An E-haling Crime and Exploitation Classification Framework

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Abstract

Society 5.0 is defined as "a human-cantered society that balances economic advancement with the resolution of social problems through socio-technical platforms that integrate cyberspace with physical space." Society 5.0 is still a relatively new field of study, investigating new forms of, and platforms for, human-computer engagement. With the evolution of Society 5.0, it has been recognized that there has been an increase in number of e-hailing services (making use of public transport services through electronic applications) within the transportation industry. Although the introduction of e-haling services are seen as positive, this has also resulted in e-haling related crimes and exploitation. This research aims to present a first attempt classification of e-haling crime and exploitation.

The research was performed by conducting a literature review that considered a subset of 33 peer reviewed articles (through a selection process) on themes relevant to how e-hailing services are exploited and what the modus operandi are when parties engage in e-haling exploitation and crime. Additionally, 7 relevant news articles were also included to make up the full spectrum of literature.

The paper concludes by proposing a classification of the different forms of e-hailing crime and exploitation. This classification can be extended (e.g. the transport of illegal substances and human trafficking) and used in future research as a starting point to limit or prevent e-haling exploitation and crime.

1 Introduction

Society 5.0 is defined as "a human-cantered society that balances economic advancement with the resolution of social problems through socio-technical platforms that integrate cyberspace with physical space." (Keidanren, 2019). Society 5.0 is still a relatively new field of study, investigating new forms of, and platforms for, human-computer engagement. Technology continues to evolve and change the way individuals interact, communicate and live to the extent that they become dependent on a technology (Smith, 2020).

E-hailing (or ridesharing), allows for transportation services from smart devices by using applications such as Uber, Lyft, and Bolt (Chinguno, 2019). This has revolutionized the transportation industry, but on the other hand also increased the opportunity for crime (Roughton, 2020). Uber for example allows for an individual to offer their services on their driving application, as long as the minimum requirement of one year of driving experience is met, along with the age requirement for driving of that specific country (Uber, 2020). However, the reality is that some drivers are not reputable because of the lack of thorough background screening and continuous driver assessment (Roughton, 2020). Customers are therefore unaware that they could be transported around by drivers with for example with previous criminal convictions (Thorebecke, 2019). Crimes include, but are not limited to poor driving performance, victimization, harassment, assault and theft (Henama, et al., 2017). However, these drivers still managed to pass the necessary background checks and work as contractors for Uber (Dyer, 2017). This has in some degree led to increased exploitation of e-haling services, as weapons and firearms can easily be concealed by drivers while they transport customers (Roughton, 2020).

Furthermore, female customers who take late night trips with male drivers, especially those who are intoxicated, are vulnerable to sexual assault (Malin & Chandler, 2017). Uber has had a poor track record to react to these complaints (Malin & Chandler, 2017). There are also crimes associated with rivalry between metered cab drivers and Uber cab drivers, stemming from the believe that Uber drivers steal customers away from metered cab drivers and as a result cause harm to either parties (Adebayo, 2019).

This literature review focus to understand how e-hailing services are used in crime by proposing a classification of the different forms of e-hailing exploitation and crime. This can be used to establish crime prevention interventions and measures to protect passengers and drivers when using an e-haling system. Additionally, the results may be of importance to law enforcement and security services by ensuring public safety and addressing loopholes in rules and regulations that govern public transport services.

2 Research Method

The section will briefly discuss the process that was performed during the systematic literature review to answer the following research question:

How can the different forms of e-haling misuse or exploitation be classified to limit or prevent future e-haling misuse or exploration?

2.1 Search Terms

The following search terms were used in relevant academic journal databases: (E-hailing OR ride sharing) AND (uber OR bolt OR lyft OR taxify) AND (exploit* OR endanger* OR threaten* OR jeopardy* OR expos* OR risk*) AND (Crime OR Sexual harass* OR sexual traffick* OR murder OR danger OR theft OR Victim* OR Workplace crime OR illegal) AND (e-hailer* OR rider* OR user* OR customer* OR driver*).

2.2 Selection Criteria and Quality Assurance

Table 1 presents the selection criteria (what was included and excluded) for the literature review.

