Group ID: 10-01

Future Trends Report

Based on Analysis of the Team's Chosen Community / Organisation in Mid-Term and Final Evaluation

Community / Organisation Studied: Law Enforcement Industry

STEP 1. Identify Challenges

Read the Future Scene carefully and generate ideas for challenges, concerns, and possible related problems. Choose the 5 most important challenges and write them in the space provided. Include applicable research with appropriate in-text citations.

Observations
Explanation
Research
Conclusion

Challenge #1: The lack of transparency of AI's judgement process affects the public's trust.

People are suspicious of AI systems and are unsure whether they would be fairly judged or racial, gender and status discrimination will occur. This is likely due to the public not being well-informed on the decision-making process of AI, making AI's decisions less trustable. (observation)

Law enforcement industries do not want to share the details of their usage of AI due to the secrecy of the system. In other words, there is a threat of weaponization possibilities of AI, therefore law enforcement agencies would want to keep their technology out of the public eye. Accountability and transparency are closely related to the perception of justice in public. The police must be able to publicly answer the question of whether their duties are performed in accordance with the applicable rules. It must be possible to remove any doubts by providing openness and performing audits of the circumstances of police actions; not merely explaining the decisions, but also by making them justified. (why)

1. According to The Vox (Heilweil, 2020), reporter Rebecca Heilweil was looking into various artificial intelligence-based technologies the police department could be using. She attempted to file a request for public records, so that these documents could let her gain a better understanding of what type of artificial intelligence the NYPD might be using. However, just over 48 hours after filing it, her request was rejected because, the NYPD said, those documents would reveal "non-routine techniques and procedures" — with no elaboration. We can see how law enforcement agencies are being secretive as the public is not even able to access such information and understand the very laws that they are under.

2. The RSA (Royal Society of Arts) asked every police force in the UK whether they were using AI to make policing decisions, and whether they had consulted with the public. Only a small minority of police forces were prepared to confirm to them whether they are using AI for policing decisions, and of these very few have offered public engagement. A consistent theme across this investigation was the inconsistency and paucity of information provided by police forces regarding how they are using AI. (Grimond & Singh, 2020, p.4 &10). (research)

This creates a lack of transparency in AI's judgement process, making AI less reliable because biases are easily hidden. Improper handling of the challenges inherent in the use of AI may threaten the legitimacy of and trust in the police. The opacity of reasoning, inherent in some AI techniques might decrease transparency and weaken human agency in the police's decision-making. (conclusion)
(Dechesne, Zardiashvili, Dignum, & Bieger, 2019, p.10)

Challenge #2: It is difficult for AI to be bias-free because the training data in AI is susceptible to bias.

According to our survey, we found that most people are under the impression that AI is bias free and always provides a neutral stance. After all, what could have fewer opinions than a machine? Contrary to popular belief, AI carries the same biases as whoever created it. (observation)

A machine cannot be taught what is fair unless the engineers designing the AI system have a precise conception of what fairness is, which is highly unlikely, as humans have biases and prejudices. There is uncertainty on whether AI can be used to make a perfect final decision. Therefore, AI cannot be trusted to make life-and-death decisions, especially in the industry of Law Enforcement. (why)

1. We looked into a research article from the Royal United Services Institute for Defence and Security Studies (Babuta & Oswald, 2019, p. 2 & 15), which explored different types of bias that can arise. According to the paper, multiple types of potential bias can occur. These include discrimination on the grounds of protected characteristics; real or apparent skewing of the decision-making process; and outcomes and processes which are systematically less fair to individuals within a particular group. This could also result in an over-reliance on automation. There is a risk that police officers become over-reliant on the use of analytical tools which might not be the most accurate, undermining their discretion and causing them to disregard other relevant factors.

