

06 Advanced Concepts

Creating a conversational solution that can engage with your consumers is only half the battle. Build a virtual assistant that goes above and beyond. Here are some advanced conversational concepts that will allow you to create more natural conversation with your end users, simplify the training of your solution, integrate to your back end systems, and understand common customer trends.

Subchapters

- Create Natural Conversations
- Integrations
- Analytics

Create Natural Conversations with these features

Contextual Entities

A way for the system to better understand what an entity might be based on the intent. Help better understand what customers are talking about by teaching the service about the context in which entities are typically mentioned.

Example

Annotate your brands such as “Apple” and “Acer” as brand entities. Therefore, when the system gets an utterance, it will understand where a brand might be mentioned in a sentence, and how users are asking questions about brands. If a user asks a question with a brand that you don’t have in your list, contextual entities can help the system understand that they were talking about a brand. This is because the system knows the location in the sentence, how people talk about brands, and the context of the intent.

Slots

Allows your virtual assistant to collect multiple pieces of information from your customers at their pace before your solution responds. Add slots to a dialog node to gather multiple pieces of information from a user within that node.

Example

If you user is asking about making an appointment, the system will need information to make that happen (day, time, etc). Slots allows the user to collect that information in any order the user wants to. If the user gives just a date, Watson will ask for a time. But if the user gives date and time at the same time, Watson can still process that.

Digressions

Allow the conversation to return to the dialog flow that was interrupted when the digression occurred. A digression occurs when a user is in the middle of a dialog flow that is designed to address one goal, and abruptly switches topics to initiate a dialog flow that is designed to address a different goal. This feature helps to build natural conversations quicker by answering questions that might not be in the dialog node.

Example

if the user asks “I want to make an appointment,” the system will look for an intent such as day and time. However, the user may ask a question back, such as “What time are you open?” The system will then jump out of the “Make an appointment” dialog node into the Hours of Operation dialog node, get the answer, and then come back to slots and collect the information. The system understands that they were talking about a brand



Integrations

It is important that your virtual assistant can integrate with any type of system both at the front end and back end. Make a solution that can

- Be integrate across channels through mobile device, website, or phone
- Integrate with additional Watson services (Speech to Text, Tone Analyzer, Natural Language Understanding, etc.) to do pre-processing of your users' utterances. This will allow you to better understand their tone or language. Then, integrate with Watson Assistant to better understand intent, entity and dialog.
- Deploy to Slack or Facebook Messenger, using your workspace and own Slack or Facebook app. Use Botkit framework to integrate your workspace with social media and messaging channels.
- Integrate to third party or internal systems on the back end, such as your CRM system.
- Answer long tail questions, by having your solution look into databases to collect information, and then respond accurately by integrating with Watson Discovery.
- Integrate with voice- take one of virtual assistants and put it on the phone line with IBM Voice Gateway.

Let your virtual assistant to replace your IVR systems, in order to understand intent. Your virtual assistant can answer questions that you have rather than going through that a typical IVR menu

Analytics

Learn how your virtual assistant is actually performing by collecting analytics on the conversations your users are having

- How many conversations is your virtual assistant having?
- What are users talking about?
- What are the top intents? What are the top entities?
- How much time are they spending with your virtual assistant?
- Using these insights, your system will start to recommend some entities (ex brands)

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