

RoverBot

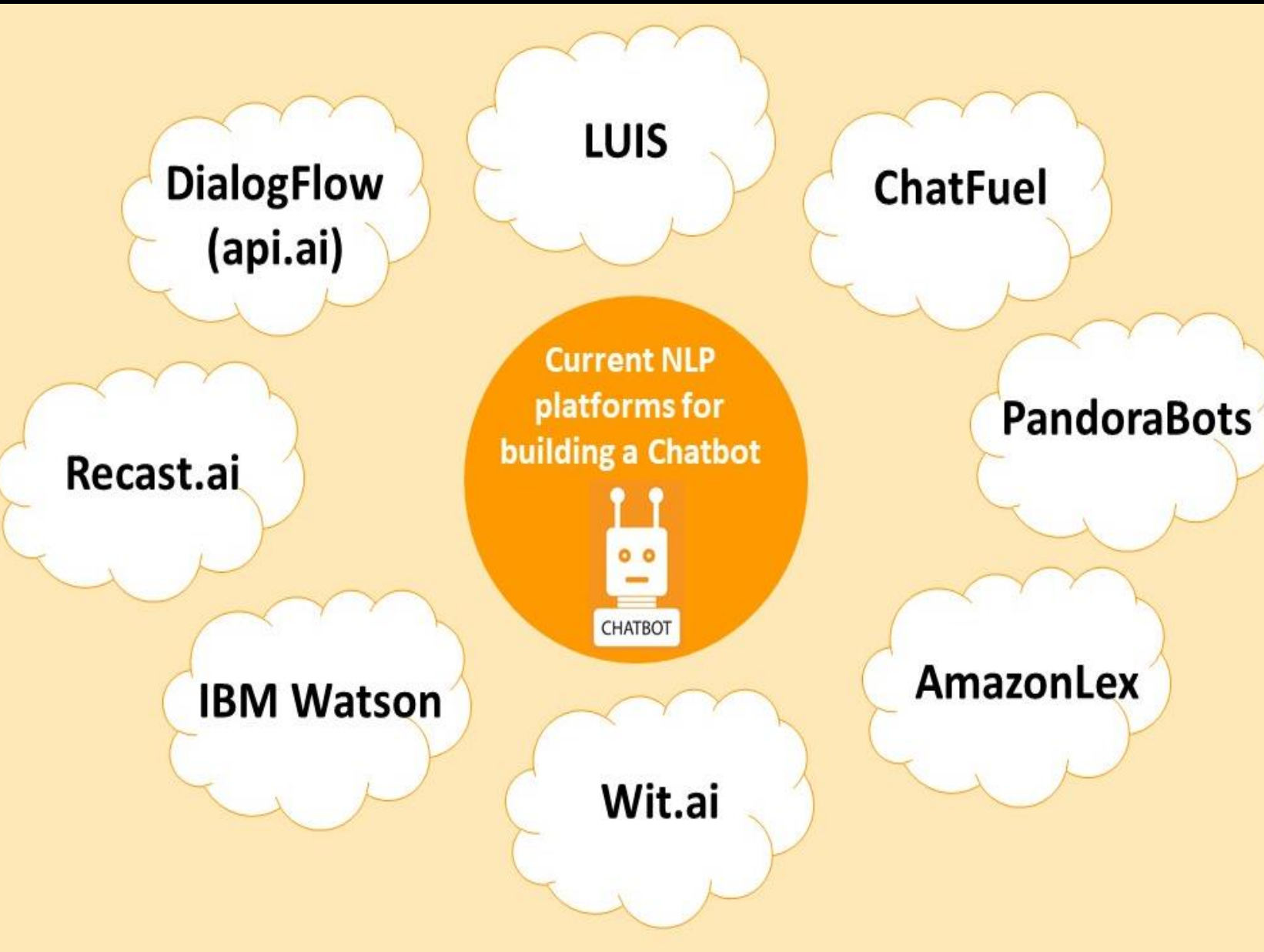


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Chatbots are AI programs that converse with humans through a chat interface

Chatbot uses:

- ❑ Natural Language Processing (NLP) to converse with customers
- ❑ Natural Language Understanding (NLU) to convert unstructured input to structured form so that a machine can understand
- ❑ Natural Language Generation (NLG) to represent machine output in text format



LUIS

Bookflight

Type about 5 examples of what a user might say and hit Enter

Entity filters

Show All

Entities View

Utterance

book a flight from location:fromlocation to location:tolocation

Bookflight 0...

book me a business class:business ticket:flightticket

Bookflight 0...

book me a economy class:economy ticket:flightticket

Bookflight 0...

book me a coach class:coach ticket:flightticket

Bookflight 0...

send flight ticket:flightticket details to email

Bookflight 0...

book a flight ticket:flightticket for personName and send a confirmation text to phonenumber

Bookflight 0...

open url to book a flight of age personName

Bookflight 0...

book me a flight to location:tolocation from location:fromlocation for money

Bookflight 0...