2. According to another research paper done by the Royal Society of Arts (RSA) (Grimond & Singh, 2020, p. 7), one of the overriding concerns comes from the use of artificial intelligence as a means of increasing the efficiency of policing rather than the quality of it. As stated by the article, the potential for bias – especially against historically marginalised groups in high-crime areas – is logical and clear. New injustices may emerge too. Geospatial predictive algorithms could change the behaviour of police officers when patrolling areas identified as high-risk and lead to differential, possibly harmful policing practices across areas. Racial and gender biases can also be exacerbated by technologies as they are based on historical data. (research)

Facial recognition technology and AI is not accurate 100% of the time (Kuflinski, 2019). In fact, in the case of women, children, and ethnic minorities, this accuracy may be as low as 65%. What this indicates

is that the technology is discriminative due to its less than ideal results. While this may change over time as the artificial intelligence technology scans and “discovers” a more diverse variety of faces, at the moment it risks falling foul of racial discrimination laws. (conclusion)

Challenge #3: AI used in law enforcement may infringe on people’s privacy, physically or online. There is also a risk of users’ information being leaked by data breaches

Many websites, especially social media platforms, steal their users’ data and sell it to other parties. According to our survey, many teenagers were shocked that they might be tracked online. Some do know that their online footsteps are being tracked due to the advertisements which are customised to their search and watch history. (observation)

AI needs to collect an immense amount of data to make decisions, which may infringe on people’s privacy. In the Law Enforcement industry, the collection of data is used for purposes such as analysing crime scenes. AI in the law enforcement industry is also used in facial-recognition technology, which can come into use when hunting for criminals on the run, or detecting suspicious activity and keeping track on such suspicious persons. However, your online and physical footprints are constantly tracked, and every move you make can be seen. (why)

Hundreds of law enforcement agencies across the US have also started using a new facial recognition system from technology company Clearview AI, a new investigation by *The New York Times* (Hill, 2020) has revealed. The Clearview system is built upon a database of over three billion images scraped from millions of platforms, a process which may have violated websites’ terms of service. Law enforcement agencies can upload photos of any persons of interest from their cases, and the system returns matching pictures from the internet, along with links to where these images are hosted, such as social media profiles. Clearview's clients are mostly law enforcement agencies. Many fear that such a system with a hold over so much information would threaten their privacy.

In addition, the entire client list was stolen in February this year (Ng, 2020, para. 6). Many privacy advocates have raised concern over the potential implications such a technology could come to have on individual freedom. Lawmaker Sen. Ed Markey said in a statement. "This is a company whose entire business model relies on collecting incredibly sensitive and personal information, and this breach is yet another sign that the potential benefits of Clearview's technology do not outweigh the grave privacy risks it poses." With the problems it poses, there is no point to use such technology at the moment. (research)

The collection of data for AI’s usage will continue to infringe on people’s privacy. China is an extreme example where every footprint, physical or not, is tracked. This data allows governments to have more control over the masses, leading us into a curated life. (conclusion)

Challenge #4: AI making decisions for humans is unethical

Around 68.3% of the people that interviewed told us that they are familiar with AI and technology, but only half of them know that they are susceptible mistakes that can be made. With the rise of AI in the Law Enforcement industry, many start to realise that AI should not deserve to make decisions for humans. (observation)

In large countries like China and the USA, AI is already making life-and-death judgements, deciding who has a higher probability to commit crimes or deciding where crime hotspots are. This is not morally correct because the decision-making process is not transparent, and there is no guarantee that AI is bias free. The decisions that they make should not be more important than those of human judges. Moreover, if something goes wrong with AI surveillance technology - for example, a biometric face-scanning system based on CCTV footage "matches" the wrong identity to a suspected robber, who should legally be held responsible? (why)

According to the same article (Dechesne, Zardiashvili, Dignum, & Bieger, 2019, p.13, 22, 26), from an ethical and legal perspective, responsibility/liability must always be assigned to a moral agent or legal person: AI systems are neither. However, the use of complex technology like artificial intelligence can lead to "attribution confusion", where it is not clear who, if anyone, should be held responsible.

