store data (e.g., social media and telecommunications companies) as well as other third-party, “data handling” technology experts (Lyon 2010, 326) who can assist law enforcement obtain and analyze the data. What third-party vendors have to offer law enforcement is a package of “predictive analytics, a catch-all phrase for a broad array of statistical analyses, machine learning, and myriad other algorithmic techniques” to enhance law enforcement agencies’ “predictive policing” capacities (Bowman 2012; Ferguson 2013).

Predictive analytics comprises but one part of a growing repertoire of technologies that may be employed to assist law enforcement in identifying incidents of trafficking as well as other crimes. Other sociotechnical solutions in development include face recognition, data mining, mapping, computational linguistics (Latonero 2011; Latonero et al. 2012) and the utilization of “big data” (boyd and Crawford 2012) and “big compute” to respond to the issue. While an in-depth discussion about predictive and anticipatory policing remains outside the scope of this article (see, for example, Ferguson 2013), what the aforementioned examples suggest is that third-party vendors are likely to play an increasingly important role in shaping the terms, conceptual frames, and algorithmic boundaries of how law enforcement evaluate and assess risk—whether that assessment entails profiling individuals seen “at risk” for perpetrating a crime like trafficking or whether it is based on evaluating an individual’s risk for victimization.

Like law enforcement, third parties must weigh how to balance the potential gains that these respective technologies offer while managing the attendant “scope” and “mission creeping” (Lyon 2010, 330) legal risks they invariably provoke. Algorithmic approaches are similarly new, and as one technology expert described in an email exchange, they introduce the potential for false positives as well as possible privacy and civil liberties infringements (Email Correspondence, December 17, 2012). While it may be useful to look to technology to detect statistical anomalies and to make sense of patterns in the data that could potentially help identify trafficked persons or the individuals who exploit them, pattern identification remains complicated and algorithms are far from impartial, their shape and design constrained by the assumptions and “procedural logics” held by the sociotechnical actors who create them (Gillespie 2014; Musto 2014).

This is why assuming that technology can “mine the data for patterns or expect a clever algorithm to sort things out” may be untenable (Email Correspondence, December 17, 2012). Finally, there is the issue of context or rather its absence: none of these technologies are equipped to do meaningful interpretation of the data provided. Not only does this underscore why it is important not to fetishize technical solutions or assume they are singularly

capable of addressing the problem, it further highlights how the introduction of these techniques de facto demands heightened expert intervention and involvement.

Prop 35 Redux: New Forms of Expertise

By foregrounding trafficking as a problem of technology, new forms of expertise and new kinds of experts emerge to join organized anti-trafficking activities (Musto 2014). Though some mainstream anti-trafficking actors benefit from technology by cultivating powerful networks, some “lament what they have lost,” particularly the power to influence and maintain control over the terms on which anti-trafficking claims are made (Thakor and boyd 2013, 288). In the case of Prop 35, some of the contention emanating out of some anti-trafficking circles hinged on the fact that the ballot initiative sponsors did not sufficiently consult with those in the state with anti-trafficking expertise. As John Vanek, a retired Lieutenant from the San Jose Police Department and former head of the San Jose Human Trafficking Task Force noted at a USC sponsored Round Table Discussion on Prop 35:

The number of people who are true experts in this field, in California, is actually quite small. . . what I would have asked, is that these people [anti-trafficking experts] would have been invited to the table (*Proposition 35 Transcript 2012*).

His co-panelist at the round table, Chris Kelly, affirmed that much of the tension surrounding Prop 35 came down to competing ideas about who qualifies as an anti-trafficking expert:

Some who are opposing Prop 35 have tried to say that they’re the only experts out there. We’ve spent a lot of time with a lot of different experts, including D’Lita [trafficking survivor], and people who have experienced this themselves (*Proposition 35 Transcript 2012*).

