

ORACLE®

# Oracle Digital Assistant

## The Complete Training

### Introduction to Conversational Design

# Topic agenda

- 1 ➤ What is conversational design?
- 2 ➤ Why do we need conversational design?
- 3 ➤ Conversational design strategies, tactics and examples
- 4 ➤ What do conversational designers do?
- 5 ➤ Fallback planning, escalation

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# Working definitions

## **con·ver·sa·tion**

/ˌkänvər'sāSH(ə)n/

a talk between two or more people in which thoughts, feelings, and ideas are expressed; questions are asked and answered; or news and information is exchanged.”

## **con·ver·sa·tional de·sign**

/ˌkänvər'sāSH(ə)nal/    /də'zīn/

the craft of imparting in a machine those human-like capabilities that enable the machine to interact with humans conversationally, on their terms – not on the machine's.

# What does it mean to “interact on human terms”?

- Understanding written natural language
- Understanding spoken natural language
- Adjusting an interaction based on tone/syntax
- Adjusting an interaction based on visual cues (body language/facial expressions)
- Responding in kind (“conversationally”) to all of the above
- Abstracting/simplifying otherwise complex computer experiences
- Filling out forms, avoiding repetitive data entry, simplifying policies, etc.

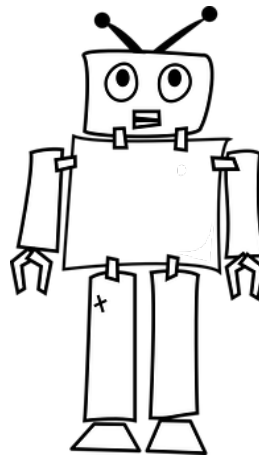
# And sometimes the user just wants the answer!



“Can I park here now?”

*“Your ‘new’ website looks like it was designed by a rocket-scientist and implemented by a politician. I can’t find ANYTHING that actually helps me!”*

*Anonymous B2B Customer c. 2016*



And this is where a properly-designed chatbot can (and did!) really help...

# “We tried that once...it didn’t work.”

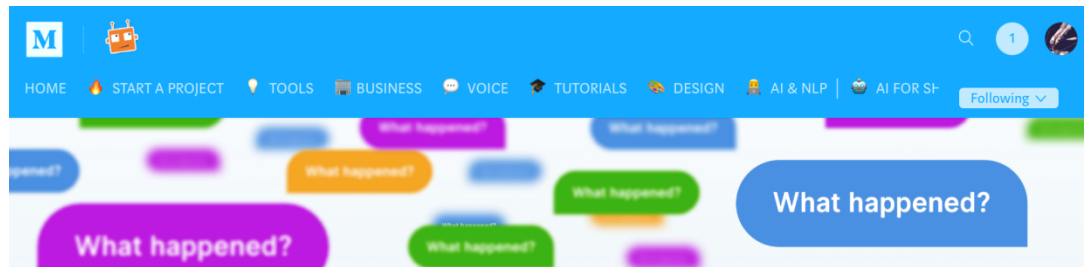
- About the Craft of Conversational Design
  - Not an exact science
  - An iterative endeavor
  - Best ideas often not immediately obvious
  - Not every idea will work as imagined
  - Failure is a learning opportunity



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# Why do we need conversational design?



## Chatbots: What Happened?



Dave Feldman [Follow](#)  
Apr 10, 2018 · 15 min read

Remember [chatbots](#), the Next Big Thing of 2016? [According to Sam Lessin](#), “the 2016 bot paradigm shift is going to be far more disruptive and interesting than the last decade’s move from Web to mobile apps.” And [Chris Messina predicted](#), “you and I will be talking to brands and companies over Facebook Messenger, WhatsApp, Telegram, Slack, and elsewhere before year’s end, and will find it normal.”

This was exciting—enough so that I joined Facebook as design manager for the Messenger bot platform. It was a tough decision: I wasn’t ready to move

*Simply put, most bots suck...*



# Conversation design goal #1: Don't look dumb...

- Once the user loses confidence in an interaction, the game is over...
- “I’m sorry, I don’t understand. Would you please rephrase your question?”
  - Use this generic response sparingly
  - For out of scope inquiries, asking the user to “rephrase the question” will only lead to frustration – and “looking dumb”
- Conversational Designers must think hard about "sad paths".
  - Out of scope, off topic, user confusion, mis-classification, etc.
  - 80% of the work of building a good bot is thinking about the "sad path"

# Humans express symptoms, desires - not solutions

*Conversational designers understand how users **actually talk** to the chatbot **and** build conversational interactions that respond in kind...*

