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Original Article

Embedding critical reflective practice in policing: reflections from a practitioner–academic collaboration in the context of technology-facilitated human trafficking

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ABSTRACT

This article explores the use of risk assessment tools in police investigations of technology-facilitated human trafficking and argues that such tools can elicit critical reflective practice among police practitioners. Specifically, the article examines the Sexual Trafficking Identification Matrix (STIM), developed by the authors as an aid to practitioners investigating criminality and vulnerability on Adult Service Websites. The article argues that the STIM can foster reflectivity among practitioners, particularly in the complex and constantly evolving terrains of both human trafficking and non-trafficked sex work-mediated online. To evidence this, the article draws on data from focus groups and interviews with police practitioners who have used the STIM. These data demonstrate practitioners' understandings of the shifting landscape of human trafficking and non-trafficked sex work and the STIM's role in supporting such reflective learning. This reflectivity ultimately enhances police practices in an extremely challenging domain of offending and victimhood.

INTRODUCTION

Human trafficking, modern slavery, and commercial sexual exploitation are immensely harmful activities that have been facilitated and vastly expanded via the use of digital platforms and technologies in the past two decades (Hughes 1999; Council of Europe 2022; OSCE 2023). Among other online platforms, so-called Adult Service Websites (ASWs) have rapidly proliferated the opportunities for human traffickers to expand their illicit activities by exploiting the affordances that these platforms give to 'bad actors' (Hopkins et al., 2024; L'Hoiry *et al.* 2024). Responding to these developments, law enforcement practitioners across the world have in recent years adapted their investigatory practices to focus on ASWs and other online platforms as spaces in which to carry out investigations of possible trafficking. Against this complex and ever-changing backdrop, this article reflects on the ways in which police practitioners have engaged with academic research in creating and developing the Sexual Trafficking Identification Matrix (STIM), a tool that supports law enforcement investigations of possible trafficking mediated via ASWs. Specifically, the purpose of this article is to demonstrate how police practitioners engage in critical reflective practice (Christopher 2015) as part of their use of the STIM and their engagement with practitioner–academic collaboration to develop the STIM on an ongoing basis.

The article makes several new contributions to research on police practice and technology-facilitated trafficking in human beings. First, the article makes a key contribution to discussions on reflectivity in policing. Building on Christopher's (2015) previous call in this journal for the police service to become a learning organization that engages in critical reflective practice, this article provides an example of the police performing such functions in the context of human trafficking as part of an ongoing practitioner–academic collaboration. In doing so, the article advances understanding of how to manifest critical reflective practice in the police at a challenging time in contemporary policing. Furthermore, and relatedly, this article is the first to present data in which police practitioners pro-actively question their own underlying assumptions which shape their practices in the context of investigating human trafficking and sexual exploitation-mediated online. While some research has offered critical perspectives on police practices in this context (Sanders et al., 2018; Kjellgren 2022), none of this literature has provided these critical voices from police practitioners themselves. This article is, therefore, the first to do so, offering

further evidence of the police's engagement in critical reflective practice. Finally, the paper also significantly advances knowledge on commercial sexual exploitation and the constantly evolving nature of how these activities are mediated online via digital platforms. While recent research has been increasingly attentive to this (see L'Hoiry *et al.* 2024; Giommoni and Ikwu 2024; Hopkins et al., 2024), there remain considerable knowledge gaps in this context.

The article is set out in five parts: first, literature exploring commercial sexual exploitation and the role of online technologies and platforms is set out to situate this article within existing knowledge in this area. As part of this, a brief explanation of the STIM is provided to contextualize the discussion that follows. Second, the methods section offers reflections on the research design, specifically the sampling strategy, data collection, and the analysis processes that informed discussions presented in this article. Third, primary data from interviews and focus groups with police practitioners are presented to demonstrate the ways in which the police engage in critical reflective practice when they deploy the STIM as part of their investigations, and when they provide feedback to the academic project team on their use of this tool. Specifically, five examples are provided of instances in which the police's knowledge vis-a-vis trafficking activities and non-trafficked sex work practices have changed and, by extension, how the police's own practices have changed in response to this. Finally, the article concludes with a reflection on what may be learned from the findings of this study with regard to the value of risk assessment tools for police practitioners as well as, more broadly, embedding critical reflective practices in policing.

Briefly, it is also worth noting that the specific focus of this paper is not an assessment of the STIM's efficiency or accuracy in supporting practitioners to identify instances of trafficking taking place online. Instead, this paper explores the STIM's capacity to elicit reflective practice among police practitioners and, more broadly, the police–academic collaboration that has supported this work being a conduit toward the police becoming a learning organization.

