"Stick them to the cross": Anti-trafficking apps and the production of ignorance

Abstract

There is a long history of ignorance production around trafficking in human beings. A proliferation of anti-trafficking apps plays an important role in the reinforcement of this ignorance. Anti-trafficking apps work in different ways to other (mis)information tools, but there is a lack of academic research on the topic. This paper addresses this gap through an agnotological approach: focusing on how ignorance is produced and becomes productive, rather than seeing ignorance as just a lack of knowledge. We investigate how anti-trafficking apps are used to manipulate (mis)understandings of and responses to human trafficking by enabling new types of awareness raising, user participation and ignorance production. The networking of ignorance that this allows – and the integration of this into new aspects of everyday life – illustrates de Goede's (2012) warning that "the network is problematic as a security technique…because, ultimately, it has no outside" (p. 228).

Keywords: Anti-trafficking; apps; ignorance; technology; Internet; networks

Introduction

> Get together with some friends and cut out some card into the shape of a large cross. Are there articles, adverts and new items in your newspapers or online that you really think need praying for? If so cut them out and stick them to the cross or write them on there. While you are doing this pray for all of those situations (REF., page number?)

The above quote is a recommendation by the "Cut it Out" app developed by ALOVE UK (the Salvation Army for young people) on how to "make a positive difference to the lives of

women currently suffering from exploitation across the world" (Salvation Army, 2018).[1] In July 2011, the Salvation Army was appointed by the UK's Ministry of Justice as a key provider of support services to adult victims of human trafficking in England and Wales.[2] This advice, as we discuss below, broadly reflects the level of evidence supporting the supposed benefits of many anti-trafficking apps.

We started this paper when we were struck by the number of anti-trafficking apps already available and the speed with which new ones were being added to both Android and iOS platforms. This has continued, or perhaps accelerated, while we have been writing the paper. For example, in July 2018, "Unseen" - a UK-based anti-trafficking charity - launched a new app to provide "a simple guide to recognising the signs of modern slavery and reporting concerns in confidence to free more victims of slavery" (Unseen, 2018). Strong claims are made for anti-trafficking apps, too: for example, TraffickCam is claimed to "shine a light on human trafficking, and let you intervene without getting involved by taking pictures of hotel rooms" (TNW, 2016); while the STOP app claims to use "community empowerment, big data management and anti-trafficking expertise to disrupt, combat and prevent this global issue" (Stop the Traffik 2018). The proliferation of apps has also been accompanied and supported by the anti-trafficking rescue industry's[3] endorsements of apps as the "next best thing" in the business of anti-trafficking

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[1] This resource is no longer available, as of 11 June 2020.

[2] The UK Parliament's Public Accounts Committee (2018), in its scathing assessment of the UK Government anti-trafficking efforts, noted that the Home Office failed to put in place any care standards or a robust inspection regime to check the quality of care and support provided in safe houses managed by the Salvation Army and its twelve subcontractors. It also criticised the length of time taken by the Home Office to make final decisions on the National Referral Mechanism referrals, leading to the increased cost of the Department's victim care contract with the Salvation Army (a five-year contract to 2020) estimated to increase to around £90 million, more than double its early estimates.

[3] See Kemapadoo (2015; 2016) on the "rescue industry".

awareness-raising[4]. For example, one of the abolitionist anti-trafficking organisations "ABOLISHION" advertise "4 apps to help fight human trafficking" for those who "want to do something about trafficking but with the busyness of life...need tools that make it easy to do" (2016). UNSEEN – a UK-based organisation "working towards a world without slavery" – describes its app as a response to "ever-more sophisticated technology to control and exploit their victims' used by traffickers, as an "app for everyone to have in their pocket at the nail bar, car wash or takeaway… an essential part of the fight to eradicate slavery" (Unseen, 2018). Anti-trafficking apps are an increasingly prominent aspect of public discussions of trafficking and are seen as an emerging – and exciting – way to address this, in contrast to more 'old-fashioned' approaches ranging from conventional policing to strengthening labour rights.

The paper raises concerns about a focus on (real or imagined) trafficking networks by drawing on de Goede's (2012) warning that "the network is problematic as a security technique…because, ultimately, it has no outside" (p. 228). The rise of anti-trafficking apps is presented as an example of this. We draw on an agnotological approach to analyse such apps – considering ignorance as a significant and productive aspect of anti-trafficking, rather than a simple lack of knowledge. To do this, we lay out the context of human trafficking awareness raising before then discussing the interplay between ignorance, trafficking and technology. We discuss the rise of anti-trafficking apps, and the idea of interpassivity is used to consider the ways in which apps can be used in an effacing or transfer of agency. The paper looks questions around connectivity, trafficking and sex before laying out the methodology used to analyse these apps. We then draw on the aforementioned concepts to inform our analysis and discussion. We

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[4] See Sharapov and Mendel (2018) and Sharapov, Hoff & Gerasimov (2019) for a critical assessment of the anti-trafficking public awareness campaigns

conclude that there are major limitations to the apps included in our analysis – a substantial proportion are downloaded by a vanishingly small number of users, or broken, or both. We use our analysis to draw broader conclusions about ignorance/power relations and online anti-trafficking, and make policy recommendations (about anti-trafficking apps, and the use of apps more broadly) based on these findings.

Context: Human Trafficking Awareness Raising

In December 2018, the European Commission (2018) issued its second report on the progress made by EU member states in the fight against trafficking in human beings.[5] The report included a set of data on the emerging patterns and trends based on the information collected, recorded and reported by the EU member states for the period of 2015 – 2016. In confirming a continuing increase in the number of registered victims of trafficking in the EU (9,147 in 2015 and 11,385 in 2016), the report also suggested that "there are reasons to believe that many victims and traffickers remain undetected and are therefore not included in these figures reported here" (European Commission, 2018, p. 2). In setting out a range of measures to increase rates of detection and identification, and to counter "the culture of impunity and [to prevent] trafficking in human beings" (p. 6), the report allocated a specific role to members of the general public by suggesting that increased awareness would "target demand for services exacted from victims of trafficking" (p.8), and emphasising the need for "campaigns or educational programmes aimed at discouraging demand for sexual exploitation" (p.8).

