

Artificial Intelligence Technology and Human Rights

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Abstract

In terms of reducing the fear of crime in the community, AI has the potential to be a useful tool. For example, AI can be used to analyze crime patterns and predict where crimes are likely to occur, allowing law enforcement to focus their resources on those areas. AI can also be used to monitor public spaces and detect suspicious behavior, helping to prevent crimes before they happen. However, it is important to ensure that the use of AI in law enforcement is done in a way that protects people's privacy and civil liberties. For example, there are concerns about the use of facial recognition technology, which can be used to identify individuals in public spaces without their consent. There are also concerns about AI's potential to perpetuate bias and discrimination, especially if the data used to train the AI is biased. Overall, the role of AI in reducing community fear of crime is a complex issue that requires careful consideration of potential benefits and risks. It is important to approach this issue with a critical and ethical perspective to ensure that the use of AI is beneficial for all.

Keywords: AI, Preventive, Human rights, Laws,

Introduction

This is a good summary of the importance and potential risks of artificial intelligence. It is essential to ensure that laws and regulations are in place to protect human rights and prevent AI abuses. AI has the potential to revolutionize many fields and improve our daily lives, but it must be developed and used ethically and responsibly. The American Association for the Advancement of Artificial Intelligence's definition of AI also emphasizes the importance of understanding the mechanisms of intelligent behavior and embodying them in machines. Overall, AI is a powerful tool that needs to be used with care and caution to ensure that it benefits humanity.

Artificial Intelligence (AI) is a mandatory part at the moment of what we want to be but not what is wrong in the process. This is why through laws we must protect human rights among people because of the ability of AI to solve many real-

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world problems in advance. Artificial intelligence has been involved in many fields such as medicine, banking, manufacturing technology, and education. When considering the large spread of AI in these areas, there is still not enough involvement and preparation of laws and measures against abuses. Through AI, the consequences are wide, not only individual but go beyond national rules. Many organizations and legal societies use inadequate laws and are not properly informed about the problems brought by AI, alluding only to what we need for the future. Many developed countries have divided the population through AI into weak and strong through the programs and applications used to achieve the daily human needs of the good and bad citizens, some others have used AI to create war machines through AI which violate the rules, international conventions and if we do not have an adequate regulation, then we will have many violations of human rights, many victims but without responsibility and without guilt.

American Association for the Advancement of Artificial Intelligence describes artificial intelligence as “scientific understanding of the mechanisms underlying thought and intelligent behavior and their embodiment in machines, (Benoît et al., 2018).

AI is generally split into General Artificial Intelligence and Narrow Artificial Intelligence. General Artificial Intelligence (or strong AI) is thought to be a computer system exhibiting human or superior intelligence in all fields. It would be able to take knowledge from one field and transfer it to another (Dupont et al., 2012).

Several tests have been suggested to determine if an AI system exhibits strong artificial intelligence. The most famous is probably the Turing test, which asks judges to determine if they are talking to a computer or a human over a chat interface. Another test that has been suggested is the Wozniak Coffee test – can a car go to a stranger's home and make a cup of coffee; General Artificial Intelligence can have tremendous effects on humanity and potentially replace all human work. However, it is likely too far. Experts disagree on whether this will happen in our lifetimes, and whether the current path of artificial intelligence will take us there (Mitchell, 1997).

Machine Learning (ML) works in a different way. Instead of trying to encode his knowledge into the system, the programmer will tell the algorithm a number of examples and a label for the data.

The machine will then figure out for itself what these examples have in Common. The more examples are shown, the better the algorithm will become – it is thus capable of improving itself. Hence, a popular definition for ML is: “The field [that] is concerned with the question of how to construct computer programs that automatically improve with experience, (Stevens et al., 2022), One of the

advantages of deep learning is that it can handle large amounts of data and extract meaningful patterns from it, which is particularly useful in areas such as image and speech recognition, natural language processing, and autonomous vehicles. Deep learning has also made significant advances in areas such as drug discovery, where it has been used to predict new drug candidates for diseases.

