**Introduction**

This thesis examines how artificial intelligence (AI) is transforming the practice of law, particularly through tools such as legal databases and systems that aid decision-making. A compelling case that illustrates the potential pitfalls of AI in governance is the SyRI case from the Netherlands. It exemplifies the legal and ethical risks that can arise when AI is deployed in public administration. Contrary to popular fears of robots in courtrooms, the real-world impact of AI in law involves tasks like sorting contracts, predicting case outcomes, or identifying welfare fraud. These tools rely heavily on data and are designed to support—not replace—human decision-making.

**What Is Artificial Intelligence?**

In recent years, AI has evolved from a niche area of computer science into a widely embedded societal technology. AI systems now influence millions of daily decisions, from streaming recommendations to healthcare diagnostics and public administration processes. These systems aim to optimize efficiency and reduce costs by processing vast datasets. However, their growing influence in areas affecting fundamental rights has raised concerns about transparency, accountability, discrimination, and the protection of fundamental rights.

The European Union has taken a proactive stance in addressing these concerns through regulatory frameworks. In April 2021, the European Commission introduced the Artificial Intelligence Act (AI Act), the first comprehensive legal structure designed to govern AI. This act is part of a broader EU strategy to ensure trustworthy AI that aligns with European values and rights.

The AI Act employs a risk-based approach, classifying AI systems into four categories based on the level of risk they pose. High-risk systems—used in critical sectors like law enforcement, border control, education, and welfare—are subject to strict regulations. In contrast, minimal-risk applications like spam filters are largely exempt.

High-risk AI systems must meet several key requirements. One major obligation is transparency: users must be informed when interacting with an AI system, and the system's workings must be explainable. Additionally, training data must be relevant, representative, and free from historical bias to reduce discriminatory outcomes.

**The SyRI Case (**ECLI:NL:RBDHA:2020:865)

In the Netherlands, the SyRI (System Risk Indication) system was developed as a risk assessment tool to detect social security fraud. It aggregated personal data from various government sources—including employment, housing, education, and welfare records—and processed it through a risk model to identify potential fraud cases.

SyRI had been deployed multiple times in recent years, raising significant concerns that were later brought to court. Each SyRI project defined specific goals and determined which datasets and risk models were necessary. The collected personal data was encrypted and matched against the risk model. If a match was found, the data was decrypted and sent back to the relevant public administration. Risk notifications were stored in a central register for two years and used for further investigation. SyRI was implemented primarily in neighborhoods with higher concentrations of poverty and vulnerability.

**How SyRI Handled Data**

Understanding SyRI requires recognizing it as more than a technological tool; it is a **complex socio-technical system** involving various government agencies and legal frameworks. SyRI operated within a complex network of **institutional and legal infrastructures**, involving inter-agency cooperation and existing social policy frameworks. Its outputs were shaped by **human input at multiple stages**, from the selection of risk indicators to decisions made after individuals were flagged. This degree of human involvement **challenges the notion that the system is fully automated**.

**Data integration** between public bodies, such as municipalities and tax authorities, was not purely technical but involved **reusing data initially collected for unrelated administrative purposes**. This practice **undermined the principle of purpose limitation** and introduced **legal uncertainty**, particularly in how data use was repurposed.

The process began with the relevant authorities **defining a risk model**. Collected data was sent to an information-processing unit, where it was **pseudonymized** by replacing identifiable details with codes. **Pattern analysis** was then conducted based on the predefined risk model. If flagged, records were **de-pseudonymized** and returned to the authorities for investigation.

**Three key components of SyRI remained undisclosed**: the specific **risk model**, the **comparison algorithm**, and the **method used by authorities to interpret the results**.

****Court Decision****

On **5 February 2020**, the **District Court of The Hague (ECLI:NL:RBDHA:2020:865)**  ruled that the Dutch government’s use of the SyRI (System Risk Indication) system **violated Article 8 of the European Convention on Human Rights (ECHR)**, which guarantees the right to respect for private life. The court found that SyRI **did not satisfy the requirements of Article 8(2)**, which requires any interference with private life to be necessary in a democratic society and proportionate to its legitimate aim.

While acknowledging that **fighting welfare fraud is a legitimate governmental goal**, the court concluded that SyRI lacked sufficient **transparency, safeguards, and proportionality**. Specifically, the court held that:

The **design and functioning of SyRI were excessively opaque**, including the risk indicators, algorithmic logic, and procedures for assessing flagged individuals.

**Citizens were not informed** if they were flagged, **nor could they challenge or understand why** they were flagged, violating **informational self-determination**.

Though the court did not explicitly resolve whether SyRI constituted **automated decision-making under Article 22 GDPR**, it emphasized that the **mere issuance of a risk alert significantly affects private life**, even absent a direct legal consequence.

The court did not consider the legislation to be wholly inaccessible or unforeseeable, nor did it find SyRI to be an inherently ineffective tool. However, the court highlighted that the **lack of transparency, legal safeguards, and individual rights protections** rendered the deployment of SyRI **incompatible with democratic standards for data processing**.

Following the ruling, the **Dutch government announced it would not appeal**, making the judgment final. While **SyRI has been discontinued**, the court clarified that its ruling was **specific to this system**, and not a blanket ban on algorithmic fraud detection. Still, the case has had wider **political and symbolic implications**, prompting lawmakers and the public to **reconsider the ethical and legal boundaries** of automated systems in welfare governance.

**Conclusion**

AI in the legal domain is here to stay. However, the SyRI case serves as a cautionary tale: deploying AI in governance must be done with transparency, accountability, and respect for fundamental rights. Just because AI can be used does not mean it should—especially when human rights are at stake.

**Electronic Resources:**

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