It is also important to acknowledge that while (other) AI decision support systems could aid in suggesting a course of action in response to the prediction, the actual response remains firmly in the hand of the police professionals who use the system. This is important to acknowledge, because aside from bias and fairness issues discussed above, the main ethical questions surrounding predictive policing have to do with the follow-up. What interventions can the police ethically perform when no actual wrong has been done, but an individual is predicted (exceeding a probability threshold) to commit a crime in the future? Subjecting people to faulty systems can be unethical. For instance, an AI could erroneously discard someone's (valid) report of online fraud, or falsely accuse someone of a crime. If errors are biased against specific groups, or the system is unreliable or inconsistent, this can also lead to (unfair) disparate treatments. (research)

AI can have a very large and lasting impact on people if its choice is placed over human judgement due to the trust that we put in it. Human judgement is needed in every circumstance until there is a way to make the AI as accurate as possible, or best, 100% accurate, which is currently impossible. (conclusion)

Challenge #5: AI can be easily misused, especially by authorities to fulfil their agendas.

The misuse of AI will continue to aggravate due to the immense weaponisation possibilities. AI has many uses and benefits in the law enforcement industry - it can expedite certain processes, like solving crimes, and even the deterring of crimes. However, authorities can also misuse such technology for their own political advantage, or to oppress minorities. (observation)

AI allows for a convenient tracking and surveillance method, and the data collected can be used to manipulate public opinions. Mass surveillance, racial profiling and infringement on privacy are only a few examples. People's private information is taken and kept, forcing them to comply with the party withholding the information. With the steady rise in countries accepting AI in Law Enforcement or an increase in usage, there are many possibilities of data falling into the wrong hands. (why)

1. According to *The Seattle Times* (Mozur, 2019, para. 2), authorities are using a vast, secret system of advanced facial recognition technology to track and control the Uighurs, a largely Muslim minority. It is the first known example of a government intentionally using artificial intelligence for racial profiling, experts said. Law enforcement in the central Chinese city of Sanmenxia, along the Yellow River, ran a system that over the course of a month this year screened whether residents were Uighurs 500,000 times.

2. Tech companies capable of releasing such a tool (i.e. facial recognition technology) have refrained from doing so; in 2011, Google's chairman at the time said it was the one technology the company had held back because it could be used "in a very bad way." (Hill, 2020, para. 5). Some large cities, including San Francisco, have barred police from using facial recognition technology. "The weaponization possibilities of this are endless," said Eric Goldman, co-director of the High Tech Law Institute at Santa Clara University. "Imagine a rogue law enforcement officer who wants to stalk potential romantic partners, or a foreign government using this to dig up secrets about people to blackmail them or throw them in jail." (research)

From these examples, we can see that there exists a wide spectrum of AI's misuse, ranging from oppression of minorities to the careful selection of opinions which can be posted online. We can see how AI and facial-recognition technology can also be used in law enforcement by governments for political agendas by monitoring or even detaining minorities. This is a step too far in the wrong direction where they are abusing power. Many have shown their disapproval of this misuse, most notably IBM. AI can very easily be "weaponized", or used in a way it was not intended to, with harmful intentions for personal use or in the larger picture, by authorities. Hence, AI's weaponisation possibilities can lead us into a curated life. (conclusion)

Group ID: 10-01

STEP 2. Craft the Underlying Problem

Using the challenges listed in Step 1, identify a problem of major importance to the chosen community / organization in the future. Write your Underlying Problem making sure your question clearly explains the action that will be taken and the desired results/goal of that action.

Incorporating Challenge(s) #2, #3, #5

Underlying Problem:

Given that there is a high probability of AI playing a larger role in the Singapore law enforcement industry (LEI), it appears that AI may have some imperfections in their structure, (Condition Phrase) how may we improve the reliability of AI (Key Verb Phrase), so that AI can be used more positively in our law enforcement industry (Purpose) in 2030 and beyond? (FSP)

STEP 3. Produce Solution Ideas

Generate solution ideas to the Underlying Problem in Step 2. Choose the 5 most effective solutions and write the elaborated ideas in the space provided. Include applicable research with appropriate in-text citations.