Such a direct equation of the increased public awareness with adopting a set of desired (by policy-makers) yet unspecified (beyond reporting suspected instances of trafficking)

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[5] We do not offer a definition of trafficking in this paper, and this is deliberate. While there are diverse definitions of trafficking (and we would be critical of many of these) the focus here is rather on how ideas of trafficking are constructed and on the effect of these ideas.

behaviours can be interpreted as reflective of the broader interpretation of human trafficking within the dominant anti-trafficking policy-making and legal frameworks as unilinear, monological, teleological and extremely elastic.[6] Its unilinear aspect is a one-directional future-facing direction of the "fight against trafficking in human beings" – more policing and "crackdowns", more border control, more convictions, more awareness, and more apps – without acknowledging and responding to the past and the on-going role of the neoliberal structures of exploitation, and "heavy, often violent, restraints on freedom in the contemporary world" (O'Connell Davidson 2017, p.3). It is monological in claiming to be true for all victims (to be identified, "rescued" and rehabilitated) and all members of the general public - informed and equipped with mobile apps, they should easily be able to address all forms of exploitation. It is teleological in that it is aimed at a known outcome – all victims to be identified and rescued, and all criminals and "bogus" claimants of human trafficking victim status to be prosecuted as an ultimate endpoint of the "fight" against human trafficking (rather than securing the rights of millions of migrant workers moving within and across borders on a daily basis). It is elastic in that the endpoint is always near - one more anti-trafficking strategy, policy, directive, conference, an awareness-raising campaign, or a mobile application – yet the end of human trafficking never comes, calling, as a consequence, for more and more of almost the same.

In addition to public awareness-raising featuring so prominently in the anti-trafficking work of national governments (as well as immigration control and law enforcement) and anti-trafficking non-governmental organisations and activists, official anti-trafficking rhetoric and policies increasingly draw on network metaphors in the name of governing connectivity: all

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[6] References to the unilinear, monological, teleological and elastic nature of anti-trafficking policy and legal frameworks have been inspired by Deborah Bird Rose's (2013) discussion of time in relation to the concept of Anthropocene.

kinds of action across multiple domains is justified in the name of fighting trafficking networks and raising awareness. Technology is seen as offering a solution here, and the hope is that a proliferation of anti-trafficking apps may somehow help resolve the social and political issues that lead into trafficking and other types of exploitation. This forms part of what Musto, Thakor and Gerasimov (2020) describe as "the advancement of a networked policing strategy reliant on third-party actors to anticipatorily police networks, pre-emptively analyse, filter, and scrub content presumed to be linked to commercial sex, and cooperate with law enforcement" (p. 9). To critique these developments, we take an agnotological approach to this proliferation of apps. We investigate how these apps offer novel, technologically-mediated ways to construct different types of ignorance about human trafficking and exploitation, alongside drawing on many far longer-standing tropes. Modern technology here also comes alongside much older practices – for example, with apps sometimes encouraging prayer and (as will be discussed below) drawing on religious motivations.

Context: Ignorance, Technology and Trafficking

Proctor (1995) influentially discussed how ignorance can be actively produced, initially focussing on the context of cancer. Following this, a growing field of the study of ignorance or agnotology has developed (for example Gross & McGoey, 2015; McGoey, 2019; Proctor & Schiebinger, 2008). This work is now being used to understand online spaces, social media and new technologies. Tworek (2019), for example, argues that social media companies profit from the production of ignorance. John and Nissenbaum (2018, p.10) apply an agnotological lens to social media application programming interfaces, arguing that major social networking sites carry "patterns of ignorance… into the wider ecosystem of external interfaces…quashing any possibility of challenging the dominant form of connective culture" (p.10). Bettancourt (2014)

discusses the links between agnotology and online surveillance, whilst Rose and Bartoli (2020, p.198) highlight the profound influence of technology on social behaviour and on the creation of a "balkanized media ecosystem, creating a 'perfect storm' where ignorance is culturally instilled".[7] A stark warning about ignorance as strategically manufactured within the context of online media comes from boyd (2019), who sees ignorance as "a virus [that has spread, using technology to systematically tear at the social fabric of public life" (para. 1), and thinks about ignorance in terms of "…purposefully and intentionally seeding doubt to fragment society. To fragment epistemologies" (para. 8). Within this context of emerging scholarship and critique of ignorance as shaping, mediating and expressing online spaces and identifies, the agnotological lens can and, as we argue, should extend to "virtual" or online anti-trafficking, including anti-trafficking apps. Agnotology (in Slater's [2014, p. 950] words, in his work on agnotology and policy) can allow us to move from asking "Why don't we know what we don't know?" to what such ignorance achieves.

While boyd (2019) focusses on ignorance's role in *fragmenting* epistemologies, part of the contribution of this paper is as a study of how ignorance can also serve as a way of building social cohesion and of creating a coherent-seeming epistemological framework. In the context of anti-trafficking, we should look not just at how ignorance might fragment communities but also at how impressive levels of cohesion, agreement and confidence can be built through – rather than in spite of – ignorance. Bluntly, we should ask how ignorance about trafficking can both help to generate a coherent community and – through this – produce a great deal of pointless or

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[7] Rose and Bartoli (2020, p.184) define a "balkanized media system" as "…the multiplicity of media sources that are now available and the multiplicity of powerful political institutions and commercial entities that control the development and distribution of constructed material, as well as the suppression of information, that contributes to paradigms, information, and biases".

harmful anti-trafficking activity. Ignorance that builds community coherence might be at least as dangerous as ignorance that fragments it.

This paper also offers a move beyond discussions of interactive ignorance online - for example, the aforementioned account of how ignorance can spread like a virus - to also consider interpassive ignorance online. As will be discussed below, ignorance around anti-trafficking apps often fails to lead to any substantial interaction (a lot of these apps have very few downloads). Instead, ignorance facilitates an interpassivity where it is believed that the apps are acting in an individual or organisation's place. Rather than an interactive online ignorance that is defined by human activity, we see an interpassive online ignorance that is defined more by the belief that the apps are active in the place of humans (even if these apps are not doing anything useful, or anything at all).

