

UCI Paul Merage
School of Business

Leadership for a Digitally Driven World™

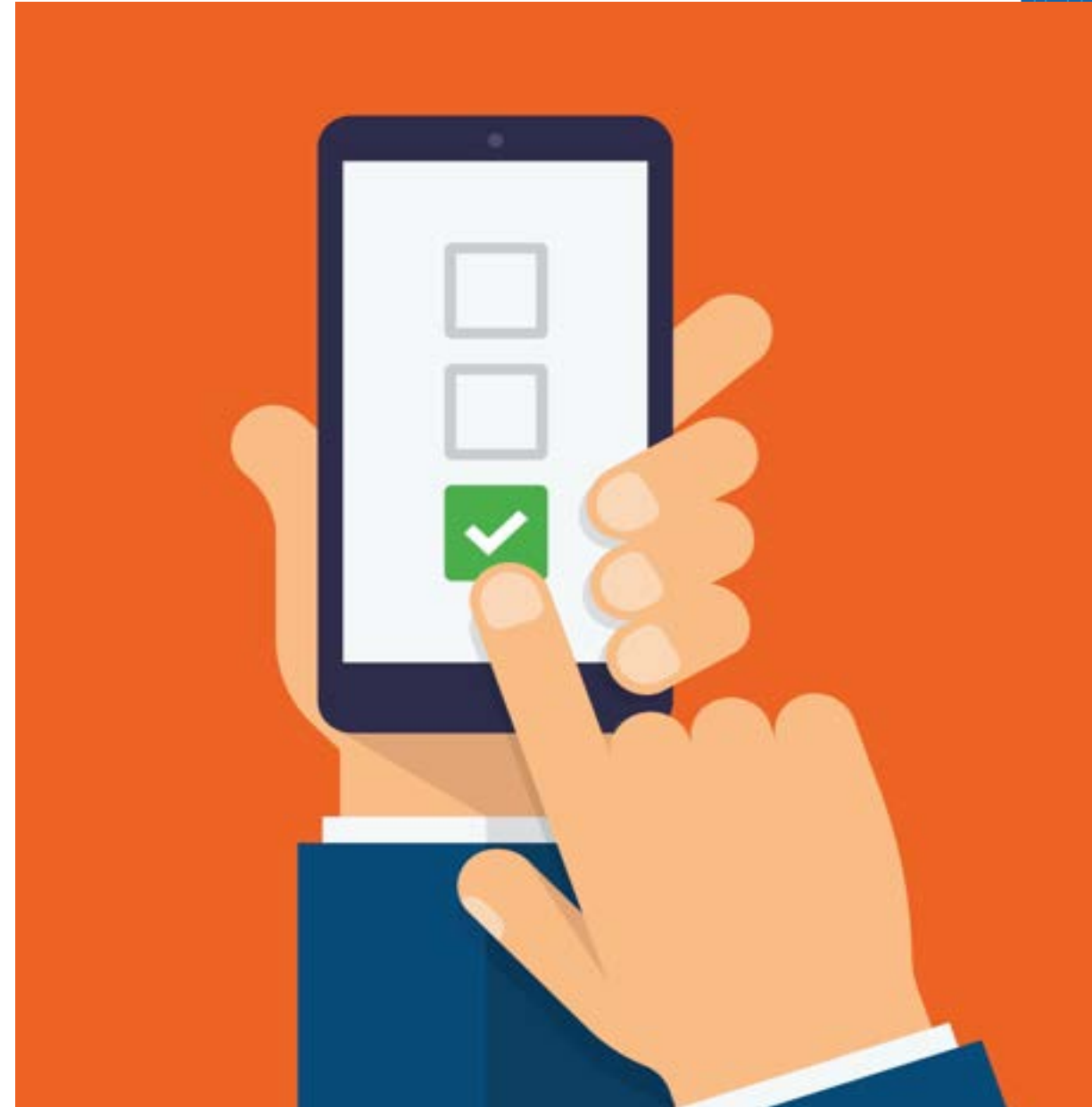
Module 4 - Watson Assistant Basics

Feb 24, 2022

AAII Polling Question #1

How many recorded video did you watch?

