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Role of Technology in Combatting Human Trafficking

Disasters reinforce, perpetuate and increase gender inequality, making bad situations worse for the women. Under such situations Trafficking becomes easy. Unfortunately, there is a dearth of empirical data on trafficking — not only after a disaster but prior to it as well. Closer to home, South Asia has been a source, origin and destination for trafficking at various vulnerable points such as the borders where trafficking of women and children are most common. The present paper attempts to highlight the inter links between human trafficking and use of technology. It emphasizes the need to incorporate machine language and other technology tools to secure a greater grasp of identifying faces and routes that the trafficker adopts. The paper focuses on how AI provides an increased access to safe spaces following a disaster that forces people to move out in search of alternative livelihoods. With AI and other technology solutions, its possible to manage and make use of the large amount of text data available in legal documents.

Keywords: Artificial Intelligence, Technology, Human Trafficking, Disaster, Data management, Digital World, Software in Trafficking, Machine Language.

Background

Trafficking in persons is a grave violation of human rights. Every year, thousands of men, women and children fall into the hands of traffickers, not only in their own country but abroad as well. Almost every country in the world is affected by trafficking, whether as a country of origin, transit or destination for victims. Human trafficking is a heinous crime involving exploitation of a person through force, fraud or coercion for the purposes of forced labour, involuntary servitude or commercial sexual exploitation. It is a humanitarian concern for Governance, International Institutional Collaboration and Law. UNODC, as guardian of the United Nations Convention against Transnational Organized Crime (UNTOC) and the Protocols thereto, assist states in their efforts to implement the Protocol to 'Prevent, Suppress and Punish Trafficking in Persons' referred to as the 'Palermo Protocol'. The Trafficking in Persons (TIP) report annually measures the government efforts across the 3P paradigm of prosecuting traffickers, protecting victims, and preventing the crime [1] (US Dept of State, 2017).

Research [2; 3] (Miko, 2007; Dutta, 2015) reveals that disasters reinforce, perpetuate and increase gender inequality, making bad situations worse for the women. Trafficking becomes easy under such situations. When disaster occurs, it hits hard especially to those who have a poor socio-economic profile, leading to completely different outcomes even for demographically similar communities. Thus the most vulnerable groups suffer the maximum. If mitigation and preparedness plans ignore the 'Sendai Framework' of 2015 and 'Disaster Management Act' of 2005, the Sustainable Development Goals will be a difficult task to be achieved. Several international organizations (UNDP, IUCN and UNISDR) have now come together to synergize their effort towards this regard. The World Health Organization (WHO), has also expressed concern over the vulnerabilities especially in situations where children get separated from their families and livelihood options start to deplete for men and women post-disaster. This creates an ideal situation for traffickers to prey upon. In fact, a 'protection vacuum' gets created particularly for the children [4] (Samuels, 2005; WHO, 2005). Traffickers wait for such golden opportunities to target orphaned children and those in search of livelihood options. Such cases are rampant and frequently witnessed in countries that have been hit by a natural calamity, as for example in Indonesia, Maldives and many others, impacting the most vulnerable ones like migrants, children, job seekers and the poorer families. As a result, disasters create targets for exploitation and enslavement [5] (CdeBaca, 2010). The magnitude of the disasters' impact is determined by the level of social and economic inequalities that prevail in that particular area. Undoubtedly those who reel under abject poverty and live at the tail end of all development policy gets hit the hardest. Hence disasters actually further magnify the existing social inequalities resulting in a vicious cycle of disaster risk and inequality.

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Mahatma Gandhi's philosophy of taking the last one in the last village along, and 'leaving no-one behind' further emphasizes to ensure that the poorest and at-risk groups are prioritized for disaster prevention and response. This is possible when the Disaster Risk Reduction (DRR) plans are developed through the participation of women, youth, senior citizens, persons with disabilities amongst other groups within the community, their capacities being critical in achieving strong DRR outcomes.

