

How does the Dark Web Influence Human (and Sex) Trafficking? What Security Implementations are Involved in the Dark Web?

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Abstract

This paper is exploring the connection between human trafficking in the dark web. It also looks into the different variations as to how people are trafficked and who is more likely to be trafficked. The surveys that were conducted is to mainly see current knowledge of everyday people on what they personally knew about the connection between trafficking and the dark web.

I. Introduction

There are a lot of things that go on in this world. Many things happen in open spaces; however, many things also happen in closed doors. For the things that happen in open spaces or in the public eye those things are well be under scrutiny from the public. But there are things that happen in closed doors specifically things that we don't like to talk about like sex trafficking, child pornography, gambling addictions, drug addictions and many more things that we don't want to talk about because it's not comfortable to talk about. One of the many things that we don't talk about today specifically is trafficking and sex trafficking as well as how people are put in those situations and what people are exploited. One example as to how some people are exploited is through grooming as a child and the sharing of elicit and illegal child sexual abuse material. Many people know about what human trafficking is and what is sex trafficking is, but I wanted to know do they know that it can be also linked to the dark web and that it can also be in plain sight of what we see online every single day.

II. Problem Statement

The main issue, in regard to human trafficking and sex trafficking, is the lack of proper information in regard to how it may be carried out online as well as it is being carried out in-person. A few of the key reasons, is that it is not well known or its known, but the actuality of an everyday person witnessing and knows that is human trafficking, is very little. Another key part is that the dark web is getting more involved with assuring that anyone can be trafficked and payment verification processes using crypto currency and the evasiveness of the dark web through its complex algorithm in hiding the users' IP addresses. There also is a link that exists with the reasons why some people are trafficked more than the average everyday person. The definition of human trafficking for

this paper is not limited to what type, but understanding the links it has with trafficking victims and how it impacts on a societal level of what is actually happening in the world of trafficking.

III. Methodology

Interviews with the FBI Buffalo Field Office

For the interviews with the FBI in the Buffalo field office I will be conducting them with an FBI agent and Staff Operations Specialists who handle cases dealing with trafficking and crimes against children. The team that they are on covers a wide array of crimes in the area that it serves. They will be providing insight on what they have encountered so far in their career and what they know about interactions on the dark web and other human trafficking tactics.

Literature Reviews

This section will be focusing on the documented methodologies previously unknown to myself and about the security measures that a particular dark web browser (Tor) utilizes. This will explain why dark web-websites are hard to find, track and prosecute in the eye of the law. It will also include research about reports of human trafficking and a few links between trafficking in various degrees of exploitation and how the dark web might be developing a new market to traffic humans on. Trafficking is not only limited to moving people away from their native habitats, but also includes the motives of the person doing the trafficking and the possible motives of the person being trafficked.

User Surveys and Mini Interviews

I have also conducted user surveys in three different focus groups:

1. Everyday Citizens
2. Law Enforcement
3. Specialists in Anti-Trafficking (mini interview)

The results will hopefully yield some prospective of what trafficking is and what is the dark web with simple questions asked in the everyday citizen survey. The specialist survey is taking in information that specialists provide on the demographics of trafficking victims and

other metrics. The law enforcement survey will be assessing various areas in the Hampton Roads area and what each police department has encountered in their career.

IV. Interviews with the Buffalo FBI Field Office

This interview was conducted on September 24th, 2020 by Kelleytina Williams, interviewing Special Agent (SA) Randy Garver and Staff Operations Specialists (SOS) Kimberly Smith. These two interviewees are both part of the Violent Crimes Squad in the Buffalo Field Office, and it covers five Counties and is the headquarters for 12 additional counties in the Western New York region. I worked alongside SA Garver and SOS Smith, during my summer 2020 internship with the FBI, on various cases in regard to crimes against children involving sexual exploitation and prostitution trafficking. During the interview, I asked specific questions and written down key pieces of information that relates to the topic at hand. Information that was referenced in this interview will be explained and a literature review will be provided about unknown topics in a later section. The interviews do not indicate who said what specific thing, due to the fact that it was conducted as a group-type interview session and discussion with SA Garver and SOS Smith.