Entities

Create new entity

Add prebuilt entity

Add prebuilt domain entity

Search entities

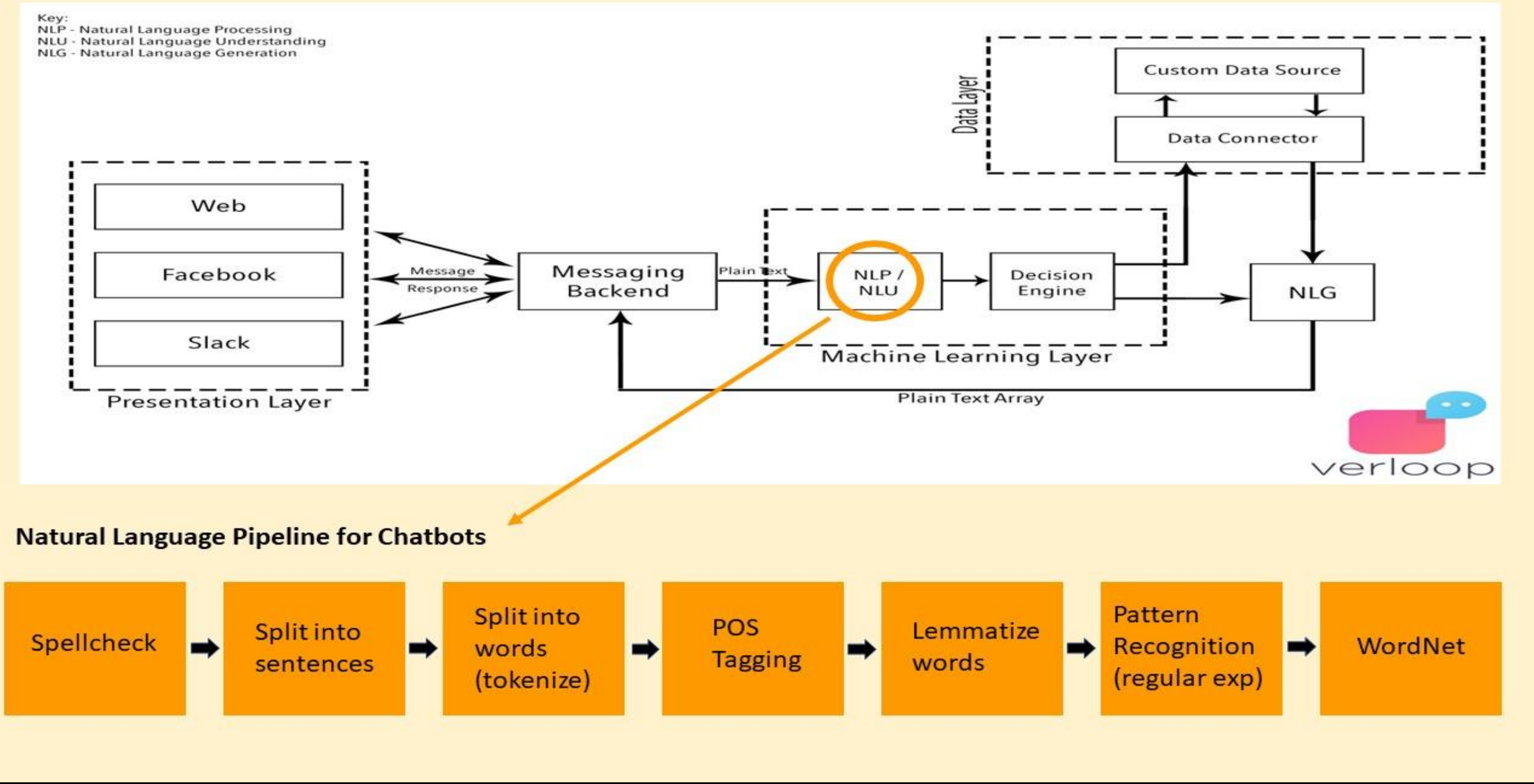
Name	Type	Labeled Utterances
age	Prebuilt	N/A
class	Hierarchical	0
datetimeV2	Prebuilt	N/A
dimension	Prebuilt	N/A
email	Prebuilt	N/A
facility	Hierarchical	0
location	Hierarchical	6
map-sort	Hierarchical	0
money	Prebuilt	N/A
number	Prebuilt	N/A
ordinal	Prebuilt	N/A

Phrase lists

Create new phrase list

Search phrase list

Name	Value	Mode	Status
cityname	san deigo,new delhi	Not Interchangeable	Enabled



LUIS

Microsoft LUIS (Language Understanding Intelligent Service) uses

Intent: Represents action the user wants to perform

Utterances: User input

Entity: Identifies & extracts useful information from user utterances

Features: Features help LUIS recognize both intents and entities by providing hints to LUIS that certain words and phrases are part of a category or follow a pattern.