Traffickers are generally successful in a climate of weak law enforcement and economic hardship [6] (Finn, 2016). Studies and field based research [7; 8] (Dutta, 2011; Dutta, 2010) show how Maldives, Tajikistan, Nepal, India, Bangladesh, Sri Lanka and other parts of the world have been a victim of sexual exploitation, labour trafficking, agricultural workers and domestic servitude during a natural disaster. The after effects of which lasts a lifetime as compared to property damaged or even lives lost. Maldives is a typical example of labour trafficking following the disaster of Tsunami where one third of the entire population consists of immigrants mostly from India and Bangladesh [3] (Dutta, 2015). In 2004, following the Tsunami, voices were raised by a number of non-governmental organizations expressing concerns and reports that stated disturbing and negative trends such as vulnerability to sexual violence, exploitation, and trafficking [2] (Miko, 2007).

Unfortunately, there is a dearth of empirical data on trafficking — not only after a disaster but prior to it as well. Closer to home, South Asia has been a source, origin and destination for trafficking at various vulnerable points such as the borders where trafficking of women and children are most common. Many of the jails of India, Bangladesh and Pakistan are full of such trafficked victims, who are not claimed by anyone as in most cases their families back home are eliminated during the disaster. The lack of empirical data has been the biggest hurdle in analysing the trend pattern between human trafficking and natural disasters. Where data exists, the capacity to assess and analyse is lacking among the stakeholders. Several studies undertaken earlier suggest how mass scale women from Murshidabad in West Bengal had landed up in the brothels of Sonagachi in Kolkata during floods on an annual basis [7] (Dutta, 2010). This corroborates with the macro level data that according to the Census of India, 2001, the age specific sex ratio for the particular age group 10-24 was alarmingly low particularly for districts such as Murshidabad, Kishanganj, etc in comparison to the other age groups [7] (Dutta, 2010).

Excavation of Hidden Facts

As the world strives to meet a U.N. goal of ending slavery by 2030, anti-trafficking advocates believe that technology tools could possibly turn the tide in the global drive to end a trade estimated to control 40 million people and generate annual profits of $150 billion. Let's not forget that there has been a rising internet use to the tune of at least 4 billion people (around half the world population), who are now online users as per 2018, in comparison to 2.5 billion in 2012. This implies more potential victims and a larger pool of possible customers [9] (Kemp, 2019). A survey of underage sex trafficking victims, reveals 3 out of 4 had been advertised online [10] (Digital Reasoning, 2017). The various goals under the Sustainable Development Goals (SDG), also highlights the role of technology and its transfer as a key means to enhance cooperation. The Sendai Framework has also clearly stressed upon the role of technology resulting in the 2019 High Level Political Forum, that was organized on 'empowering people and ensuring inclusiveness and equality' [11] (UN SDG, Knowledge Platform, 2019).

The world community is beginning to accept that technology can play a key role in keeping up the speed with major criminal networks and tackling human trafficking, civil servants, companies and charities as put forward in an OSCE - Europe's security watchdog event in Vienna. Technology has arrived at a time when investigators need to navigate a newly chaotic underworld. It has opened up vast opportunities in creating new avenues. Technologies like, Artificial Intelligence (AI) and Machine Learning (ML) have been addressing global challenges in the field of disaster resilience, urban development, education and governance. AI not only plays an important role in crisis management, humanitarian aid but also in areas such as risk reduction from natural and man-made disasters. Undoubtedly open and accessible data enhances transparency to usher in economic growth and supports decision making through strategic guidance for policy makers. These machine learning tools also work to pin down the crime from every angle, such as finding victims, following money trails, identifying the routes and various halt points and in confronting traffickers. What they can do in seconds would take investigators months or even years - most of the times with the result that, they never get to it at all. When one talks about a trafficked child who is being abused and raped daily, reducing the time to reach the location is of extreme significance. AI has been able to transform the human rights space and encourage civilian participation in the fight against human trafficking. During a disaster a

common tactic that pimps use is getting the child hooked on to addiction of some kind. They keep the victim dependent on them either by getting them addicted to drugs or depriving them of food and basic comfort. AI also makes the conviction process of the traffickers easier, as the victim does not have to face the culprit face to face while giving her/his witness. It helps the victim to recognize and identify the culprit without having to stand before the culprit, which scares them off and often result in their not coming to the witness box at all.

