

ORACLE®

Oracle Digital Assistant

The Complete Training

Conversational UX



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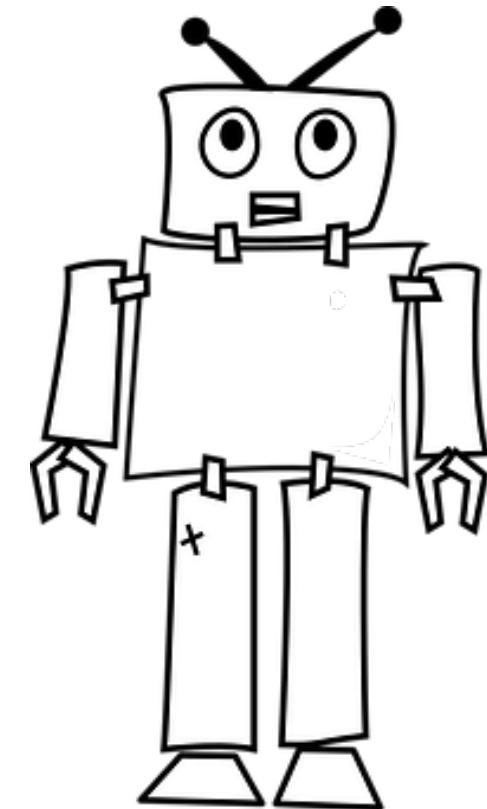
Topic agenda

- 1 ➤ Why language can be difficult
- 2 ➤ Designing a conversation
- 3 ➤ Voice and personality