How many people throughout your career have been trafficked in the cases that you have worked?

There have been seven or eight cases in the last couple of years based out of the Buffalo field office. But there is no putting a specific number on how many we come across. A lot of trafficking victims that we come across do not want to be identified as victims and refuse to cooperate sometimes. So, as Randy said there might be a case where

we have five to ten victims, but there are actually is a lot more but we can't locate because they are out of state or no longer with that pimp or refuse to cooperate. So, it is really hard to quantify that number. Mainly depends on a case by case basis, and on average there are about ten girls per case, and there might be two cases a year, and that changes from year to year. The majority of girls that are involved with trafficking are not being trafficked they have drug problems and in exchange they are paying for that with their bodies. They can also be people from here (Buffalo) but are doing it in this city, they could be doing it in Las Vegas.

It also depends of if the case takes place in a larger city like New York or Washington DC, which may have higher levels of trafficking, due to its dense and large population size. So, a city like Buffalo would not be seeing high or similar levels to that of mega cities.

What methodologies have you've seen people trafficked? (online, in person)

Human trafficking with adults, mainly takes place offline, however a lot nowadays takes place online. Some people, specifically women get into trafficking through drug addiction itself and they are linked to pimps that pays them money to have sex with clients so they can afford the drugs that they want. A lot of sites that engage in human trafficking can easily be found on clear net (the regular internet that everyone has access to). There are also different types of pimps that can persuade girls to stay with them; a lot of the girls get involved through survival sex, some are runaways and some have drug habits. The pimp then seeks out advertisements that some of the girls post online and they offer them travel, shelter, and protection. The two different style of pimps are the Romeo pimp, who will romance the girl and make it seem like it is wonderful



Figure 1 Locations of Human Trafficking Situations in 2019 by The Polaris Project.

This is a map displaying the number of occurrences of trafficking in the United States

and will not make you do anything that you don't want to do; on the opposite end of that spectrum you have the Gorilla pimps who keeps the girl there through violence, threats against their family and them as well as threats of force. So, they have either developed a bong with the Romeo pimps or a fear of the Gorilla pimps

Have you had to work on the dark web for sanctioned work-related purposes and what did they yield?

No, we physically haven't worked on the dark web, however the majority of cases that require the FBI to go on the dark web usually comes from headquarters (Quantico, VA) and they send the field office any relevant information to carry out the case on our end. We haven't seen a lot of trafficking on the dark web. A lot of pimps and drug users are not sophisticated enough to use and recruit on the dark web. They already have a lot of advertisements that are on commercial prostitution clear net sites like Babylon, Backpage, Craigslist, Facebook, Airbnb (paying for the girl and the services at the Airbnb), and Twitter (many other sites as well).

Is there a substantial amount of child abuse/child exploitation on the dark web from what you encountered in your work?

There are tons of illicit information and images and videos of how to groom a child, how to hide the abuse of the child, how to lube the child, just tons of manuals about different ways to exploit the child. And once one goes down, another one is put up. There is also child sex tourism, where you have people who can go overseas and exploit children there and they do not necessarily need access to the dark web to do so.

Is there a way to prevent these types of sites from existing or is it difficult to manage? Elaborate a bit more on this. Are there non-dark web-websites that are used for sex trafficking and/or child sexual abuse as an alternative?

There are chat rooms like Magic Kingdom, Playpen, and Hurt Me, and a lot of it is just child pornography; there are rape videos of toddlers, and a lot of the chat rooms require that someone share child pornography images or videos to get access into the group itself. These sites thrive off of cryptocurrency so tracking the money trail is hard. And it is very difficult to manage, because it is not necessarily regulated by a governing body. A lot of these sites are not managed by US citizens/companies, they are Russian, Serbian, Eastern Europe, and Southeast Asian and not subject to US law. The only way they would be regulated is if the country puts filters on the internet restricting or banning these foreign sites (i.e. China, Russia).