However, deep learning is not without its challenges. One of the biggest issues is the need for large amounts of labeled data for training, which can be time-consuming and expensive to obtain. There is also the issue of explainability, where it can be difficult to understand how a deep learning algorithm is making its predictions, which can be problematic in applications such as healthcare where transparency is important. Furthermore, deep learning algorithms can be vulnerable to adversarial attacks, where small changes in the input data can cause the algorithm to produce incorrect results. Despite these challenges, Deep Learning continues to be a rapidly developing field with many promising applications (Sejnowski, 2018). The three main reasons for the great leaps achieved by deep learning are as follows: Large collections of data, more powerful technology, and better algorithms (LeCun, 2015).

Methods

It is important to note that the use of a hybrid form of survey and interview methods, including online, paper and pencil, and electronic questionnaires, allows for a wider scope and diversity in the data collected. This approach can also help to mitigate potential issues related to self-selection bias or sample selection bias that may arise from using only one data collection method. However, it is important to ensure that the methods used are reliable and valid and that the data collected are properly analyzed and interpreted. Using multiple methods can also increase the complexity of data management and analysis, which requires careful attention to data cleaning, coding, and processing.

Many studies have tried to answer the question of whether AI and automation will create mass unemployment and negation or thinking like humanity. The answers are wildly different depending on the methodologies, approach, and countries covered (Frey and Osborne, 2023).

Participants include the 25 research students of the law Faculty AAB University and 5 professors of Law and Criminology. A Survey and interview method in hybrid form was used for data collection.

Methods of Machine Learning

The methods of Machine Learning: supervised and unsupervised learning are two main ways of implementing ML.

Supervised Learning Supervised learning is a form of machine learning where a correct answer is provided to the machine at the training stage. For example, an image could be provided together with a label to specify whether the image is that of a dog or a cat. For a real estate application, a number of properties of a house could be provided, together with the price of the house. The algorithm would ultimately try to predict this label with the properties available to it. All machine learning algorithms follow a similar process: **Data:** The programmer has to provide the algorithm with a dataset. This could be, for example, a set of one million house listings and their price. The price, in this example, would be the target that the algorithm attempts to predict. The more data, the better the algorithm can become. In fact, using more data with a “stupid” algorithm will usually beat a better algorithm with less data. A big advantage of the large firms in machine learning is the amount of data that they hold. Google, for example, holds and uses enormous data sets in training their models (Sejnowski, 2018).

For Example, Google generates data from the log-in process to its various services. To verify that they are not bots, users are asked to click on images containing certain elements, such as cars or signposts. This human-generated interpretation data can then be used to train AI systems. Beyond this, large tech companies employ thousands of workers who manually go through and label pictures for self-driving cars.

Features: the computer, at this stage, does not know how to deal with this data. It has to be turned into a number of features, or a numerical representation of the data. This is called feature engineering. It is a complex task, requiring a lot of time and knowledge in the area (Domingos, 2012).

For our previous example of predicting the price of a house, the relevant features could be the number of bedrooms, the total area of the house, the location, and the number of windows. Color, on the other hand, might have very little impact on the price, and therefore be a bad feature. One of the big advantages of deep learning is that this kind of feature engineering does not have to be performed. The network will instead itself learn the structure of the data in several layers of abstraction, as described before. This means that this expensive and time-consuming process can often be skipped; **Algorithm:** the features are then fed to an algorithm. This algorithm can have different goals: Mainly regression or classification. In Regression, the algorithm takes in the data and tries to guess a numerical value. In our example, it could try to predict the value of a house based on a number of features. The closer the algorithm lands to the actual price of the house, the better. Classification tries to put the example into a class. This could be, for example, deciding whether an image is of a cat or a dog. Here, the measure of success is how many of the images the algorithm correctly classifies; **Evaluation:**

there has to be a way to evaluate the algorithm. This is typically used by the computer internally to determine how the algorithm it currently runs is performing; Training: once the computer learns how it is currently performing, it will subtly tweak the algorithm to perform better on the next try. This process is known as training. After training, the engineer will often go back to change the features or algorithm used to further improve the performance of the model.