- 4 ➤ Natural language intelligence
- 5 ➤ Help, guidance and error handling

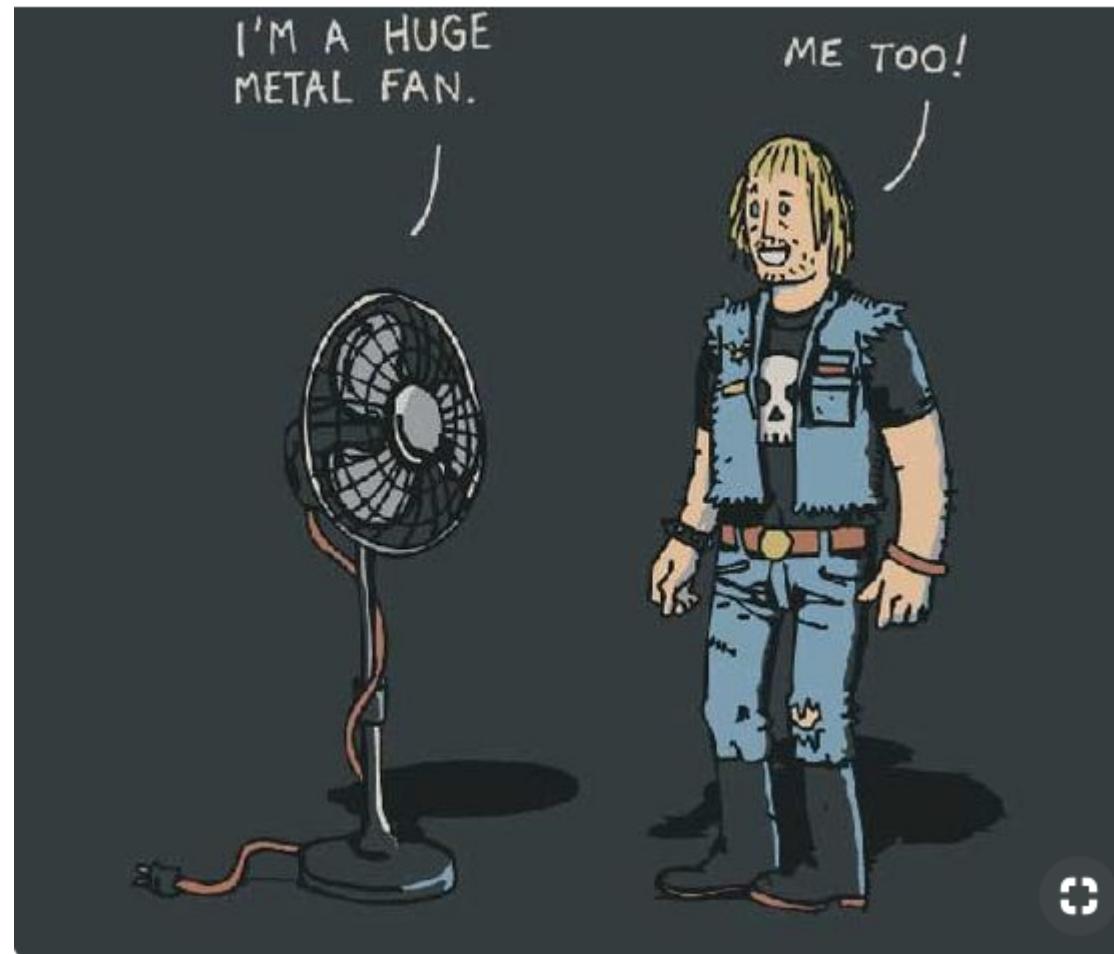
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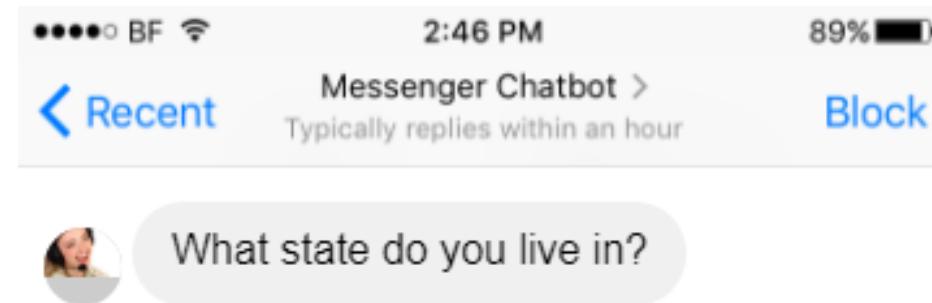
Designing a conversation is a much
an **art** as it is a **science**