Purpose

The present paper attempts to highlight the inter links between human trafficking and use of technology. It emphasizes the need to incorporate machine language and other technology tools to secure a greater grasp of identifying faces and routes that the trafficker adopts. The paper focuses on how AI provides an increased access to safe spaces following a disaster that forces people to move out in search of alternative livelihoods.

Modern Day Technology

AI when combined with other technological solutions becomes even more valuable. Researchers in the US developed an AI solution that could assist in uncovering the location of sex trafficking victims. The AI engine, identified several hotels based on a database of more than one million images taken from several thousand hotels around the world. When a photo of a victim is identified, the engine compares the image to those in its data set to pick out the location of the specific hotel room concerned. The AI engine utilizes things like furniture, color schemes, artwork on the walls and bedding to identify the hotel in question. The engine reportedly has a high success rate in identifying the correct hotel. With a vast majority of underage victims of sex trafficking being advertised online, featuring photos frequently taken in hotels, this technology could become an essential tool in the fight against sex trafficking. AI technology solutions such as Hotels-50K, Traffic Jam and others have a huge success rate.

The rise of AI solutions is transforming the way investigators approach human trafficking investigations. Other Apps like 'Be My Protector' and AI engines like 'Hotels-50K' are encouraging for the civilian participation in human trafficking investigations. These technologies are smart enough to harness the power of civilians and their smartphones in collecting information on behalf of the authorities. The role of investigators thus evolves in a large manner. The newest challenge for many investigators, is basically not only finding the data but understanding and interpreting it as well. Here again AI comes to the rescue offering a solution. Technologies which allow investigators to be able to quickly filter through the masses of citizen-gathered data further streamlines investigations.

Hotels-50K particularly has been useful in identifying the location of a known victim from a photo while other AI and machine learning solutions have been used to identify potential victims. A branch of Machine Learning namely Stylometry, identifies language patterns in advertisements to identify an author. Once a trafficker is detected, through Stylometry it is easy to reveal other advertisements written by the same author. It analyses word repetition, punctuation ad emoji which are used to identify the same human traffickers who advertise multiple victims, despite the fact they advertise the victim under a different phone number and email address. The results showed that the algorithm was highly successful in correctly identifying the author from a data set in 90 out of 91 cases.

Another AI engine, Traffic Jam helps to identify runaways and missing people advertised online through facial recognition software and geospatial analysis. A study by IBM, in conjunction with Western Union and European authorities developed a cloud-based information sharing system. This detects suspicious payments that may have transferred between traffickers for human trafficking victims. This information is extremely useful to spot patterns and trends which, experts hope will prove useful in predicting human trafficking payments before they occur. Reports from Spotlight users show that, law enforcement is identifying more than eight kids per day on an average and 63% time is saved in their whole process for investigators, who use Spotlight on a regular basis. Empowering law enforcement to collaborate beyond jurisdictions or national borders, is a key to success in identifying victims who are moved frequently, or are broadcast in Peer to Peer (P2P) on the dark web from a hidden location [12] (Spotlight, 2017). The Blockchain's digital ledger technology, being tested to protect children in Moldova and workers in Coca-Cola's sugar supply chains has been extremely successful. The technology is part of a wider shift in policing human trafficking. Human traffickers leave behind digital fingerprints that can be easily traced, while modern tech - from satel-

lites and eye-scanners to blockchain and artificial intelligence (AI) - could all boost global efforts to eradicate heinous crimes such as forced labour and sex slavery.