The main social media websites that we use daily host various ways that someone may be trafficked. There was a recent conspiracy/hoax where they thought that a company (Wayfair) was selling girls online, but that's how some things are coded. These traffickers work off coded

messages that they put out in newspapers and online, so if you are looking for the right thing then you will find it.

V. Literature Reviews

What is the Dark Web? Who made it? What is Tor?

The actuality of the dark web is not hard to understand. The dark web or dark net is similar, in functionality to the regular internet that we use every day. We log into a web browser that has to be connected to the internet in order to access information that we need. Where it differs, is the fact that the dark web is mainly utilized for illicit and illegal activity [8]. Things such as child pornography, drugs, weapons, and other illicit material are bought, sold, and or traded on the dark web [8]. Presently there is a known way to access the dark web, which is through the web browser called Tor. Tor, or the concept of Tor, was originally developed in 1995 by the U.S. Naval Research Lab (NRL) under David Goldschlag, Mike Reed and Paul Syverson for the personal use by the Navy [11]. Commonly referred to as "onion routing," it was developed as a way for secure and private communication that hide the identities of those using the system. Syverson then started working on Tor or "The Onion Routing" project, similar to the NRL project but for wide spread use for the masses, with Roger Dingledine and Nick Mathewson [11]. The Tor browser did not come about until 2008 to aide in helping non-technically savvy users use the service that was once difficult to understand by everyday people.

Although Tor is the most notable dark web hosts, a software called the "Freenet" which is an anonymous peer-to-peer network that allows users to share files and search things up on their service anonymously, similar to how Tor allows users to browse anonymously [6]. Freenet was developed by a 2000 student attending Edinburgh University named Ian Clark [3]. This dark net web browser was also based off the level of that specific user, and gave more access to the dark web if they had a higher status. Users of this software also have allocated and allowed the software to use both bandwidth and disk space that is then taken and integrated in to the Freenet network [3]. In other words, the sharing of one's disk space and bandwidth, turns part of their machine into the Freenet itself and makes it a "server" where information is stored locally.

What was it originally intended to be used for? What security measures are in place that make it secure?

The original concept of the dark web was to allow its users surf the web without restrictions and censorship found in many of today's web browsers; as well as certain countries placing filters on certain websites, usually from outside their perspective country [11]. It allowed those countries involved in the Arab Spring and under civil unrest in the 2000s and 2010s to document and share to the world what was going on in their countries. But the dark web then turned from its freedom of censorship and information

sharing ways, although that might have compromised federal governments and treason, and started moving towards trafficking drugs and humans, child pornography hosting, and other illegal content. In 2015 the Federal Bureau of Investigation briefly held control over one of the largest dark web sites that deal in passion of child pornography [4]. From this investigation they have reportedly found and located 1,300 persons who have/had visited the site while under FBI control. The site that was taken down was called Playpen (mentioned in the FBI interview with SA Garver and SOS Smith) [4]. While the FBI held control of the site, they were able to unmask the hidden IP addresses of the persons who had visited the sites, which in turn gave them the location of what countries were from; they included, but not limited to, the United States, Chile, Greece, and the United Kingdom [4]. How the FBI got into the Tor network and took control of the site is through code that has been unreleased as of today. The FBI has been ordered to release the code by the Washington State federal court, but have presumptively dropped the child porn case to preserve the code exploit and potentially catch future pedophiles [10].

