**Unit 27 – Artificial Intelligence**

**A.I - Criminal Detection System**

**Secret Intelligence Service MI6 - Criminal Detection System**

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# Introduction

This report will analyse the theoretical foundation of artificial intelligence, current trends and issues to determine the effectiveness of AI technology. Also implementing an intelligent system using a technique of the top-down approach of AI. This will also cover intelligence system using a technique of the bottom-up approach of AI.

## AI Criminal detection system and how it might differ from existing intelligence systems

All around us is facial recognition technology — it's in concerts, airports, and apartment buildings. Yet, according to Jennifer Lynch, the Surveillance Litigation Coordinator at the Electronic Frontier Foundation, its use by law enforcement agencies and courtrooms poses specific concerns about privacy, transparency, and discrimination. Several studies showed that some of the major systems of facial recognition were

While, corporations such as Amazon, Microsoft, and IBM still create and sell algorithms for "emotion detection," which appear to recognise the feelings of a person based on their facial expressions and gestures. But facial expression experts, like Lisa Feldman Barrett, a psychology professor at Northeastern University, warn that these algorithms are extremely unlikely to detect facial-based emotions.

In the type of "risk assessments," artificial intelligence often occurs throughout courtrooms algorithms foresee whether someone is at a significant "risk" of not appearing in court or being re-arrested. Studies have shown that these algorithms are often inaccurate and based on incorrect data.

And while we prefer to see robots so computers as "colour neutral," Ruha Benjamin, an African-American Studies researcher at Princeton University, says they're coded by humans and may end up fostering discrimination rather than eliminating it from policing so criminal justice. Simultaneously, Sharad Goel, a Stanford University professor of management science and engineering, is developing a risk assessment tool that accounts for various sources of bias. He believes that there is a way to use AI as a tool to achieve more equal criminal justice outcomes.

Such guests join Ira in addressing how AI is driving police department and court decisions across the country — and whether we should be worried about it.

**Facial Recognition**

**How does facial recognition technology work?**

Consider facial acknowledgment as your "faceprint." A PC program examinations your special facial shape, for example, the hole between your nose and lips, and maps these key highlights for reference to a genuine picture, or by and large to a rundown of existing pictures. The product can likewise be utilized "progressively." Utilizing a reconnaissance camera, for example, certain police offices will check suburbanite eyes. However, when the product is utilized progressively or on huge databases, the faceprint is less dependable than a unique finger impression.

**How is it used?**

Facial acknowledgment is utilized to distinguish you—and that can mean a ton of things. The iPhone X utilizes the innovation to open your cell phone when you basically take a gander at the screen. Face acknowledgment has additionally become an instrument for law requirement. U.S. Movement and Traditions Requirement has mined the DMV databases of states that award driver's licenses to undocumented foreigners, and Chinese specialists figured out how to find and capture a man in a horde of 60,000 at a show. Publicists have additionally started to plunge into the innovation. Many Westfield strip malls in Australia and New Zealand use advanced bulletins with installed cameras that can decide watchers' age, sexual orientation, and even temperament—and can summon custom-made commercials inside seconds.

**How many people are in a facial recognition database?**

It's almost difficult to decide a precise number. In any case, we do realize that there are more than 117 million individuals in law implementation facial acknowledgment systems, as indicated by a report from the Georgetown Law Center on Protection and Innovation. Also, the Administration Responsibility Office found that in a four-year time frame the FBI directed more than 118,000 face acknowledgment look on its database, and Microsoft Celeb—the biggest openly accessible face acknowledgment dataset on the planet—contains more than 10 million pictures of almost 100,000 people.

**How can I find out if I’m in one of those databases?**

You can't—and one in each two English grown-ups is in a law authorization face acknowledgment arrange. You may have as of now accidentally assented to the arrival of the photos you have transferred to online networking, or dating destinations. Given the measure of experiences everybody has with facial acknowledgment innovation consistently, you most presumably are.

