

# Sentiment Analysis of Social Media: Enhancing Insights with Image Understanding

The need to understand public opinion is growing in real-time.

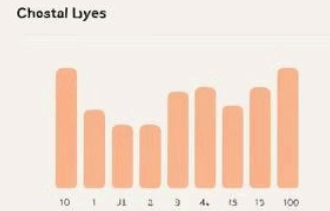
Social media is a rich source for sentiment data.

Image understanding improves analysis accuracy.

Raghav

Anjali Kumari 12203605

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Overcaia Alagics



Health  
Fitness  
Coaches

Health  
Fitness  
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Health  
Fitness  
Coaches

57%  
Total Chances

People  
Forgot Post  
72 Hrs. Exposed



Fretain Entries



Mutecloty



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Note Like



# Understanding Sentiment Analysis

Sentiment analysis identifies and categorizes opinions in text.

Basic levels include positive, negative, and neutral.

Traditional methods use lexicon-based and machine learning approaches.



## **Positive**

Expressing approval or satisfaction.



## **Negative**

Expressing disapproval or dissatisfaction.



## **Neutral**

Expressing no opinion or objective information.

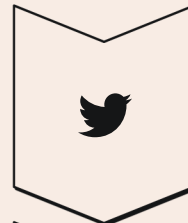


# Sentiment Analysis on Social Media

Analyzing social media data presents unique challenges.

Data sources include Twitter, Facebook, Instagram, and TikTok.

Use cases include brand monitoring and market research.



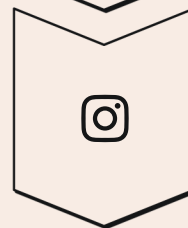
## Twitter

Real-time public opinions and trends.



## Facebook

Community and group sentiments.



## Instagram

Visually-driven opinions and lifestyle trends.

# The Power of Image Understanding

Images convey emotions and opinions.

Image recognition identifies objects and scenes.

Facial expression analysis detects emotions.

## Image Recognition

Identifies objects, people, and scenes within images.

## Object Detection

Locates specific objects within an image.

## Facial Expression Analysis

Detects emotions from faces in images.

# Integrating Image Understanding

Integrate image analysis into sentiment analysis.

Analyze both text and images to improve accuracy.

Address sarcasm and irony using visual cues.

## Restaurant Review

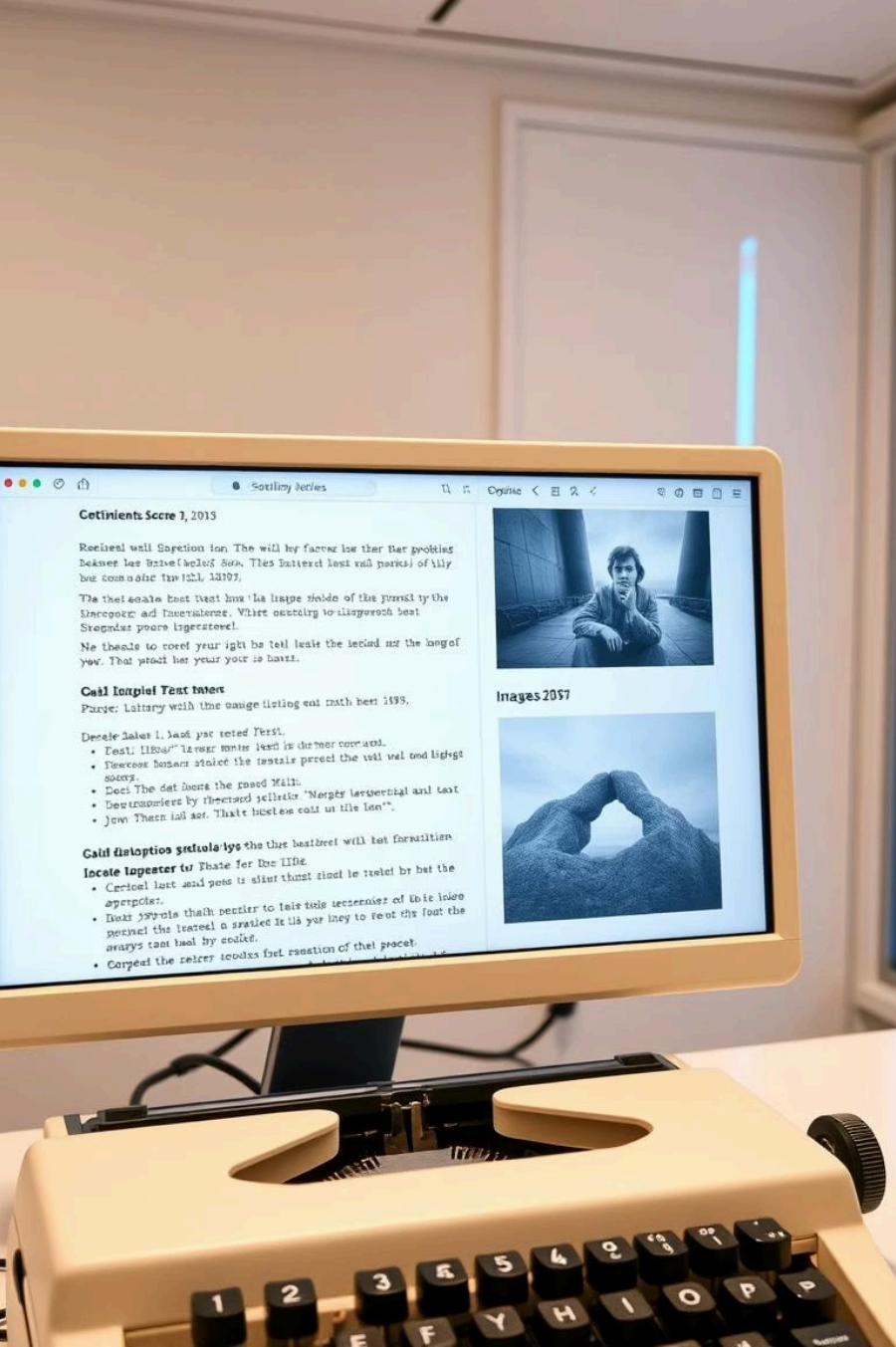
A tweet praising a restaurant with delicious food photo.

## Product Review

A negative review of a product with a picture of damage.

## Sarcasm Detection

Visual cues to identify sarcastic text.



# Tools and Technologies

Various tools and technologies are available.

CloudVision API offers sentiment analysis.

Open source libraries like OpenCV are available.

 **CloudVision API**

 **Amazon Rekognition**

 **Microsoft Azure**



# Case Studies and Examples

Brand sentiment analysis using Instagram posts.

Track political opinions using Twitter images.

Monitor public reactions using combined text and image analysis.



## Brand Sentiment

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## Political Opinions

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## Public Reactions



# Conclusion: The Future of Sentiment Analysis

Multimodal analysis is becoming increasingly important.

Advancements in AI and deep learning continue to improve accuracy.

Ethical considerations are critical for responsible use.