1. None
2. 1-2 videos
3. 2-4 videos
4. 4-7 videos
5. All videos



- 1 Watson Assistant Basics – Recap from Recorded Video
- 2 Watson Assistant – Concept, Dialog Demo
- 3 Breakout Room Assignment
- 4 Module 4 – Homework Assignment



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1. Watson Assistant Basics – Recap from Recorded Video

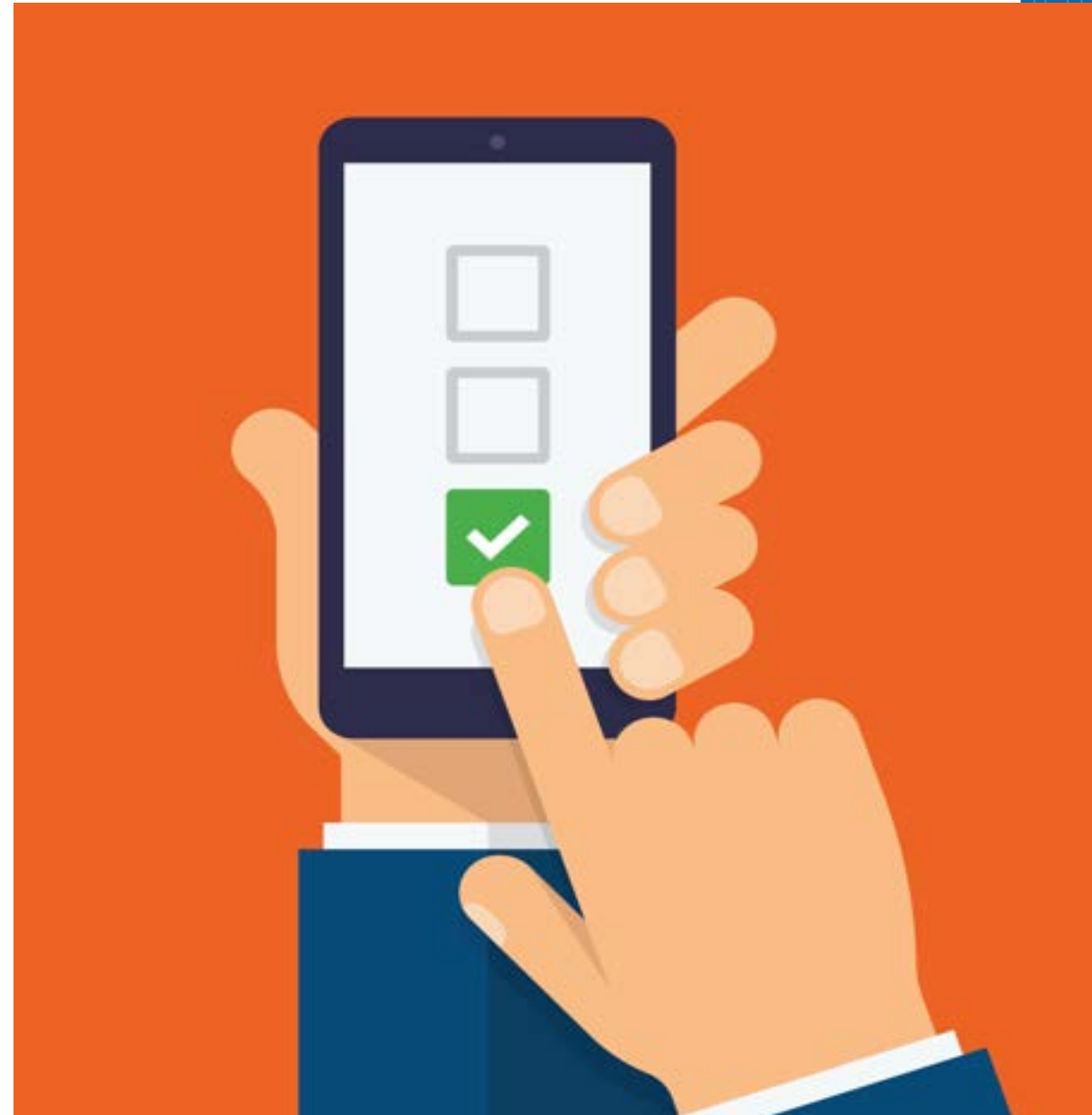
Conversational AI – Key Concepts

- ✓ Utterances – original sentences used in conversation
- ✓ Intent - purpose behind the utterances.
- ✓ Entity - information of interest extracted from a conversation
- ✓ Context - for a session or across sessions
- ✓ Dialog - determines how sentences are sequenced
- ✓ Short Tail – Frequently asked questions
- ✓ Long Tail – Rarely asked questions

