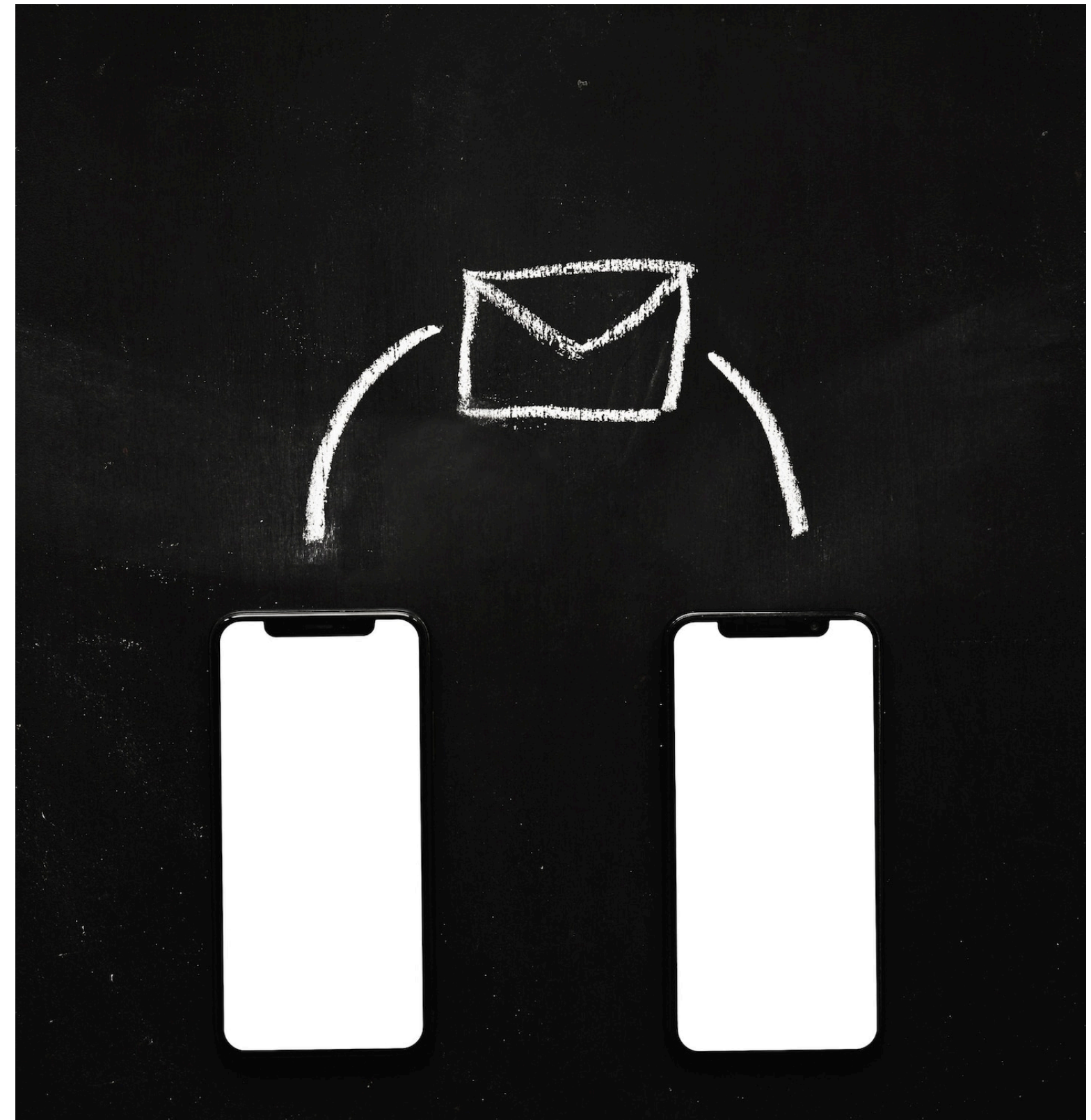




Classifying Emails: Ham or Spam Machine Learning

Introduction

In this presentation, we will explore *classifying emails* as **ham** or **spam** using machine learning techniques. We will discuss the challenges of email classification and the importance of accurate filtering. Let's dive into the world of email categorization and the potential impact on email management.



Email Classification


Understanding the difference between **ham** (legitimate) and **spam** (unsolicited) emails is crucial for effective email management. Machine learning algorithms play a vital role in automatically categorizing emails based on various features such as sender, content, and metadata. Let's explore the key techniques used for email classification.