Why language can be difficult



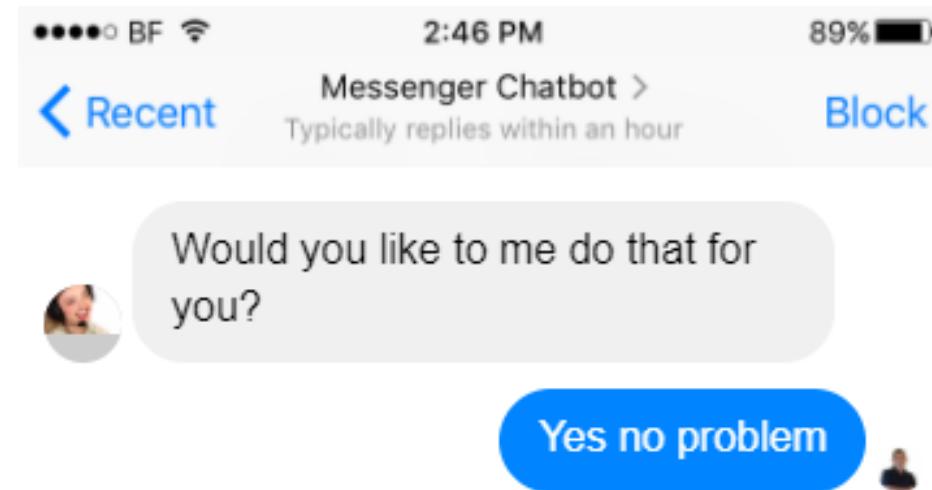
Why language can be difficult



Why language can be difficult



Why language can be difficult



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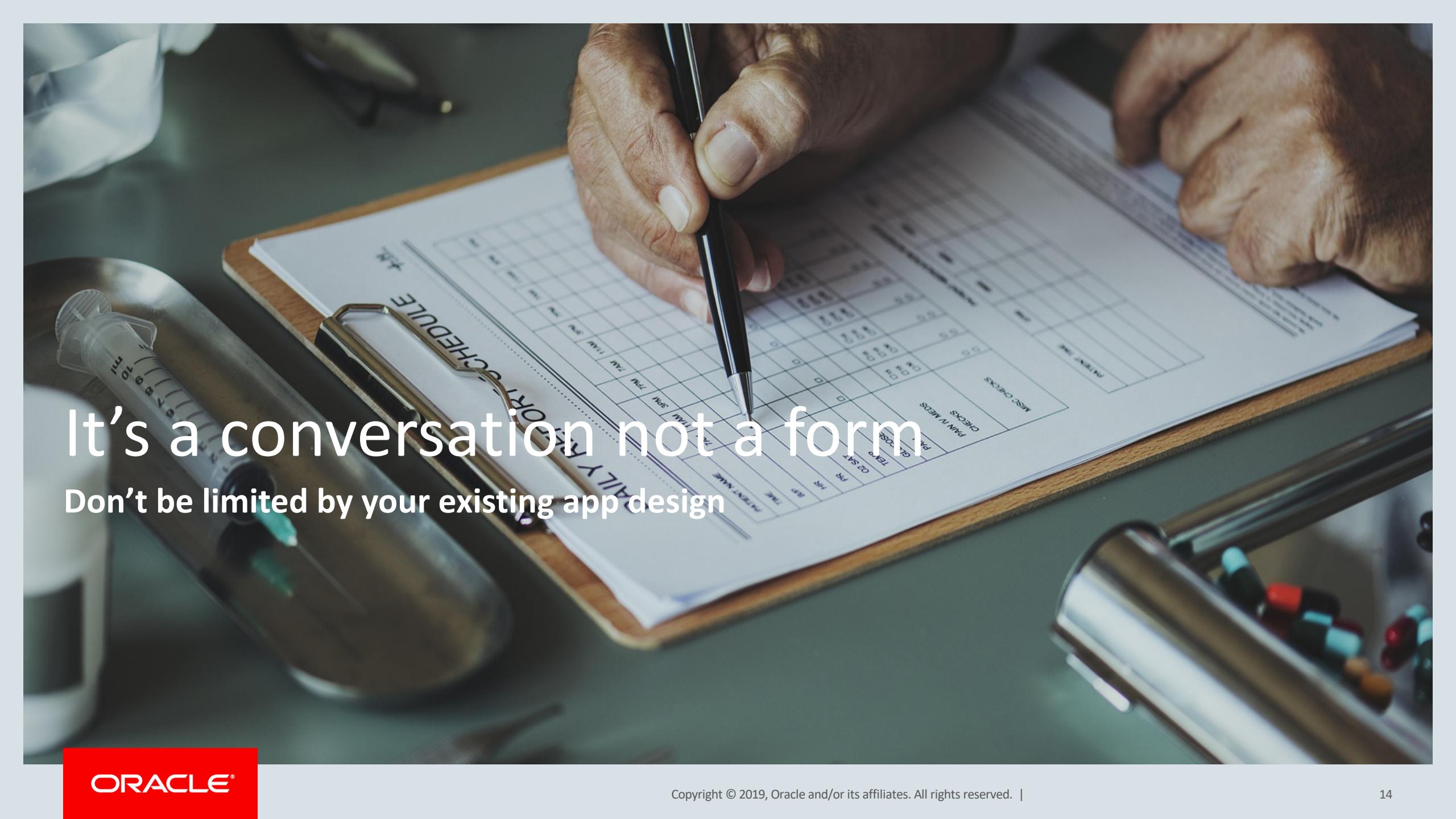
Conversational Design

A conversation doesn't design itself



You need FULL buy in from the business

- What does success look like?
- Are you targeting the right use case?
- Is the business buying into the FULL lifecycle
 - Remember: “the first day is the worst day”
 - Are you planning to iteratively test, train, release?
 - How do you plan to deal with failure?
 - Are you willing to fail?
- Do you have the right skills on the project
 - Conversational designers, business analysts, integration specialists