In the case of anti-trafficking technology, we agree with Musto, Thakor and Gerasimov (2020) that "the role of technology as either a facilitator or disruptor of human trafficking remains poorly understood and largely based on ideology, political agendas, and limited evidence" (p. 12). However, we view this ignorance as actively constructed and as constructing anti-trafficking policy and practice. We have argued (Mendel & Sharapov, 2016) that "a focus on an intermediate level of anti-trafficking strategies and a very limited micro-level of individualised interventions allows policymakers to remain ignorant of other aspects," (p. 667). In the context of anti-trafficking apps we see a related construction of ignorance, where a focus on individualising ideas of "criminals" and "victims", alongside attempts to "raise awareness" among individuals, allows other aspects of human trafficking to be effaced. Analogously to broader policy discussions (see Mendel & Sharapov 2016; Slater, 2014), the amount of activity around anti-trafficking apps is not diminishing because of such ignorance; instead, this ignorance

(along with a broader ignorance around trafficking) is very much a facilitating factor. With this in mind, we argue for an agnotological approach to human trafficking and technology (Mendel & Sharapov, 2016). What we are not seeing is ignorance being challenged by the increasing body of research, let alone by this proliferation of apps and "awareness raising". We are also not seeing ignorance acting as a barrier to all of this activity. In contrast, ignorance is actually serving as an enabler of a substantial body of anti-trafficking related activity.

Alongside the knowledge-power interplay of anti-trafficking activity and technology, this agnotological approach also lets one pay attention to the ignorance-power interplay around trafficking and technology (see Mendel & Sharapov, 2016). Rather than being held back by a lack of robust research on many aspects of trafficking, the development of technology here is able to progress precisely because of a lack of research on what is taking place and what might improve matters (or cause harm). In the context of such ignorance, there is still a sense of "something must be done", boosted by a range of awareness raising (see Sharapov & Mendel, 2018). A will-to-ignorance and will-to-technology drive the deployment of different technologies forward – the very fact of deploying technology (however in/effective) in the name of anti-trafficking amounts to doing "something". While it may remain unclear whether such "something" is doing anything useful (or causing harm), within this context of manufactured, maintained and productive ignorance things can be pushed ahead notwithstanding. Indeed, this proliferation of apps (often ineffective or "broken") seems to have been driven forward far more by ignorance than any knowledge, or even any robust reflection on the lack of knowledge.

Context: The Rise of Anti-trafficking Apps

There is a "growing, albeit uninterrogated assumption that technologies of the networked, connective, and mobile variety play a central role in facilitating human trafficking" (Musto &

boyd 2014, p.462). Apps are also assumed to play a part in this: for example, the social networking and communication apps that have become very much a part of everyday life are also assumed to be part of the everyday realities of trafficking and exploitation.[8] It is, therefore, unsurprising that those campaigning against and seeking to challenge human trafficking are increasingly relying on these technologies themselves; this reflects Thakor and boyd's (2013) point "that anti-trafficking is taking the form of a counternetwork…parallel to the trafficking that it seeks to address" (p. 284). However, some of the implications of this are significant and novel.

Our analysis contributes to the developing body of research on the role of apps within the context of everyday life and everyday online activism. Limoncelli (2020) analysed the role of apps aimed at encouraging ethical consumption and suggests that such apps not only remain "constrained by their divorce from broader structural mechanisms that are helping to create labour exploitation' (p. 45) but also "reinforce neoliberal tenets advocating reduced government involvement in social and economic life" (p. 40). McMillan et al. (2015) observe that Apps are "integrated into [users'] ongoing activity and environment" (p. 1). Within this context, the proliferation of anti-trafficking apps reflects a move to integrate various aspects of anti-trafficking – ranging from user "awareness" through to involving users in more active surveillance and reporting of "suspicious" activities - into everyday lives of "ordinary" consumer-citizens. This positions anti-trafficking thought and action as part of everyday life in some new ways: few members of the public, however committed to trafficking awareness, would carry and rely on printed guidance (human trafficking leaflets, booklets etc.) to recognise and

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[8] According to the European Commission (2018, p.5) "traffickers use the internet and social networking tools to recruit victims, for logistics, to enable the exploitation of victims, and as a marketing platform for prostitution".

report human trafficking; even fewer would actively engage in "backyard abolitionism", or "real-life" anti-trafficking vigilante rescue campaigns.[9]

Apps, however, attempt to offer a type of interaction designed to actively engage users who can: easily make and upload photos; play a game; or report a suspected case of trafficking. There is a "one-click" recycling of anti-trafficking activisms into an "exciting variety of entertainment, full of sound and fury yet comfortingly toothless, safe and innocuous; something practised by the new generation of 'slacktivists'" (Bauman & Donskis, 2013, p. 58). Downloading an app offers an easy option of channelling individual indignation (however narrow or ignorant of broader structures of exploitation, oppression and inequality) – in response to the totalising yet individualised narrative of abuse, suffering and predicament of an 'ideal victim' in the hands of an 'ideal criminal' – into 'armchair activism', 'slacktivism' or, in O'Brien's words (2019), 'anti-trafficking clicktivism'. However, as our analysis below demonstrates, the majority of anti-trafficking apps recorded extremely low levels of user engagement (very few users are even recorded as downloading the apps); there is also a lack of published evaluation of the efficacy or otherwise of these apps. Within this context, we turn to the notion of "interpassivity".

Interactivity, Interpassivity and Everyday Life

As we discuss in this article, mobile applications encourage various types and degrees of interactivity: from raising awareness to reporting various activities. The interaction between users and app's interface is key here, and we will look below at the types of data these apps are collecting and the types of ignorance they might be constructing. However, it is also important to consider interpassivity. This concept was first illustrated by Lacan (2008) and developed by

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[9] See Shih's (2016) critique of vigilante rescue in human trafficking.