TECHNOLOGY-FACILITATED TRAFFICKING IN HUMAN BEINGS, ASWS, AND RISK ASSESSMENT TOOLS

The use of online platforms for the purposes of human trafficking and, specifically, sexual exploitation has been highlighted by research for over two decades (Hughes 1999; Latonero 2011; Alvari et al., 2017; Antonopoulos et al., 2020). Academic and other research has documented the ways in which contemporary human trafficking processes are reliant upon and embedded in online platforms, including social media, messaging apps, hobby boards, and ASWs with digital technologies described as re-inventing human trafficking processes in the digital age (Council of Europe 2022). The affordances of these platforms for bad actors, which include layers of anonymity for offenders, the ability to exploit individuals without physical proximity, the capacity to rapidly change modus operandi, and the greater access to potential (often unwitting) customers for the forced sexual services of trafficking victims, present a series of immensely challenging circumstances for law enforcement practitioners. Importantly, these challenges exist in jurisdictions across the world given the capacity of offenders to transcend geographic boundaries by mediating some of their illegal activities online. Although research connecting human trafficking to digital technologies has tended to focus on the global north, with the majority of existing studies carried out in the USA and the UK, needless to say that digital technologies are exploited by offenders all over the world. For ASWs, the Organization for Security and Co-operation in Europe (OSCE) has documented over 1,000 such websites operating in over 40 countries across the world (OSCE 2023). Researchers, law enforcement, and NGOs have been increasingly attentive to ASWs in recent years, relying on the underlying assumption that these websites are used by traffickers to facilitate their activities. ASWs have fundamentally altered the marketplace for sex by creating a virtual red-light district (Perer 2012) connecting supply and demand in an online environment at relatively low risk of law enforcement intervention. ASWs are commonly used by non-trafficked sex workers, and some have argued that ASWs offer sex workers a safer environment in which to operate and a welcome retreat from the risks of street-based sex work, such as violence and other harmful experiences (Blunt and Wolf 2020). In recent years, however, traffickers have made increased use of ASWs to post profiles advertising the forced sexual labour of their victims, falsely portraying them as consenting. This camouflaging of victims among non-trafficked sex workers has allowed offenders to, as mentioned above, considerably expand their reach using online advertising as compared with street-based activities (L'Hoiry *et al.* 2024). The apparent rise in bad actors exploiting the affordances of these online spaces has prompted considerable alarm among policymakers, with specific legislation passed in the USA allegedly designed to combat this threat.[1] All Party Parliamentary Groups (APPGs) in the UK are also calling for the criminalization of what they describe as 'pimping websites', which serve as 'the most common model of operation used by organised crime groups engaged in sexual exploitation' (APPG on Commercial Sexual Exploitation, 2021: 17).

While the affordances of digital technologies have undoubtedly helped offenders to develop their illegal activities, the prevailing belief is that the use of online platforms also presents opportunities for law enforcement and other practitioners to intervene. As a result, law enforcement practitioners have in recent years adapted their practices to proactively investigate online platforms such as ASWs as part of their investigatory efforts. These new practices have seen practitioners make growing use of predictive risk assessment processes and tools, which seek to more accurately and efficiently identify suspect ASW profiles and risk assess these profiles to prioritize police action. The identification of risk factors, which may increase one's likelihood of becoming exposed to trafficking, is not limited to ASWs, however. Studies have identified a series of risks including corruption, poverty, conflict, perceptions of relative deprivation, adverse childhood experiences (such as neglect and youth homelessness), and environmental conditions (such as extreme weather events) as key risk factors in predicting the likelihood that individuals may become subject to trafficking, irrespective of whether this exploitation is mediated via ASWs (see Bales

[1] See Blunt and Wolf (2020) for a discussion and critique of the introduction of the Stop Enabling Sex Traffickers Act (SESTA) and Allow States and Victims to Fight Online Sex Trafficking Act (FOSTA) legislation in the USA.

2011; McCoy 2017; Mo 2018; Tomkins et al., 2018; Reid et al., 2019).

Within this landscape, our own research has led to the creation and development of the STIM as part of an ongoing collaboration involving law enforcement agencies, NGOs, and academic researchers (L'Hoiry *et al.* 2024). The STIM is a dynamic risk assessment tool which draws on a range of data to present a series of objective and subjective risk indicators which may appear in any given ASW profile. Users assess ASW profiles against the risk indicators listed in the STIM to determine the likelihood that a profile is operated by a trafficker and, if so, to risk assess such profiles to identify and prioritize those requiring immediate police intervention.[2] It should be noted that the STIM is not the first or only tool that has produced risk indicators of possible trafficking activity taking place online. Academic researchers have previously used a variety of methods to identify repeated patterns online, which are suggestive of trafficking taking place on ASWs (see Ibanez and Suthers 2014; Skidmore et al., 2018; Giommoni and Ikwu 2024). Researchers have sought to test these risk indicators against samples of ASW profiles to estimate the likelihood that indicators can be predictive of trafficking, with varying degrees of conclusiveness. Non-academic publications have also produced lists of indicators seeking to inform law enforcement and NGO practices in this area, some of which have been drawn directly from the STIM (see Irish Human Rights and Equality Commission 2023; OSCE 2023). These efforts, and our own, are not without criticism particularly by collectives led by sex workers. For example, in a report by SWARM, a collective that campaigns for the rights of everyone who sells sexual services, Holt et al., (n.d.) have criticized the STIM for relying on inaccurate underlying assumptions to create risk indicators and they argue that tools such as the STIM lead to greater police power being exercized over sex workers which ultimately harms such individuals. While we acknowledge these critiques, this article in part argues that these risks are in fact reduced thanks to the police's engagement in critical reflective practice brought about by their active participation in our collaborative endeavour.

