Goals of Natural language Processing

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- The ultimate goal of Natural language Processing is to help computers understand language as well as we do.

- It is the driving force behind like Virtual Assistant, Speech Recognition, Sentiment Analysis, Automatic Text Summarization, Machine Translation and much more.

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- Natural language Processing has heavily benefited from recent advances in Machine learning, especially from deep learning Techniques.

- These field is divided into three parts- Speech Recognition, Natural Language Understanding, Natural language Generation.

Cont.

- **Speech Recognition-** the translation of Spoken language into text.

- **Natural language Understanding-** a Computers ability to understand language.

- **Natural language Generation-** The Generation of natural language by a computer.

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- Human language is Special for several Reason. it is Specifically constructed to convey the Speaker Writer Meaning.

- **Enhance large Data Analysis-** Natural language Processing can bring Objectives to Data Analysis, and Providing more Accurate and Consistent Result.

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- **Increase Faster insights :** Natural language Processing can quickly process massive volumes of Data, gleaning insights that may have taken weeks or even months for human to extract.

- **Increase Employee Productivity :** NLP Handles mundane tasks like shifting through data set, sorting email and Accessing customer response.

Cont.

- **Maintain Higher Quality Customer Experience:** NLP Can Also Analyze customer Survey and feedback, allowing team together timely Intel on how customer feel about a brand and steps they can take to improve customer sentiment.

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- **Customer services :** While NLP Powered Chat bots and Call bots are most common in customer service contexts, companies have also relied on natural language Processing to power virtual Assistant.

- These Assistants are a form of conversational AI that can carry on most sophisticated discussion.

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- **Marketing :** Gathering Market intelligence become much easier with natural Language processing, which can analyze online review, Social Media post and web forums.

- Compiling these data can help marketing team understand what customer cares about and how they perceive a business brand.

Cont.

- **Human Resource :** Recruiter and HR Personnel can use natural language Processing to shift through hundreds of Resume, Picking out Promising candidates based on keywords, education skills and other criteria.

- NLP Data Analysis capabilities are ideal for reviewing employee survey and quickly determining how employees feel about the workplace.

Cont.

- **E - Commerce :** Natural language processing can help customer book tickets, Track order and even recommended similar products on e-commerce websites.

- Team can also use data on customer purchases to inform what types of product to stock up on and when to replenish inventories.

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- **Finance :** in finance NLP can be paired with machine learning to generate financial Report based on invoices, statements and other documents.

- Financial Analysts can also employ natural language Processing to predict stock market trends by Analyzing news articles, Social Media posts and other online sources for market sentiment.

Cont.

- **Insurance :** Insurance Companies can access claims with Natural language Processing since this technology handle both structure and unstructured data.

- NLP Can also be trained to pick out unusual information, allowing team to spot fraudulent claim.

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- **Education :** NLP Powered apps can check for spelling errors highlight unnecessary or misspelled Grammar and even suggest simpler ways to Organize sentences.

- Natural language Processing can also translate text into other language, aiding students in learning a new language.

Cont.

- **Healthcare :** Healthcare professionals can develop more efficient workflows with the help of Natural language Processing.

- During Procedures, doctors can dictate their action and notes to an app, which produces an Accurate transcription.

- NLP Can also scan patient documents to identify patent who would be best suited for certain clinical trials.

Cont.

- **Manufacturing :** With its ability to process large amount of Data, NLP Can inform manufactures on how to improve production workflows. When to perform machine maintenance and what issues need to be fixed in product.

- if companies need to be find the best price for specific materials, natural language processing can review various websites and locate the optimal price.

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- **Cyber security :** IT and security team can deploy and security teams can deploy natural language processing to filter out suspicious emails based on word choice, sentiment and other factors.

- This makes it easier to protect different departments from spam, phishing scams and other cyber attacks

THANK YOU