Žižek (2009), as a "mode of relating that involves the consensual transferral of activity or emotion onto another being or object – who consequently 'acts' in one's place" (Wilson, 2003, p. 1). Žižek (2009) discusses interpassivity in terms of a situation where:

> Although I do not actually watch films, the very awareness that the films I love are stored in my video library gives me profound satisfaction and, occasionally, enables me to relax and indulge in the exquisite art of far'niente – as if the VCR were in a way watching them for me, in my place. (p. 145)

Despite the claims made for the role of apps in everything from awareness-raising to surveillance, there is also the possibility that their incorporation into everyday life might act in a similar way to Žižek's (2009) VCR: while a user may never do anything about trafficking or exploitation, they can relax in the knowledge that the app and phone in their pocket are, in a way, active in their place. As we show below, many of these apps are rarely downloaded or used; with many apps, their production and advertising seems more important than their (lack of) use. However, there also appears to be a type of organisational interpassivity in place (in addition to the individual one), where organisations feel that having an (almost unused) app online is "doing something" about trafficking. It is thus helpful to move beyond the idea of individual interpassivity to also think about organisational interpassivity.

As work around anti-trafficking apps is still developing, organisational "modern slavery statements" (MSS) will be a helpful example here. In their content analysis of MSS published by three large UK high street retailers, Ras and Gregoriou (2019) suggest that in including this reporting requirement as part of the UK Modern Slavery Act 2015, the UK Government assumed that greater transparency could be achieved through having MSS in the public domain, and that this kind of transparency could automatically lead to "greater anti-slavery efforts, and that

consumer behaviours and investments are affected by increased awareness" (p. 103). In the absence of any systematic evaluations of the impact of such statements on combating a range of exploitative labour practices within supply chains, and in the light of recent criticisms of commercial organisations' failure to acknowledge their own complicity "in sustaining an exploitative industry, and the underlying socio-economic factors that leave workers vulnerable to exploitation" (Ras & Gregoriou, 2019, p. 100), modern slavery statements, similarly to mobile applications, appear to function as an "another object" within the context of both individual and organisational interpassivity. They act both in place of commercial organisations, where the structural interventions to reduce exploitative labour practices are replaced with written declarations purporting to address human trafficking, and in place of individuals, where the knowledge that commercial organisations are "doing something" enables individuals to pass on the moral burden of awareness and responsibility to act onto organisational modern slavery statements. Analogously, the burden of "doing something" about trafficking can be passed from individuals to organisations to apps.

Connectivity, Trafficking and Sex

De Goede (2012) views "invocations of network not simply as a metaphorical representation of danger, but as devices that render the world actionable and amenable to intervention" (p. 215). In arguing that "the network is problematic as a security technique…because, ultimately, it has no outside", de Goede (2012, p.228) explores how such an absence of the "outside" can lead to ever-expanding investigations into networks earmarked by law-enforcement as related to (though not directly engaged in) terrorism or other organised crime. In the context of (anti)trafficking, this is significant because invocations of online trafficking networks allow different - and often much broader - interventions than might be

justified by a focus on, for example, exploitative employers or labour rights. This paper will consider how online anti-trafficking activity – intensified in the U.S. context by FOSTA/SESTA[10], as discussed below - spreads to encompass an ever-broader range of increasingly networked activities. In the context, there are a variety of behaviours and practices by online users – both institutional and individual - including "clicking", "liking", retweeting, blogging, uploading self-made YouTube videos and docufictions (Sharapov & Mendel, 2018), and using apps. This activity seems to respond to a very specific and often reductionist representation of what, in reality, remains a complex socio-economic and political phenomenon, a pattern of limitless networked "over-reach" and "over-spread" is beginning to emerge. The below discussion of the impacts of a range of online anti-trafficking helps build an understanding of this overreach in the broader online sphere, including how this type of spread takes place in the case of anti-trafficking apps. Anti-trafficking is a particularly striking example of how concepts, enforcement and investigations spread. Writing about "exploitation creep", Chuang (2014) describes how

> [a]ll forced labor is recast as trafficking, even if no one changes location at all. [Then] all
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> trafficking is labeled as slavery. Exploitation creep thus has been expressed through
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> efforts to expand previously narrow legal categories…in a strategic bid to subject a
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> broader range of practices to a greater amount of public opprobrium. (p. 611)
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> Below we discuss a type of creep that goes beyond relabelling forced or exploitative

labour as trafficking, and ultimately "justifies" the targeting of labour which is not forced and

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[10] The 2017 US Stop Enabling Sex Traffickers Act (SESTA) and Allow States and Victims to Fight Online Sex Trafficking Act (FOSTA).

may not be more exploitative than any other job, alongside consensual non-remunerated sex- and socialising-related activities, in the name of anti-trafficking.

Chuang (2014) links exploitation creep in with broader agendas within U.S. foreign policy and the non-governmental sector; this can also be seen in the construction of a dominant narrative around human trafficking and in the spread of anti-trafficking action that we discuss below. Chuang's work emphasises legal and normative aspects of exploitation creep, and it is clear that the spread of anti-trafficking action discussed below does particularly target non-normative behaviour, and often affects groups who may suffer and have suffered disproportionately at the hands of law enforcement. However, we demonstrate that this spread of anti-trafficking action is also being shaped by the empirical belief that trafficking today is networked – and, thus, that anti-trafficking should spread across and outwards from a network with no clear limits. This broadening spread allows a wide range of sex- and dating-related activities to be increasingly policed, and also helps anti-trafficking organisations to justify their presence and activities.

Within the context of combating (or "fighting"[11]) human trafficking, one example of using the network as "a device for calculating and classifying security risks and acting upon them" (de Goede 2012, p. 216) is the attempts to shut down classified advertising websites purported to facilitate human trafficking for sexual exploitation. Shut down in April 2018 following multiple legal and political actions, Backpage.com – a classified advertising website launched in 2004 – was alleged to be used by human trafficking networks to advertise sexual services provided by victims of human trafficking, including reports of a USA citizen prosecuted

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[11] See Ras and Gregoriou (2019).