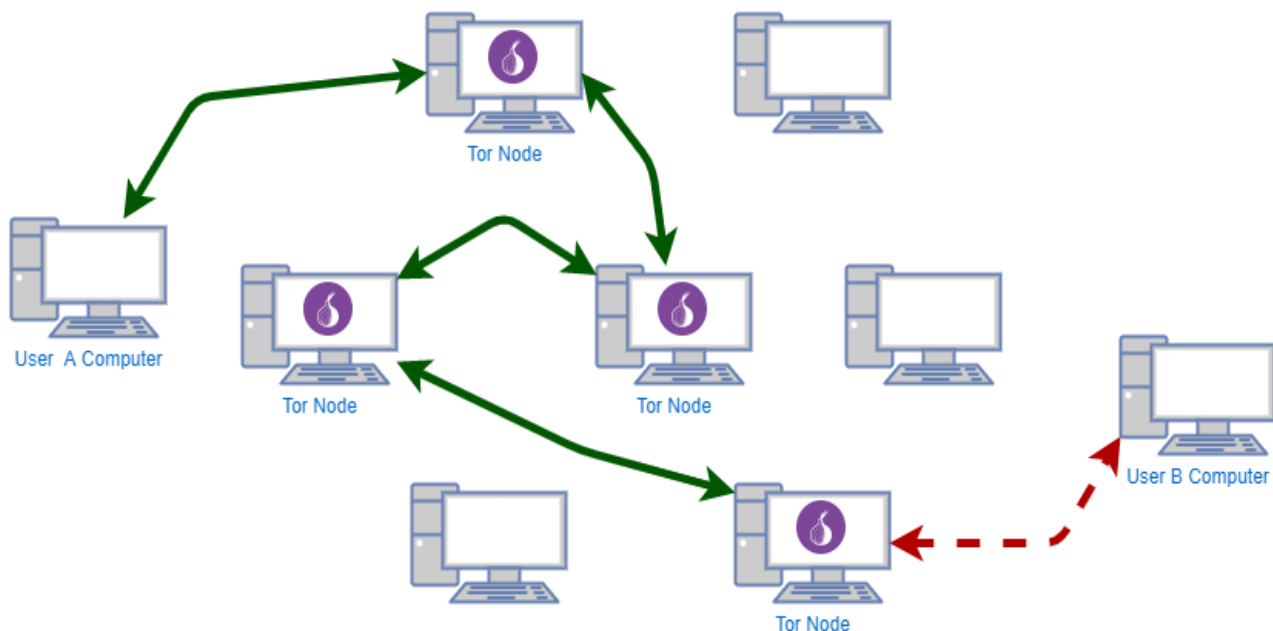
The security measures that are in place in the Tor browser must maintain anonymity for the user, which is the main reason that draws in its users. The Tor network works by relaying messages/files to other computers/servers that mask and constantly changing the IP address of the person requesting the data. Communication is also held

anonymous as well, so any chat room communication does not display any personal information [11]. In Figure 2, I have shown how the Tor network work on the basic level. User A, has the Tor network downloaded onto their computer, and they are searching for information on Tor, let's say they are looking for YouTube (which is not a Tor "specific" website), and they do not want their IP address tracked and recorded, so they use Tor to watch YouTube videos. When they query or search for YouTube on Tor, their search is routed through multiple computers also known in Figure 1 as "Tor Node(s)" in order to mask or change User A's IP address while they are using Tor. Throughout the use of the Tor browser, User A's connection is secure and encrypted until it finally gets to its destination and is decrypted and left unsecured in this case, because it is not a website that was not designed specifically for Tor.

The main reason why sites that are not specifically designed for Tor are not secure, is because they use HTTP protocols. HTTP protocols use various servers that reconstruct "documents" or websites that are then displayed to the users [2]. Tor solely works best for secure websites following the HTTPS, TLS, and SSL protocols because these types of searches tend to utilize end-to-end encryption [7]. The specialized sites that are made and designed for Tor end in .onion (onion sites), that have to be directly accessed by typing in the site name and can only be found on Tor [12]. These onion sites are where illegal activity



Figure 2 Basic Tor Networking Diagram



takes place and the promotion of drugs, child pornography and human trafficking takes place.

Human Trafficking Links to the Dark Web, on Clearnet, and Offline

In 2017 there was a news article written by Jessica Formoso of Fox 5 New York, that reports on instances of trafficking links to the dark web. In July of 2017 there was a British model named Chloe Ailing working in Milan, Italy where she claimed to have been kidnapped, and it was confirmed to have been up for sale on the dark web [5]. The report details although there are indeed instances where people are trafficked on the dark web similar to the Chloe Ailing case, the trafficking that takes place on there is just a small percentage of overall trafficking, particularly in the United States. Most trafficking happens offline in the United States, most likely because of very little to no technological savvy skills that these traffickers may or do not possess. They also reiterate that trafficking can be found on Clearnet sites like Backpage and Craigslist, even today [5]. Trafficking is not only limited to the widely infamous sex trafficking, but labor (slave labor) and child (sex) trafficking also take place. In California there is a widespread of Asian immigrants who are smuggled into the country and made to work in sweat shops, massage parlors, and prostitution, to “pay off” their smuggling fee/debt, to the ones that got them into the United States.