Although much of the research cited above provides valuable insights, our work is the only instance of an academic team working with police and non-police practitioners for several years to not only create but also refine and update a risk assessment tool based on *ongoing* feedback from police and NGO practitioners. This has ensured that practitioner expertise is foregrounded in the design and content of the STIM and that this tool is entirely co-produced between police and NGO practitioners and the academic team. Ongoing re-design of the STIM has also sought to ensure that this tool and the risk indicators it contains do not become outdated or obsolete as offenders change their patterns of behaviour. As this article argues, this unique collaboration has not only developed police investigatory practices in this area but has also elicited critical reflective practice among police practitioners, as demonstrated in the data presented below.

[2]For a full discussion of how the STIM is operationalized by users, see L'Hoiry *et al.* (2024). It should be noted that the current version of the STIM cannot be publicly disclosed for reasons of operational sensitivity.

CRITICAL REFLECTIVE PRACTICE AND POLICING

As Steve Christopher (2015: 326) has previously argued, the 'complexities of post-modern society dictate that police officers have to be responsive thinkers'. Indeed, Christopher (2015) has claimed that police practitioners habitually participate in responsive thinking and, specifically, in critical reflective practice. However, irrespective of how implicit these practices are in everyday policing, Christopher (2015) argues that the police (in England and Wales, at least) have never publicly embraced the notion of critical reflective practices in the ways other public services such as social care have. This article in part argues that police practitioners' deployment of the STIM and their engagement with feedback sessions as part of a broader practitioner–academic collaboration has elicited the type of critical reflective practice that Christopher (2015: 329) has previously asserted ought to be 'embraced more intrinsically into the practice and philosophy of policing'.

Key to Christopher's (2015) call for greater engagement with critical reflective practice is the development of policing and the police service in the late modern period. As he explains, 'long gone are the traditional, sepia-tinted golden-ageist image of the avuncular, community-rooted Dixon of Dock' (2015: 328). Instead, police officers in contemporary policing must be highly responsive, adaptable, and reflective practitioners, able to navigate complex and multi-faceted terrains, often as part of multi-agency partnership responses (Crawford and L'Hoiry 2017). An evident example of the complex terrains police (and other) practitioners operate within is technology-facilitated human trafficking. As described above, the myriad challenges presented to law enforcement and other organizations in this context, including the opacity afforded to offenders by digital platforms and the capacity to rapidly change their methods of offending, meaning that practitioners must 'learn how to think critically, conceptually and creatively when confronted with situations needing analysis and when developing solutions to problems' (Charles 2000: 73). Responding to rapid and constant changes in a specific domain of offending and vulnerability requires practitioners to engage in experiential learning, as part of which they reflect on their own practices. According to Dewey (1933: 118), practitioners must take part in 'active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusions to which it ends'. But as Christopher (2015: 329) explains, such practices are not 'a random exercise but… a deliberative, associated thought process' to which individual practitioners and, more broadly, organizations must be committed. According to Boud et al. (1985: 19), these deliberative exercises should involve 'intellectual and affective activities in which individuals engage to explore their experiences in order to lead to new understandings and appreciations'. Only in such circumstances can the police hope to become a 'learning organization' which, according to Christopher (2015: 329), engages in 'proactive interventions to spark development' in response to constantly evolving operational environments.

METHODS

The data presented in this article were collected as part of feedback sessions during which the academic team discussed with

practitioners their experiences of using the STIM at regular intervals across the past several years. Partaking in these feedback sessions is a compulsory element for all STIM users and forms a key part of the practitioner–academic collaboration, which underpins this work. Each participating organization committed to engaging with the academic team at intervals of between 6 and 12 months throughout their use of the STIM. These sessions were designed as fora during which practitioners could feed back on any aspect of using the STIM, including discussions of specific risk indicators, as well as broader reflections on the interface and usability of the STIM from a practitioner perspective. Key to these feedback sessions was identifying ways in which the STIM could stay updated to keep abreast of any developments or newly acquired knowledge about the activities of human traffickers and any changes in the (non-trafficked) sex work landscape. All participants had used the STIM for at least 6 months before taking part in feedback sessions, with some users having used the STIM for several years and having taken part in several feedback sessions, as detailed in Table 1 below. Participants were drawn from nine police forces in England and Wales and one police intelligence unit which provides intelligence products to all police forces in the UK. The police forces were a mixture of large, medium, and small forces with force areas in the north, south, east, and west of England and Wales.

Feedback sessions were carried out with individual organizations rather than involving multiple organizations at the same time. Sessions were offered initially as focus groups with all STIM users in each organisation invited to take part. This was in the main how sessions were run but, in some cases, the unavailability of staff meant one-on-one interviews was carried out rather than focus groups, with one officer/staff reporting the collective feedback of the team. Interviews were carried out with officers of Detective Sergeant and Detective Inspector rank or, for non-police staff, with the unit's team leader. As per Table 1, in total, data were collected via seven one-on-one interviews and sixteen focus groups encompassing nine police forces in England and Wales and one police intelligence and analysis unit. Each focus group included between 4 and 8 participants.