Unsupervised learning is a class of machine learning where no labels are provided. Instead, the computer itself tries to figure out what distinguishes one piece of data from another. In our example of cats and dogs, this would be the engineer providing the algorithm with images of both cats and dogs, and the computer itself realizing that there are two different animals in the dataset, and what distinguishes them. Unsupervised learning does not perform as well as supervised learning. However, it is an active area of research and has several advantages over supervised learning. A big advantage is that the data does not have to be labeled, making enormous troves of unstructured data accessible to analysis. Therefore, many see unsupervised learning as the approach of the future. One important use of unsupervised learning is of anomaly detection. Here, a network is trained to learn the structure and general appearance of a stream of data. It is then able to tell if one data point looks different from the rest. This can be used, for example, to detect problems in production lines or possible cyber fraud attempts in a large number of financial transactions.

What is Artificial Intelligence

Artificial Intelligence (AI) refers to the ability of machines to perform tasks that normally require human intelligence, such as visual perception, speech recognition, decision making, and language translation. AI systems use algorithms and statistical models to analyze large amounts of data and recognize patterns, allowing them to learn and improve over time without being explicitly programmed. There are different types of AI, including rule-based systems, machine learning, and deep learning, which differ in their approach to data processing and decision-making. AI has numerous applications in a wide range of industries, including healthcare, finance, transportation and entertainment.

Artificial Intelligence (AI) has the potential to revolutionize various industries and improve our daily lives. It can automate repetitive tasks, analyze large amounts of data, and provide intelligent decision-making capabilities. However, as with any new technology, there are also potential risks and challenges that need to be addressed.

An important impact of AI is its potential to displace jobs. As AI continues to become more advanced, there is a risk that it could replace human workers in

various industries. While this can lead to increased efficiency and productivity, it can also lead to job losses and economic disruption.

Another impact of AI is its ability to augment human decision-making. AI algorithms can analyze large amounts of data and provide insights that humans may not be able to identify on their own. This could be particularly useful in areas such as healthcare, where AI can help doctors diagnose diseases and develop treatment plans.

However, there are also concerns about the privacy and security implications of AI. AI algorithms are only as good as the data they are trained on, and if that data is biased or inaccurate, it can lead to unfair or inaccurate decisions. Additionally, there is a risk that AI could be used for malicious purposes, such as cyber-attacks or surveillance.

Overall, while the impact of AI is significant, it is important to carefully consider the potential risks and implications to ensure that we are using this technology in a responsible and ethical manner.

Risks of artificial intelligence

While artificial intelligence has many upsides, there are also a number of potential pitfalls the use of AI might fall into. It is important that these be addressed before AI gets deployed to make sensitive decisions on behalf of governments and corporations. As mentioned before, General Artificial Intelligence is still likely to be far off. However, science fiction authors and academic researchers alike have reflected on the impact such a system could have on society. The big issue is that we cannot be sure that such an artificial intelligence will share the ethics and respect for human rights that citizens aspire to in democratic societies. If given a task for example, they might pursue this task single-mindedly and let no other consideration stand in their way (Bostrom, 2003). Bostrom uses the example of an AI tasked with creating paperclips, which ends up consuming the entire universe to generate more paperclips. A number of researchers are working in this area to determine how we might ensure that AI will remain benevolent or constrained to a box where it can do no harm. Even the development of advanced narrow artificial intelligence gives rise to a number of risks, some of which will be described in general terms below before we explore how they apply to criminal justice institutions in the following chapters of this report. Most of these risks derive from the fact that AI can be a very efficient tool to accomplish certain goals. However, these goals might not align with the goals and interests of the persons they affect, either because they have been poorly framed or because the AI designers have different interests altogether and experience little or no legal or market constraints.