“My TV is fuzzy what do I do?”	vs.	(FAQ) How to reset your cable box
“I can’t find my hotel”	vs.	(UI) Enter location & destination
“These shoes don’t fit”	vs.	(FAQ) Return Policy
“Expense this receipt”	vs.	(UI) Fill out this expense form
“Ship 3 to my home on my Visa”	vs.	(UI) Complete this online workflow

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# Conversational design tactics

- Offer varied introductions to avoid fatigue
- Recognize symptoms as ways of expressing a problem
- Understand colloquialisms
- Accept clicked or typed input
- Always have a call to action (never leave user at a “flashing cursor”)

NLP Capabilities	Grade	Comments
Greetings		Hi there
Goodbye		TTFN or OK. I'm done
Help		I need help
Start_Over		Can we start again?
Escalation		I need to talk to a human
What_Do_You_Do		What can you help me with?
You_Are_Confused		You are confused
I_am_Confused		I don't understand
Yes/No		Typing "yes", "y", "k", "ok", etc.
Typed menu commands		
FAQs		
Abuse		You suck
Off_Topic		I want to talk to a man about a dog.
Out_of_Scope		Do you sell bitcoin?
About_Bot		What do you do?
About_Company		What does your company do?
Answer_Bad		That answer didn't help me.
Answer_Good		That's great.

# Conversational design tactics

- Limit open-ended questions
- Break responses into bite-sized chunks
- Offer more information in answers (e.g., hyperlinks)
- Confirm prior to segueing into transactional interactions
- If the chatbot goes off track, immediately escalate to an alternative
- More on this topic in another presentation

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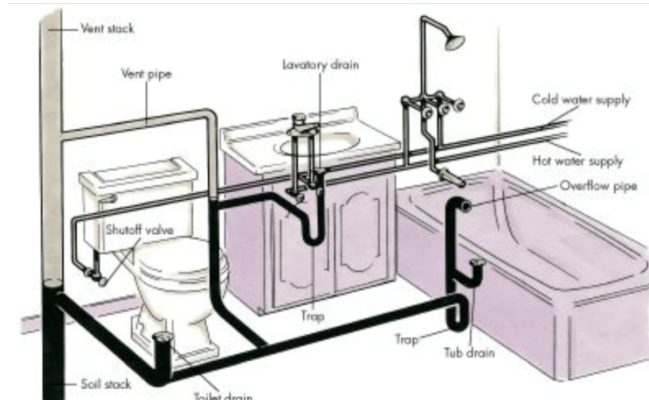
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# Plumbing versus design

- Data and integration
  - NLP/NER
  - Dialog state management
  - Escalation/hand off
  - User interface
  - APIs/Backend systems
  - Metrics



- Conversational design
  - Wording/tone
  - Recognition capabilities
  - Answer effectiveness
  - Conversational capability
  - Quick reply buttons
  - UX UI, buttons, etc.



# What conversational designers do

- Employ a holistic approach that considers both plumbing and design
  - NLP, Classification,
  - UI, UX (the intersection of NLP and user interface)
  - Language, grammar, Tone
- Understand that conversational design is more like writing a song than writing a program
- Embrace the “80/20 rule for chatbot development”
  - 20% of time spend on “Happy path”
  - 80% of time spent dealing with what could go wrong

# Conversational design mantra: “It’s all in the data...”

- To interact on customer's terms, you must know them...
  - “Getting dirty in the real data”
- Don’t have “real” customer data?
  - Hypothesis re: what/how customers will say
  - Build a chatbot based on hypothesis
  - Turn it on, monitor it closely
  - Be ready to adjust as “real” users interact