While the tensions between anti-trafficking actors at this round table may be written off as contextually specific to California politics and although they were not expressly about technology per se, this exchange nonetheless underscores how heightened focus on technology promotes new types of expertise and also encourages new kinds of experts to join the anti-trafficking table. By imagining trafficking as a technological problem and expecting technology to be able to solve it, extant ideological and political fault lines, whether between anti-trafficking advocates and sex workers’ rights groups or among well-established anti-trafficking experts and moral entrepreneur newcomers are mirrored and magnified. Here again Prop 35 is instructive to understanding both the neoliberal dispersal of state authority to non-state experts and the ways in which non-state experts wield increasing political power, social capital,

and interpretive authority in shaping the terms of trafficking and applying market-based solutions to address it (Miller and Rose 2008, 148).

Framing trafficking as a technological problem additionally invites competition between different actors.¹⁴ Recent U.S. governmental efforts to stimulate private-sector anti-trafficking initiatives and technological innovations help explain why Google, Microsoft, Palantir, and Yahoo! have all entered the anti-trafficking space; it is pitched as making good business and corporate philanthropic sense to do so.¹⁵ For a field tethered to market-based values of competition, tracking the effects of this are important. Gallagher (2011) observes that such an “environment can foster innovation and excellence, and it can also lead to duplication of experience and effort, contradictory standards, and closed circles of knowledge” (192–93). Technology writ large did not create anti-trafficking competition. But it does create and exacerbate preexisting tensions that get reified and fragmented around new axes of sociotechnical expertise. And because sociotechnical solutions arise out a technology industry which strives to maintain market advantage against competitors, it remains to be seen whether such an underlying ethos of competition can be temporarily bracketed and “closed circles” of technological knowledge opened to address trafficking (Gallagher 2011).

Concluding Thoughts

The 4A trends of anti-trafficking sociotechnical innovation demand our attention since they expand social class categories by reanimating preexisting hierarches. We should also consider whether predictive analytics, automation, and heightened dependency on augmented surveillant regimes (Lyon 2010) all in the name of securing trafficked persons’ identification and protection is in fact the best way to assist them or if instead these technologies and the actors who advance them will continue to collapse and confuse—albeit on a larger, more diffuse, and multivalent scale—voluntary sex workers with forced victims of sex trafficking and trafficker-pimps with sex trade market-facilitators (Marcus et al. 2012, 154; Musto 2014). These categorical distinctions matter and lie at the heart of why some California sex workers and their allies were so troubled by the impact of Prop 35,¹⁶ not only for the stiffer criminal sanctions it may impose, but also because of the proposition’s definitional ambiguity as to who counts as a trafficker? Trafficking victim? Voluntary sex worker? Such discursive demarcations are notoriously complex and introducing new technologies and integrating more sociotechnical actors will not lessen these complexities but exacerbate them.

What is further at stake is that technologies in-built with surveillance capacities are imbued with tremendous power to enhance and constrain the life opportunities and freedom of “at risk” groups as well as those suspected of exploiting them (Lyon 2009). This is because technologies enable law

enforcement and their non-state allies to see, sort, analyze, target, mine data, and capture digital footprints they have not heretofore had access to all the while expanding categories of criminality and promoting anticipatory expectations about the individuals deemed mostly likely to offend or become victims (Lyon 2010; Trottier and Lyon 2012, 92). Tracing the impact of these trends is crucial, especially considering the underlying gendered, racial, and cultural expectations that inflect anti-trafficking victim and offender identification efforts (Hua and Nigorizawa 2010) and given the fact that it has overwhelmingly been “people of color involved in the street-based sexual economy—including pimps, clients, and sex workers alike” (Bernstein 2007a, 2010) who have been subject to heightened state surveillance and carceral punishment under the auspices of fighting trafficking. On the technological front, presumptions about color blindness and expectations of meritocracy are systemic within the industry. In the absence of a critical apparatus that meaningfully grapples with intersecting race, class, and gender inequalities—or which reflects upon how anti-trafficking sociotechnical interventions emerge alongside a late modern landscape punctuated by the growth of both the surveillance and carceral state (Bernstein 2010; Ohm 2012) the biases and inequalities that exist in physical environments are likely to be reproduced and further embedded within anticipatory sociotechnical modalities designed to combat trafficking or any other type of exploitation.