Among the ASEAN countries technology is being employed to combat human trafficking. Thailand meanwhile is turning satellites to tackle forced labour among fishermen within its lucrative seafood industry. In Malaysia in partnership with the NGO, 'Tenaganita', 'Change Your World' has been able to create Southeast Asia's first app allowing any person to submit reports of abuses safely, anonymously and quickly to proven reliable, experienced case workers. The app, 'Be My Protector', is the region's first app dedicated to combating human trafficking [13] (Be My Protector, 2018). Amazingly Since April, 2018, it has received 300 reports from both victims of human trafficking themselves and from the common people who were offering information on people they suspect of falling victim to human trafficking. According to Tenaganita's director, it is easier to look at the violations, the perpetrators, and thus identify the hotspots. Nevertheless at the moment Tenaganita has had to use humans to coordinate with the victims to determine their location based on noticeable landmarks that appear in the photos. Once the organisation is able to expand the app's capabilities in the future, the app will be implemented for the whole of ASEAN region. However, funding remains the biggest hurdle for ASEAN countries. To meet this funding deficit and unlock the potential of AI in the fight against human trafficking, business engagement is essential where the private sector can play a major role. These tools have been utilized to detect children for sale on social media especially during the Palu earthquake and Tsunami that hit Indonesia in Sept 2018, the sex workers that were trafficked through Singapore and the trafficked Vietnamese brides in China.

Besides the high-tech in the fight against traffickers, there are measures such as Video conferencing which is enabling trafficking victims to provide evidence remotely especially in instances of cross-border cases in India, Bangladesh and Nepal. Other employment websites in southeast Asia are helping maids who seek work abroad and avoid enslavement by abusive bosses. For example, a Filipino maid Genelie Millan was abused, hit and treated like an animal by her first employer in Hong Kong. The discovery of one such site had provided her the options for the first time in her working life. The tech against trafficking is a coalition of technology firms, civil society groups and international institutions which had identified more than 260 anti-slavery tools including facial recognition software and artificial intelligence (AI).

Artificial intelligence and machine learning act as game changers. New technologies are altering the way investigations into human trafficking are being conducted. These technologies are becoming more and more citizen-driven investigations. Instead of investigators coming up against an information wall, modern human trafficking investigator have at their disposal an access to masses of information. Tech helps criminals to evade detection in the offline world as they can plot and perform abuse from home - such as cybersex child trafficking where sexual exploitation is broadcast around the world to paying customers. Besides the internet giants, law enforcement agencies have now come forward in teaming up with banks, charities, tech and data analysts to utilize diverse networks to identify and track the traffickers. Those financial institutions in the United States and Europe that are required to report suspected illegal activity, are working together to share data and develop software to spot and disrupt human trafficking indirectly helping the police to prosecute the crime. These virtual vigilantes aim to stop traffickers before people can get exploited, but even then, the legal experts feel they may get obstructed from obtaining justice in case their self-gathered evidence is proved inadmissible in court.

Nonetheless technology is not a silver bullet. Experts have stated about the difficulty of gathering legal evidences against traffickers and the gaps existing in laws as regards trafficking. Social media aids recruitment, stolen credit cards finance travel, victims can be monitored virtually and sold online before proceeds are laundered – all of that electronically. Thus technology is no magic wand that one could wave and wish for making everything get better. Neither is it an algorithm or an app that can eradicate human trafficking from its roots. These are tech tools like a kitchen gadget, that are supposed to help people to do their job better and faster. Notwithstanding that the slow and steady always wins the race. The slow grinding, day-in, day-out work ultimately make a difference.

