# **Natural Language Processing**

- How human communicate with each other
- Computer should replicate the same thing

## **Applications of NLP**

- Speech Recognition (Google Assistant, Apple Sirri)
- Sentimental Analysis (Movies Rating)
- Machine Translator
- Chatbots etc.

Input data - Speech Recognition - NLU - NLG - output data

#### **NLU**

- What do the users say? their intent? Meaning?

#### **Challenges**

- Lexical Ambiguity
- Syntactic Ambiguity (structure)
- Semantic Ambiguity
- Pragmatic Ambiguity

#### Examples -

- The tank was full of water
- Old men and women were taken to safe place.
- The car hit the pole while it was moving.
- The police are coming.

### **NLG**

- It should be intelligent.
- Deal with Structured data
- Text/ Sentence Planning.