Inclusion Criteria	Exclusion Criteria
Peer-reviewed articles including 7 news articles.	Non peer-reviewed articles, except 7 news articles.
Articles that focus on the research themes of this paper e.g. ridesharing, e-haling, crime and misuse.	Articles that is not focused on the research themes of this paper e.g. ridesharing, e-haling, crime and misuse.
Articles published in the last 5 years for the most current research.	Non English articles whose full-text is not available.
Relevant articles in any industry and geographic location.	Articles older than 5 years, for the most current research.
Articles written in English and whose full-text is available.	

Table 1: Selection criteria for the literature review

Except for the inclusion and exclusion criteria in Table 1, as first line of quality assurance (e.g. peer reviewed articles), the literature were examined for relevance to the research objectives of this research paper.

2.3   Source Selection, Data Extraction and Analysis

The search terms were applied to the following database sources for data extraction (the literature): EBSCOhost, ScienceDirect, Springer, IEEE Xplore® Digital Library, Emerald, HeinOnline, Taylor & Francis (Journals), ACM Digital Library and ProQuest.

The search results were filtered to only include academic works. The database search returned 468 articles. After duplicate articles were removed, 440 articles remained. Article title and abstracts were then screened for relevance and only 43 articles remained. The remaining full-text articles were assessed for appropriateness (using the inclusion and exclusion criteria) and 10 articles were excluded with reasons. Finally, a total of 33 peer reviewed articles were consulted for this literature review. Additionally, 7 relevant news articles were also included to make up the full spectrum of literature.

Microsoft Excel, a software tool, was used to capture and organize the literature. Thereafter, thematic analysis (the constant comparative method) was used to identify the relevant themes and concepts that will enable the answering of the research question.

3   Analysis and Discussion

Most of the literature used in this research came from South Arica nd the United States of America. This may be an indication of higher crimes rates and visibility of e-haling misuse and exploitation in these countries. The rest of the literature were quite equality spread over the rest of the world

During the literature review, the themes that emerged were used to develop a classification of e-haling misuse and exploitation. These themes are discussed in the literature sections that follow.

3.1   Rivalry between Taxi's and E-haling Services

Workplace rivalry (that often leads to violence) between taxi services and e-haling services pose some of the biggest crime challenges in this industry. Factors such as work time (working late hours), location of work (remote locations), driving alone and payment methods (such as cash) increases the risk of victimization, armed robbery and homicide in this industry (Roughton, 2020), (Moore, 2018). Taxi drivers e.g. make use of an e-haling application to determine the location of nearby e-haling drivers with the intent to victimize or rob their rivals. This sort of act typically contributes to high rates of homicide in this industry (Moore, 2018).

The imbalance between the supply and demand of e-haling and taxi services (too many drivers for the amount of passengers requesting these services) is a concern and increase rivalry and conflict in the industry. More than 40% of vehicles, specifically taxi drivers have been left without passengers, as the demand does not meet the supply of transportation available (Li, 2019). Furthermore, this led to taxi drivers' taking their own life due to their poor economic and financial situation.

In Kenya it was reported that an e-haling driver was assaulted and killed by a taxi driver, entering as an e-haling passenger (Kamais, 2019). This violence originated from the frustration and anger that taxi drivers experience when e-haling drivers enter into the transportation market and into their territories as unjustifiable competition. Similar findings were reported at airport pick zones where there is a high demand for transportation needs (Chaudhry, et al., 2018). This has led to an increased fear for e-haling drivers to remain far from taxi driver territories and rather pick up passengers from safer points, or merely decline passenger pickups based on their pickup and or drop-off locations (Chaudhry, et al., 2018).

3.2   Price Fixing

Price fixing of e-haling companies also cause problems in this industry. For example, based on several requests for e-haling services to a popular location, the e-haling application increases the price to this location causing conflict between e-hailing passengers and drivers (who also wants a bigger piece of the cake), especially when e-haling passengers are willing to pay cash for the service (Paul, 2017). This led to drivers threatening e-hailer passengers to pay more than was original required with some form of harassment or threat e.g. driving the passengers to a remote location (Paul, 2017).

It was found that if e-haling companies terminated the setting of prices, there would be better coordination of prices being set at a reasonable level compared to dynamic price fixing as per demand, location, and number of requests (Paul, 2017). Also, some e-haling companies legally employed e-haling drivers (and not as contractors) that would allow drivers to participate in collective action as per the law (Paul, 2017).

3.3   Identity Fraud

The safety concerns with regards to e-haling driver background checks are inconsistent in different countries. For example, in some cases and countries, e-haling service are exploited with bribes to purchase or forge the required background documents then to be illegally allowed onto the e-haling application or system. There are reports that most e-haling companies does go through a 'rigorous' background e-haling driver check, however there are cases of drivers (e.g. in California) that "cheated" the system by presenting of uploading fake identity documents (Crespo, 2016).