Polling Question #2

How many Intents do you perceive in your Capstone assignment:

1. < 5
2. 5-10
3. > 10



Intents and Utterances

Utterance - a spoken word, statement, or vocal sound

Intent - intention or purpose



Intents for our Movie Recommendation Use Case

1. list-of-genres
2. count_movies_by_genre
3. provide-movie-details
4. recommend-movie-by-decade
5. recommend-movie-by-genre



Intents and Utterances

Intent: list-of-genres

Utterance	Intent
Which genres are included in your collection	list-of-genres
Can you list genre	list-of-genres
How many types of movies do you have	list-of-genres
What is in your movie collection	list-of-genres
Can you describe your movie collection	list-of-genres

Intents and Utterances

Intent: count_movies_by_genre

Utterance	Intent
How many romantic movies do you have in your collection?	count_movies_by_genre
Do you have any action movies to watch	count_movies_by_genre
Can you find me a musical	count_movies_by_genre
Does your collection contain any comedies?	count_movies_by_genre
I would like to get a count of western movies in your collection	count_movies_by_genre
How many horror movies do you have	count_movies_by_genre
Do you have romantic movies in your collection?	count_movies_by_genre

Intents and Utterances

Intent: provide-movie-details

Utterance	Intent
Can you give me some details regarding this movie	provide-movie-details
What is the movie Phonix?	provide-movie-details
Do you know anything more about this movie	provide-movie-details
I would like to know more about Toy Story 2	provide-movie-details
Can you give me more details	provide-movie-details

Intents and Utterances

Intent: recommend-movie-by-decade

Utterance	Intent
Can you recommend a Beatles era movie	recommend-movie-by-decade
Can you find a 70s movie	recommend-movie-by-decade
I would like to see a new movie	recommend-movie-by-decade
I would like to see a 1950s movie	recommend-movie-by-decade
Can you find a movie from 1940s	recommend-movie-by-decade

Intents and Utterances

Intent: recommend-movie-by-genre

Utterance	Intent
I would like to see a romantic movie	recommend-movie-by-genre
Can you suggest a western	recommend-movie-by-genre
I am in the mood for a comedy movie	recommend-movie-by-genre
I would like to see a science fiction	recommend-movie-by-genre
Please find me a western	recommend-movie-by-genre

Entities are information of interest extracted from a conversation.