Trafficking also does not have to involve someone leaving the country, it can involve trafficking someone across local and state borders and it is not always just adults who are trafficked. In an article written by Ashley Kirklen of Fox 24 WGXA, reports that there had been a ring of child sex traffickers across Georgia in Savannah, Augusta, Columbus, and Atlanta in a combined FBI and GBI investigation [9]. They note that these types of traffickers use a similar system to that of a Romeo pimp, in the sense that they are grooming the child or build a trusting repertoire with the child to later on exploit and manipulate them once they have them in their possession. These types of grooming techniques are used on any and every platform a trafficker can get their hands on; instant messaging on Twitter, Facebook, and Instagram, chat rooms like Omegle, and other websites like dating apps like Tinder, Bumble, and Plenty of Fish [9].

The demographics for the year 2019 in reported trafficking victims, sourced from the Polaris Project, shows that the majority of trafficking victims are women; there is no definitive data for the ages that trafficking begins at and most of those who are trafficked are unknown in terms of their citizenship or what country they originate from. The following demographics are displayed in Figures 3, 4, and 5 [1].



Figure 3 The Polaris Project: Gender, 2019



Figure 4 The Polaris Project: Age at the Time Trafficking Began, 2019



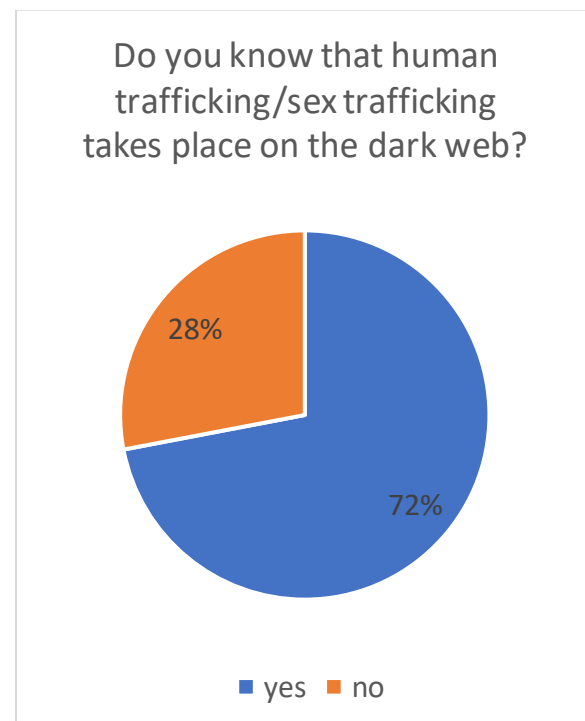
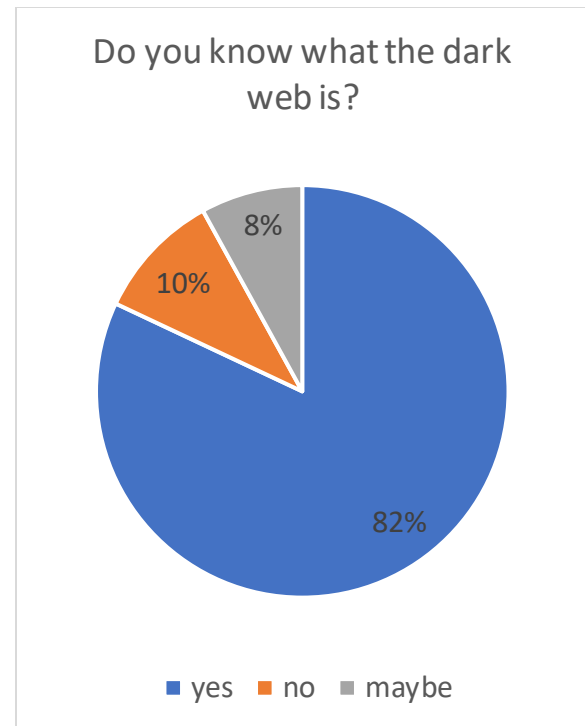
Figure 5 The Polaris Project: Nationality, 2019