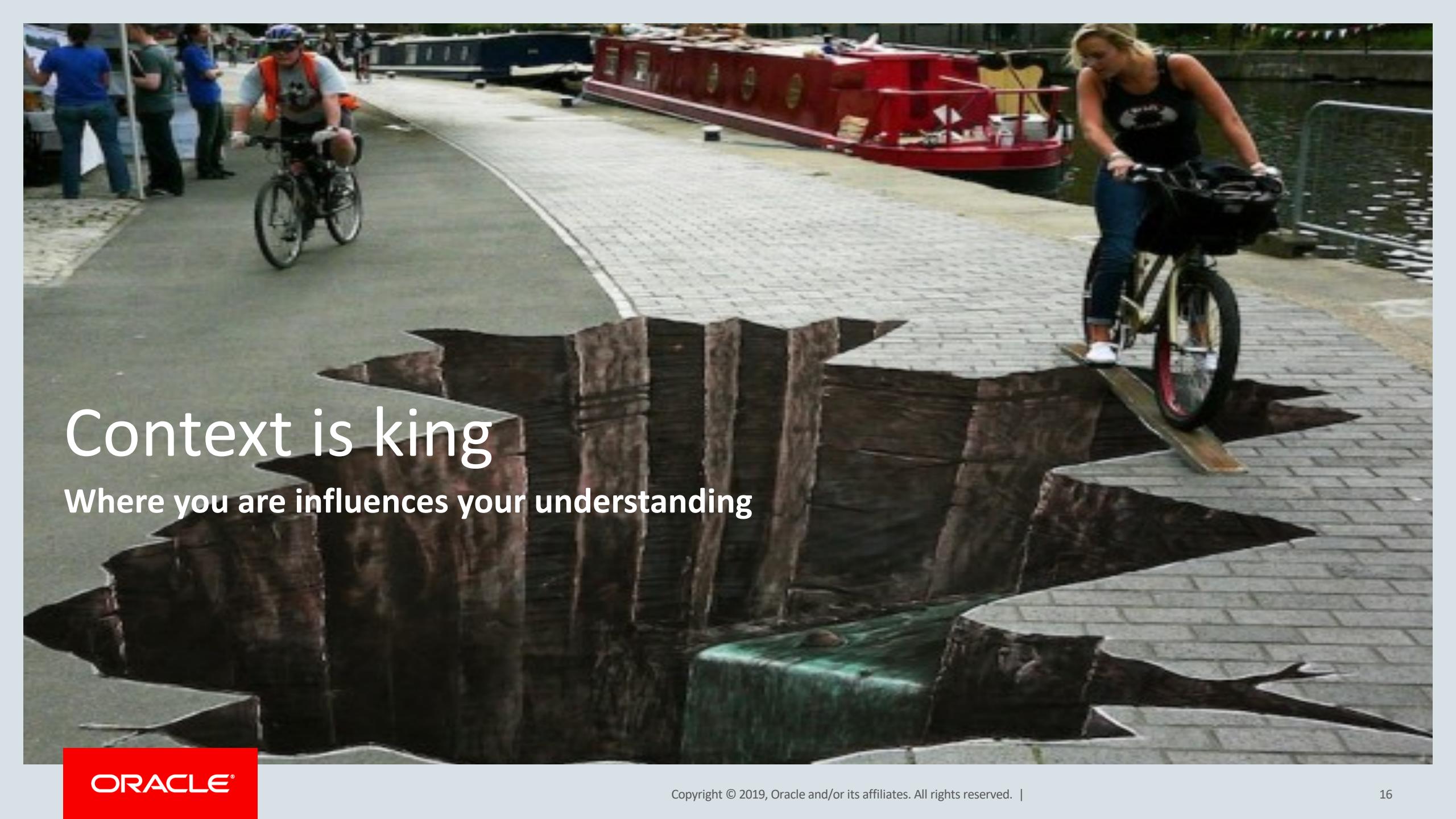


It's a conversation not a form

Don't be limited by your existing app design

It's a conversation not a form

- Think in terms of a human to human conversation
 - Don't be limited by the way you currently do things
 - Don't be limited by your technology design
- Don't replicate an IVR (press 1 for....2 for...)
- A form with 50 fields will not map well to a conversation
 - Is all that information is really needed?
 - Could data be defaulted?
 - Based on location, or knowledge about the user, or context of conversation
 - Could information be captured in a different way
 - Location information, capturing an image using phone camera



Context is king

Where you are influences your understanding

Consider your bot personality

- A conversation should be engaging
- Decide on your bot persona
 - Professional but personable – let the business dictate the balance
 - Build a backstory (although not necessarily to be made public)
 - Consider a name and avatar, but not necessarily human
 - The voice and tone of your bot is your brand
- Give a positive and welcoming introduction
- Words carry emotions
 - “*You neglected to supply*” vs “*If you could tell us..*”

Your bot can still have human qualities

- If people know it's a bot, expectations are set accordingly
- However, just like a human-to-human conversation
 - Keep messages short and to the point
 - Vary responses
 - Have a strategy for when the conversation gets “stuck”
 - Vary welcomes and greetings for a heavily used bot
 - Disclose more information as you detect the user stuck at a step
 - Don't be afraid to verify understanding
- Don't overdo the empathy or humour!
 - The wins will be small but the loses could be considerable