Double Edged Sword

Technology sometimes acts as a double-edged sword, which may benefit the traffickers as well as those who indulge in criminal activities. Combatting human trafficking is like a game of cat and mouse. It has a ballooning impact. If pressure is put on one part of the balloon, the air inside simply shifts to another part and keeps moving around to safer places, based on where the pressure is least. Similarly, the digital analysts feel it may simply drive away the slave masters to other websites. There are also fears that as the high-tech

net closes in on traffickers, they simply get smarter. There is a need to innovate as quickly as the traffickers, with deep learning, algorithms and facial recognition to predict and foresee the smart tactics. There is a fine line that the innovators have to walk on. For every progression in investigation techniques, traffickers are smart enough to devise equally novel methods to evade capture and continue profiting from their operations. This high-tech leap leaves police and prosecutors chasing shadows in a virtual world as they strive to meet a United Nations goal to end forced labour and modern day slavery by 2030. Where the law enforcement techniques and capabilities are not as strong as they are offline, technology further pushes slavery into a darker corner of the world! Experts doubt whether digital tools alone - from blockchain to satellites - can really help in turning the tide as law enforcement, civil society, banks, businesses, and techies take on the traffickers, particularly with modern day slavery now being regarded as a major global threat.

Human traffickers are often at least one step ahead of police. Unfortunately, the police lack in terms of capability measures, such as computing expertise and experience, totally unfamiliar with modern tech and are hindered by limited international cooperation to crack a case according to the civil society organisation. In comparison to earlier times, fresh victims can be recruited, transported worldwide and trapped in slavery in a short period that is within a few days. Police are barely able to react while victims get trapped with lightning speed.

The U.N. statistics reveal that about 600 trafficking routes have been identified globally, in every region of the world. This is an increase of almost a quarter between 2007 and 2014. According to the UN officials, "Instead of lurking in malls, train stations, homeless shelters and brothels to find vulnerable people, traffickers have a plethora of digital tools to target potential victims". Billions of messages get posted and calls made on a regular basis, through apps and websites like Facebook, WhatsApp, and Skype – this being the ideal hiding place for traffickers. Whether it's a place for car wash, or a construction site or a refugee camp, modern slaves are hidden in plain sight all over the world. Different search and rescue tools fit different jobs. Technology continues to be a small part of a much bigger effort. Recruitment is delayed because there are too many players and no accountability. The Fair Employment Agency (FEA) offers a platform for employers and domestic helpers to connect directly. In such cases technology comes as a huge rescue in clearing up and reducing the number of players. The FEA, has claimed to have made 2,000 connections since 2015, saving the workers' money to the tune of $3 million, that would otherwise have gone to recruiters. Multiple accounts are used by the traffickers across the nations. Small amounts are transferred through banks which go undetected according to an Israeli-based cybersecurity and big data analytics company called ThetaRay. An investigation by the Global Emancipation Network (GEN), a tech anti-trafficking collective resulted in identifying about 1,000 traffickers online in 2018. However mere technology alone cannot save the whole world, but it can help in assisting and improving the investigation conditions for those who are trying to save the world. Nevertheless, despite all the growing international collaboration on anti-slavery laws, data and funding there is a deficit in law enforcement cooperation. Very often requests from poorer nations to the major countries often get overlooked. There is lack of capacity and training to tackle crimes online, therefore it is seldom that newer forms of trafficking get captured. With an enhancement in the slavery business day after day due to impact of war and disaster, greed and inequality, there is a lingering fear among the experts that technology has become an advantage for the human traffickers building an edge over those that are hounding the culprits. The global spread of cheap, fast internet and surging smartphone ownership has taken slavery into altogether a different height. Technology has helped in lowering the entry level of the bar of entry into the criminal world ultimately turning the modern slavery into a vast expanse.

Indian Context

In Asia, video calls have been successful in revolutionizing the pursuit of justice in trafficking cases across India, Bangladesh and Nepal, where survivors could go home after being freed or rescued and to testify via software such as Skype. In India the conviction cases of human trafficking are rare as most victims turn hostile as they are forced to testify in court, face their abusers, and stay in a shelter throughout the generally lengthy trials. A victim from Bangladesh when questioned by the Indian authorities after rescue was too timid and lied out of fear. On the contrary when the trial was in her own country, there was no fear. Seeing the trafficker on the screen is much less of a stress for the victim in comparison to seeing them in person. It is easier for her to identify on screen without any fear.