A close examination of the trafficking-technology nexus and the sociotechnical interventions initiated on behalf of victims of trafficking in the United States also gestures toward broader tensions that undergird anti-trafficking politics, especially the tenuous lines and perpetually contested boundaries that exist between security and surveillance, protection and punishment, and safety and social control. The seeming melting pot of state and non-state, carceral and corporate, law enforcement and sociotechnical actors that have emerged to join the anti-trafficking table signifies more than the creation and maintenance of strange bed fellow alliances and collaborative assemblages. What is further at play among mainstream anti-trafficking actors is a shared vision of *inevitalities*: that more law enforcement orchestrated, third-party augmented information sharing platforms and surveillance activities is necessary, that the market and the neoliberal logics that shape it are the most efficient way to address the issue, and that expert interventions will lead to trafficked persons’ empowerment and justice. That this vision of justice does not include a comprehensive discussion of the ways in which neoliberal governmentalities render individuals vulnerable to trafficking is one blind spot (Bernstein 2010). What is additionally limiting is that these anti-trafficking alliances privilege professionalized expertise and may bypass the most practical of considerations.

Amid all of the discussions focused on shutting down Backpage, one point that is seldom acknowledged is that its closure may pose challenges to two groups whose interests rarely align: voluntary adult sex workers and law enforcement. On one hand, shuttering sites like Backpage may increase the

vulnerability of individuals voluntarily engaged in the sex trade. On the other, it may stymie law enforcement investigations by shutting down one of the more visible, “on-shore” sites willing to cooperate with law enforcement (Latonero et al. 2012).

Yet questions remain. If visibility is a byproduct of a technologically mediated ecosystem, how do we leverage it in ways that do not inflict additional harm on trafficked persons or others who find themselves caught within the anti-trafficking carceral protectionist net (Musto 2013)? How do we make sure that techniques that increase our ability to see new types of behavior are complemented with structures that enable us to maintain the most basic of legal protections? As technologies grow more sophisticated so too will the possibilities grow for staging innovative sociotechnical interventions, yet capitalizing on this knowledge requires far more low-tech solutions; specifically, political will and agitation for redistributive justice, the hardest assets to find.

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Notes

1. The language used to describe human trafficking in general and to distinguish sex trafficking from voluntary sex work is fraught by definitional confusion (see, for instance, Chuang 2010; Marcus et al. 2012; Weitzer 2007). In this article, we refer to “human trafficking,” “sex trafficking,” “domestic minor sex trafficking,” and “trafficker” as defined by the United States Trafficking Victim Protection Act of 2000. Though we use these terms for referential purposes, we remain cognizant that “trafficking,” as both a juridical term and empirical descriptor is conceptually cumbersome. We offer one additional note about terminology: while “human trafficking” encapsulates forced labor practices for sexual and non-sexual purposes, data presented here focus primarily on domestic minor sex trafficking (DMST). Future research should explore how technology is being used to address other types of forced labor.

2. All other aspects of Prop 35, save the online registration requirements, have been implemented (CASRE 2013).

3. Here we refer to “technologies” in a more poststructural rendering of the term. Collaboration between state and non-state actors is an example of an anti-trafficking technology, one that has put multi-professional cooperation in the service of neoliberal governance.

4. Mahdavi notes that “technology can be used to amass data” and that it can be leveraged for empowering purposes, such as creating platforms for migrants to “organize, activate, and further enact social change” (Mahdavi 2014, 39). Our research on data amassment techniques takes a different tack and documents how data are cultivated to pursue cases against suspected traffickers and to digitally monitor prospective victims.

5. In some instances, communication with law enforcement and non-state actors extended beyond the temporal bounds of the initial interview and included follow-up mobile and networked communication in the form of text message exchanges, email communication, Skype calls and LinkedIn messages.

