

Understanding Natural Language Processing Basics

Chapter 5: Natural Language Processing Basics · Topic 1

Key Concept

NLP allows computers to perform tasks like translating languages, understanding spoken commands, summarising text, and detecting the sentiment (positive or negative) in text.

NLP systems break down language into smaller parts, analysing grammar, word meanings, and context to understand what a sentence or phrase truly means.

Common applications of NLP include chatbots that answer customer questions, voice assistants that understand spoken commands, and translation apps like Google Translate.

NLP faces challenges too, like understanding sarcasm, slang, or ambiguous sentences, since human language can be complex and context-dependent.

Quick Revision Notes

- NLP enables computers to understand and generate human language.
- NLP can translate languages and summarise text.
- NLP can detect sentiment in text.
- NLP systems analyse grammar, word meanings and context.
- Chatbots use NLP to answer questions.
- Voice assistants use NLP to understand commands.
- Translation apps like Google Translate use NLP.
- NLP faces challenges like sarcasm and ambiguous sentences.

Practice Questions

- 1 Try using a translation app and discuss how it works.
- 2 Discuss how a chatbot might understand your questions.
- 3 Explain what sentiment analysis means.
- 4 Research a challenge NLP systems face.
- 5 Discuss an example of ambiguous language that could confuse NLP.
- 6 Explain the difference between NLP and computer vision.