Sessions were audio recorded with participants' consent, and transcripts were produced. Interview and focus group data provided information-rich, subjective reflections of participants' experiences of using the STIM as part of their investigations of human trafficking and sexual exploitation taking place on ASWs. Thematic analysis was deployed to identify common trends in their experiences (Clarke and Braun 2013). An inductive approach was taken to the analysis, seeking to identify data-driven themes from participants' transcripts. Several reads of the transcripts identified repeated instances of critical reflective practice in the responses of participants, with references made to how investigations of criminality and victimhood had evolved following changes witnessed by practitioners in human trafficking practices as well as the practices of non-trafficked sex workers. Importantly, participants' deployment of the STIM and their participation in feedback sessions were identified as a pathway through which they were able to recognize changes in these two contexts, and it is these reflections that the data below explore.

Table 1. Participating organisations.

Organization	Interviews	Focus groups
Police Force 1	0	4
Police Force 2	0	2
Police Force 3	0	1
Police Force 4	1	0
Police Force 5	3	1
Police Force 6	1	1
Police Force 7	0	2
Police Force 8	0	2
Police Force 9	0	2
Police Intelligence Unit	2	1
TOTAL	**7**	**16**

FINDINGS

This section presents data from practitioners' reflections of using the STIM as part of their investigations of criminality and victimhood on ASWs. Specifically, the data below examine key changes witnessed by practitioners of practices and behaviours in (1) human trafficking and sexual exploitation and (2) non-trafficked sex work. In exploring these reflections, it is argued that practitioners' use of the STIM and their participation in feedback sessions are conduits through which they are able to exercise reflective practice, thus creating a space in which they acknowledge and react to important changes in trafficking and sex work landscapes. This, in turn, can better inform their decision-making and, in particular, seek to reduce the possibility of false positives/negatives emerging from risk assessments. Five examples are discussed below to demonstrate the changes witnessed and reflected upon by practitioners, ultimately enhancing their investigatory practices in this context.

Example 1: Sex worker touring and impact on risk indicators focused on transience and movement

Academic research has consistently identified references to movement and transience on ASW profiles as a significant indicator of potential trafficking and exploitation (Ibanez and Gazan 2016; Alvari et al., 2017; Latonero 2011). This assumption is based on a large body of academic and non-academic research, which has established that regular movement of victims of sexual exploitation is a key element of human traffickers' modus operandi (see Van Dijk 2002; Kleemans and Smit 2014; Ibanez and Suthers 2014). In its original formulation, the STIM reflected this body of research, and references to movement/transience featured in some risk indicators (see L'Hoiry *et al.* 2024). When asked about this during feedback sessions, practitioners noted that their experiences of analysing ASW profiles via the STIM had revealed specific trends in the practices of non-trafficked sex workers pertaining to their mobility, which raised questions as to the value of risk indicators focused on the movement of individuals advertized in ASW profiles.

> Sometimes people will get up into groups and do a little tour in Airbnbs and stuff like that which could very much

be indicative of the exploitation but then also could be just people like a working mum that just doesn't want to bring people back to her home address. (PIU – P1)

[One woman] had three or four nights in an Airbnb in [city] and then she's moving on so it was all, you know, her own free will, there's nobody controlling or exploiting her. So yeah, I think on its own, [indicators of] moving around isn't particularly concerning. (PF1 – P3)

I've seen sort of three, four days of the week, let's say in [City A], then they may then be at [City B] for a similar sort of period time, and then they may end up, I don't know, [City C]. So, you'll see that movement around, and we do see that quite often. (PF9 – P3)

You have one profile where the girl does two weeks in ten different locations, for X amount of months, and then, which seems like that probably would be more indicative of trafficking, right. But then you might have another one where a girl is doing, you know, she does, say, two months at a time in [City A], and then every so often she'll do a week in [City B], or a week in [City C], or whatever. That then feels, to me, like someone who is based in [City A], but travels on occasion. (PF3 – P6)

These acknowledgements of non-trafficked sex workers' touring practices demonstrate an increased understanding and appreciation of the landscape of sex work and, by extension, the limitations of indicators of trafficking related to movement and mobility. Notably, the mobility of sex workers is not new per se (see Sanders et al., 2018), but engagement with the STIM and feedback sessions has elicited new understandings for police practitioners leading them to recognize this feature of sex work and to better distinguish these practices from indicators of trafficking.

Example 2: Third-party references in ASW profiles

The presence of third-party references in ASW profiles, including the use of pronouns such as 'they' and 'she' to describe the individual featured in a profile, has long been considered in research as an indicator that a party other than the individual appearing in an ASW profile has created the profile (Ibanez and Gazan 2016; Alvari et al., 2017; OSCE 2023). The assumption that followed was that the third party creating the ASW profile may exercise control over the individual advertised, indicating some level of exploitation. As a result, the STIM originally included risk indicators drawing attention to any indication in ASW profiles that a third party was involved. Practitioners' feedback, however, indicates a growing recognition that the practices of non-trafficked sex workers including, importantly, migrant sex workers, may have moved towards lowering the value of third-party references in ASWs as indicators of trafficking and exploitation.