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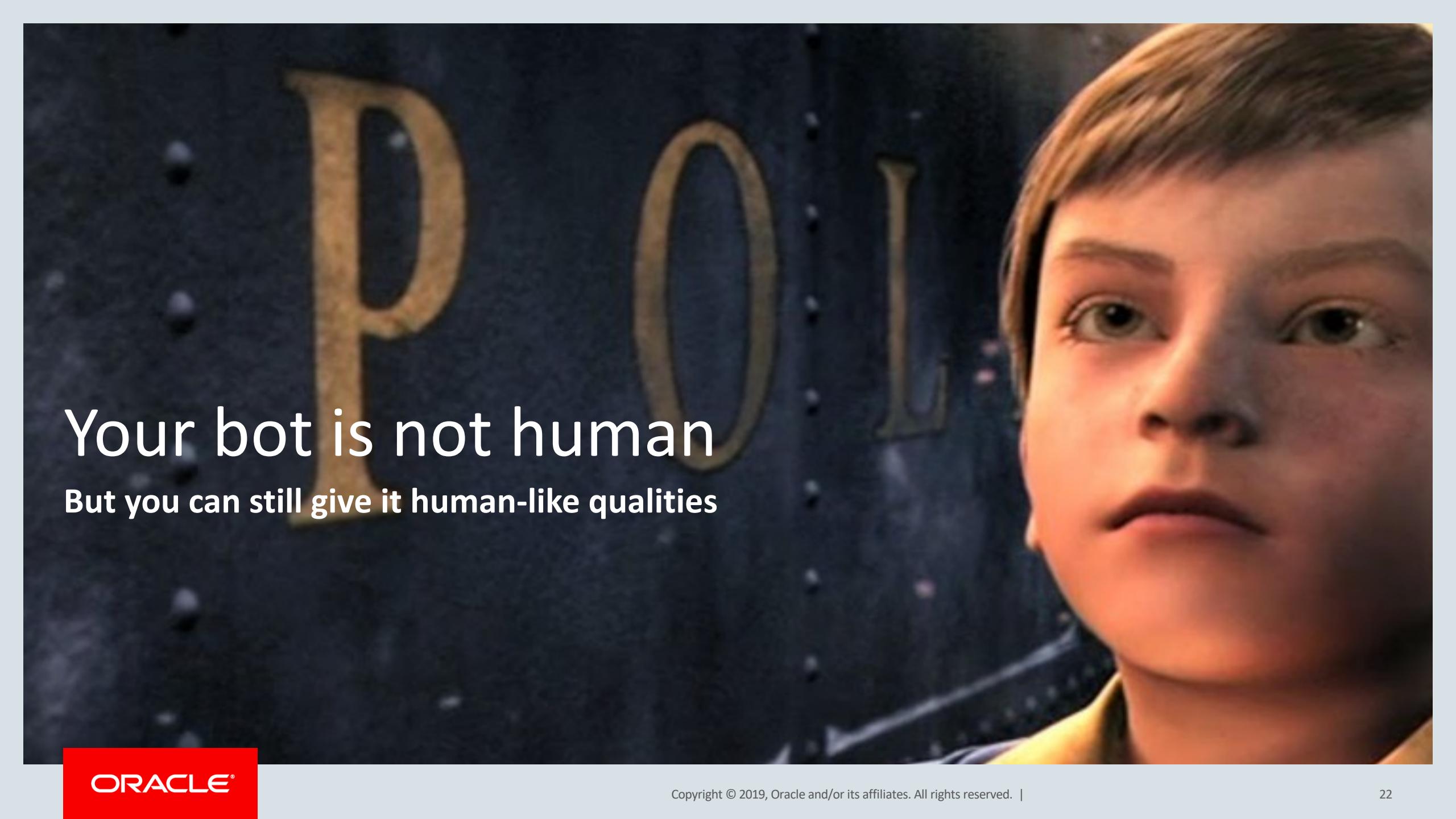


Consider your
bot personality

Your voice IS your brand

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A close-up photograph of a young boy with short blonde hair, looking upwards and slightly to his right with a thoughtful expression. In the background, a dark blue surface features the word "POOL" in large, gold-colored letters. The lighting is dramatic, with strong highlights on the boy's face and the letters.

Your bot is not human

But you can still give it human-like qualities

Your bot can still have human qualities

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A photograph of three women sitting around a table in a restaurant, laughing and smiling. They are dressed in professional attire. On the table are a notebook, a smartphone, and a small candle. In the background, there are bookshelves and a window.