for overseeing "a sex trafficking ring that sold sex with adult women and at least three underage girls on Backpage from September 2014 to January 2016" (Reuters, 2019). The closure of the website was justified by claims accusing it of being "key to the 'growth' of sex trafficking in the United States" (Backpage v. Dart, 2015, para. 8) and of "willfully play[ing] a central role in an industry that reaps its cash from the victimization of women and girls across the world" (para. 8). A closer reading of the relevant court ruling and other official documents surrounding the seizure of Backpage reveals that even though the alleged role of Backpage in facilitating human trafficking was central in the targeting of Backpage, the key argument centred on its role in advertising commercial sexual services (which were sometimes criminalised), rather than any more direct role or involvement in trafficking. Within this context, fighting a (real or imagined) sex trafficking network allows action to spread through a logic of association, rather than needing any more concrete activity or links: closing down a marketplace for sex work, which may have been consensual even if it was illegal, in the name of anti-trafficking. However, what is also noteworthy is how similar tactics have been used against a range of sex-related activities which are very different from trafficking. For example, the court ruling against Thomas J. Dart – the Sheriff of Cook County who "embarked on a campaign intended to crush Backpage's adult section…by demanding that firms such as Visa and MasterCard prohibit the use of their credit cards to purchase any ads on Backpage" (Backpage v. Dart, 2015, para. 2) – notes that many of Backpage.com adverts did not seem in any way linked to violence against or trafficking of women and children. In discussing an advert for a professional dominatrix "who is paid to whip or otherwise humiliate a customer in order to arouse him sexually", the ruling states that it is "not obvious that such conduct endangers women or children or violates any laws" (Backpage v. Dart,

2015, para. 16). Nonetheless, identifiable adverts for this particular kind of service were effectively shuttered through fighting the "outside-less" trafficking networks.

Phone apps have played an important role in bringing online adverts for, and social networks structured around, opportunities for dating, hook-ups and kink into the everyday lives of users: for example, gamifying the selection/rejection of pictures of potential dates and using the geolocation feature on smartphones to find sexual or romantic partners nearby[12]. These apps have also been affected by the spread of actions justified by the idea of human trafficking networks. Most of the activity on the largest dating, hook-up and kink sites involves non-commercial encounters and – while some sex work may take place – sites such as Tinder[13], Grindr[14] or Fetlife[15] (all with multi-million user audiences across the world) are far removed from playing a central role in sex traffickers' "victimization of women and girls across the world" (Backpage v. Dart, 2015, para. 8). However, in 2014, a new campaign was launched using the dating app Tinder to "bring home the brutal reality of sex trafficking in Ireland", showing images of models acting as women trafficked for sexual exploitation (Berman, 2014). This led Dickson (2014, para. 3) to question why the choice was made to use Tinder to launch it: "Is there an implication here that sex trafficking is taking place on Tinder, or that users looking for a quick hookup are somehow directly responsible for the fate of the women in the ad?" The kink social network site Fetlife had some of its content censored through payment providers making demands of the site (in a way which echoed actions against Backpage) (Malcolm, 2017). These examples demonstrate a spread of action from targeting the claimed use of Backpage in

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[12] See, for example, Deshotels and Forsyth (2019) and Wignal (2017).
[13] Tinder is a location-based social search mobile app, most often used as a dating site, which allows users to "like" other users and allows users to chat if both parties "like" each other.
[14] Grindr is a geosocial networking and online dating application geared towards gay, bi, trans, and queer people.
[15] FetLife is a social network for the BDSM, Fetish & Kinky Community

sex trafficking of women and children, to the targeting of dating/hook-up/kink sites – which are primarily involved in non-commercial meet-ups – in the name of action against an amorphous sex trafficking network. The phone apps we discuss here have thus been launched into online spaces with a long history of anti-trafficking action spreading.

In April 2018, two pieces of anti-trafficking legislation were signed into law in the United States: the Stop Enabling Sex Traffickers Act (SESTA), and Allow States and Victims to Fight Online Sex Trafficking Act (FOSTA) (see the Stop Enabling Sex Traffickers Act of 2017). In amending the Communications Act of 1934, the Stop Enabling Sex Traffickers Act of 2017 made it possible to prosecute websites purported to engage "in the promotion or facilitation of prostitution" or "facilitate traffickers in advertising the sale of unlawful sex acts with sex trafficking victims". In their recent analysis of the impact of FOSTA/SESTA on sex workers' rights in the USA, Peterson et al. (2019) argue:

> [w]hile supporters of the law claim that its aim is to target human traffickers, its text makes no effort to differentiate between trafficking and consensual sex work and it functionally includes websites where workers advertise services or share information, including safety tips. (p.189)

Following the law's passage—and even before its full implementation—sex workers felt its impact as websites began to eliminate platforms previously used to advertise services. For example, YourDominatrix.com stopped "U.S. listings, with a note saying this was 'due to a recent bill passed by Congress'" (McCormick, 2018). The closure of AdultWork to U.S. advertisers has impacted sex workers offering services such as domination and camming (Du, 2018).

Far from being horrific sexual abuse and slavery, many of these services will have been comparatively low risk to the workers whose adverts have been censored. FOSTA/SESTA has, additionally, led to sites used extensively for non-remunerated dating and hook-ups being censored. For example, Craigslist has closed its Personals section due to FOSTA/SESTA - and, while this was used for sex work adverts, it was also used by people wanting to meet for unremunerated dating and (particularly because of its potential for anonymity) wanting to meet up for unremunerated but also casual, unconventional and/or stigmatised sex and play. Pounced.org - a dating site for furries - has been shuttered due to concerns that it might fall foul of the legislation, despite no evidence of a trafficking problem in the furry community.[16]

The introduction of FOSTA/SESTA and the growing calls in the UK to introduce similar legislation to outlaw online prostitution platforms following the publication of the final report by the All-Party Parliamentary Group on Prostitution and the Global Sex Trade (2018) (criticised by organisations campaigning for the rights and safety of everyone who sells sexual services[17]), signals the spreading of the legislative and policy agendas justified as targeting sex trafficking networks at the expense of a lot of other online activity, including adverts for legal sex work and drawing in largely non-commercial dating/hook-up and kink apps and websites. Supporting, enabling, or allowing action against an idea of nebulous and outside-less sex trafficking network risks repression of many other tangible and easily identifiable (and trackable) aspects of everyday lives.

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[16] Pounced.org was a "personals website for furries to meet up and find romantic partners" (Cole 2018). Hsu and Bailey (2019) define *furries* as "individuals who are especially interested in anthropomorphic or cartoon animals (e.g., Bugs Bunny). They often strongly identify with anthropomorphic animals and create *fursonas*, identities of themselves as those anthropomorphic animals".

[17] See, for example, English Collective of Prostitutes (2018).