Some of these e-haling drivers were involved in multiple cases of sexual offenses (some previous offences in the e-haling services industry).

3.4   E-haling Passenger Exploitation and Crime

There here is and increased prospect for passengers to be victimized because of the fact that two strangers are involved in the service which poses a risk to both the e-hailing driver and e-hailing passenger. Some late night e-hailing services are requested by individuals who were drinking during the evening. In these sort of situations, e-hailing passengers face a risk of being exploited by e-haling drivers in the forms of theft, kidnapping, sexual harassment, and raping (Malin & Chandler, 2017). Passenger victimization has led to several long terms side effects such as trauma, anxiety and panic attacks (Roughton, 2020). Furthermore, drivers conceal weapons in the vehicle with which a passenger is victimized (Roughton, 2020).

On the other hand, the concern of a concealed weapon is also shared by drivers. Passengers may also be in possession or a weapon, which puts both passengers and drivers in a risky and compromising situation (Roughton, 2020).

E-haling passengers' lives are further threatened through continuous illegitimate operations and lack of law enforcement to make it safer. Bangladesh presents a good example of how there is a lack of accountability and support from law enforcement entities to deal with e-haling crimes (Kumar, et al., 2018). This section continue to present a classification of various e-haling related crimes to different kinds of e-haling passengers groups.

3.5   E-haling and Women

Women are at a higher risk of personal violence, rape and sexual assault as compared to men (single women even more) (Roughton, 2020), (Meshram, et al., 2020).

This view is challenged with questions whether e-haling services is really to be blamed for some of these crimes (Park, et al., 2016). Bad life style choices and habits of women such as drinking and drugs makes women targets to sexual assault and other forms of crime, as many women choose e-haling services as a convenient method of transport to get home when for example being intoxicated (Park, et al., 2016).

Corrupt e-haling drivers take their passengers to remote locations where there is no mobile phone reception and sexually assault their customers, leaving them stranded (Roughton, 2020). In worst case scenario's potential passengers are approached by e-haling drivers that offers an off the book service. This typically leads to sexual assault and rap, especially for women who have been intoxicated, because they are unable to remember the driver or car registration and there is no proof of the service (the details of the driver or car) being used (Roughton, 2020).

Every 51 minutes, a female is faced with sexual assault and harassment in Delhi, India (Meshram, et al., 2020). This trend led to low numbers of e-hailing riders, especially in developing countries. (Meshram, et al., 2020) found that factors such as low literacy levels, lower level of education and inexperience with e-haling services contribute to the increased risk of female passengers falling prey to the crimes of e-haling drivers and services.

Similar trends in Delhi, India were reported, where lack of GPS tracking prevents the ride from being tracked (Raghuram & Jasani, 2015). This led to the molesting, raping, threatening, and exploitation of the female passenger's privacy as the passenger typically makes use of e-haling services late at night and fell asleep in the backseat of the vehicle. In one specific case it was found that the e-haling driver had a history of criminal activities ranging from sexual assault to theft. It was found that the driver falsified and forged many identification documents that allowed him onto the service. Similarly, it is found that at least 100 e-haling drivers in Bangladesh that face charges of mistreatment, molestation, and rape (Cynthia, et al., 2019). Even more disturbing in many situations is that law enforcement have been of no help as they turn away passengers who have been a victim of these crimes (Cynthia, et al., 2019).

3.6   E-haling and Senior Citizens

Eldory or senior citizens are amongst the most vulnerable whose lives are threatened by e-hailing applications. This is mainly because of their literacy levels, age, and experience with e-hailing technology. Elderly people or senior citizens are at great risk as predatory and fake e-haling drivers tend to manipulate the senior citizens in believing they have not made a card payment and request a double payment (Young & Farber, 2019). The e-hailing driver typically follows this fake allegation with a threat to leave the elderly person stranded and or threaten to cause harm to their caregiver or family member that requested the service (Young & Farber, 2019).

It is argued that the main reason why the elderly people are at risk is that they have no knowledge on how the e-haling service or application works, also being too old to fight or defend themselves in harmful situations (Young & Farber, 2019). Therefore, it is recommended that the elderly people are accompanied in e-hailing services for additional security and protection.

