HyperionDev

Teaching Machines to Read Emotions Part 2

4 March 2025

Tech Talks Session Housekeeping

- The use of disrespectful language is prohibited in the questions, this is a supportive, learning environment for all - please engage accordingly.

- No question is daft or silly - **ask them!**

- There are **Q&A sessions** midway and at the end of the session, should you wish to ask any follow-up questions.

- If you have any questions outside of this session, or that are not answered during this session, please do submit these for upcoming Tech Talks Sessions. You can submit these questions here: **https://forms.gle/MomSYvUWiSfKgMaZ9**

Safeguarding & Welfare

We are committed to all our students and staff feeling safe and happy; we want to make sure there is always someone you can turn to if you are worried about anything.

If you are feeling upset or unsafe, are worried about a friend, student or family member, or you feel like something isn't right, speak to our safeguarding team:

Ian Wyles
Designated Safeguarding Lead

Simone Botes

Nurhaan Snyman

Rafiq Manan

Ronald Munodawafa

Tevin Pitts

Scan to report a safeguarding concern

or email the Designated Safeguarding Lead:
Ian Wyles
safeguarding@hyperiondev.com

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Learning Outcomes

1. Understand the core concepts of Sentiment Analysis.

2. Apply fundamental NLP techniques such as loading and using pre-trained language models in spaCy and utilising extensions like spacytextblob for sentiment analysis.

3. Analyse sentiment polarity and interpret its significance in a real-world context.

Introduction

Natural Language Processing is a branch of AI that enables computers to comprehend, generate, and manipulate human language.

Sentiment Analysis is the process of computationally identifying and categorising opinions expressed in a piece of text.

Sentiment Analysis

Aspect-based

Fine-grained

Types of Sentiment Analysis

Intent-based

Emotion detection
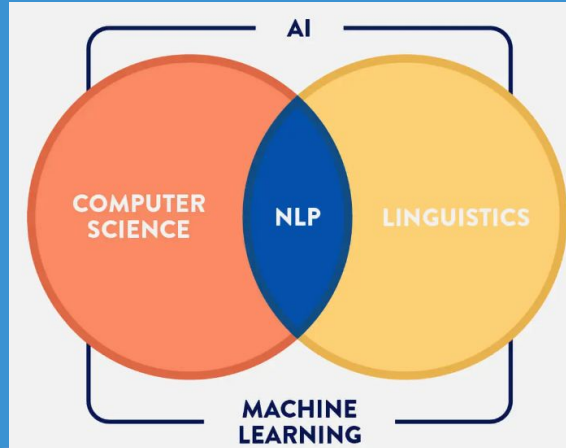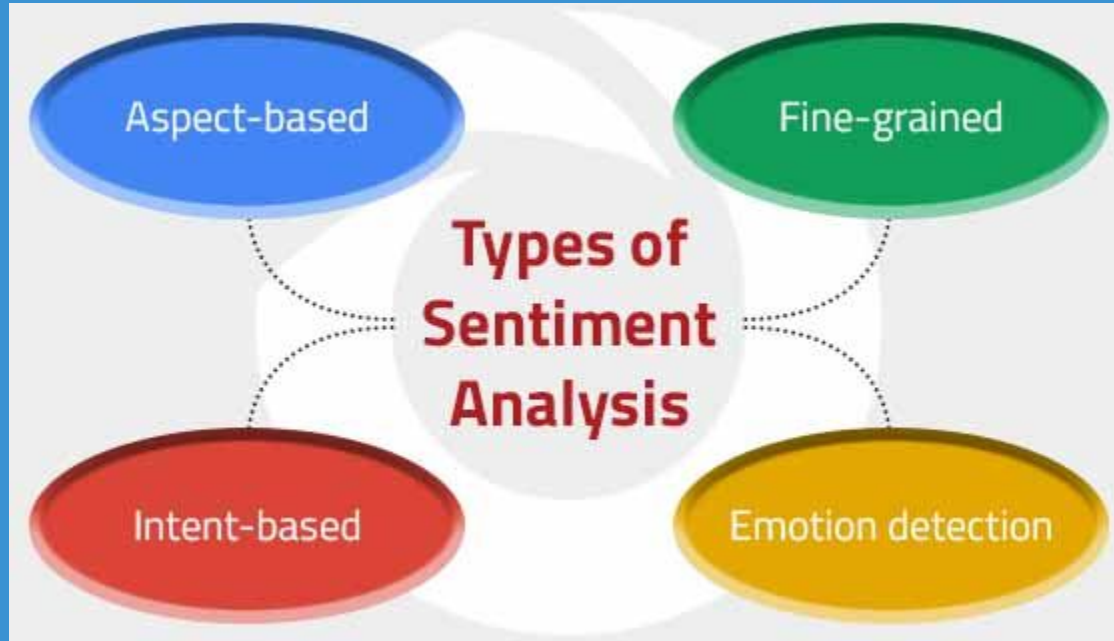
Sentiment Analysis

Can you think of any instances where analysing sentiment in natural language would be challenging?

Challenges Faced During Sentiment Analysis

Subjectivity and Tone

Context and Polarity

Irony and Sarcasm

Comparisons

Emojis

Defining Neutral

Human Annotator Accuracy
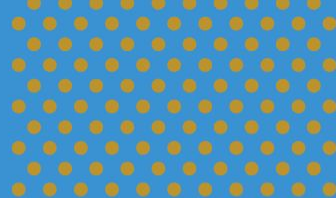
Sentiment Analysis Demonstration

Questions and Answers

Questions around Sentiment Analysis

Thank you!