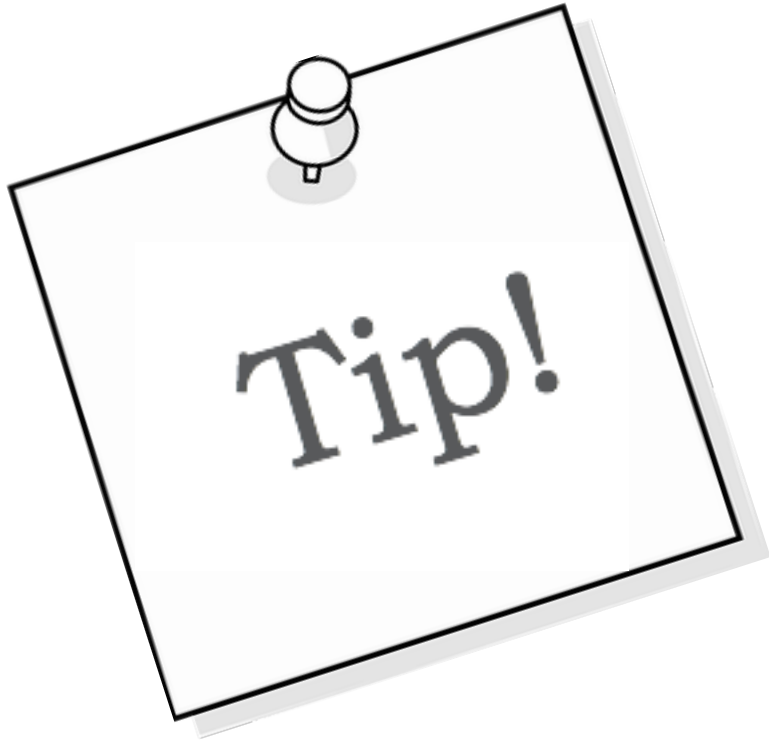
Want to inquire about business membership
want to know about exclusive offer for gap visa card holders
We missed the Lovesac roadshow in Kansas City - is there still a way to purchase there
We would like to buy a gift card does the person receiving the gift card need to be a
What is the corporate office phone number
What is the Warehouse number for this location? 3250 NORTHLAKE BLVD PALM BEACH
Why does it say "Your membership # is cancelled." I bought it at the store
Would like to see what benefits changing membership from Sams to would be
Wrong address and maiden name listed on membership card. Unable to link on Costco
Adding amount to a cash card
Are there any plans to build a in Flagstaff Arizona? We need one desperately!
Are you able to look to see if an item is in stock at my local ? I have an item #
can i get a new email link to setup my online account
Can I order a specialized birthday cake online?
Can I order Cupcakes from the Bakery?
Can I place a Cake order online and pick up at the warehouse?
Can I return the T-shirt I just bought because it was too large for me.
Can not link and verify my membership
Can you please tell me if this item # 1232432 is available at the Summerlin location

# Tenets of conversational design

- The Voice of the Customer (VoC) is king
- Allow “escalation” from your chatbot
- The first day is the worst day
- Make it easy to escalate early in the chatbot’s life
- Have a monitoring, measurement and improvement plan
- Remember that words have low information density
- People don’t read
- More words = more confusion (KISS rule)

# Why conversational design can be hard

- Organizational challenges
  - Need for conversational design is not understood/embraced
  - Lack of skills or skills spread across different silos
  - No recipe for success
  - Every implementation is different (at least at first)
- Job level challenges
  - Not as much about “making it work” as it is “keeping it from breaking”
    - Must focus on what might go wrong – and mitigate those risks
  - Unclear how to define “done”
  - Every implementation is different (at least at first)



Practice the philosophy of continued improvement. Get a little bit better every single day. – Brian Tracy



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# Design decisions: Backup plan and when is it used?

- Escalations happen
  - Even the best chatbots will “get off track”
  - Make it easy to “escalate” when user is confused/frustrated
  - For new bots “the first day is the worst day”
  - As your bot matures, you may “restrict” escalations
  - Let the data tell you how and when

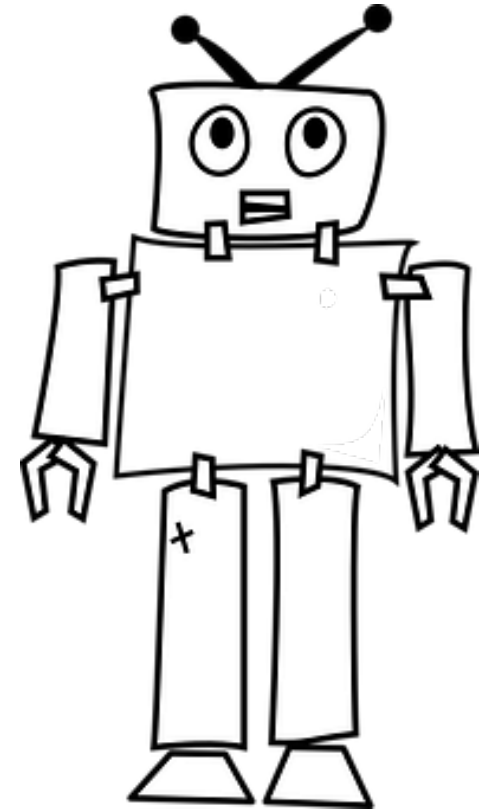


# Design decisions: Backup plan and when is it used?

- Escalation options
  - Live chat
  - Offer a call or callback
  - Email
  - Redirect to other applications, support websites, knowledge repositories, FAQ's, etc.



When chatbots hand off to a human,  
it's not **failure**; it's an opportunity to  
**learn and improve**



# Integrated Cloud

## Applications & Platform Services

ORACLE®