In this context, it should be no surprise that anti-trafficking apps can spread in scope of action. For example, TraffickCam is (as the name suggests) intended to help law enforcement find trafficking victims through identifying the location of images in adverts. However, there are already reports that data collected through anti-trafficking apps is being used in ways beyond the initial intention (e.g. police discussions of TraffickCam make clear it might also draw in independent sex workers)[18]. The idea of trafficking networks maintained by organised crime groups allows anti-trafficking activity to spread and affect activity which might (with or without justification) be presented as connected to trafficking; there is no clear limit or outside to this. It can also lead to a diverse range of "anti-trafficking" activities - for example, as the Salvation Army advocate, cutting out pictures and sticking them to a paper cross might sit alongside the use of anti-trafficking apps. This spread can also lead to an interesting overlap between action done in the name of anti-trafficking, on the one hand, and material which is targeted as trafficking, on the other hand; for example, cutting out provocative pictures of sex workers to stick them to religious paraphernalia might, in different contexts, be part of anything from religiously-inspired anti-trafficking activism to the type of non-normative sex work which can be targeted as trafficking.

Methodology

The Apple and Google Play stores are the largest app stores for mobile devices[19]. We therefore focussed on these - downloading and inspecting all anti-trafficking apps we could find as of August 2017. We found apps by searching for "trafficking" using truncation to combine and eliminate search terms, and looked at all of the identified apps excluding those clearly not

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[18] See Vocativ (2016)
[19] See VB (2017) and TC (2016)

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related to human trafficking (for example, those focussed on trafficking in wildlife or cultural artefacts). We identified 63 apps across these two platforms, some of which were platform-specific, and some shared between the two. We developed a coding matrix consisting of the following variables: country, hosting platform (Android, iOS or both), name of the organisation that developed the app, organisational profile (governmental, non-religious NGOs/charities, religious organisations, commercial organisations and individual developers/activists), number of downloads (for Android apps since Apple Store does not show the number of downloads for iOS-based apps), cost to users to download the app, app functionality (awareness raising, reporting, fundraising, data sharing), type of trafficking the app is attempting to combat, and the overall functionality of the app (broken/functioning). We coded apps individually before looking at them together by comparing our notes and observations, and entering an agreed set of values for each of the above variables using SPSS. We used SPSS descriptive statistics to calculate frequencies.

Results

Our coding of the apps produced a number of findings presented in Table 1. Most striking is the number of apps where the Google Play App store showed low downloads: more than 75% of apps listed fewer than 100 downloads (which includes 45% showing fewer than 10 downloads) while only 2% listed more than 10,000 downloads. A lot of apps are almost never being downloaded, let alone used. This includes some apps which benefitted from public funding.

Non-governmental organisations were by far the largest publisher of anti-trafficking apps (73%), with government bodies a distant second (3%). The great majority of apps (87%) had an awareness raising function, while the second most common functionality (42%) was reporting. A significant minority of the apps (17%) had all or part of their functionality broken.

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The overwhelming majority of the apps were free to download: only two apps in this sample charged for this, and there was not evidence of these raising any significant amount of money through download fees. 13% of apps had fundraising functionality built in.

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Insert Table 1 here

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Table 1. Key Characteristics of the Analysed Anti-Trafficking Apps

Variables	N (%)

Platform Availability (n = 63)
          Android
          Apple's iOS
          Both
	
	(37%)
	(19%)
	(44%)

National Origin (n = 56, where national origin can be identified)
          Targeted at USA-based users
          Targeted at UK-based users
          Non-specific
	
	(64%)
	(9%)
	(27%)

Number of Downloads (n = 51, including all Android apps; number of downloads is not provided for iOS apps)
          Less than 10
          11 - 100
          101 - 1,000
          1,000 - 10,000
          10,001 and above
	
	(45%)
	(31%)
	(14%)
	(8%)
	(2%)[20]

Download Cost (n = 44, where the cost of download could be identified) Free	 (95%)

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[20] Only 1 app in this sample (n = 51)

Paid	(5%[21])
Developers (n = 63)	
Non-religious NGOs	(59%)
Religious organisations	(14%)
Government organisations	(7%)
Individual developers	(3%)
For-profit organisations	(2%)
Unidentifiable	(15%)
Type of Human Trafficking (n = 62, where the type could be identified)	
Both sexual and labour exploitation[22]	(57%)
"Sex trafficking"[23]	(24%)
Labour exploitation	(3%)
Trafficking in children	(16%)
Functionality (n=59, where the extent to which the app performed its stated purpose could be assessed)	
Functional	(83%)
Fully or partially broken	(17%)
Functionality by type (n = 62, where the purpose of the app could be ascertained)	
Awareness raising	(87%)
In-built reporting function[24]	(42%)
Fundraising/donate function	(13%)
Data-sharing[25]	(5%)
No clear purpose	(8%)

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[21] 2 apps in this sample (n = 44), including an app to combat child trafficking (£0.89 to install) and an app "combat the human trafficking of kids" (both targeted at U.S. users) costing £81 to download. Both apps were available for downloading from the Google Play Store, which recorded the number of downloads, which in both cases were listed as 0.

[22] The majority (51%, n = 35) were directed at the U.S. users.

[23] The majority of sex trafficking apps (53%, n=15) were developed by non-religious NGOs and 20% by religious organisations; 75% (n=15) were directed at the U.S. users.

[24] The majority of such apps with an in-built reporting function were developed by non-religious non-governmental organisations and, in most cases, it was unclear what happened to the reported data about the suspected cases of trafficking, and whether this information was sent directly to relevant law enforcement authorities, or retained and acted upon by a non-governmental organisation responsible for the development of the app.