It is a reality that some women will work together [and] we've seen it quite a few times that maybe someone will do a bit of the organising and the logistics. So that might be booking accommodation or putting the [ASW] profiles together… And, yeah, sometimes they'll say 'they' but no one is being exploited. (PF4 – P1)

It's a tricky one that [indicator] … not always sure what to do with [it]. Sometimes it presents as a serious one and we are taking it seriously… But we've also had it when it doesn't really mean much because someone has just been helping someone else whose language skills are [not] quite there. (PF2 – P2)

These reflections echo work from Broad and Gadd (2022) and Connelly and The English Collective of Prostitutes (2021), who have highlighted the complexity of third-party involvement in sex work and how to attend to the involvement of third parties in this context. Being aware of these complexities encourages practitioners to reflect more critically on their own decision-making with regard to indicators of potential third-party involvement in ASW profiles, demonstrating a more nuanced understanding of their own limitations in deciphering a particularly opaque element of how profiles are created and maintained on ASWs.

Example 3: Sexual services listed in ASW profiles and indicators of agency vs control

A common feature of ASW profiles is a section in which a list of sexual services available (and associated costs) is presented. Research with non-trafficked sex workers has suggested that sex workers will often exercise risk-averse sexual practices, with some sexual services strictly off-limits (Antonopoulos et al., 2020). These might include, for instance, oral and/or anal sexual intercourse without protection (e.g. a condom). As a result, research has proposed that ASW profiles listing all or many sexual services with seemingly no risk aversion may be indicative of control by a third party with the individual appearing in ASW profiles unable to leverage agency in their choice of advertised services (OSCE 2023). When reflecting on this risk indicator, practitioners identified a series of factors, which problematized a reliance on this feature of ASW profiles as indicative of trafficking activity. First, practitioners argued that the economic climate in the UK may be influencing what types of services non-trafficked sex workers are willing to provide.

The cost of living is definitely impacting things and survival sex is something we're aware of... You will see people offering stuff that we're a bit surprised about but I think that's an economic motivation… You could say there's an element of exploitation because of their circumstances but it's not exploitation in the way we mean. (PF5 – P1)

Second, practitioners argued that a long list of sexual services appearing on ASW profiles may in fact be a deliberate marketing strategy employed by non-trafficked sex workers to elicit customer enquiries. Once enquiries by potential customers are initiated, practitioners argued, a negotiation process may establish that some services are not, in fact, available.

People are basically offering loads of services to drum up more business and then end up negotiating saying, 'well actually no, I won't do that, I'll do this'. (PIU – P7)

> There are some ads that will obviously have everything ticked, no extra cost, but then when you read the punting website, it is clear that they have to pay extra. That's all arranged on their arrival that, you know, if you want anal sex, you've got to pay an extra 50 quid. (PF7 – P3)

> Quite often they have just clicked everything when they put the advert up whether they do it or not… they just put it all on and then they can discuss what's actually available when [the client] gets there. (PF6 – P2)

Third, practitioners speculated that the design and interface of some ASWs may be relevant. When creating a profile for some ASWs, all sexual services are selected by default. As a result, the user must deliberately untick the sexual services they do not wish to be listed in their profile. Practitioners proposed that some non-trafficked sex workers may simply forget or not be aware that they must untick some services.

> So, when you actually go to create a profile in [website], those boxes are all automatically ticked, you have to physically untick them… We talked to some sex workers as part of our partnership work and they said loads of girls don't realise this… I think there might be a fair bit of boxes being left ticked by accident to be honest, so I do think it's important as an indicator of trafficking, but I still try to be careful with that one. (PF8 – P5)

Example 4: Use of emojis in ASW profiles

Extant literature has drawn attention to the use of emojis in ASW profiles as potentially indicative of trafficking activity. Such assertions are drawn from work such as Antonopoulos et al. (2020) and Keskin *et al.* (2020) which have previously identified ASW profiles using emojis such as crowns, lips, and cherries as being operated by traffickers. Practitioner feedback was mixed on this risk indicator, with some practitioners believing that an analysis of emojis in broad terms was unproductive. However, several argued that a refinement of this risk indicator offered more value, specifically reflecting on developments that have seen the use of certain emojis linked to drug use. Practitioners argued that trafficking offenders at times engaged in multi-commodity activities, sexually exploiting their victims as well as selling drugs and, importantly, using ASW profiles as a platform to advertise the availability of drugs.

> Looking at emojis in the broad sense isn't all that helpful because everyone is using them and with some ads it's just all over the place… The leaf [emoji] is one we've seen a bit more to allude to the availability of cannabis… We do know from previous ops that offenders are using ads to sort of quietly advertise drug availability. (PF4 – P1)

> That's what we've seen, sort of party girl with a snowflake [emoji] might indicate somewhere where you can get both sex and coke. (PIU – P3)

These reflections identify changes in the behaviours of traffickers, with some offenders demonstrating increased criminal diversification via their engagement in sexual exploitation and sales of illicit drugs. In doing so, practitioners engage in critically reflective ways to develop the STIM's precision and, by extension, improve their own investigatory practices.