Entities for our Movie Recommendation Use Case

1. Decade
2. Genre
3. Movies

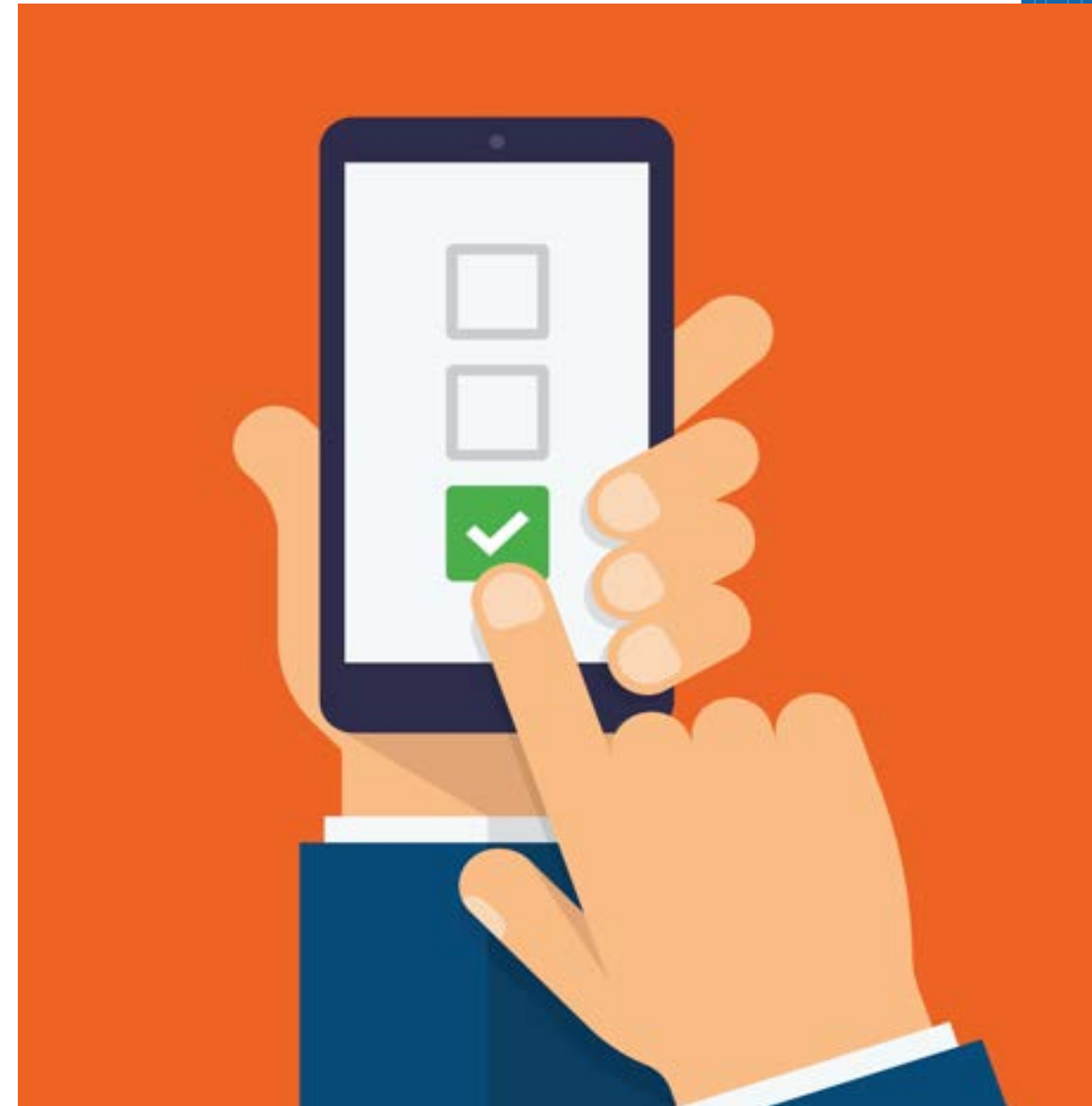
Entity: Decade

Entity	Entity Value	Synonym		
decades	1940s			
decades	1950s			
decades	1960s	Beatle era		
decades	1970s	Disco era		
decades	1980s			
decades	1990s			
decades	2000s			
decades	Silent era			
decades	2010s	New Movies	New movie	new

Polling Question #3

How many Entities do you perceive in your Capstone assignment:

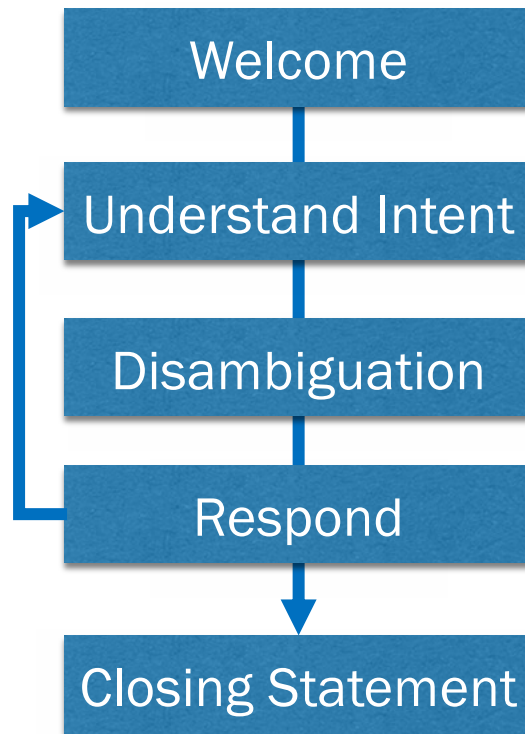
1. < 5
2. 5-10
3. > 10



Context

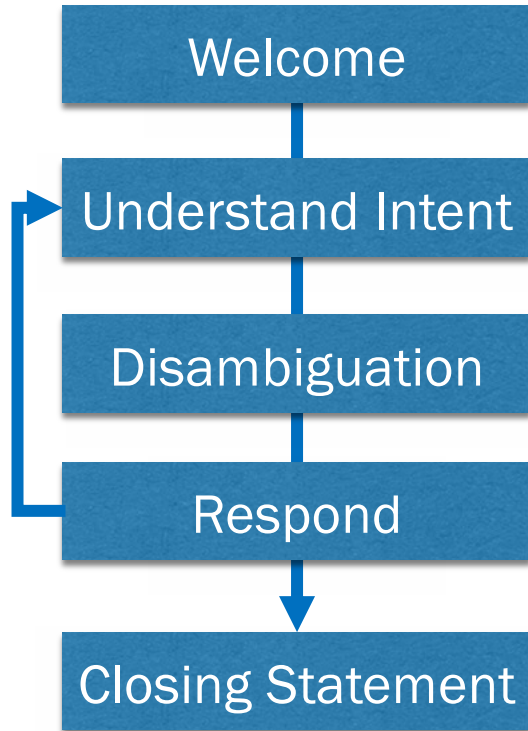
- Conversations are often done in a context
- Context can be for
 - a) a session or
 - b) across multiple conversation sessions or
 - c) between two parties

Dialog



Dialog in a conversation determines how sentences are sequenced.