No doubt the region as a whole has made efforts to combat human trafficking. India at present is in Tier 2 of the TIP report [19] (US Dept of State, 2019), but estimating its exact magnitude and the severe lack of information about data as regards the number of people victimized as well as the pattern of trafficking flow

has left a void in its research, making the issue more complicated. Some estimates put the figure in millions while others estimate a few hundred thousand to be on the lower side. Out of an annual 1 to 2 million women, men and children, that are trafficked worldwide, it has been estimated that around 225,000 of them belong to the SAARC region [15] (International Journal of Gynaecology & Obstetrics, 2006). During the past thirty years trafficking for sexual exploitation alone has victimized some more than 30 million Asian women and children. At present South Asia is witnessing an alarming trend of increasingly younger girls being trafficked into the illegal flesh trade. The majority of trafficking in India, both trans-border and in country, happens for the purpose of sex work, and over 60% of those trafficked into sex work are adolescent girls in the age group of 12—16 years [16] (UNDP, 2005). Among the worst factors that play a negative role is the lack of implementation of the anti-trafficking laws. If at all laws are implemented, the punishments are not enough to put a positive effect on trafficking sensitization programs for general public and specifically for stakeholders. There is a severe deficit in providing resources for training, technical assistance and auditing to ensure that trafficking is fully eradicated from their supply chains. However, South Asia has shown that with modest amounts of funding and focused advocacy, targeting law enforcement could bring dramatic changes in the response of 'governance structures' and an upgrading in the role of institutions for improving the overall situation. No doubt India has improved this year and has been put in Tier 2 rank from Tier 2 Watch list in the 2019 TIP report but it needs to do more in order to maintain the position.

India is a source, destination, and transit country for men, women, and children who are mainly subjected to forced labour and sex trafficking. The forced labour of millions of its citizens constitutes India's largest trafficking problem; men, women, and children in debt bondage are forced to work in industries such as brick kilns, rice mills, agriculture, and embroidery factories. They are even trafficked out to countries like Maldives, Sri Lanka, and other South Asian countries. The TIP report of various years states that ninety per cent of trafficking in India is not only internal but are from India's most disadvantaged social strata, including those belonging to the lowest caste who are the most vulnerable. Children are often subjected to forced labour in factories and as domestic servants besides being made to beg and work in the agricultural fields. There are children who are forced to work in some areas as carpet weavers. Not only carpet weaving belts but children have been found in the hybrid cotton seed plots of Gujarat. An increasing number of job placement agencies lure adults and children for forced labour or sex trafficking under false promises of employment. Indian boys from Bihar are increasingly subjected to forced labour in embroidery factories in Nepal (Trafficking in Persons Report – India: 2013). While men from Rajasthan have been trafficked to Maldives as forced labour under false promises [3] (Dutta, 2015).

There have been instances of murders of two women from Uzbekistan. Thus hundreds of foreigners who have been trapped in flesh trade in the national capital is not a secret anymore. Those who try to cheat their Indian handlers are often thrashed and confined and sometimes even killed [17] (Shakti Vahini, 2015). Unfortunately prostitution rackets also prevail in the capital as there are orders for the local police not to carry out raids under the Immoral Trafficking (Prevention) Act without collecting enough evidence and permission from senior officers. Such orders were issued by senior officers from the Delhi Police, as a result of receiving regular complaints of corruption and harassment of sex workers by the policemen. Apart from Uzbekistan, the other preferred countries include Greece, Kazakhstan and Kyrgystan. Although there is no official estimate, police say there must be around 2,000 women from these countries working in the capital. Currently, foreign nationals apprehended on charges of human trafficking are treated in line with the SAARC convention.