Solution #1

We, the Oasis Auxiliary Law Enforcement Agency, (who) will implement legislation and guidelines to law enforcement agencies (how), in order to ensure AI and Face Recognition is used in an ethical manner (purpose). In order for AI technologies to be truly transformative in a positive way (why), we need a set of ethical norms, standards and practical methodologies to ensure that we use AI responsibly and to the benefit of humanity (what). This way, the benefits of AI can be brought out, while mitigating the biases that AI contains (KVP).

While machine learning algorithms are currently being used for limited policing purposes, there is potential for the technology to do much more, and the lack of a regulatory and governance framework for its use is concerning. A new regulatory framework is needed, one which establishes minimum standards around issues such as transparency and intelligibility, the potential effects of the incorporation of an algorithm into a decision-making process, and relevant ethical issues. ("Machine Learning Algorithms & Police Decision-Making," 2018.)

RESEARCH:
1) There are two bills — the Federal Police Camera and Accountability Act and the Police CAMERA Act — that could pare back the use of facial recognition by law enforcement in some cases.Sections of the bill aim to ensure that police officers do not exploit body cameras to surveil citizens exercising First Amendment rights.
The legislation would further prevent officers from subjecting video footage to facial recognition or other forms of automated analysis without a warrant. It also reflects a balance between providing more oversight of police activity through the use of technology and protecting citizens' privacy. It underlines the heated public debate around facial recognition technology, which has increasingly animated state legislatures across the country over the past year.
Cities including San Francisco, Oakland, Berkeley and Somerville, Massachusetts, have passed local ordinances banning facial recognition outright. California lawmakers last week blocked controversial legislation that would have provided some safeguards around facial recognition.

2) The European Union has developed ethics guidelines for building trustworthy AI (Birnbaum, 2020). These guidelines aim to help developers in building AI systems that are lawful, ethical, and robust. Similarly, government organizations must develop guidelines and regulations for designing trustworthy AI systems. Such regulations can be designed to achieve the following goals:

- AI systems are to be built to empower human beings, assisting in work and are controlled by humans

- AI systems are secure, to ensure the safety of Data and do not violate user privacy
- The data and algorithms used in AI systems are completely transparent to allow people to understand and trust the AI, and also to check whether it has any malicious intent coded into it
- Avoid unintentional bias while developing AI applications as much as possible although current technology is unable to do as well.
- Design mechanisms to ensure accountability and responsibility for AI systems for what they do and their results, making sure that the AI is law abiding.

Hence, by considering these points in the development of regulations, governments can help to guide developers in building trustworthy AI applications, which would be able to benefit mankind and allow easier development of AI.

Solution #2:

We, the Oasis Auxiliary Law Enforcement Agency (who), who are responsible for implementing such AI systems (what), will give a clear explanation on how they work and have total transparency (how), in order to allow the public to understand the use of the AI such that they will accept the usage of it (purpose), allowing the AI to be more transparent (kvp).

RESEARCH:
However, simply knowing if a given model uses an explainable algorithm is not enough to understand a model's performance. The strength of a model depends significantly on its training data. It is not always that good, clean, well-labeled data will result in good, well-performing models.
So, the next question that a model user will need to ask is about the training data. Where did that data come from? How was it cleaned? What are the features or dimensions upon which the model was trained? Can they see or get access to the training data? Can they get visibility into how the data was cleansed and what features were used? If the answer is no to these questions, then there is very limited visibility and you're trusting that the model has your best intentions in mind.
(Schmelzer, 2020)

Developers need to build explainable AI systems. For this purpose, companies that utilize AI have to open the black box and understand how AI systems make crucial decisions and generate results. After clearly understanding how AI systems work, researchers can educate people about AI, making AI systems more transparent. Also, companies that implement AI can also take additional steps to make their AI systems more transparent. For instance, tech giants such as Google and Twitter often release transparency reports that include government requests and surveillance disclosures. Similarly, transparency reports for algorithmic decisions made by AI systems can be helpful in building trust among users.
(Joshi, 2019)

Solution #3:

We, the Oasis Auxiliary Law Enforcement Agency, (who) will filter and "de-bias" training data (what), by implementing a ranking system to determine whether a set of data is bias-free (how), in order to make a more reliable AI (kvp) so its decision-making progress would be more accurate (purpose).