3.7   E-haling and Students

University students are also at risk when making use of e-hailing services, because most students are young of age and can be easily deceived. The majority of students using an e-haling service are female and have no family, support or guidance in a new geographical area.

Students typically received promotional codes to reduce their travel costs. However upon the completion of an e-hailing ride, drivers cause problems, because their application shows a different amount for the ride as opposed to that of the students. This has led to several forms of harassment, racial remarks and threats such as that they would be kidnapped and left stranded in a remote area if the full amount is not paid (Muhammad & Muhammad, 2020).

3.8   Passenger Privacy

Passenger privacy constitutes as one of the greatest concerns for e-hailing passengers, because their details are stored in the e-haling application and are visible to all e-hailing drivers that shares that application.

E-haling passenger privacy was identified as massive privacy concern for all e-hailing passengers. In one example, an e-haling driver used passenger information to find the specific passenger and co-passenger on social media (Feeney, 2019). This resulted in e-hailing passenger harassment and life-threatening messages, the e-haling driver knowing where the passenger lives. In conclusion, e-haling platforms may allow for unsettling and offensive behavior towards e-hailing passengers (Feeney, 2019).

3.9   Passenger Privacy

Racism and xenophobia are contributing factors that risks both the lives of the e-hailing drivers and e-hailing passengers. Conflict between these parties, based on self-interest, culture, their history may results in discrimination and prejudice.

It is acknowledged that after a racist incident occurred, while making use of an e-haling service, the e-haling driver could exploit the e-haling application to get the name, surname, address and phone number of the e-haling passenger (Piracha, et al., 2019). This is a great concern that may threaten the lives of e-hailing passengers. However the lives of e-hailing drivers are also a concern during incidents of racism and xenophobia. In some cases e-haling drivers and passengers are afraid to report an incident like this as they fear for their lives (Piracha, et al., 2019). This prevents future e-haling drivers and e-haling passengers from getting the justice they deserve and prevents a future incidents like this by the same driver or passenger. It is agreed that e-haling passengers should give bad reviews to e-hailing drivers based on incidents of racism (Rogers, 2019).

In some cases, e-haling drivers knowingly exploit e-haling applications, to retrieve e-haling passengers information, including a picture of identification for the purpose of racial harassment to the extent of dropping off e-haling passengers in dangerous or unknown areas (Rogers, 2019). E-haling drivers further refuse trips where e-haling passengers are dropped off in low income areas, based on their race. This indirectly endanger e-haling passenger lives as they could become a victim of crime in the environment they are left of dropped off (Rogers, 2019).

Finally, racism and xenophobia are amongst the contributing factors to workplace (territory) crime, as e-hailing service offered from e-haling drivers from different countries and race often cause conflict with local e-haling drivers .

3.10 E-haling Policies, Regulations and Compliance

The loopholes in policies, regulations and the lack of enforcement of existing policies and regulations, allows for the exploitation of e-hailing technology and services. This cause e-hailing drivers and companies to operate illegally.

Several countries including China, India, and Malaysia engage in bribery to illegally allow e-haling companies to operate (Tokar & Kellaher, 2020). This resulted in the loss of life and many incidents and crimes such as harassment and sexual assault.

With the introduction of e-haling services in Europe, great conflict between taxi drivers and e-haling drivers was created, because of the noncompliance to taxi regulations as they are based on a digital service and caused unfair competition (Gerdain, 2015). Furthermore, some e-haling drivers have been said to exploit the e-hailing service to operate without a license of which taxis drivers are required to have. This has led to major protests by taxi drivers against e-haling drivers and in turn had led to further conflict and violence in the workplace (Gerdain, 2015).

4 A Classification Framework for E-haling Related Crimes

Figure 1, presents a first attempt classification framework for e-haling related crimes and exploitation (similar for developed vs. under developed countries) that can be verified and improved in future research.
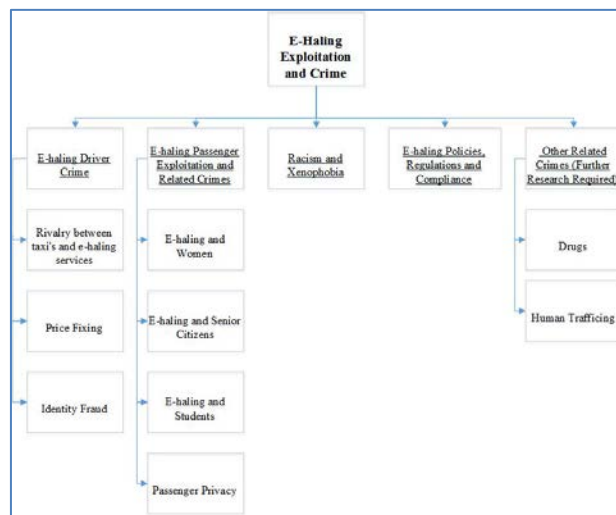

