



PRESENTATION


ON

NATURAL LANGUAGE PROCESSING

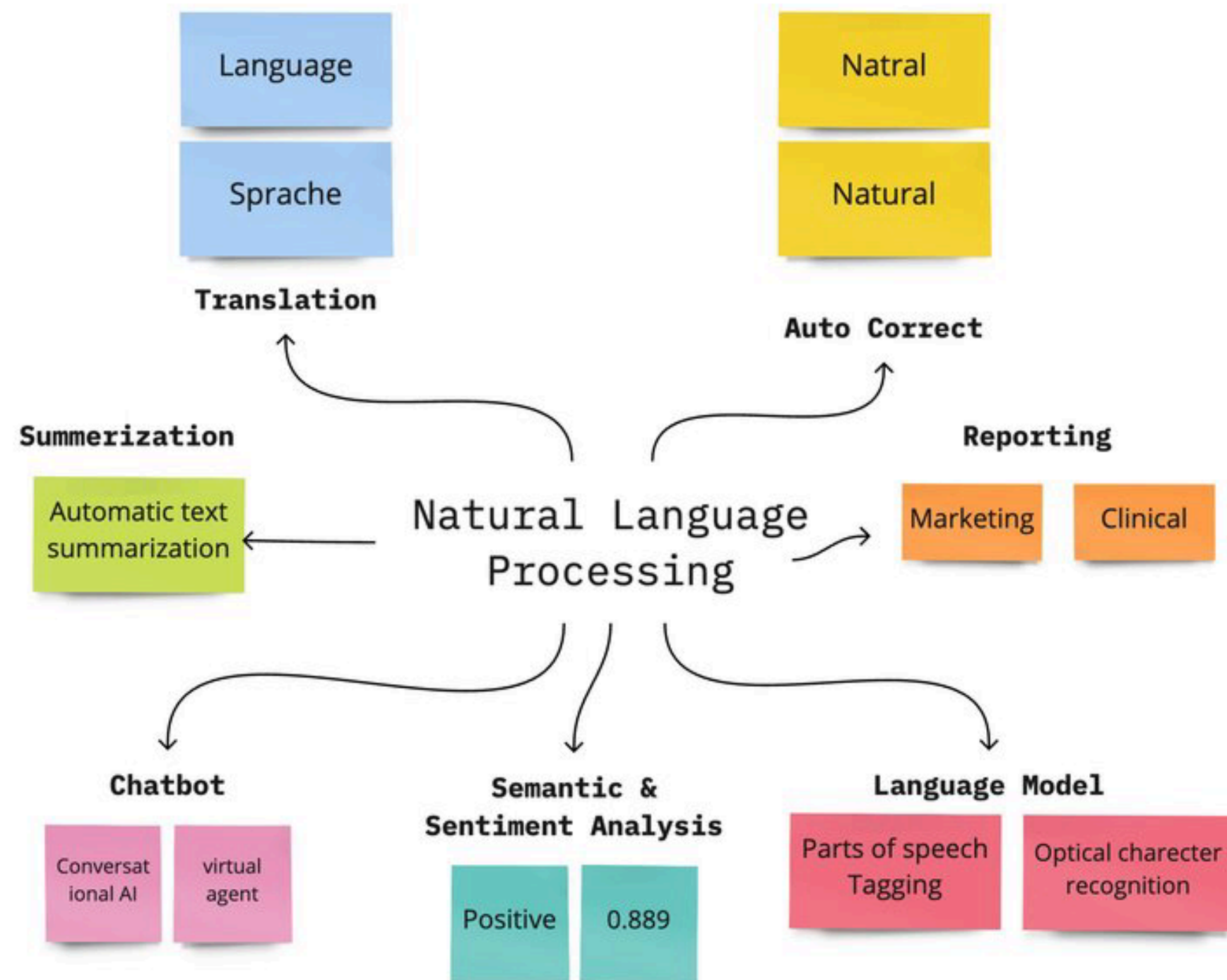



INTRODUCTION

What is NER ?


- Identifies named entities in text.
 - Classifies people, places, organizations.
 - Used in search and data extraction.
 - Relies on machine learning or rules.
 - Improves NLP tasks like summarization.
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NLP ARCHITECTURE





NAMED ENTITIES


- A named entity is a “real-world object” that’s assigned a name – for example, a person, a country, a product or a book title
 - Person, Organization, Location, Date/Time, Monetary Values, Percentages, Product, Event, Language, Facility, GPE, Quantity, Percentage/Rate.
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NAMED ENTITY RECOGNITION

- Numerical, such as cardinal numbers
- Temporal, such as dates
- Nominal, such as names of people and places
- Political, such as geopolitical entities (GPE)

“Named entity recognition, or NER, is the process by which a system takes an input of unstructured data (a text) and outputs structured data, specifically the identification of entities.”



NER INPUT AND OUTPUT

TWO STEPS OF THE NAMED ENTITY RECOGNITION PROCESS

Step 1

Identifying entities with the text

So in **America** when the **sun** goes down and I sit on the old broken-down **river pier** watching the long, long **skies** over **New Jersey** and sense all that raw **land** that rolls in **one** unbelievable huge **bulge** over to the **West Coast**. [...] I think of **Dean Moriarty**. I even think of **Old Dean Moriarty** the **father** we never found, I think of **Dean Moriarty**.


Step 2

Classifying entities into categories

Location	America, river pier, New Jersey, land, West Coast
Person	Dean Moriarty, Old Dean Moriarty, father, Dean Moriarty
Number	one
Other	Sun, skies, bulge




APPLICATIONS OF NER

- Categorizing text
 - Content discovery
 - Recommendation systems
 - Entity linking
 - Relation extraction
 - Coreference resolution
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CONCLUSION

- NER identifies and classifies key entities like people, locations, and organizations in text.
 - It enhances data extraction, search results, and decision-making by structuring unstructured data.
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THANK YOU