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What Does Natural Language Processing (NLP) Mean?

Natural language processing (NLP) is the ability of a computer program to understand spoken and written human language.

NLP programming automates the translation process between computers and humans by manipulating [unstructured data](#) (words) in the context of a specific task (conversation). An important goal of NLP is to help the computer to comprehend the intent -- as well as the meaning -- of a human being's written or spoken words.

NLP is an interdisciplinary field that spans across across several areas of study, including linguistics, computer science, statistics and artificial intelligence. It plays an important role in helping natural language generation ([NLG](#)) chatbot programs respond appropriately to spoken or written communication and translate text from one language to another.

NLP is difficult because human language is full of ambiguities. Recent advancements in [deep learning](#) and [artificial intelligence](#) (AI) have had a significant positive impact on natural language processing.

Techopedia Explains Natural Language Processing (NLP)

An important goal of Natural Language Processing is to make it possible for computers to understand unstructured text and get meaningful information from it. Natural Language Processing systems use both linguistic and domain knowledge to interpret input.

At its best, NLP applications will continuously seek to understand the context of written or spoken language and adjust outputs accordingly. Popular use cases for NLP include:

- Search Engine Results Pages ([SERPs](#))
- Social Media and News Feeds
- Grammar and Spelling correction
- Spam Filters
- Translation engines
- [Sentiment Analysis](#)

Natural language toolkit ([NLTK](#)) is a [Python](#) library for natural language processing and is supported by a large community of developers.

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