Example 5: New sources of intelligence—'Punter' review websites

Finally, as well as reflecting on how existing risk indicators within the STIM may be viewed more critically or treated with greater nuance, practitioners also used feedback sessions to identify gaps in the STIM based on their knowledge of relevant intelligence and the practices of actors involved in sex work. Specifically, practitioners pointed to the data available via so-called 'punter' review websites, open-source websites where sex buyers share their experiences of meeting individuals in person having connected with them via ASW profiles. Practitioners emphasized that such websites offer a useful opportunity to triangulate intelligence on certain ASW profiles, but that the STIM's design at the time of feedback sessions had no capacity to capture this.

> We identified the [website] that obviously gives us a lot of information… on whether or not there's other females in the address, if there's a male at the address, and might give descriptions that it's an unclean premise, there's like bruises, badly dressed and all that kind of stuff. Those sorts of reviews might give that information which there's no sort of tick boxes [on the STIM] for that sort of thing. (PF2 – P3)
>
> You look at [website] and read the reviews, there's clear indicators there of people that are not doing it of their own free will. (PF1 – P4)

These reflections echo recent research, which have identified punter review websites as a key source of data in risk-assessing ASW profiles (Keighley and Sanders 2024). By identifying this gap in the STIM, practitioners were able to develop the breadth of data captured by the STIM and, by extension, ensure that new iterations of the STIM offer a greater coverage of intelligence to deliver better-informed risk assessment processes.

CONCLUSION AND DISCUSSION

Policing human trafficking and, specifically, seeking to identify instances of commercial sexual exploitation taking place on ASWs, are fraught with complexity, opacity, and risk (Kjellgren 2024). Practitioners operating in this context are expected to rapidly respond to an evolving landscape, potentially including changes in legislation or guidelines vis-à-vis police intervention. Importantly, the changing practices practitioners must be aware of are both those of human trafficking offenders and those of non-trafficked sex workers, since both actors share the same space in ASWs and key to police investigations is the ability to distinguish between profiles posted by different actors. Being aware of changes in the practices and behaviours of both human trafficking offenders and non-trafficked sex workers makes investigating these digital spaces doubly complex. Police practitioners' decision-making also carries considerable potential risk. An important example of this is cases of misidentification of suspect trafficking online that may result in significant

harm to individuals such as migrant sex workers who have not been trafficked but who, as a result of the false identification, become subject to unwanted and unnecessary police attention. This article has argued that, in using the STIM and committing to regular feedback sessions with the academic project team, police practitioners are demonstrating an example of the kind of critical reflective practice which Christopher (2015) has previously called for the police service to embrace. In doing so, police practitioners have developed greater nuance in their treatment of risk indicators appearing in ASW profiles, ultimately enhancing their investigatory practices and their risk assessment decision-making.

The data above demonstrate just some of the instances in which practitioners have questioned their own underlying assumptions and existing knowledge of both human trafficking processes and the landscape for non-trafficked sex work. Some risk indicators previously considered to be strongly indicative of human trafficking and exploitation are increasingly being treated with greater caution by practitioners due to developments in socio-economic contexts (such as the cost of living crisis and the impact on non-trafficked sex work practices) as well as better understandings of the affordances of ASW platforms for users. Practitioners are also able to reflect on new sources of intelligence and how these should be incorporated into their risk assessment processes to deliver greater value for practitioners. The risk indicators discussed above can, of course, still be indicative of human trafficking and practitioners have previously identified many instances of trafficking and exploitation to confirm this. But ongoing engagement with the STIM and with feedback sessions has allowed practitioners to evaluate and reflect on the extent to which some of these risk indicators continue to be relevant and influential in their risk assessments.

Central to practitioners' responses above is an ongoing concern with reducing the potential for false positives and negatives arising from their use of the STIM. Practitioners using the STIM systematically apply a series of objective and subjective judgements in a standardized manner, as part of which they are expected to justify their risk assessments and reflect on them periodically. The requirement for all STIM users to engage with feedback sessions also ensures that practitioners regularly evaluate and reflect on their own practices and on the tools they use as part of deliberative exercises which offer pathways towards reflective learning (Christopher 2015) leading to, as described in the data above, 'new understandings and appreciations' (Boud et al., 1985: 19). The data above also provide several examples in which critical reflective practice has offered practitioners a 'new angle of vision' (Mezirow 1991) concerning human trafficking and non-trafficked sex work landscapes, recognizing these as distinct contexts which can and do overlap, particularly in digital spaces such as ASWs. In reporting these reflections, this article is the first to present data in which police practitioners *themselves* critically reflect on the risks of false positives and negatives to emerge from their risk assessment processes concerning suspect profiles on ASWs. Though these risks have been raised by non-police practitioners and other parties (see Holt et al., n.d.), it is noteworthy that police practitioners, via their engagement with the STIM, are able to reflect on and acknowledge these limitations themselves and are proactively engaged in seeking to mitigate them.