Modern trafficking does incorporate the online aspect of how traffickers find their victims and traffic them for selfish profit and exploitation. There is also still the old aspects of trafficking that takes place offline as well, that fuel the continuation of trafficking around the world. With over an estimation of 20 million victims of trafficking, many routes may be taken by traffickers to exploit others.

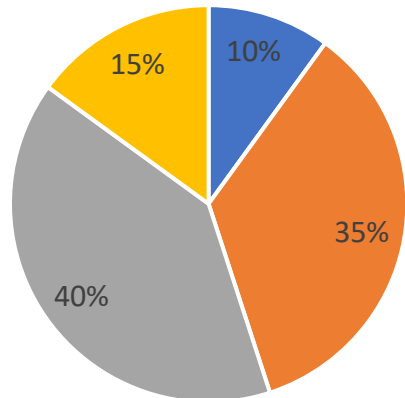
VI. User Survey Research & Results

Everyday Citizens

There were 103 response from this survey. Here are the results

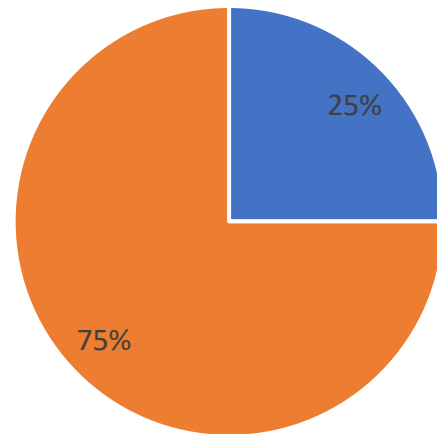


What percentage do you think human trafficking/sex trafficking takes place offline?



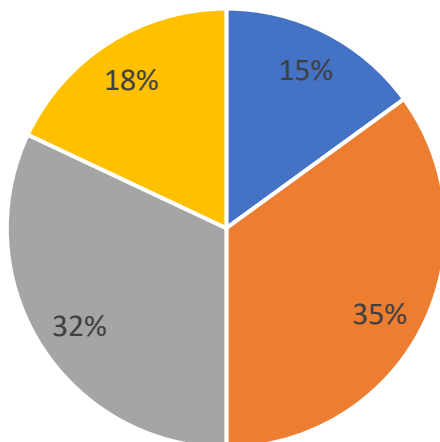
■ < 25 ■ 25-50 ■ 50-75 ■ >75

Have you seen instances online where someone was being trafficked in real life?



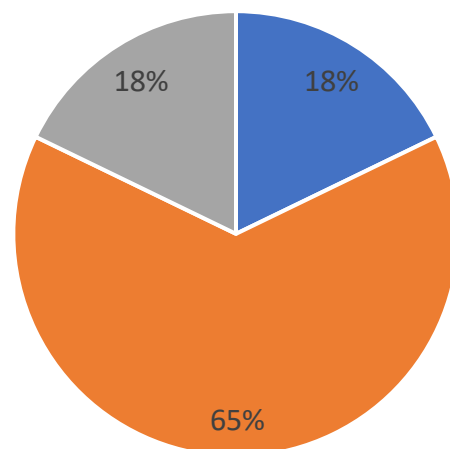
■ yes ■ no

What percentage do you think human trafficking/sex trafficking takes place online?