Figure 1: A first attempt classification framework for e-haling crime and exploitation

In Figure 1, e-haling crimes and exploration are broken down into the main categories of e-haling driver crimes with its sub categories, e-haling passenger exploration and related crimes with its sub categories, racism and xenophobic related crimes which involve e-haling drivers and e-haling passengers, e-haling policies, regulations and compliance to these, and lastly other related crimes that still needs to be explored and expanded through research interventions. Other forms of e-haling crimes may involve human trafficking and drug related crimes.

The classification framework in Figure 1 can be used to create crime prevention strategies or interventions to make e-haling services safer for both drivers and passengers that offer and use these services. The framework is not now applied to the South African context in the section that follows.

4.1 Applying the E-haling Crime and Exploitation Framework to the Context of South Africa

The introduction and operation of e-haling services in South Africa has consistently increased the tension and workplace crime between metered taxis (whose market share is reduced) and e-haling drivers (see Figure 1) (Giddy, 2019), (EyeWitness News, 2017). The taxi drivers believe the e-hailing services are stealing away their customers and daily earnings through unfair competition, as the regulations governing taxi services do not apply to the digital services of e-haling (Giddy, 2019).

This situation is even worsened by xenophobia related crimes (see Figure 1). Foreign e-haling drivers are easily identifiable in local areas (Adebayo, 2019). If these foreign e-haling drivers are unable to speak the local language when they are approached, they are assaulted and harassed, resulting many times in the loss of life.

E-haling drivers try to avoid conflict situations between taxis and e-haling drivers by hiding their e-haling phones and by requesting that e-hailing passengers sit in the front of an e-haling vehicle to avoid suspicion of being in an e-haling service provider (Pfarelo & Henama, 2019). However, many e-hailing drivers are still visible on e-haling applications, which metered taxi drivers use to limit e-haling drivers from entering their territory (e.g. at airports).

In some cases, e-haling drivers lost their lives through carefully planned attacks and assaults. These types of actions do not only result in the death and injury of e-hailing drivers, but also that of passengers and the burning of e-haling motor vehicles (Pfarelo & Henama, 2019), (TimesLive, 2017). In one incident, a 21 year old e-hailing mail driver was brutally murdered in Pretoria, the capital of South Africa. A group of taxi drivers used an e-haling application to surround the driver in his car at midnight, whilst he was responding to a request from an e-hailing passenger (702, 2018). Similar cases was reported by (News24, 2020).

Furthermore, criminals commit identity fraud by making use of e-haling applications to pose as passengers with no identity or false identities (Chinguno, 2019), (Henama, et al., 2017), (EyeWitness News, 2017). In these situations, typically an unregistered phone number is used that is not traceable (Compcon, 2017).

Many e-haling motor vehicles that were used to transport e-haling passengers were impounded, as they did not comply to license policies an regulations (Compcon, 2017). Therefore in South Africa, there is a big need for e-haling passenger protection. This could be partly achieved through the execution of necessary e-haling driver background checks, following necessary security protocols to ensure the legitimacy of e-haling drivers and vehicles and continuously strengthening e-haling application security.

On the other hand, e-haling passengers complain that e-haling drivers invade their personal privacy by sending them life threatening messages and making life threatening phone calls. The extent of these situations in South Africa has led to a registry which was developed by South Africans on social media to compile a list of e-haling drivers and service that should be avoided by all passengers and especially females. The register contains descriptions of illegitimate drivers with pictures, motor vehicle details, and the type of crime associated with the e-hailer drivers. This initiative was started by a women who

fears for all females within the South African community, and in hopes of protecting and providing information to women before entering any e-hailing vehicle with a stranger (TimesLive, 2020).

5 Conclusion

This systematic literature review has considered a subset of 33 peer reviewed articles that explain how the different forms of e-haling misuse and exploitation can be classified to limit future e-haling misuse and exploitation. Additionally, 7 relevant news articles were also included to make up the full spectrum of literature.