Importantly, these forms of critical reflective practice have in the context of this work been elicited by the STIM itself and practitioners' participation in feedback sessions. We argue, therefore, that many of the criticisms levelled at risk assessment tools used by police (and other) practitioners ignore the potential for their deployment to prompt greater evaluation and reflection among practitioners. Of course, several of the points of learning for police practitioners discussed above have long been known by those involved in sex work, such as sex worker collectives. But this knowledge has often not extended to law enforcement practitioners. The STIM and the regular feedback sessions detailed in this paper may therefore be positioned as a vehicle through which police practitioners can exercise reflectivity and exercise opportunities for learning. This, more broadly, also speaks to the value of practitioner–academic collaborations in which all parties are willing and able to challenge one another's and their own beliefs, practices, and philosophies (Marks et al., 2010).

As Christopher (2015: 332) has warned, however, this type of critical reflective practice is 'a time-consuming process requiring effort and commitment'. For the police practitioners engaged in the work detailed in this article, their engagement has spanned (in some cases) four years, many hours of feedback sessions, hundreds of email communications, and considerable effort in sharing various data with the academic project team. This demonstrates a robust and ongoing commitment to practitioner–academic collaboration with a view to implementing 'better practice and ultimately service improvement' (Christopher 2015: 332). In doing so, we argue that the police are demonstrating a commitment to moving towards becoming a learning organization, which can dynamically respond to the 'maelstrom milieu' (Christopher 2015: 328) of digitally facilitated human trafficking and, more broadly, contemporary policing.

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CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

REFERENCES

Alvari, H., Shakarian, P., and Snyder, J. E. (2017). 'A Non-Parametric Learning Approach to Identify Online Human Trafficking'. https://www.semanticscholar.org/reader/114c854cc1fa58c6920ec5154534cd69f28b2e4d, accessed 15 Nov. 2024.accessed 15 Nov. 2024.

Antonopoulos, G.A. *et al.* (2020) *Technology in Human Smuggling and Trafficking*. Cham, Switzerland: Springer.

Bales, K. (2011) 'What Predicts Human Trafficking?', *International Journal of Comparative and Applied Criminal Justice*, 31: 269–79. https://doi.org/10.1080/01924036.2007.9678771

Blunt, D. and Wolf, A. (2020) 'Erased: The Impact of FOSTA-SESTA and the Removal of Backpage on Sex Workers', *Anti-Trafficking Review*, 14: 117–21. https://doi.org/10.14197/atr.201220148

Boud, D., Keogh, R. and Walker, D. (1985). *Reflection: Turning Experience Into Learning*. London: Kogan Page

Broad, R., & Gadd, D. (2022). *Demystifying Modern Slavery*. London: Routledge

Charles, M. T. (2000) *Police Training Breaking All The Rules: Implementing The Adult Education Model Into Police Training*. Spingfield, IL: Charles C. Thomas Publishing.

Christopher, S. (2015) 'The Police Service Can Be A Critical Reflective Practice … If It Wants', *Policing: a Journal of Policy and Practice*, 9: 326–39.

Clarke, V. & Braun, V. (2013) 'Thematic Analysis', in A.C. Michalos (ed.) *Encyclopaedia of Quality-of-Life Research*, pp.6626–8. NY: Springer.

Connelly, L., and The English Collective of Prostitutes (2021). 'EU Migrant Sex Work in the UK Post-Referendum' https://prostitutescollective.net/wp-content/uploads/2021/05/Full-Report-EU-migrant-sex-work-in-the-UK-post-Referendum.pdf, accessed 15 Nov. 2024. accessed 15 Nov. 2024.

Council of Europe (2022) 'Online and Technology-Facilitated Trafficking in Human Beings'. https://rm.coe.int/online-and-technology-facilitated-trafficking-in-human-beings-summary- /1680a5e10c, accessed 19 Jan. 2024.

Crawford, A. and L'Hoiry, X. (2017) 'Boundary Crossing: Networked Policing And Emergent 'Communities Of Practice' In Safeguarding Children', *Policing and Society*, 27: 636–54. https://doi.org/10.1080/10439463.2017.1341508

Cross-Party Group on Commercial Sexual Exploitation (2021) Online pimping: an Inquiry into sexual exploitation Advertising websites. https://43b7aa2e-6040-4325-8d69-b57333b95a64.usrfiles.com/ugd/43b7aa_2aa3793584184082877ba83216ca7912.pdf (last accessed 19 January 2024)

Dewey, J. (1933). *How We Think: A Restatement of the Relation of Reflective Thinking to the Educative Process*. Boston, MA: Heath.

Giommoni, L. and Ikwu, R. (2024) 'Identifying Human Trafficking Indicators in the UK Online Sex Market', *Trends in Organised Crime*, 27: 10–33.