According to Rishi Kant from Shakti Vahini, "foreign nationals come here on tourist visas as part of dancing troupes and get into flesh trade. Traffickers are no longer gutkha-chewing, uneducated men and women. They carry mobile phones, speak English and can be respected members of the society". The probe in such cases revealed, that traffickers are increasingly using technology to coordinate, swap and share information, move money, and yet remain anonymous. Therefore the probe agencies need to be prompt and react in terms of upgradation in technology. AI can play a huge role in nabbing such culprits. Scientists believe that AI can help in identifying and rescuing child victims of sex trafficking.

Techniques like Google and Facebook are used to make a profit by understanding people - the way they connect, their interests, what they might buy or the activities that they like to engage in. Those same technique can be applied for data mining, text mining, often referred to as graph mining. AI that's being used by the criminal traffickers can be used for legitimate and really profitable purposes and track these illicit behaviours.

With the help of AI and other technology tools its possible to manage and make use of the large amount of text data available in legal documents. This would come to the aid of other organization's work and help the prosecutors build robust and stronger cases. The synergy of experts in all these fields need to come together and try to coordinate efforts so that people start working towards solution and not work in solitary confinement. This alone will make a true impact on this crime and be able to identify victims at places where they are missed, provide opportunities to leave and find safety, identify perpetrators, and look at the policies in a coordinated manner.

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Мондира Дутта

Адам саудасымен күресудегі технологиялардың рөлі

Кедейшілік — гендерлік теңсіздікті нығайта отырып, әйелдердің жағдайын нашарлатады. Осындай жағдайларда адам саудасы оңайға соғады. Өкінішке орай, адам саудасы жөнінде эмпирикалық мәліметтердің жетіспеуі байқалады. Оңтүстік Азия адам саудасының пайда болған және орын алған, сонымен қатар әйелдер мен жас балалар саудасы кең тараған аймақ болып саналады. Мақалада адам саудасы мен технологияларды қолданудың өзара байланысын анықтауға ұмтылыс жасалды. Автор адам саудасымен айналысатын жеке тұлғаны және оның маршрутын анықтау үшін технологияларды қолданудың қажеттілігін көрсетеді. Автор табиғи апаттан кейін АІ-дің қауіпсіз жерлерге деген қолжетімдікті іздестіруге мүмкіндік беретіндігіне үлкен назар аударады, себебі, адамдар балама тіршілік көзін іздеуге мәжбүр. АІ және басқа технологиялық шешімдердің көмегі арқылы заңнамалық құжаттардағы мәтіндік мәліметтердің үлкен көлемін басқаруға және қолдануға болады.

Кілт сөздер: жасанды интеллект, технологиялар, адам саудасы, мәліметтерді басқару, цифрлік әлем, адам саудасы үшін бағдарламалық қамту, машиналық тіл.

Мондира Дутта

Роль технологий в борьбе с торговлей людьми

Бедствия усиливают, закрепляют гендерное неравенство, ухудшая положение женщин. В таких ситуациях торговля людьми становится удобной. К сожалению, существует нехватка эмпирических данных о торговле людьми — не только после катастрофы, но и до нее. Южная Азия является источником происхождения и местом назначения для торговли людьми в различных уязвимых точках, таких как границы, где торговля женщинами и детьми является наиболее распространенным явлением. В статье предпринята попытка осветить взаимосвязь между торговлей людьми и использованием технологий. Автором подчеркивается необходимость использования машинного языка и других технологических инструментов, чтобы лучше понимать лица и маршруты, которые использует торговец. Уделено пристальное внимание тому, как AI обеспечивает расширенный доступ к безопасным местам после стихийного бедствия, которое вынуждает людей уезжать в поисках альтернативных средств к существованию. С помощью AI и других технологических решений можно управлять и использовать большой объем текстовых данных, имеющихся в юридических документах.

Ключевые слова: искусственный интеллект, технологии, торговля людьми, бедствия, управление данными, цифровой мир, программное обеспечение для торговли людьми, машинный язык.