RESEARCH:
AI could amplify one's bias and prejudice, so we have to make data unbiased before putting it into AI. As long as humans are involved in making machines, the bias will be there, but there are some tools that can help to mitigate AI bias.

IBM, for instance, has proposed a three-level ranking system to determine whether data is bias free. Essentially, it determines if an AI system is not biased; if it inherits the bias of its data/training; and/or if it carries the potential to data bias, regardless of whether it starts out bias-free. It's not fail safe, but it's a start. And along with the numerous other organizations and conferences launching to address the issue of bias in data—and other new regulations surrounding data privacy—it could do a lot to help to mitigate AI bias.

IBM Research has also developed a comprehensive open-source toolkit to do just that. 'AI Fairness 360' helps users examine, report and mitigate discrimination and bias in their machine learning models. The toolkit provides 10 bias mitigation algorithms and uses more than 70 fairness metrics. It includes demos, videos, a tutorial and more.

To move into the future with AI applications that are fair and that resist bias, we need resources to help us identify and eliminate unwanted bias. In the end, the only sure-fire way to eliminate bias in AI is data is to eliminate the bias in humans. That is, of course, unlikely to happen. But with transparency, commitment, and awareness, we can get a whole lot closer to unbiased AI than where we are. (McDade & Testman, 2019)

Solution #4:

We, the Oasis Auxiliary Law Enforcement Agency, who are responsible for developing AI (who) in the law enforcement industry will use a wide variety of training data and have a diverse development team (what) to ensure that the AI does not produce biased results (kvp). We will also ensure that the AI undergo conscious development. (what2) While developing AI systems, developers need to ensure that the decisions made by AI will benefit humans (how). For this purpose, AI systems need to be aligned with human principles and values. Using this mindset, developers can consciously design applications with an objective of making human life better (purpose). Furthermore, a diverse team will be capable of identifying issues that may go unnoticed with smaller teams, leading to the development of trustworthy AI applications (how).

Research:

Development teams should consist of a diverse range of people who can assist in designing algorithms

and collecting a wide variety of training data. Using a wide variety of training data, development teams can ensure that AI systems do not produce biased results. Also, a diverse team will be capable of identifying issues that may go unnoticed with smaller teams, leading to the development of trustworthy AI applications. (Joshi, 2019)

With 78% of people working in AI being male, there are biases that they naturally will not spot.

Payal Jain, chair of Women in Data, says. “I went into one particular company that said this and asked them to show me their recruitment process. They were so proud, saying they’d eliminated bias in their recruitment process by using AI to filter CVs.”

Although the company in question believed they had eliminated recruitment bias thanks to AI, its team remained male-dominated. What the machines were doing, Payal explains, is examining the performance of previous joiners to the team in the past—of which there were more men than women. The machine in turn inferred that men are more likely to get the job over women, with the data indicating they were more capable than women in ML and AI. (Daly, 2019)

Solution #5:

We, the Oasis Auxiliary Law Enforcement Agency, (who) will implement multiple safety precautions (what), to ensure that personal and private data would be safely kept confidential (kvp). For example, we can embrace a data-centric security strategy, through which we develop a strategic understanding of what data we have and how valuable that data is to our business operations (how). This holistic and strategic viewpoint when approaching network security can make AI more reliable by ensuring its all-rounding safety and security. (why)

Research:

Companies can implement a Multi-Factor Authentication (MFA), which is an authentication method in which a computer user is granted access only after successfully presenting two or more pieces of evidence to an authentication mechanism. Many of us are quick to change our login credentials following the public disclosure of a data breach. But by then, it could be too late. As Tripwire Principal Security Researcher Travis Smith noted, many victimized businesses do not detect a data breach (if at all) until hundreds of days later. That gives attackers plenty of time to compromise those exposed accounts before anyone knows what happened.