DialogFlow (api.ai)

Acquired by Google, DialogFlow uses

Agent: They are the NLU modules

Intent: Represents action the user wants to perform

Entities: Identifies & extracts useful information from user input

Context: These are basically training phrases

Responses: Responses are speech to text and text to speech capabilities

Microsoft LUIS understands the intent, and provides detailed metrics on how it matches the intents and entities, using which we can also measure true positives, true negatives, false positives and false negatives. However, building a conversational bot with LUIS required us to use UWP (Universal Windows Platform) apps.

DialogFlow includes a rich set of domains for building chatbots and provides us with an interface to converse with chatbot and obtain responses. However, it does not provide metrics to related to intent and entity matching

DialogFlow

Entities

Search entities

@ class

@ map-sort

@ ticket-type

Action and parameters

flight book

REQUIRED	PARAMETER NAME	ENTITY	VALUE	SELECT
<input type="checkbox"/>	from	@sys.location	\$from	<input type="checkbox"/>
<input type="checkbox"/>	to	@sys.location	\$to	<input type="checkbox"/>
<input type="checkbox"/>	departure	@sys.date-time	\$departure	<input type="checkbox"/>
<input type="checkbox"/>	ticket-type	@ticket-type	\$ticket-type	<input type="checkbox"/>
<input type="checkbox"/>	adult	@sys.number	\$adult	<input type="checkbox"/>
<input type="checkbox"/>	class	@class	\$class	<input type="checkbox"/>
<input type="checkbox"/>	price	@sys.unit-currency	\$price	<input type="checkbox"/>
<input type="checkbox"/>	date	@sys.date	\$date	<input type="checkbox"/>
<input type="checkbox"/>	url	@sys.url	\$url	<input type="checkbox"/>
<input type="checkbox"/>	age	@sys.age	\$age	<input type="checkbox"/>
<input type="checkbox"/>	given-name	@sys.given-name	\$given-name	<input type="checkbox"/>
<input type="checkbox"/>	phone-number	@sys.phone-number	\$phone-number	<input type="checkbox"/>
<input type="checkbox"/>	email	@sys.email	\$email	<input type="checkbox"/>

Training phrases

Search training phrases

Just user expression

book me a business class ticket

book me a coach class ticket

send flight ticket details to freshdhakad17aug@gmail.com

book a flight ticket for freshdhakad and send a confirmation text to 91513450961

open www.cheapflight.com to book a flight of 24 year old fresh dhakad

book me a flight to seattle from cairo for \$200

book me a first class ticket

book me \$ 1st class ticket of flight

i want a ticket of flight from seattle to cairo on 19 april 2019

i want a flight ticket from seattle to cairo on 31st march 2019

Responses

DEFAULT SLACK +

Text response

1

On which date you want to book your flight?

2

Which Airline you want to fly with?

3

Which class you want to choose?

4

Which website you want to book ticket from?

RevorBot Responses in LUIS

Query: "Book a business class ticket from san deigo to new delhi from www.cheapair.com for \$200 and send the confirmation mail at abc@gmail.com and a text at (123)-547-8904".

Entities: [{"name": "bookflight", "type": "Intent", "start": 0, "end": 100, "score": 0.998713}, {"name": "san deigo", "type": "Location", "start": 10, "end": 20, "score": 0.998238}, {"name": "new delhi", "type": "Location", "start": 30, "end": 40, "score": 0.998439}, {"name": "seattle", "type": "Location", "start": 50, "end": 60, "score": 0.998439}, {"name": "cairo", "type": "Location", "start": 70, "end": 80, "score": 0.998439}, {"name": "1st class", "type": "TicketType", "start": 90, "end": 100, "score": 0.998439}, {"name": "200", "type": "Price", "start": 110, "end": 120, "score": 0.998439}, {"name": "www.cheapair.com", "type": "URL", "start": 130, "end": 140, "score": 0.998439}, {"name": "abc@gmail.com", "type": "Email", "start": 150, "end": 160, "score": 0.998439}, {"name": "(123)-547-8904", "type": "Phone", "start": 170, "end": 180, "score": 0.998439}]]

Intent Analysis: [{"label": "bookflight", "score": 0.998713}]]

USER SAYS

COPY CURL

I want to book a flight from Syracuse to New York

DEFAULT RESPONSE

Which website you want to book ticket from?

USER SAYS

COPY CURL

Book a flight from www.cheapair.com

DEFAULT RESPONSE

Which class you want to choose?

USER SAYS

COPY CURL

Book a business class ticket

DEFAULT RESPONSE

On which date you want to book your flight?

USER SAYS

COPY CURL

Book a ticket for \$300

DEFAULT RESPONSE

Ticket Booked. Have a safe journey

USER SAYS

COPY CURL

Book an Emirates flight

DEFAULT RESPONSE

What is your budget?

USER SAYS

COPY CURL

Book a flight on 31st January 2019

DEFAULT RESPONSE

Which Airline you want to fly with?

RevorBot Responses in DialogFlow

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COPY CURL

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