Narrow AI Even the development of advanced narrow artificial intelligence gives rise to a number of risks, some of which will be described in general terms below before we explore how they apply to criminal justice institutions in the following chapters of this report. Most of these risks derive from the fact that AI can be a very efficient tool to accomplish certain goals.

Nudging these profiles are mostly used to target ads to people. However, they have other intended or unintended uses. By creating comprehensive profiles of people and using the knowledge they have accumulated on how particular personal features interact or correlate, companies are able to target and influence people to further their own goals, even when these goals diverge from their customers' (and society's) interests. Much has been written about filter bubbles.

Discrimination Another risk that has already manifested itself is of discrimination. Artificial Intelligence is very good at learning from data. However, if this data is biased, these biases will be reproduced by the AI. For example, an automated analysis tool for job applications in the technology sector might spot a historical trend to prefer men over women and therefore value traits associated with men higher than those associated with women.⁶⁰ Word embeddings, which try to learn the semantic meaning of words, often associate certain terms with women, and others with men, reproducing gender stereotypes. For example, a nurse might be associated with women while a doctor is associated with men (Mewa, 2020).

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There are several risks associated with the development and deployment of artificial intelligence, some of which include:

Job displacement: AI and automation are increasingly replacing human workers in various industries, which could lead to mass unemployment and economic inequality.

Bias and discrimination: AI systems can exhibit bias and perpetuate discrimination, especially when they are trained on biased data or programmed with biased algorithms. This could lead to unfair treatment of certain individuals or groups.

Security and privacy: AI systems can be vulnerable to cyberattacks, which could compromise sensitive data and lead to security breaches. They can also

infringe on individual privacy by collecting and using personal data without consent or in inappropriate ways.

Ethical concerns: As AI becomes more advanced, there are concerns about the ethical implications of creating machines that are capable of making decisions that affect human lives. For example, autonomous weapons could be used for unethical purposes, such as targeting civilians or committing war crimes.

Lack of transparency and accountability: The complexity of AI systems makes it difficult to understand how they work and how decisions are made. This can lead to a lack of transparency and accountability, which could result in unintended consequences or unethical behavior.

Dependence on technology: As society becomes more reliant on AI and automation, there is a risk that we become overly dependent on technology and lose important skills and abilities. This could also make us vulnerable to disruptions in the event of a technological failure or malfunction.

Human Rights and AI

Artificial Intelligence (AI) technology has significant implications for human rights. On one hand, AI has the potential to advance human rights by helping to identify and address human rights violations, improving access to education and healthcare, and increasing efficiency and effectiveness in various industries. On the other hand, AI can also pose risks to human rights by perpetuating bias, discrimination, and inequality.

One of the main concerns is the potential for AI to perpetuate and even amplify existing biases and discrimination. This is because AI algorithms are often trained on datasets that reflect historical patterns of bias and discrimination. As a result, the algorithms may perpetuate these biases and lead to discriminatory outcomes, particularly in areas such as hiring, lending, and criminal justice. Another concern is the potential for AI to violate privacy rights. AI systems often rely on the collection and analysis of large amounts of personal data, which can be vulnerable to breaches and misuse. There is also a risk that AI systems may be used for surveillance and monitoring purposes, which could have a chilling effect on freedom of speech and association.

Additionally, there is concern that the use of AI in certain industries may lead to job displacement, particularly in low-skilled and routine-based jobs. This could exacerbate existing inequalities and contribute to economic and social instability.

To mitigate these risks, it is important to ensure that AI is developed and deployed in a manner that respects human rights. This includes ensuring that AI algorithms are transparent, explainable, and accountable and that they are developed

with a focus on fairness, non-discrimination, and human dignity. It also involves developing appropriate regulations and standards to govern the use of AI and to protect human rights, as well as engaging in ongoing monitoring and evaluation of AI systems to identify and address any potential human rights impacts.