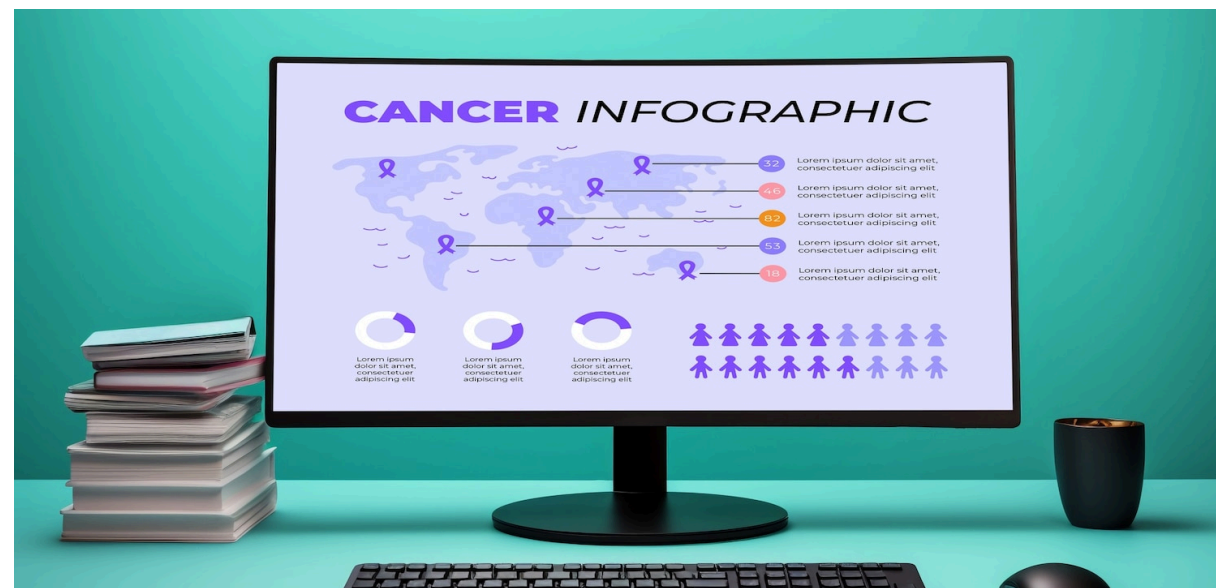
Feature Extraction

Feature extraction involves identifying relevant attributes within an email that can be used to differentiate between **ham** and **spam**. This includes analyzing text content, sender information, and email structure. By extracting meaningful features, machine learning models can effectively learn to distinguish between legitimate and unsolicited emails.



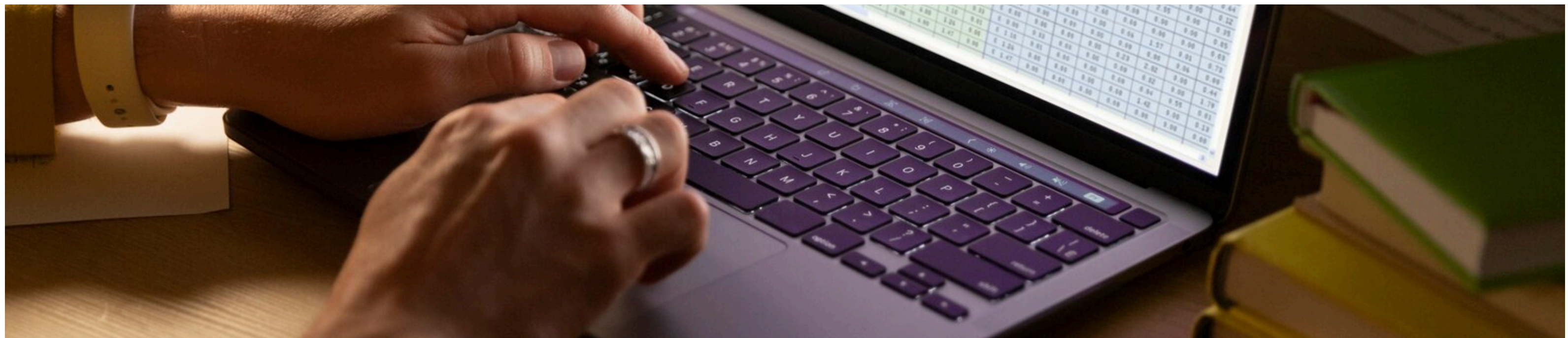
Machine Learning Models

Several machine learning models, including **naïve Bayes**, is commonly used for email classification. These models leverage the extracted features to learn and make predictions about the nature of incoming emails. Understanding the strengths and limitations of each model is crucial for accurate classification.



Evaluation Metrics

Measuring the performance of email classification models requires the use of **precision** and **recall**. These metrics provide insights into the model's ability to accurately identify **ham** and **spam** emails. Evaluating the trade-offs between precision and recall is essential for optimizing the classification process.





Conclusion

In conclusion, classifying emails as **ham** or **spam** using machine learning offers significant benefits for email management and security. By leveraging advanced algorithms and feature extraction techniques, organizations can enhance their email filtering capabilities and reduce the impact of unsolicited emails. The continuous evolution of machine learning approaches will further improve the accuracy of email classification in the future.



Thanks!