Dialog



Intelligent Movie Dialog Skill Version: Development

Intents

Entities

- My Entities
- System Entities
- Dialog**

Options

- Webhooks
- Disambiguation
- Autocorrection
- Intent Detection

Analytics

- Overview
- Autolearning
- User conversations

Versions

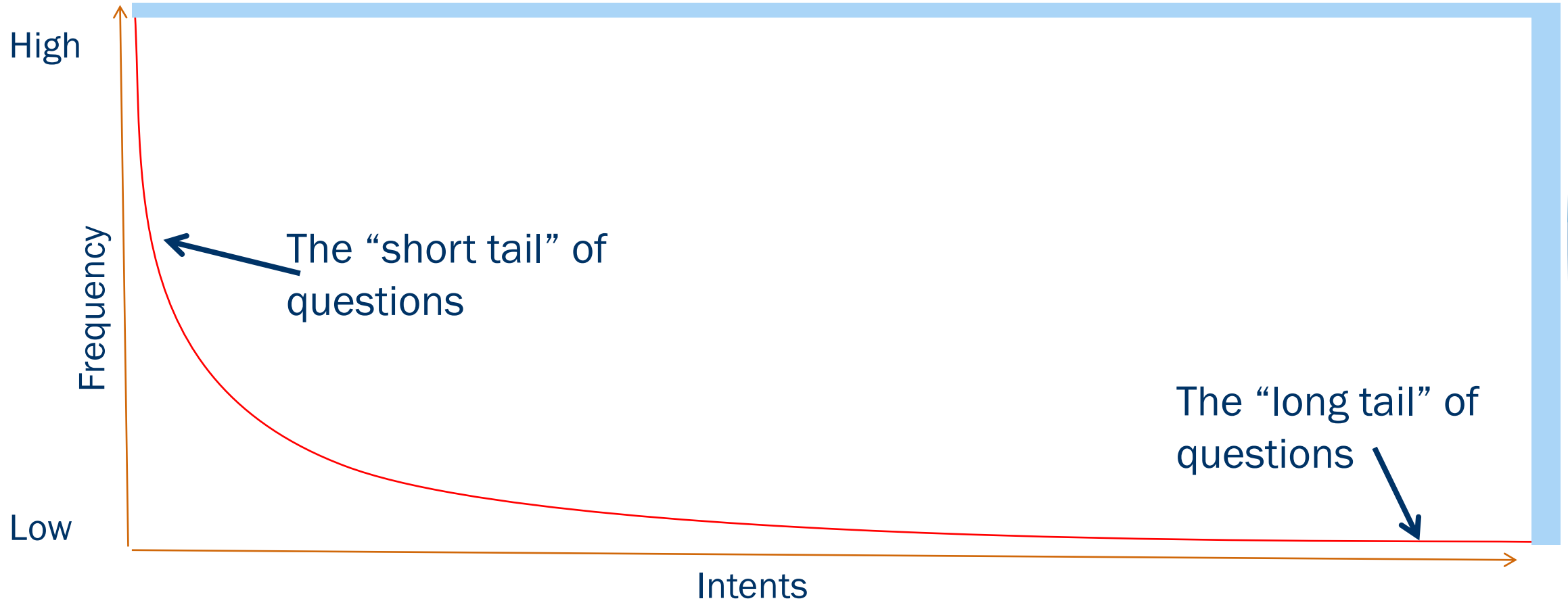
Content Catalog

Add node Add child node Add folder

Welcome	welcome	1 Responses / 0 Context Set / Does not return
count-movies-by-genre	#count_movies_by_genre && @Genre	2 Responses / 1 Context Set / 1 Slots / Does not return
recommend-movie-by-genre-decade	#recommend-movie-by-decade && @decades	2 Responses / 2 Context Set / 2 Slots / Does not return
movie-details	#provide-movie-details	1 Responses / 0 Context Set / Does not return
Anything else	anything_else	

Dialog in a conversation determines how sentences are sequenced.

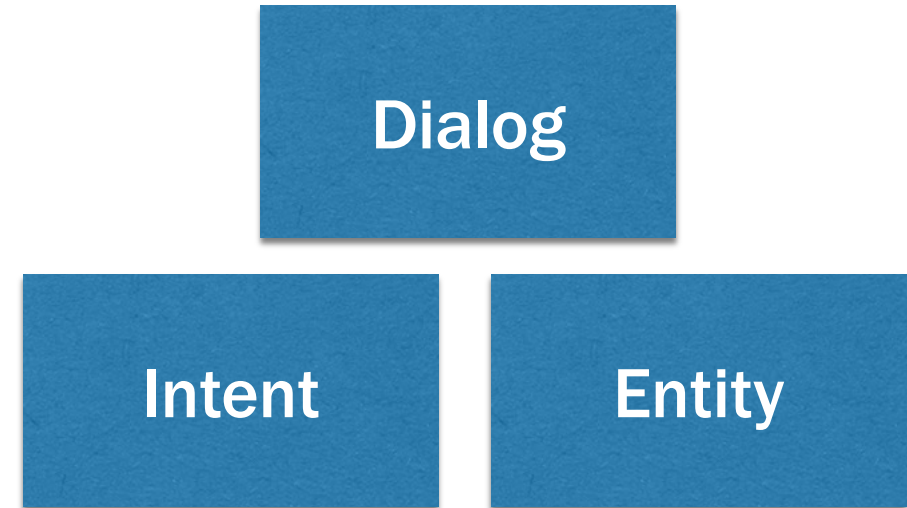
Short tail vs long tail and intent prediction



Dialog Skill

Good for short tail

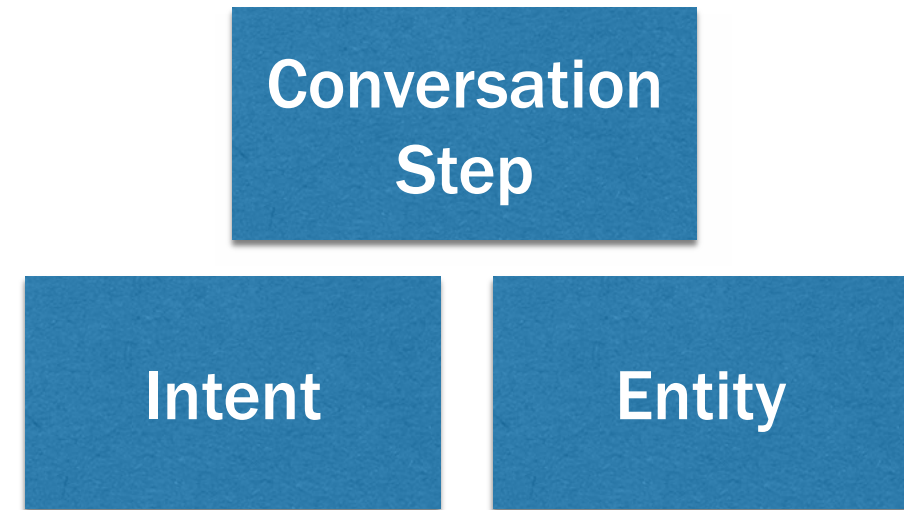
1. Multiple intents
2. Multiple entities
3. Multiple questions
4. Back-end integration



