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NATURAL LANGUAGE PROCESSING

NLP

Tutorial

Learn NLP in simple Engliash

CHAPTER

1.Introduction to Natural Language Processing

2. Some Challenge in NLP

3. NLP Pipeline

CHCHAPTER 1

Introduction to NLP

natural language processing

INTRODUCTION TO NLP

Natural Language Processing (NLP) is a part of artificial intelligence that helps computers work with human languages. It allows machines to understand, interpret, and create human language. Examples of NLP include language translation, chatbots, analyzing emotions in text, and converting speech to text.

SOME REAL LIFE USE CASE

TEXT AUTO COMPLETION :

We all know how useful text auto-completion is and how important it has become in our daily lives. Text auto-completion is an application based on Natural Language Processing (NLP).

Siri/Alexa/ Google/Assistant :

We are all familiar with Siri, Alexa, and Google Assistant—these are called Virtual Assistants. They are also applications of NLP (Natural Language Processing). They recognize your voice and respond based on your question.

Recommendation Systems:

Recommendation systems use NLP to suggest content effectively. YouTube, Netflix, Amazon, and TikTok all employ these systems to recommend content based on user reviews and interactions.

----------Chapter-END----------

CHCHAPTER 2

Pipeline

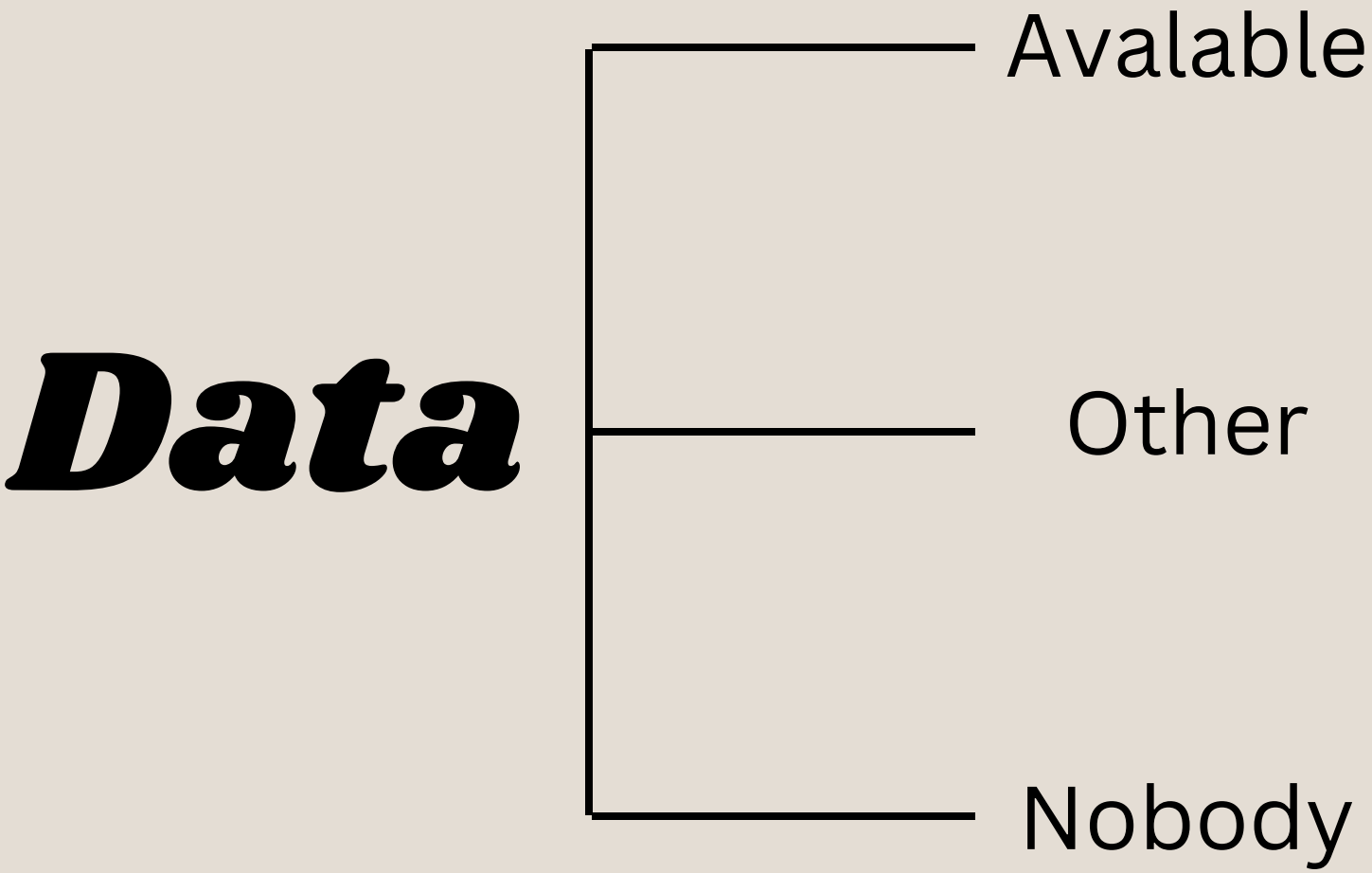
An NLP pipeline is a series of steps or processes used to analyze, understand, and generate human language using Natural Language Processing techniques. It can be complex and involves overcoming many challenges.

We need to follow some steps to create a pipeline:

- Data Accusation/Collection
- Text Preprocessing
- Feature Extraction
- Model Training
- Evaluation
- Inference and Deployment

Data Accusation/Collectuon

The first step is collecting data. We have three options for data collection.



Available:

This step means your existing datasets have data or sources that are already available

Other:

This refers to alternative methods of acquiring data that are not directly available but can still be gathered.

Nobody:

This likely means collecting your data from scratch, rather than relying on any pre-existing or external sources.