

# Ethical and Legal Issues in Data Mining

A Real-World Application Scenario

Pratham Radhakrishna

S3997064

# Introduction and Issue Overview



## Data mining

- Data mining is the process of combining statistical, mathematical, and machine learning methods to extract significant patterns and insights from huge databases.
- Applications include marketing (client segmentation), banking (fraud detection), and healthcare (predictive analytics).

## Issue: Privacy Concerns

## Real-World Scenario: Cambridge Analytica Scandal

- It was discovered in 2018 that millions of Facebook profiles had personal information that Cambridge Analytica had taken without permission.
- In political campaigns, voter conduct was influenced by this data.

# Ethical and Legal Implications



## Ethical Implications

- Privacy violation occurs when someone accesses and uses someone else's personal information without that person's knowledge or consent.
- Absence of Informed Consent: People frequently do not know how their data is gathered, examined, and utilised.
- Possibility of Discrimination: Data mining might produce skewed results that feed into preconceived notions in society.

## Legal Aspects

### General Data Protection Regulation (GDPR)

- pertains to information gathered from EU nationals.
- gives people the right to see and remove their personal data and demands express consent before collecting it.

### California Consumer Privacy Act (CCPA)

- gives citizens of California rights to their personal data, such as the ability to refuse the sale of their data and the right to know what information is being collected.

### Consequences of Non-Compliance

- Penalties & Fines: Businesses may be subject to hefty fines and legal actions.
- Loss of Trust: Clients and consumers may lose trust, which might harm their reputation and cause them to lose business.

# Recommendations for Handling Privacy Concerns

## Implement Strict Data Governance Policies



- Provide precise guidelines for the gathering, storing, and use of data.
- Make sure that these policies are taught to every employee.

## Use Anonymisation Techniques

- Delete from datasets any personally identifiable information (PII).
- To safeguard identities, employ strategies like data masking and pseudonymization.

## Obtain Informed Consent

- Users should be made fully aware of the types of data being gathered and their intended uses.
- Make sure consumers can readily opt out and offer permission documents that are simple to grasp.

## Regular Audits and Compliance Checks

- To make sure that data protection regulations are being followed, conduct routine audits.
- Continually monitor and verify compliance.

## Promote Transparency

- Be open and honest about your data usage.
- Give people access to their data so they may update or remove it.

# Conclusion



- It is imperative to tackle ethical and legal concerns in data mining in order to safeguard individuals' privacy and uphold confidence.
- Important actions include putting strong data governance rules into place, getting informed permission, and abiding by the law.