Holt, V., Kenway, E. and Berry, A. (n.d.) 'Sex Workers As Collateral Damage, Once Again: A Critique Of The New 'Sex Trafficking Identification Matrix' Tool', https://www.swarmcollective.org/sex-workers-as-collateral-damage-once-again-a-critique-of-the-new-sex-trafficking-identification-matrix-tool

Hopkins, M., Keighley, R., and Sanders, T. (2024) 'Organised Crime and the Ecosystems of Sexual Exploitation in the United Kingdom: How Supply and Demand Generate Sexual Exploitation and Protection from Prosecution', *Trends in Organised Crime*, 27: 56–76. https://doi.org/10.1007/s12117-023-09517-x

Hughes, D. (1999). *Pimps and Predators on the Internet: Globalizing Sexual Exploitation of Women and Children*. NY: The Coalition Against Trafficking in Women.

Ibanez, M. and Gazan, R. (2016). 'Virtual Indicators of Sex Trafficking to Identify Potential Victims in Online Advertisements', in IEEE Computer Society (ed.) *Advances in Social Networks Analysis and Mining (ASONAM), 2016 IEEE/ACM International Conference*, pp. 818–24. IEEE.

Ibanez, M. and Suthers, D.D. (2014). 'Detection of Domestic Human Trafficking Indicators and Movement Trends Using Content Available on Open Internet Sources', in IEEE (ed.) *2014 47th Hawaii International Conference on System Sciences*, pp. 1556–65. IEEE.

Irish Human Rights and Equality Commission (2023) *Trafficking in Human Beings in Ireland*. Dublin: IHREC.

Keighley, R. and Sanders, T. (2024) 'The Eyes and Ears of Sexual Exploitation Online: Are Sex Buyers Part of the Prevention Puzzle to Reduce Harms in the Online Sex Industry?', *The British Journal of Criminology*, 64: 1131–49. https://doi.org/10.1093/bjc/azae002

Keskin, B.B. *et al.* (2020). Cracking Sex Trafficking: Data Analysis, Pattern Recognition, and Path Prediction, *Production and Operations Management*, 30: 1110–1135. https://doi.org/10.1111/poms.13294

Kjellgren, R. (2022) 'Good Tech, Bad Tech: Policing Online Sex Trafficking and Big Data', *International Journal for Crime, Justice and Social Democracy*, 11: 149–66. https://doi.org/10.5204/ijcjsd.2139

Kjellgren, R. (2024) 'The Geographies and Complexities of Online Networks in the Off-Street Sex Market', *Criminology & Criminal Justice*, https://doi.org/10.1177/17488958241245287

Kleemans, E. R., and Smit, M. (2014) 'Human Smuggling, Human Trafficking, and Exploitation in the Sex Industry', in Paoli, L. (ed.) *Oxford Handbook of Organized Crime*, pp. 381–401. Oxford: Oxford University Press.

Latonero, M. (2011). *Human Trafficking Online: The Role of Social Networking Sites and Online Classifieds*. Los Angeles, CA: Centre on Communication Leadership & Policy, University of Southern California.

L'Hoiry, X., Moretti, A., Antonopoulos, G. A.. (2024). Identifying sex trafficking in Adult Services Websites: an exploratory study with a British police force, *Trends in Organized Crime*, 27: 34–55. https://doi.org/10.1007/s12117-021-09414-1

Marks, M. *et al.* (2010) 'Worlds Apart? On the Possibilities of Police/Academic Collaborations', *Policing: a Journal of Policy and Practice*, 4: 112–8.

McCoy, M. (2017) 'Measurements of Vulnerability to Domestic Minor Sex Trafficking: A Systematic Review', *Journal of Human Trafficking*, 5: 1–12. https://doi.org/10.1080/23322705.2017.1385334

Mezirow, J. (1991) *Transformative Dimensions of Adult Learning*. San Francisco, CA: Jossey-Bass.

Mo, C. H. (2018) 'Perceived Relative Deprivation and Risk: An Aspiration-Based Model of Human Trafficking Vulnerability', *Political Behaviour*, 40: 247–77. https://doi.org/10.1007/s11109-017-9401-0

OSCE. (2023) *Mapping the Landscape of Risks of Trafficking in Human Beings on Sexual Services Websites Across the OSCE Region*. Vienna: OSCE.

Perer, A. R. (2012) 'Policing The Virtual Red Light District', *Brooklyn Law Review*, 77: 823–59.

Reid, J. *et al.* (2019) 'No Youth Left Behind to Human Trafficking: Exploring Profiles of Risk', *American Journal of Orthopsychiatry*, 89: 704–15.

Sanders, T. *et al.* (2018). 'Characteristics and Working Practices of Online Sex Workers', in Sanders et al. (eds.) *Internet Sex Work*. Cham: Palgrave Macmillan.

Skidmore, M, Garner S., Desroches C., and Saggu N. (2018) 'The Threat of Exploitation in the Adult Sex Market: A Pilot Study of Online Sex Worker Advertisements', *Policing: a Journal of Policy and Practice*, 12: 210–8. https://doi.org/10.1093/police/pax007

Tomkins, S. *et al.* (2018). 'The Impact of Environmental Stressors on Human Trafficking', in IEEE (ed.) *2018 IEEE International Conference on Data Mining (ICDM)*, pp. 507–16. Singapore: IEEE.

Van Dijk, E. (2002). *Mensenhandel in Nederland, 1997-2000*. Zoetermeer: KLPD.