Finally, organizations can strengthen the security of their data by patching vulnerabilities through which malicious actors could gain access to their network assets. They can do this by formulating a patch management program through which they test patches before they deploy them on their production systems. (Bisson, 2020)

Organizations' engagement with a security fix does not end after they have implemented it. Indeed, they need to follow up a patch's deployment by scanning their system to confirm that the vulnerability is no longer present. This step will reveal if the patch has addressed the vulnerable components and if organizations need to take additional measures to remediate the vulnerability.

Group ID: 10-01

STEP 4a. Select Criteria

Generate criteria to determine which solution idea does the best job of solving your Underlying Problem and/or addressing the Future Scene situation. Select the 5 most important criteria for measuring solution ideas and write them in the spaces provided.

Criterion #1: Efficiency
Which solution will be most efficient for LEI so that it takes the least amount of effort to carry out?

Criterion #2: Effectiveness
Which solution will be the most effective for LEI in solving our Underlying Problem?

Criterion #3: Time taken
Which solution will take the least time for LEI to carry out so that it can be quickly applied?

Criterion #4: Cost
Which solution will cost the least for LEI to carry out so that it can be easily applied to many neighbourhoods?

Criterion #5: Sustainability
Which solution will be the most sustainable for LEI so that it can be maintained easily and benefit future generations?

STEP 4b. Apply Criteria

List the solution ideas from Step 3 on the grid. Use each criterion to rank the solutions on a scale from 1 (poorest) to 5 (best). The weighting for one important criterion may be doubled if necessary.

5 - best

0 - worst

Explanation for points allocated for solutions:

- Efficiency
    - Emphasising quality over quantity, the (Conscious development / Using a wide variety of training data & having a diverse development team) selection has the best efficiency. It allows through check of the AI system that is being used and constructive feedback and improvements can be made. (Filter information/make it bias free to make an all rounded AI) takes a longer time to produce similar results and hence is second

- Effectiveness
    - (Policies and guidelines to ensure AI and Face Recognition is used in an ethical manner, and not being misused) is the most effective as Laws are put in place as a safety precaution by high ranking leaders to enforce the reliability of the system. But it depends on the country that implements it (corrupt/non-corrupt country). (Filter information/make it bias free to make an all rounded AI) comes in second, for being able to be changed depending on future problems, making it reliable in the long run, while being effective in helping Law enforcement.

- Time Taken
    - (Allow the public to understand the use of AI) is the least time consuming selection due to the presence of Technology, educating the public is much easier. Information can be easily broadcasted and taken in a matter of seconds. (Filter information/make it bias free to make an all rounded AI) it takes time to program a AI system and filter it while doing machine learning, it also takes time to do extensive testing as well as fine tuning of the AI, thus we gave it a 3.

- Cost
    - (No prioritisation of AI's judgement over human decisions) is just a conscious effort enforced into Law Enforcement personnel and costs the least amount of money unless extensive training is needed. (Filter information/make it bias free to make an all rounded AI) requires vigorous testing

and months of resources to try to perfect it, it also requires a lot of manpower not just to test it but also code and design the AI, which all cost money and may require funding, thus we gave it a 3.

- Sustainability
    - Sustainability (long-term) (Policies and guidelines to ensure AI and Face Recognition is used in an ethical manner, and not being misused) laws and policies are able to be changed to help change current problems and can be easily adapted to future times. (Filter information/make it bias free to make an all rounded AI) once the AI is completed and the results are both satisfactorily unbiased and filtered, it will be easy to do a mass production as well as use the base code to try and send the AI better data for Machine Learning, thus it is quite sustainable once the AI is finished, therefore we gave it a 4.