**What are my privacy rights? And are any cities or states doing something about this?**

With regards to how law authorization utilizes face acknowledgment, a few urban communities have restricted the innovation, yet there's no national standard. In any case, a bunch of states have constrained limitations on how privately owned businesses can gather and utilize information for face acknowledgment. Illinois turned into the principal state to pass enactment requiring agreed assent from clients with the goal for organizations to gather and store biometric information. Texas and Washington have created comparative laws. be that as it may, the Illinois Biometric Data Security Act (BIPA) is the one in particular that permits people the privilege to look for lawful activity against organizations for infringement. As of late, a government court decided that clients would now be able to sue Facebook for unlawful utilization of facial acknowledgment innovation. What's more, the E.U. is getting ready for bigger guidelines.

**A.I used in Smart homes to Surveillance to Detect Criminals-**

A Real Smart Home thinks as you do, it will anticipate your needs, doing what is needed when it’s needed. Depending on your presence, the weather, and time of day, it will do all the tasks you usually would, so you don’t have to.

**Benefits -**

A smart home security offers a lot more by turning lights off, if no-one is at home and turning on, if there is someone at home this can be efficient and also save electricity.

If there is any emergency then there are fire detectors and heating pipes which are are all connected to the smart home security, this will also notify you on your email as well as send you a text on your phone.

It also lights up a way for you to walk safely to the exit with getting into any trouble.

**Challenges -**

The challenges faced when a burglar breaks into your home the smart home security will make sure it looks like someone is at home so that the burglar has no choice but to retreat.

Not only that there are also CCTVs looking out around the house to make sure that it is perfectly safe and secure. And if someone breaks in the smart home security reveals the burglar’s position through a CCTV camera and can be taken down by calling for help.

Developing for the smart home is a challenge. That challenge is compounded when trying to provide secure communications between a home network and the Internet. The abundance of smartphone apps that allow remote access to home automation devices further intensifies these challenges especially given the attention it draws to hackers. Hackers have had particular interest in this segment of IoT, putting the security of consumer products in the spotlight. Barely a week goes by without a news report of yet another security breach at a major company or government agency.

## Ethical, social and philosophical issues of A.I

**Ethical and social issues**

* Reliability and safety. Reliability and safety are key **issues** where **AI** is used to control equipment, deliver treatment, or make decisions in healthcare. ...
* Transparency and accountability. ...
* Data bias, fairness, and equity. ...
* Trust. ...
* Effects on healthcare professionals. ...
* Data privacy and security. ...
* Malicious use of **AI**.

As computerized reasoning (man-made intelligence) gets conveyed in a large group of utilizations and for different purposes, it is hurling some social and moral issues.

Each new development can be applied for fortunate or unfortunate purposes. For instance, Face acknowledgment projects and talk robots offer us different calculations that can give us best arrangements, and various calculations can create colossal monetary advantages, however they can likewise stir issues, for example, sex and race separation.

**Is it accurate to say that we are advancing quick or we are surrounding as far as possible?**

As information about our monetary life, culture and different exercises is likely going to be gathered at whenever and anyplace later on, the responsibility for information turns into an issue.

**Information is a basic piece of brilliant frameworks. In any case, does that mean information is utilized without responsibility and examination?**

Computer based intelligence has extraordinary potential, however the innovation can likewise be mishandled. Straightforwardness has not improved in connection to its utilization, even as the innovation is picking up in multifaceted nature.

A month ago, the US Branch of Lodging and Urban Advancement blamed a main sponsor for causing segregation by limiting individuals from seeing explicit variant of advertisements dependent on their race, national starting point, and religion.

A similar sort of separation can be discovered somewhere else including calculations. For instance, work promotions on grade teachers are bound to be appeared to ladies clients, while cleaning-work enlistment advertisements are demonstrated more to minority gatherings.

### Conclusion

This report investigating how AI has changed the world in the last two decades and evaluates the ethical, social and philosophical issues of AI. This report will analyse the theoretical foundation of artificial intelligence, current trends and issues to determine the effectiveness of AI technology. Also implementing an intelligent system using a technique of the top-down approach of AI. This will also cover intelligence system using a technique of the bottom-up approach of AI.

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