6. Scholars have consistently pointed out that not all human trafficking is sex trafficking, that sex work is sociologically distinct from sex trafficking, and a combination of sketchy data (Vance 2011), panics about irregular border crossing (Chacón 2010) and a dismissal of women’s sexual labor and agency in the commercial sex trade (Andrijasevic 2010) have contributed to empirically uninformed expectations that sex trafficking is a more egregious problem than other forms of labor exploitation. See, for instance Vance (2011), Bernstein (2007a, 2007b, 2010), Chuang (2010), Weitzer (2007), Agustín (2007), Chapkis (2005), Kempadoo and Doezema (1998), O’Connell Davidson (2006), Chang and Kim (2007).

7. Backpage and Craigslist are online classified advertisement sites that allow individuals to post ads for a variety of goods, purposes, and services, including available jobs, apartments for rent, and used household goods for sale. They also contain a personals section and Craigslist used to—and Backpage still has a specific section dedicated to “adult” services, which includes services provided by escorts.

8. The perception that online classified ad sites exacerbate DMST is a theme that has been heralded by various attorneys generals in the United States. Some have used online classified ad sites and child sex trafficking as a rallying cry to advocate for sweeping policy changes to Section 230 of the 1996 Communications Decency Act (CDA), arguing that their ability to enforce abuse is curtailed because of the current framing of CDA, Section 230 (National Association of Attorneys General 2013).

9. Posters to the Edmonton adult services section of the online classified ad site may receive texts from Project Backpage with messages like “Want out? There is hope!” (Browne 2014). Some sex workers have viewed this kind of SMS outreach as a form of harassment. Yet the collaborative partners behind Project Backpage framed it as way to do outreach in a commercial sex landscape increasingly mediated by technology (Gow et al. 2014).

10. It is not solely faith-based or non-profit actors who share information with law enforcement. Backpage legally complies with subpoena requests it receives from law enforcement and has developed automated and individual protocols to respond to them (National Public Radio Staff 2013).

11. Individuals engaged in behaviors deemed “illicit” have long incorporated available technologies into their enterprise. For example, when commercial airline

travel became cheaply available, people used it to smuggle illegal goods and transport people for commercial purposes. Communication technologies—such as telephones and telegrams—have long been used to enable illicit trade, often through encoded language (Gambetta, 2009). When looking purely at activities seen as “criminal,” it may be tempting to see the technological change and blame it without also looking at the other societal changes that are enabled because of it.

12. Understanding the sociotechnical dimensions of a particular technology is crucial to those who want to leverage it. That is because knowing its affordances allows end users (in this case, law enforcement) to understand what kinds of practices the technology enables and what types of actions it is technically capable of producing (Norman 2013, xv).

13. The issue of whether law enforcement may legally search the contents of arrested suspects’ mobile phones is as timely as it is constitutionally ambiguous. On January 17, 2014, the Supreme Court agreed to hear two cases that will decide whether law enforcement is legally permitted to search suspects’ mobile phone without a warrant. As various commentators have noted, the warrantless search of mobile phones has heretofore remained a conflicted issue, with lower courts handing down different rulings as to its constitutionality (Kravets 2014; Totenberg 2014). The Supreme Court ruling will likely affect whether law enforcement can search the phones of suspected traffickers and victims.

14. When technology emerges as a key feature of anti-trafficking work, actors must compete to maintain their influence by demonstrating dexterity in the logics of efficiency, expertise, entrepreneurship and technical fluency. Heightened attention to the technological “push” factors of sex trafficking thus consolidates and elevates the influence of sociotechnical actors to shape and control the terms on which anti-trafficking claims are made. See also Castells (2009) and Thakor and Boyd (2013).

15. At an October 11, 2012, public presentation at Rice University, Ambassador Luis CdeBaca discussed the role of corporate responsibility in combating human trafficking where “friendly competition” between companies was framed as the right thing to do and which may also be good for business.

16. As part of an October 29, 2012, “No! On 35” Event organized by Bay Area sex workers in the lead up to the November 6, 2012, election, an online post about the event suggests: [Prop 35] “criminalizes as a trafficker anyone who assists young people in prostitution—a young person under 21 working with a friend could face prosecution as a trafficker and sex offender status for life, for giving her/him something.” At the time of writing, it is unclear whether Prop 35 will be used to prosecute individuals who assist sex trade involved youth. This is an area where follow-up research is needed.

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