Search Skill

Good for Long tail

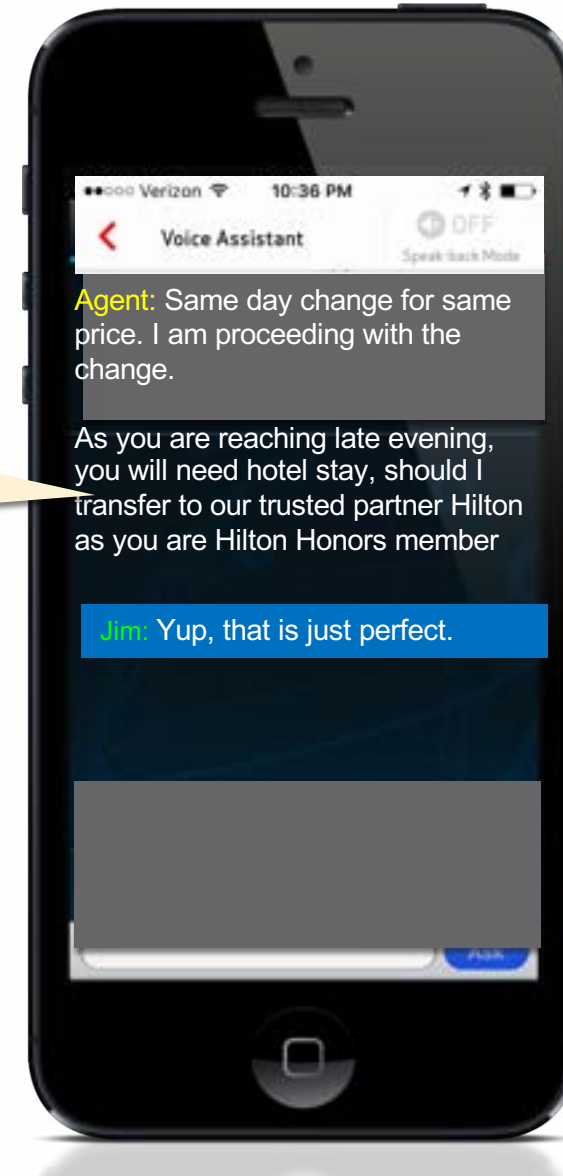
1. Unknown intent
2. Multiple entities
3. Search a knowledge area
4. Broad response



Personality for Conversational AI System

- Outgoing
- Sweet
- Funny
- Goofy
- Geeky
- Helpful

Personality of the bot can be customized using Response in dialog node



How to improve conversation chemistry?

- Sentiment Analysis
- Tone Analysis
- Voice
- Physical appearance
- Sentence construction
- Dialog
- Transparency / explanation rendering
- Response to random questions