Step 3 Sol'n #	Solution Idea	Criteria					Total
		Efficiency [5]	Effectiveness [5]	Time Taken [5]	Cost [5]	Sustainability (long-term) [5]	
1	Implement legislation and guidelines to law enforcement agencies	1	5	1	4	5	16
2	Allow the public to understand the use of AI	2	1	5	2	1	12
3	Filter information/make it bias free to make an all rounded AI	4	4	3	3	4	18
4	Conscious development / Using a wide variety of training data & having a diverse development team	5	3	2	1	3	14
5	Implement multiple safety precautions , to ensure that personal and private data would be safely kept confidential	3	2	4	5	2	14

STEP 5. Develop an Action Plan and Evaluate its Feasibility

Develop your top-scoring solution idea into an Action Plan. Thoroughly explain how the Underlying Problem is solved, how the plan will be implemented, and how the community / organisation will be affected. Explain how this Action Plan is feasible with secondary research consulted, preferably also with primary research (feedback from chosen community / organization)

Underlying Problem:

Given that there is a high probability of AI playing a larger role in the (Singapore) law enforcement industry (LEI), it appears that AI may have some imperfections in their structure. How may we improve the reliability of AI, so that AI can be used more positively in our law enforcement industry in 2030 and beyond?

Key Verb Phrase:

“Improve the reliability of AI”

Purpose:

“So that AI can be used more positively in our law enforcement industry in 2030 and beyond”

Best Solution	Solution #3: Law enforcement agencies will cleanse and filter data to ensure the removal of bias, by implementing a ranking system to determine whether a set of data is bias-free, in order to make a more reliable AI so its decision-making progress would be more accurate.

Outline of Action Plan	
Who:	Government and companies should look out for loopholes in the system and ensure that the AI implemented is for the General Public.
What will be done:	AI would be given a data set as unbiased and accurate as possible, and cleansed to be able to do machine learning.
Give some details about how this will happen (e.g. what technologies, people, resources will be used?)	6-8 months of preparations and tests With the constant improvement in technology, we would be able to improve the way de-biasing occurs, allowing a better AI system to be given to the people and constantly upgrading.
Refer to Key Verb Phrase and explain the link.	“In order to make a more reliable AI” Improvement is key as we would not want any bias or racism towards anybody due to such a system. Constant testing would be carried out before releasing the system.
Refer to Purpose and explain the link	“Improve the reliability of AI” Future adjustments are possible if certain problems arise in the future and this solution is fluid and changes are not stuck in stone forever. People would be able to trust the AI system due to the correctness of it and its benefits. There would not be a doubt in the reliability of the AI

Set out an Implementation Schedule	
1st:	The first step in our implementation timeline is to carry out coding and preliminary testing, in order to develop the system. It would be carried out for approximately 6-8 months.
Next:	Secondly, surveying and improving current testing: Introduce the system to be implemented in a small neighbourhood for pilot experiment to gauge how successful it is and problems faced to work on and improve which will take a period of roughly 2 months.
Finally:	Next, when the AI is done, or close to perfection, mass testing would be carried out in multiple neighbourhoods. Finally, the system will be distributed to law enforcement agencies to be implemented internationally.
Possible assisters/ resistors to our action plan:	
Assisters:	Some possible assisters to our action plan are organisations that support the ethical usage of AI in the Law Enforcement Industry, as well as law enforcement personnel because the AI would make their jobs much easier and more efficient.
Resistors:	However, there are also several possible resistors to our action plan. We might face insufficient funding to develop the system and carry out the action plan. There might be possible flaws in the cleansing process of the data for the AI, which may further increase the unethical usage of AI, as it is assumed to be reliable.

Evaluate the action plan Explain how difficulties will be overcome: e.g. public support environmental issues, adequate funding	The different difficulties can be overcome through different methods. The problem of funding for the Ai system can be overcome by calling on large technology companies such as Huawei or IBM. Through multiple layers of careful testing, we can significantly reduce the chances of flaws in the cleansing process.
As a result of this solution to the UP, how will the situation in your current organisation/community/theme be influenced for the better?	Through this solution, the general public will be able to have a peace of mind knowing that there is a reliable and credible system in place to help protect and ensure that the country is safe due to the bias-free decision-making system. With a more reliable AI system, AI will also be used more positively in the law enforcement industry, in 2030 and beyond, therefore solving our underlying problem.

