Optimizing Spam Filtering With Machine Learning

Define problem/problem understanding

- Specify the business problem

- Business requirements

- Literature survey

- Social or business impact

Specify the business problem:

* the popularity of mobile phone devices has increased, short message service has grown into a multi-billion industry.

* at the same time, reduction in the cost of message service has resulted in growth in unsolicited commercial advertisements being sent to mobile phones.

* the user access such spam SMS they may face the problem of virus or malware.

* when SMS arrives at mobile it will disturb mobile user privacy and concentration.

* spam SMS is one of the major issues in wireless communication world and it grows day by day.

Business Requirements:

* business requirements for an SMS spam classification system. ability to accurately identify and flag spam messages.

* to protect customers from unwanted or harmful messages. additionally, the system should be able to handle a high volume of message.

* Integrate with existing systems and databases. The system should also have an easy-to-use interface and easy to maintain& update.

Literature Survey:

The survey would include looking at different methods and techniques.

*For identifying and flagging.

*Spam messages.

*Machine learning algorithms.

*Natural language processing.

*Rule-based system.

It would be important to check the processing techniques used in the research to understand how to properly clean and prepare the data for the classifiers.

Social or Business impact:

Social impact:

*It can help protect individual from unwanted and potentially harmful messages. Spam messages can include phishing attempts, scams and fraud.

*By accurately identifying and flagging spam messages, the system can help prevent and type of attack.

Business impact:

*It can help protect their customers and improves their reputation.

*Spam messages can harm a business reputation and lead to customer complaints and lost business. The system can help protect business and improves their customer trust.