[25] Including the option of uploading photographs of hotel rooms to enable law enforcement authorities to use such photographs as evidence to find and prosecute traffickers who "regularly post photographs of their victims posed in hotel rooms for online advertisements" (see https://traffickcam.com/about)

Funding[26] (n = 63)	
Public funding towards development[27]	(25%)
Private funding or unspecified	(75%)

In terms of content, users of both Android and Apple-hosted apps had access to a diversity of apps including:

- An app encouraging to "fight trafficking by uploading photos of your hotel room. These photos will be used to determine where perpetrators of sex trafficking are committing their crimes";

- An app to "…rescue and restore victims of sexual slavery through the love and power of Jesus Christ";

- A game app allowing users, who become "players", to "…experience what an abductee goes through when she is trafficked into the inhumane and cruel world of prostitution…";

- Another game where users are asked to spot "flags" of trafficking, some of which seemed rather dubious, for example, a hand tattoo is a "red flag" since a modelling scout wearing a tattoo is not "business-like" and may be a trafficker luring innocent victims into trafficking rather than modelling;

- An app allowing users to get involved by donating 30 USD to "Sponsor a Girl": "Young ladies learn that God can take what seems broken and make it beautiful, just like stained glass. A gift of $30 will send one young lady through this life changing event that we pray will forever impact her destiny";

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[26] In almost all cases it was not possible to identify the cost of app development and maintenance by looking at various documents (including annual report) on the organisational websites.

[27] For the apps that received public funding, the approximate number of downloads was known for 13 apps (i.e. apps hosted by Google Play distribution service). Among these 13 apps, 10 were downloaded less than 100 times, 1 between 101 and 500 times, and 2 between 501 and 1,000 times.

- An app designed for truckers (lorry drivers in the US), described as "the eyes and the ears of our nation's highways to "…saturate trucking and related industries with Truckers Against Trafficking materials";

- A reporting app which encourages users to "…go into the toilet to complete your report on the App…if someone is being taken by traffickers and they are in danger now, you have to tell the local authorities as well as us. Tell them first and us second".

On a broader level, none of the apps really highlighted or interrogated broader structural reasons or factors for trafficking in human beings for sexual or labour exploitation. Instead, in addition to various types of functionality described above, the majority of apps drew on and further reinforced normative representations of human trafficking drawing on gendered and racialised typology of "ideal victims" and "ideal criminals"[28], including, for example, a picture of a full-bodied white man holding an emaciated non-white child. Echoing the findings of the media analysis in Sharapov and Mendel (2018), the mobile apps construct and, when and if functional, allow their users to engage with individual stories of suffering and user-mediated rescue as a representative illustration of "modern day slavery" set in the context where responses to broader structural issues that make people vulnerable to exploitation remain always delayed or all together ignored.

Discussion

Anti-trafficking, Risk and Ignorance

Despite the often admirable and grandiose objectives declared by anti-trafficking app developers (e.g., "helping more people out of slavery", "improving the position of human

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[28] For further discussion of media representations within the context of human trafficking see Sharapov and Mendel (2018) and O'Brien (2013).

trafficking victims in European countries", "building a global picture of human trafficking to enable communities to take action", "helping to set slaves free", etc…), there are significant risks in developing such applications, especially those with an in-built reporting or data-sharing functionality. A badly-designed app that aims to facilitate action against serious abuses might either be ineffective or, in some cases, cause further harm; there are also risks involved with the type of very sensitive data many apps are requesting. At a fairly basic level, it was common for significant parts of apps not to work as intended (17%, $n = 59$), including, in the majority of cases, the broken functionality of the "Report Crime"/"Report Concerns" option. In such cases, a user – whether a member of the public or a potential victim – would be unable to report a suspected case of trafficking, or may be led to believe that the case was reported but, in reality, the report would fail to send. Out-of-date information (with many apps not having been updated for a considerable time) also carries risks. In addition, there are broader issues around the possible use of some apps for actions not directly related to human trafficking (discussed below, see section on connectivity). With reference to anti-trafficking, Mendel and Sharapov (2016) argue:

> [i]gnorance (of trafficking as a manifestation of insecure relations of labour and differential access to human rights within the context of neoliberal economies), far from acting as a barrier to action, becomes an *enabler* of calls for increasingly radical and widespread actions. (p. 669)

Despite the increasing – year on year - number of the anti-trafficking apps[29], there appears to be no obvious purpose to or benefit from having tens of poorly designed "awareness raising" apps

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[29] A review of current (as of July 2019) anti-trafficking apps available on both Apple and Good Play purchasing platform indicates a noticeable increase in the number of anti-trafficking/"modern slavery" apps since the empirical research for this project was completed in 2017.

online, being downloaded by a small number of people. It is ignorance of human trafficking and anti-trafficking, and what remains out of the public awareness, legal and policy domains, that makes it possible for anti-trafficking apps to proliferate nonetheless.

Interpassivity

When we began writing this paper, we were interested in interpassivity from an individual perspective: expecting (as discussed above) that there would be an emotional reward from the app "doing something" in the user's place. Apps do often ask users to download them in order to do something or to take action, even if this "doing something" is just additional awareness raising. However, the majority of apps have – so far as one can tell – very few downloads: even if their "pitch" to prospective users is for them to be able to "do something", they are failing to convince many people to do so.

Despite the small download numbers of many apps, we did not find any evidence of organisations worrying about an extremely low take-up, or low apparent impact of the apps (beyond their presence on the app store). Indeed, some apps merely copied (sometimes incorrectly or only partially) materials already easily available online, and put this material into an app with poor usability. This falls short of a well-planned strategy to have a substantive anti-trafficking impact. Interpassivity here seems to be acting on the organisational level – as if by simply placing the app there, the app (even if almost-never downloaded) becomes active on the organisation's as well as the individual's part.

Connectivity

As argued above, the idea of a network – including a variety of networks to facilitate human trafficking – can make it hard to mark out any clear outside (de Goede, 2012). While anti-trafficking apps might be justified as a response to extreme abuses and violation of victims'

rights, their impact tends to extend onto a whole range of activities which may be consensual, legal and/or low risk. The recent yet rapidly expanding tech development to police all online content related to both consensual and non-consensual sexual activities under the banner of fighting trafficking in children has been promoted by Thorn – a non-governmental organisation founded, as a textbook example of celebrity humanitarianism, by Hollywood celebrities Ashton Kutcher and Demi Moore (see Haynes, 2014, and Hoefinger, 2016). Over recent years, Thorn – promoting itself as "Digital Defenders of Children" – has been partnering with major websites, including Google, Facebook, Twitter, Tumblr, Pinterest[30] - to offer its content moderation tool "Safer"[31] and its data-mining and user-profiling tool "Spotlight".[32] For Blue (2009, para. 2), "[b]oth use data sources and AI to automate policing of sex content. Of Thorn's 31 nonprofit partners, 27 target adults and vow to abolish consensual sex work under the banner of saving children from sex trafficking" in full alignment with FOSTA/SESTA (as discussed above).