The content from the chosen articles were organized into five distinct themes that make up the e-haling crime and misuse categories. These themes or categories are (see Figure 1): e-haling driver crime; e-haling passenger exploitation and related crimes; racism and xenophobia; e-haling policies, regulations and compliance; and other related crimes – such as dugs and human trafficking (that needs to be refined and requires more research). A discussion of each of these categories were presented in Section 3.

This review contributes to the body of knowledge by presenting a classification framework for e-haling crime and exploitation (Figure 1). This first attempt categorization framework can be extended, used and adapted by authorities, practitioners, policy makers and researchers to limit or prevent e-haling crime and exploitation.

References

702, 2018. *Taxify driver burnt to death in Pretoria was only 21 - The Movement.* [Online] Available at: http://www.702.co.za/articles/294162/taxify-driver-burnt-to-death-in-pretoria-was-only-21-the-movement

Adebayo, J., 2019. Who Stole my Passengers? Uber Cabs, Metered Taxis and the Search for Common Ground. *Conflict Studies Quaterly,* Volume 27, pp. 3-20.

Chaudhry, B., Yasar, A., El-Amine, S. & Shakshuki, E., 2018. Passenger Safety in Ride-Sharing Services. *Procedia Computer Science,* Volume 130, pp. 1044-1050.

Chinguno, C., 2019. Power Dynamics in the Gig/Share Economy: Uber and Bolt Taxi Platforms in Johannesburg, South Africa. *Labour Capital and Society,* 49(2), pp. 30-66.

Compcon, 2017. *Uber vs. Metered Taxis: A Competition Issue or a Regulatory Nightmare.* [Online] Available at: http://www.compcom.co.za/wp-content/uploads/2017/09/Ndumiso-Ndlovu_Uber-v-Metered-Taxis_Final-Paper-as-amended_.pdf
[Accessed February 2022].

Crespo, Y., 2016. Uber v. Regulation: 'Ride-Sharing' Creates a Legal Gray Area, 25 U. *Miami Business Law Rev.,* Volume 79.

Cynthia, S. et al., 2019. Security Concerns of Ridesharing Services in Bangladesh. *In Proceedings of the 2nd International Conference on Applied Information Technology and Innovation (ICAITI),* pp. 44-50.

Dyer, E. L., 2017. Need a Ride? Uber: The trendy choice that could turn threatening. *Nevarda Law Journal,* 17(1), pp. 239-271.

EyeWitness News, 2017. *Police to Monitor Sandton Area Following Fresh Attacks on Uber Operators. EyeWitness News.* [Online] Available at: https://ewn.co.za/2017/04/23/police-to-monitor-sandton-area-following-fresh-attacks-on-uber-operators
[Accessed February 2022].

Feeney, M., 2019. *Is Ridesharing Safe?*. [Online] Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2700891# [Accessed February 2022].

Gerdain, D., 2015. *Should Uber Be Allowed to Compete in Europe? And If so How?*. [Online] Available at: https://ssrn.com/abstract=2615530 [Accessed February 2022].

Giddy, J., 2019. The influence of e-hailing apps on urban mobilities in South Africa. *African Geographical Review,* 38(3), pp. 227-239.

Henama, U., Pearl, P. & Sifolo, P., 2017. Uber: The South Africa Experience. *African Journal of Hospitality,* 6(2).

Kamais, C., 2019. Emerging Security Risks of E-Hail Transport Services: Focus on Uber Taxi in Nairobi, Kenya. *International Joournal of Security, Privacy and Trust Management,* Volume 18, pp. 1-18.

Keidanren, 2019. *Annual Report 2019,* Keidanren, Tokyo: Society 5.0 for SDGs..

Kumar, N., Jafarinaimi, N. & Morshed, M., 2018. Uber in Bangladesh: The Tangled Web of Mobility and Justice. *In proceedings of the ACM on Human-Computer Interaction (Article 98),* Volume 2, pp. 1-21.

Li, K., 2019. *Investigating the effect crime has in Uber and Yellow taxi pickups in NYC.* [Online] Available at: https://digitalcommons.colby.edu/cgi/viewcontent.cgi?article=1967&context=honorstheses [Accessed February 2022].

Malin, B. J. & Chandler, C., 2017. Free to work anxiously: Splintering precarity amoung drivers for Uber and Lyft. *Communication, Culture & Critique,* 10(2), pp. 382-400.