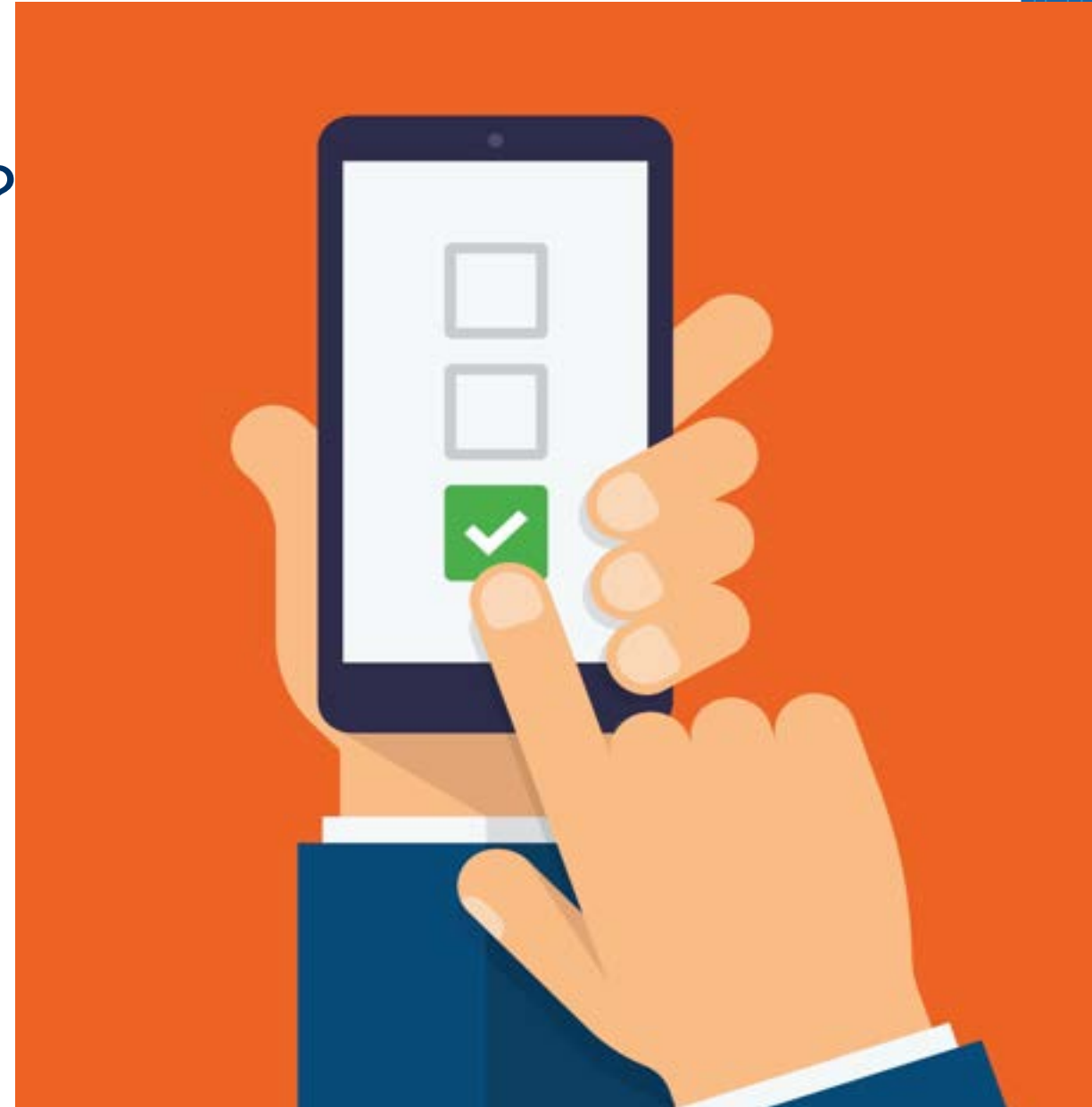


<https://youtu.be/Gm44w3zZCBo>

Polling Question #4

What is the personality of DinoToy?

1. Outgoing
2. Sweet
3. Funny
4. Goofy
5. Geeky
6. Helpful



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2. Watson Assistant Demo Concepts and Dialog Skills

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3. Breakout Room Assignment



Breakout Room Assignment

- Pick-up a Q&A from your Capstone Assignment which may utilize Dialog skills (e.g. how many different types of movies do you have)
- Define how would you sequence your dialog conversations? An example includes
 1. Welcome
 2. Ask what type of movies they would like to watch (Genre)
 3. Ask for any specific time period if needed
 4. Provide answers to user's intent
 5. Ask for another movie
 6. Closing statement
 7. Exit
- Present your findings

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4. Module 4 – Homework Assignment

<Refer to M4-Assignment-Configure-Dialog-Skill.ppt document>

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Thanks.
For questions, please contact

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