■ < 25 ■ 25-50 ■ 50-75 ■ >75

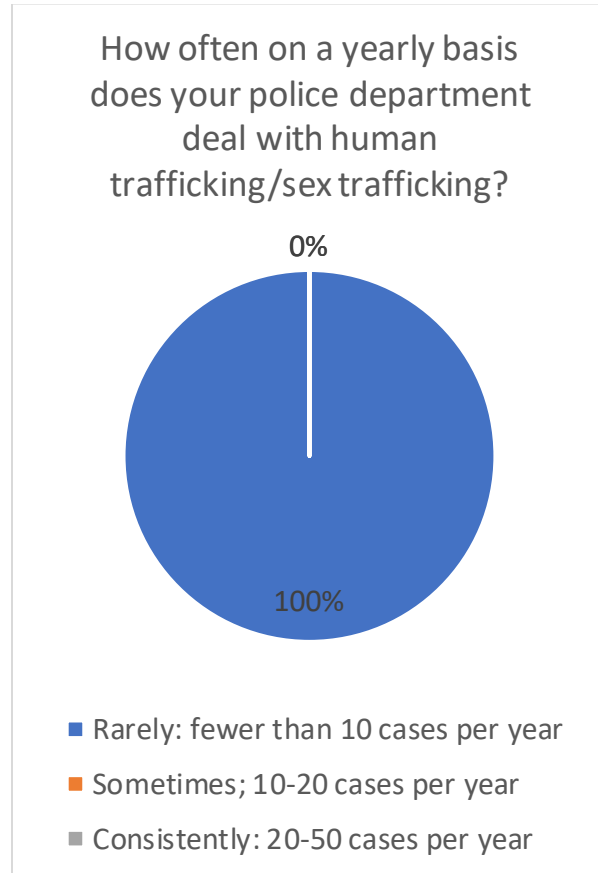
Do you know of any dark web browsers, like Tor?



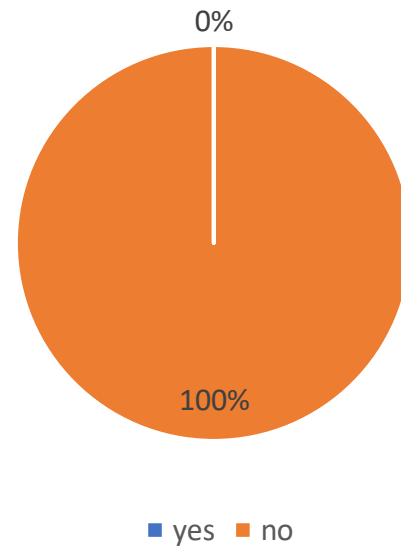
■ yes ■ no ■ I heard of it

Law enforcement

Surveys have been taken by five Hampton University Police officers and one Newport News Police officer. These are based off what each have seen while they have seen in their career.



Do you see a lot (more than 5 cases) of trafficking victims cross local, state, and international borders/seas?



Specialists in Anti-Trafficking: Samaritan House of VA Beach (Samaritan House, Inc.) with Courtney Pierce

What types of cases does your organization work on?

We serve all victims/survivors of Human Trafficking (sex and labor).

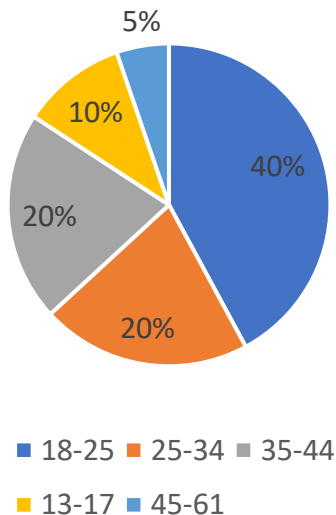
How often on average and a yearly basis, does the area your organization services have trafficking cases?

Since the beginning of the program Jan 2017 we have served around 140 victim/survivors of trafficking

Of the average of trafficking cases in the area your organization services, how many are sex trafficked?

I can only speak for the victim/survivors served at Samaritan House about 85% are victim/survivors sex trafficking

In a list, can you provide context of the quantity of people in a certain age range that your organization sees, of those who are trafficked?



How many cases involve the use of dark web websites to your current knowledge?

We are not law enforcement, I don't have knowledge of this information

Can you explain in your opinion, do you believe that the internet has fueled trafficking more in the last 20 years?

