

AI Deep Learning: Natural Language Processing (NLP)

Introduction to Languages

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AI Deep learning (Source: mindovermachines.com)

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Natural Language Processing

What is It?

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Natural Language Processing

What is Language?

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Language: What is It?

English: A language

French: A language

Spanish: A language

...

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Language

Why Do We Need it?

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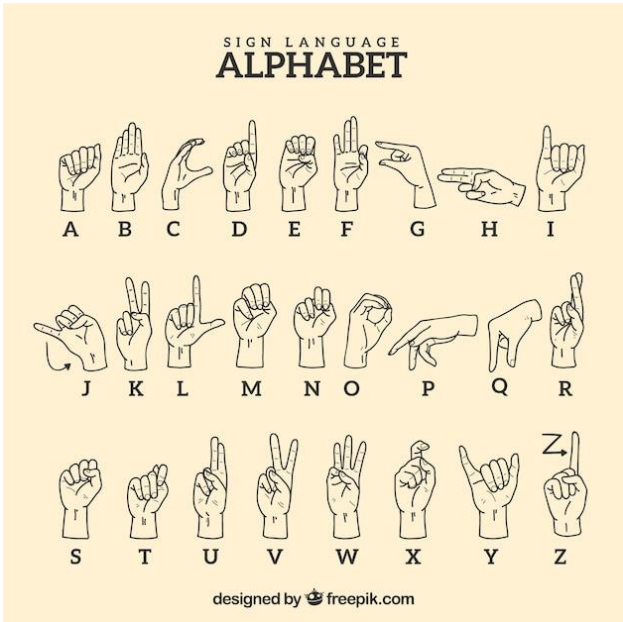
Language

A tool to communicate?

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THE PHONETIC ALPHABET MORSE CODE GUIDE		
A ALPHA	--	N NOVEMBER --
B BRAVO	----	O OSCAR ----
C CHARLIE	----	P PAPA ----
D DELTA	---	Q QUEBEC ----
E ECHO	.	R ROMEO ---
F FOXTROT	----	S SIERRA ---
G GOLF	---	T TANGO -
H HOTEL	----	U UNIFORM ---
I INDIA	..	V VICTOR ----
J JULIET	----	W WHISKEY ---
K KILO	--	X X-RAY ---
L LIMA	----	Y YANKEE ----
M MIKE	--	Z ZULU ----

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Language

Why Do We Need it?

Only to communicate?

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The speech, in the beginning, was unarticulated. Humans in old stone age used unrelated cries to express their joy, pain, sadness, happiness, hatred, fear, etc. Later, when they made sense to every sound, man has passed on to so called articulated speech. Along with the speech and language paleolithic people evolved. Language has become a tool of thought. Its function was to establish communication between people in order to exchange their knowledge and experiences. When language appeared, it initiated the need of people to tell something to one another. Complex and diverse situation, over time, more and more enriched language. Thanks to the language all their knowledge passed on to their descendants. Language and speech greatly helped and facilitated their engagement on the creation of better living conditions. Without it, people certainly would not have been able to achieve all that humanity has achieved today.

Source: <https://www.shorthistory.org/prehistory/language-and-spiritual-culture-in-old-stone-age/>

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What Does “Language” mean?

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Language: What is It?

In the context of “Natural Language Processing,” “**Language**” is a set of **tools** that human-beings use to **reveal**, **expose**, and **present** their **ideas**, **opinions**, or **thoughts**, i.e., any kinds of mental or intellectual products generated by their brain system.

As a result, with same set of tools, “**Language**,” human-beings can **communicate** their **ideas**, **opinions**, or **thoughts** with other people and **create better** living conditions.

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Natural Language Processing

What is It?

Natural Language Processing is a set of techniques and tools based on artificial intelligence (AI) technologies, especially deep learning, to teach computers to **understand** and **use** any forms of **daily-used** human languages in various applications.