According to the most recent assessment of FOSTA/SESTA's early stage impacts, despite enjoying "…a glowing narrative as a panacea for sexual corruption in the United States," the disappearance of thirteen sex workers, two deaths as a result of suicide, and other "egregious acts of violence and economic devastation are directly attributable to FOSTA's enactment" and its criminalisation of any internet discussion that "promotes or facilitates prostitution," (Chamberlain 2019, p. 2173).

The role of existing and future anti-trafficking apps designed as enablers for reporting any sexual content for the sake of fighting human trafficking for sexual exploitation (broadly and

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[30] https://www.thorn.org/partnerships/
[31] https://getsafer.io
[32] https://www.htspotlight.com/apps/

erroneously conceived as involving all sex work) should be further investigated. Likewise, within the context of trafficking for labour exploitation, apps for reporting workers engaged in the informal economy (see Sharapov, 2018) for the sake of combating forced labour should be further investigated. As well as the lack of an outside to data usage, there are also concerns about the lack of an outside to where the data might go. Many apps offer data input/sending functions (for example, to report potential cases of human trafficking) without making it clear where these data are sent; in some cases (15% of apps in our sample, $n = 63$) it is not even clear who is responsible for the app. Apps can also demand access to, for example, camera and location services of the phone enabling the data to leak both between organisations (shared with and between law enforcement, charities or other agencies), and, as discussed above, to be used for purposes which go beyond combatting the type of extreme examples of exploitation which are often used to justify anti-trafficking activity and technology.

Limitations

We recognise that things will have changed since this research was completed. Repeating the data collection and analysis in this paper, to see what changes have taken place, would therefore be welcome. It would also be valuable to extend this work to include data collection with the organisations behind these apps and the users of them. This might allow a fuller account of why and how the apps are produced as they are, what users are doing with the apps (where apps do have active users) and what their experiences are like.

Policy Recommendations and Future Research

Our analysis of these anti-trafficking apps leads to two key policy recommendations. A first recommendation is that organisations should be significantly more cautious when deciding whether to develop and launch a new app, and be clear about the target audience and their

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strategy to test, maintain and market the app. There were a significant number of apps (some of which received public funding) which had a very small number of downloads; a lot of apps also did not work, which often involved important functionality like "report trafficking" forms being out-of-date. It was often unclear what apps were aiming to achieve beyond things that, for example, a well-designed website might do. Producing non-functional apps with no clear purpose or audience is a poor use of resources.

A second policy recommendation relates to the aforementioned potential of action framed in terms of anti-trafficking to spread – a risk that app developers should bear in mind. For example, the potential of an anti-trafficking app like TraffikCam to be used to target consensual sex work is something that should be factored into design and roll-out. A detailed ethical assessment of anti-trafficking apps is essential: for example, it is deeply problematic if an app aimed at preventing trafficking by non-state actors leads to more people (including those that many anti-trafficking activists would view as victims of trafficking) being incarcerated and otherwise harmed by state actors for activities such as sex work. The potential harms done by such spread of anti-trafficking action need be considered.

As discussed above, we argue that this is an important topic for future research. While we found a focus on the apps themselves to be valuable, it would be helpful to extend this in two directions. Firstly, there is a need for research with the organisations who are creating and launching these apps – for example, looking at their planning, development and roll-out processes. Secondly, there is also a need for user testing here: to investigate what happens when people do download and use these apps.

We would follow Musto, Thakor and Gerasimov (2020) to add a somewhat speculative final recommendation about Covid-19 related app development. Musto, Thakor and Gerasimov

suggest that some of the lessons learnt from their broader work on anti-trafficking can be applied to the emerging politics of Covid-19, and argue that "in the absence of a coordinated global response, we see a surfacing of philanthrocapitalist-backed techno-solutionist fixes and calls to enlist "big tech companies" for support. Placing trust in tech firms...proves limited. It is likewise short-sighted to assume that tech companies are equipped to fill in the slack of an otherwise unresponsive state". There are currently multiple moves to respond to Covid-19 through introducing a range of tracking and monitoring apps. Again, there are lessons to learn here from problems with anti-trafficking apps. Firstly, there are some related concerns about the handling of the data collected from Covid-monitoring apps, the uses to which these data are put, and the potential for abuse. There are also reasons to worry that – as with anti-trafficking – anti-Covid activity may spread excessively into other areas of life and impinge on the very intimate lives of users. A final concern to note – and an original contribution of this paper – is the risk that in the absence of things like robust public health systems we may see interpassivity coming into play: ineffective anti-Covid apps might be seen to act on "our" behalf, and thus make inaction from states and other bodies seem more tolerable.

Conclusions

We have used anti-trafficking apps as an example of how relations of power/knowledge can function in this field and, significantly, how an agnotological approach focussing on relations of ignorance/power can also be important. With much energy and resources invested into the development of anti-trafficking apps, it is not sufficient to think of the low standards of information and function here as simply an absence of knowledge or competence; instead, it is important to ask how this ignorance is being constructed.

With the above in mind, it would be unwise to simply dismiss the activity around anti-trafficking apps. While it might be tempting to view a lot of these apps as just a waste of time and money (due to their poor functionality and usability), scholars and activists need to be aware of the social and political effects of this ignorance. This includes, for example, beliefs and allegations about vast networks of online trafficking which are used to spread anti-trafficking networks and actions extensively and, to echo de Goede (2012), in a limitless fashion. The apps and their creators rely on weak association rules to include much of everyday life – from various types of sexual activity to staying in a hotel – in anti-trafficking action targeting these real or imagined networks. In spatial terms, moving this activity onto smartphones brings anti-trafficking activity significantly closer in to individuals and communities. In terms of novel political activity, we also see interpassivity playing out at organisational and individual levels in some new ways. While our focus in this paper is on apps, our hope is that engaging with the ignorance around which a range of online anti-trafficking – and much anti-trafficking more broadly – is built might open up additional political opportunities: moving beyond the search for a simple technical fix, and instead allowing broader political challenges to exploitation.

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