Meshram, A., Choudhary, P. & Velaga, N., 2020. Assessing and Modelling Perceived Safety and Comfort of Women during Ridesharing. *Transportation Research Procedia,* Volume 48, pp. 2852-2869.

Moore, P., 2018. *The Threat of Physical and Psychosocial Violence and Harassment in Digitalized Work.* [Online] Available at: https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---actrav/documents/publication/wcms_617062.pdf [Accessed February 2022].

Muhammad, H. & Muhammad, N., 2020. Factors that Influence the Use of E-hailing as Public Transportation for University students in East Coast. *International Journal of Entrepreneurship, Organization and Business,* 2(6), pp. 1-13.

News24, 2020. *J. Bolt driver shot dead, colleague 'linked to the incident' suspended..* [Online] Available at: News24. https://www.news24.com/news24/southafrica/news/bolt-driver-shot-dead-colleague-linked-to-the-incident-suspended-20201012 [Accessed February 2022].

Park, J., Kim, J. & Lee, B., 2016. Are Uber really to blame for sexual assault?: Evidence from New York city. *In proceedings of the 18th Annual International Conference on Electronic Commerce: e-Commerce in Smart connected World,* Volume (Article 12), pp. 1-7.

Paul, S., 2017. Uber as For-Profit Hiring Hall: A Price-Fixing Paradox and its Implications. *Berkeley Journal of Employment and Labour Law,* 38(2), pp. 233-263.

Pfarelo, M. & Henama, U., 2019. *The Sharing Economy according to Uber and Airbnb in South Africa: Challenges, Opportunities and Immediate Prospects.* Portsmouth, UK, In proceedings of the 9th Advances in Hospitality & Tourism Marketing and Management Conference-AHTMM.

Piracha, A., Sharples, R., Forrest, J. & Dunn, K., 2019. Racism in the sharing economy: Regulatory challenges in a neo-liberal cyber world. *Geoforum,* Volume 98, pp. 144-152.

Raghuram, G. & Jasani, D., 2015. *Delhi Transport Department: Case of Uber Taxi Rape,* Ahmedabad: Indian Institude of Management.

Rogers, B., 2019. The Social Costs of Uber. *The University of Chicargo Law Review Dialogue,* Volume 98, pp. 144-152.

Roughton, 2020. *Master's Thesis: A Vehicle for Crime: Ridesharing and Victimization.* Univerity of Arkansas at Little Rock: ProQuest Disserations Publihing.

Smith,   T.,   2020.   *Disruptive   Technology.*   [Online] Available   at: https://www.investopedia.com/terms/d/disruptive-technology.asp [Accessed February 2022].

Thorebecke, C., 2019. *168 Uber and Lyft drivers suspended for offences, including felonies that should   have   barred   them   from   employment.*   [Online] Available   at: https://abcnews.go.com/Business/portland-cracks-168-uber-lyft-drivers-drivingoffenses/story?id=65663200 [Accessed February 2022].

TimesLive, 2017. *Uber driver suffers burns when car is set alight, now fighting for his life in hospital..*   [Online] Available   at: https://www.timeslive.co.za/news/south-africa/2017-06-13-uber-driver-suffers-burns-when-car-is-set-alight-now-fighting-for-his-life-in-hospital/ [Accessed February 2022].

TimesLive, 2020. *Women name and shame e-hailing cab drivers to protect passengers..* [Online] Available   at: https://www.timeslive.co.za/news/south-africa/2020-09-16-women-name-and-shame-e-hailing-cab-drivers-to-protect-passengers/ [Accessed February 2022].

Tokar, D. & Kellaher, C., 2020. *Justice Department Closes Uber Bribery Probe; Ride-share giant came under scrutiny for possible Foreign Corrupt Practices violations in 2017. Wall Street Journal (Online).*   [Online] Available   at: https://www.proquest.com/newspapers/justice-department-closes-uber-bribery-probe-ride/docview/2333652941/se-2?accountid=14717 [Accessed February 2022].

Uber,   2020.   *Vehicle   requirements.*   [Online] Available   at: https://www.uber.com/us/en/drive/chicago/vehicle-requirements [Accessed February 2022].

Young, M. & Farber, S., 2019. *Ride-hailing platforms are shaping the future of mobility, but for whom?.*   [Online] Available   at: https://doi.org/https://doi.org/10.31219/osf.io/pz7fk [Accessed February 2022].