Laws and regulations

As AI technology is increasingly integrated into various aspects of our lives, it is essential to put laws and regulations in place to ensure that AI is developed, deployed, and used ethically and responsibly. Here are some examples of laws and initiatives related to AI:

General Data Protection Regulation (GDPR): This is a regulation implemented by the European Union that provides data protection and privacy for all individuals within the EU. It includes provisions related to automated decision-making and profiling, which can be used in AI systems.

Algorithmic Accountability Act: This is a proposed bill in the United States that would require companies to assess the impact of their AI systems on bias and discrimination.

Ethical Guidelines for Trustworthy AI: This is a set of guidelines developed by the European Commission's High-Level Expert Group on AI that outlines ethical principles for the development and deployment of AI.

Montreal Declaration on Responsible Artificial Intelligence: This is a declaration signed by thousands of AI researchers and industry professionals that call for the development and deployment of AI that is beneficial to humanity.

IEEE Global Initiative on the Ethics of Autonomous and Intelligent Systems: This initiative aims to establish standards and best practices for the ethical development and deployment of autonomous and intelligent systems.

These laws and initiatives are just a few examples of the growing awareness and concern for the ethical and responsible development and use of AI technology. As AI continues to advance and become more integrated into our lives, more laws and regulations will likely be developed to ensure that AI is used in ways that align with our values and protect our rights.

Educational and preventive measures against AI

Several educational and preventive measures can be taken to ensure the responsible use of AI and minimize its potential negative impact on society. Some of these measures include:

Education and awareness: Governments, educational institutions, and businesses should invest in educating the public and their employees about the basics of AI, its potential benefits and risks, and best practices for its use. This can

help people understand the implications of AI and make informed decisions about its use.

Ethical guidelines and codes of conduct: Governments and organizations should develop ethical guidelines and codes of conduct for the development and deployment of AI systems. These should include principles such as transparency, accountability, and non-discrimination.

Testing and evaluation: AI systems should be thoroughly tested and evaluated before deployment to ensure that they are safe, reliable, and do not have any unintended consequences. This can help prevent AI systems from causing harm or violating human rights.

Regulation and oversight: Governments should regulate the development and use of AI to ensure that it is used responsibly and ethically. This may include creating regulatory frameworks that address issues such as privacy, security, and accountability.

Collaboration and dialogue: There must be ongoing collaboration and dialogue between governments, industry, and civil society to address the challenges and opportunities presented by AI. This can help ensure that the benefits of AI are maximized while its risks are minimized.

Overall, the responsible development and use of AI require a multifaceted approach that includes education, regulation, and collaboration among all stakeholders.

Conclusion and Recommendations

To provide a comprehensive analysis and recommendations for AI, it is necessary to consider various aspects, including ethical, legal, social, and technological factors. Here are some recommendations based on these aspects:

Ethical considerations: AI systems must be developed and used ethically. It is important to ensure that algorithms are transparent, explainable, and unbiased. To achieve this, organizations must have a code of ethics and a framework that governs the development and deployment of AI systems. The framework must ensure that the AI system is not used to violate the privacy or human rights of individuals.

Legal considerations: There is a need for a comprehensive legal framework governing the development and use of AI systems. This framework should address issues such as accountability, responsibility, and data protection. Laws should be clear and enforceable, and there should be penalties for those who break them.

Social considerations: AI systems have the potential to cause job displacement and exacerbate inequality. To mitigate these risks, governments and organizations should invest in retraining and upskilling programs for workers who

may be affected by the use of AI. Furthermore, there must be measures to ensure that the benefits of AI are distributed fairly throughout society.

Technological considerations: AI systems must be designed with security in mind to prevent unauthorized access and data breaches. There should also be a focus on developing AI systems that are interoperable, transparent, and scalable. Furthermore, there is a need for continuous research to improve the efficiency and effectiveness of AI systems.

In summary, to ensure that AI technology is developed and used responsibly, it is important to consider the ethical, legal, social, and technological implications. This will require collaboration between governments, organizations, and other stakeholders to develop a comprehensive framework that promotes the development and responsible use of AI systems.

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