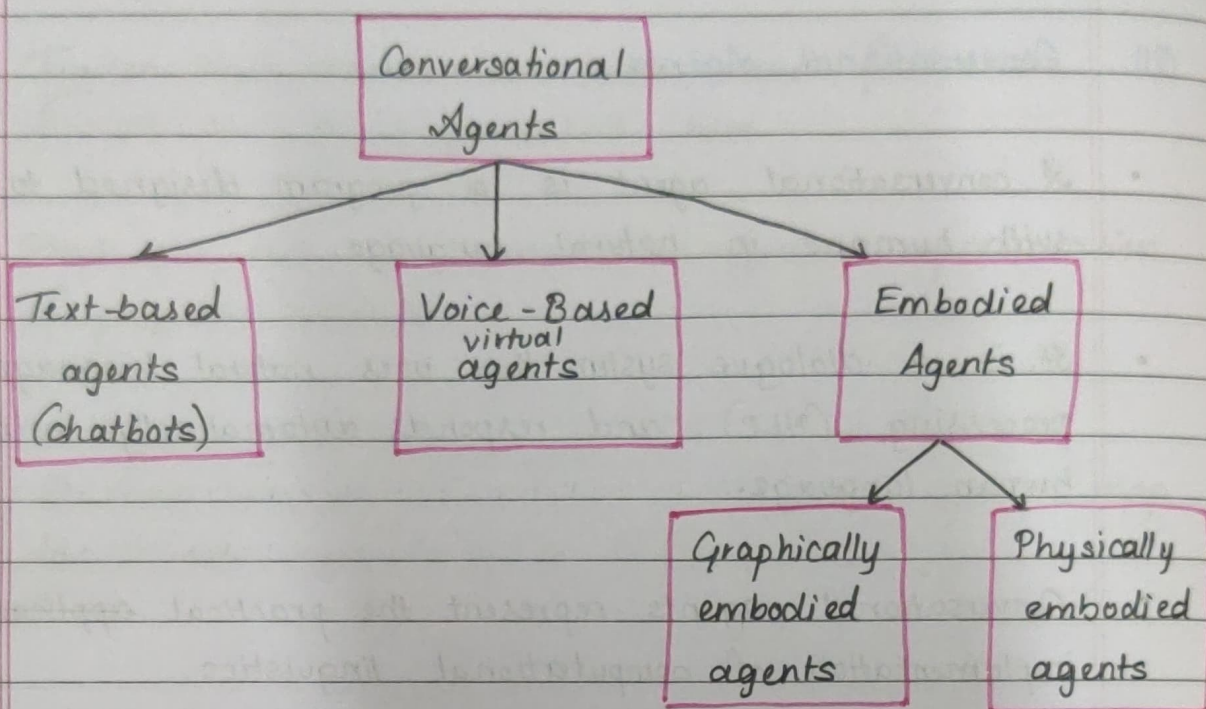


Q11. Conversational Agents

- A conversational agent is a program designed to converse with humans in natural language.
- It is a dialogue system that uses natural language processing (NLP) and responds automatically using human language.
- Conversational agents represent the practical application implementation of computational linguistics.
- They are deployed as chatbots or virtual / AI assistants.
- It simulates human-to-human conversation and understands context and meaning just as humans do.
- It uses NLP, ML, speech recognition, text to speech synthesis and dialogue management to ~~start~~ interact with people through various mediums.
- It can talk to people on phones, computers and other devices, and allows them to perform functions (for example, ordering food) through voice, text or chat.



★ Use Cases of Conversational Agents -

Conversational agents are often deployed via mobile apps, desktop applications, web pages or other interfaces

You can use them to automate tasks like -

• Customer service -

→ Businesses can use conversational agents to answer questions quickly and efficiently without hiring additional staff or paying agency fees to an outsourced call center.

→ Chatbots can handle routine tasks like resetting passwords or booking flight tickets which is quite common in enterprise chatbots.

→ It can also answer basic product questions that do not require human judgement, making it ideal for low cost services like online banking where customers may not want to wait for a real person to get back to them.

• Information retrieval -

→ You can ~~ask~~ offer information about products or services through a chat interface instead of having ~~a~~ the user search through articles in your website.

→ The customer could ask for the price of an item for instance and you could provide that information in real time.

→ You can provide a customer with information like how to use your product, or point them towards an item they are looking to purchase.

It can also answer more nuanced queries like how many days it would take to receive a product etc.

• Revenue optimization -

→ Conversational agents can optimize revenue by suggesting products to customers who haven't purchased them yet.

→ They can collect first party data and be connected to CRM (customer relationship management) or email marketing software to send cart abandonment ~~detail~~ ^{emails}.

→ It can also prompt users within the app/browser window to encourage a purchase.

★ Examples of Conversational Agents →

1. Iris: Conversational agent for data science tasks -

- This conversational agent can help users accomplish complex data science tasks like plotting a histogram from a dataset or conducting statistical analysis for those datasets.
- Using this agent, data scientists can complete predictive ~~ex~~ modeling tasks 2.6 times faster, decreasing the analysis time dramatically.

2. Woebot: Mental Health App -

- Woebot is a mental health conversational agent that helps you monitor your mood and manage your mental health.
- It uses NLP, Psychological expertise and excellent copywriting to form a human like conversation, making it easier for individuals to interact with it.
- It works on the principles of Cognitive Behavioural Therapy (CBT), a therapeutic approach to challenge recurring problematic thoughts.
- It can help anyone, irrespective of age, and a recent study confirmed its ability to reduce anxiety and depression in those who use it.

3. Roof.ai : Real estate conversational AI chatbot -

- It is a conversational agent that helps real estate marketers automate interactions with leads and lead score assignment.
- Using Facebook as it's prime channel, the bot interacts with ~~for~~ potential leads and prompt them with questions that can help them qualify the lead
- Once it assigns the lead's score, it passes the conversation to the real estate agent who can take it forward.