Bibliography

The resources we have consulted, cited using the APA format.

Dechesne, F., Zardiashvili, L., Dignum, V., & Bieger, J. (2019). AI & Ethics at the Police: Towards Responsible use of Artificial Intelligence in the Dutch Police. Retrieved July 30, 2020, from https://openaccess.leidenuniv.nl/bitstream/handle/1887/85954/ai-and-ethics-at-the-police-towards-responsible-use-of-artificial-intelligence-at-the-dutch-police-2019..pdf?sequence=1

Babuta, A., & Oswald, M. (2019). Data Analytics and Algorithmic: Bias in Policing. Retrieved July 11, 2020, from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/831750/RUSI_Report_-_Algorithms_and_Bias_in_Policing.pdf

Grimond, W., & Singh, A. (2020). A Force For Good? Results from FOI requests on artificial intelligence in the police force. Retrieved July 11, 2020, from https://www.thersa.org/globalassets/reports/2020/a-force-for-good-police-ai.pdf

Hill, K. (2019). The Secretive Company That Might End Privacy as We Know It. Retrieved July 10, 2020, from https://www.nytimes.com/2020/01/18/technology/clearview-privacy-facial-recognition.html

Mühlberg, B. (2020). Clearview AI Data Breach Exposes Facial Recognition Firm's Client List. Retrieved July 21, 2020, from https://www.cpomagazine.com/cyber-security/clearview-ai-data-breach-exposes-facial-recognition-firms-client-list/

Mozur, P. (2019). One month, 500,000 face scans: How China is using AI to profile a minority. Retrieved July 11, 2020, from https://www.seattletimes.com/business/one-month-500000-face-scans-how-china-is-using-ai-to-profile-a-minority/

Birnbaum, E. (2020). How the Democrats' police reform bill would regulate facial recognition. Retrieved July 21, 2020, from https://www.protocol.com/police-facial-recognition-legislation

Joshi, N. (2019). How We Can Build Trustworthy AI. Retrieved July 24, 2020, from https://www.forbes.com/sites/cognitiveworld/2019/07/30/how-we-can-build-trustworthy-ai/#2225b517d5e3

McDade, M., & Testman, A. (2019). Tackling bias in AI. Retrieved July 21, 2020, from https://www.ibm.com/blogs/systems/tackling-bias-in-ai/

Daly, C. (2019). AI Bias Isn't A Data Issue - It's A Diversity Issue. Retrieved August 9, 2020, from https://aibusiness.com/document.asp?doc_id=760915&site=aibusiness

Heilweil, R. (2020). Why we don't know as much as we should about police surveillance technology. Retrieved July 10, 2020, from https://www.vox.com/recode/2020/2/5/21120404/police-departments-artificial-intelligence-public-records

Newman, D. (2019). Want to Mitigate AI Bias? Start with Unbiased Data. Retrieved July 21, 2020, from https://broadsuite.com/mitigate-ai-bias/

Ng, A. (2020). Clearview AI's entire client list stolen in data breach. Retrieved July 21, 2020, from https://www.cnet.com/news/clearview-ai-had-entire-client-list-stolen-in-data-breach/

Cyber Security Intelligence. (2018). Machine Learning Algorithms & Police Decision-Making. Retrieved July 11, 2020, from https://www.cybersecurityintelligence.com/blog/machine-learning-algorithms-and-police-decision-making-3762.html ding 10

Schmelzer, R. (2020). Towards A More Transparent AI. Retrieved August 16, 2020, from https://www.forbes.com/sites/cognitiveworld/2020/05/23/towards-a-more-transparent-ai/#2a760e3c3d93

Bisson, D. (2020). 5 Ways Your Organization Can Ensure Improved Data Security. Retrieved August 3, 2020, from https://www.tripwire.com/state-of-security/security-data-protection/5-ways-you-can-ensure-improved-data-security/