Most certainly, like any of crime of oppression the internet has given many folks the ability to connect with marginalized populations.

VII. Analyzing the Results

Everyday Citizens

This survey had 103 responses.

According to the data, the majority of the sample surveyed knew what the dark web was with a positive 82%, with 8% might knowing what the dark web is, and 10% not knowing what it was at all. 72% of respondents knew that the dark web hosts trafficking/sex trafficking, and 28% not knowing that trafficking took place on the dark web. Comparing the amount of trafficking that takes place both on and offline, there is a 3% difference between what the respondents think is above 75% of total trafficking, with those thinking that offline trafficking takes place more than 75% of the time at 15% of total responses, and online trafficking takes place more than 75% of the time at 18% of total responses.

The majority of everyday people do not see instances in their own personal lives or have witnessed someone being trafficked, with 75% of respondents saying they have not witnessed any, and 25% saying that they have witnessed someone being trafficked. Even though many respondents, and in relation to most people in general, 65% said that they have never heard of or knew of the dark web browser named Tor.

Based off these results, most people know that trafficking happens online and offline and know that the dark web also hosts those types of trafficking sites as well. Even though, many trafficking sites can be found on Clearnet (regular internet), the dark web does host some of the most notorious ones. So, the general public, based of this survey, has a good grasp on trafficking on the dark web, although they themselves might not specifically know how to access it themselves. Some education may be needed on what Tor is and why it should not be used really by the general public.

Law Enforcement

The Law enforcement surveys come from those in charge of the special victims unit in their city/area of coverage and those who work on the force. Two main questions were asked based off the amount that every officer/unit personal, has encountered while working for their perspective department. A total of six responses, five from Hampton University Police and one from Newport News Police, were returned; additionally, I requested data from Virginia Beach Police Department and Buffalo Police Department and no response has been submitted. Based off the results, both Hampton University Police and Newport News bot report that they see fewer than 10 trafficking cases per year and they both see little to none cases where the victims were trafficked across local, state, and international borders/seas.

This phenomenon most likely behind this is that not even FBI employees in various field offices servicing wide area and local police do not usually experience high levels of trafficking or somewhat nonexistent based off reports. As previously mentioned in the FBI interview, trafficking levels is also dependent off if the city is a major city, like New York or Washington DC, which do indeed experience higher crime rates and that may fuel trafficking rates as well. The police departments surveyed (Hampton University and Newport News), respectively cover a 4,000-5,000 population and 179,000 population size in their districts. This does account for the reason as to why trafficking levels are very little to nonexistent, based off reported yearly cases.

Specialists in Anti-Trafficking

This mini interview was completed by Courtney Pierce, who is in charge of Anti-Trafficking Outreach and Direct Service Coordinator at Samaritan House VA. Overall, the

main age ranges that she sees and deals with in terms of trafficking, comes from the 18-25 age demographic in the Hampton Roads area. Samaritan House deals with a wide variety of trafficking victims, so it is not limited to just sex trafficking and have had handled around 140 trafficking victim cases since 2017. Of the victims that she and Samaritan house have handled, 85% are victims/survivors of sex trafficking and agrees that the use of the internet has made it easier for those who are marginalized to be connected to others and fueled trafficking over the last 20 years.

Based off this response, the internet has fueled an increase and accessibility to traffickers. It has also created another market as to where people can now easily shop and sell potential victims to a wider clientele. And the largest type of human trafficking is sex trafficking, although it is geared towards trafficking people who are 18 years and older (most likely due to most traffickers not wanting to deal with any minors if they do not have to).

VIII. Conclusion

Human trafficking is still on the rise and evolving. The way and how it takes place are slowly, but surely shifting more and more into the online sphere. The amounting evidence that, although a small number of trafficking now takes place on the dark web, there are still other outlets that does not need to be connected to the dark web to access trafficking victims. The majority of the public knows about trafficking and what the dark web is, but there needs to be more education on how the Tor technologies work and reasons behind why some people use that web browser.

Acknowledgements

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