Handle smalltalk

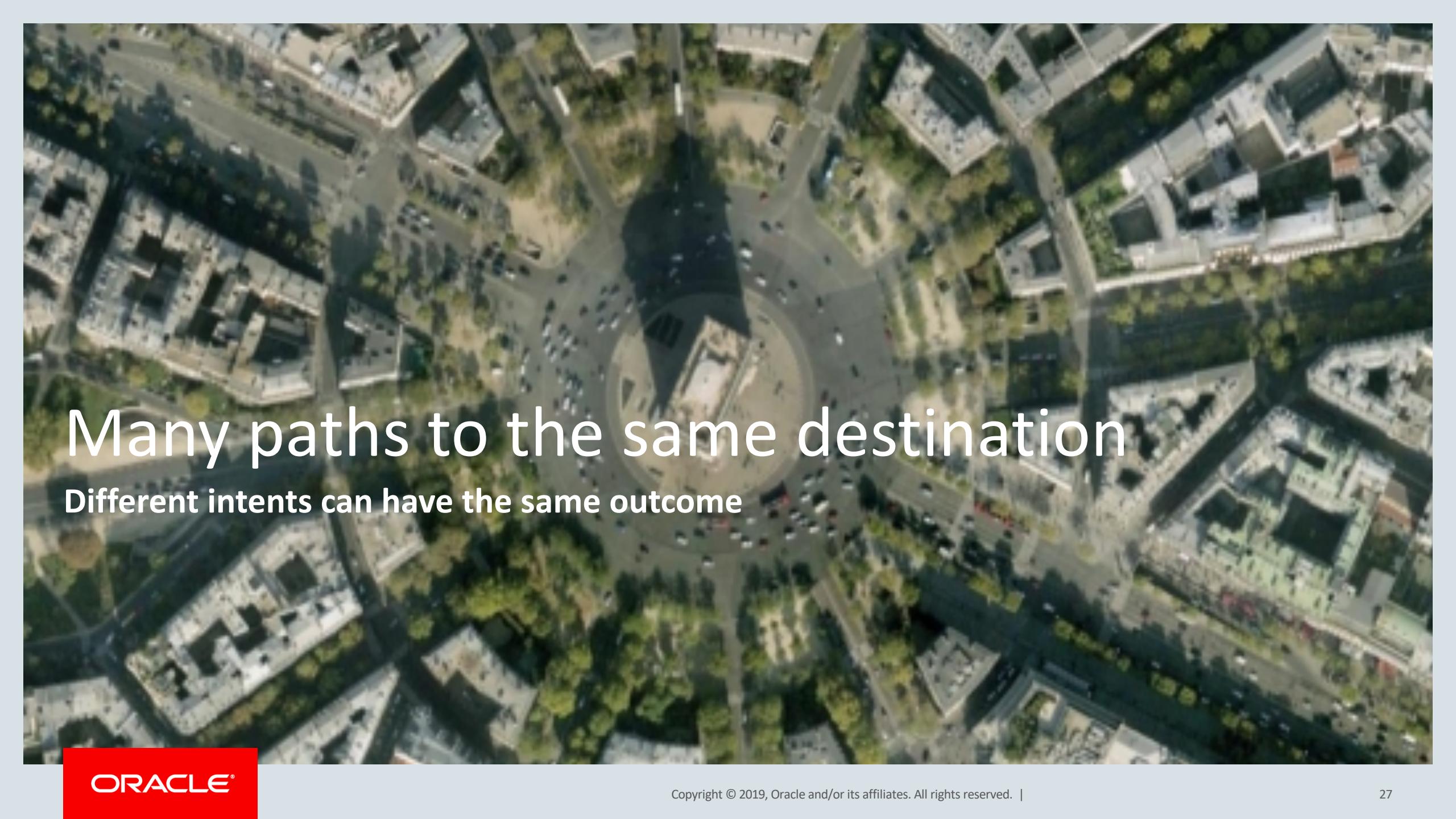
It's part of a conversation

Handle smalltalk

- Smalltalk is a natural element of conversation
 - People DO smalltalk to bots!
- It also serves a purpose
 - Aids discovery: requests for help, what the bot can do, enquiries about the bot
 - Handles frustrations: swearing, abuse, negative sentiment about the business
 - Common actions: exit, reset, speak to human
- Prepare to handle smalltalk
 - An on-topic answer is better than a “sorry I didn’t get that”
- Try to manage the conversation BACK to the known use cases
 - *“Ok, so that’s the best joke I’ve got, how about I get back to helping with your order”*
- Every step in the conversation is a chance to reinforce the bot personality

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An aerial photograph of a city street, likely a highway interchange, showing multiple roads converging towards a central point. The image serves as a visual metaphor for the concept of "Many paths to the same destination".

Many paths to the same destination

Different intents can have the same outcome

Many paths to the same destination

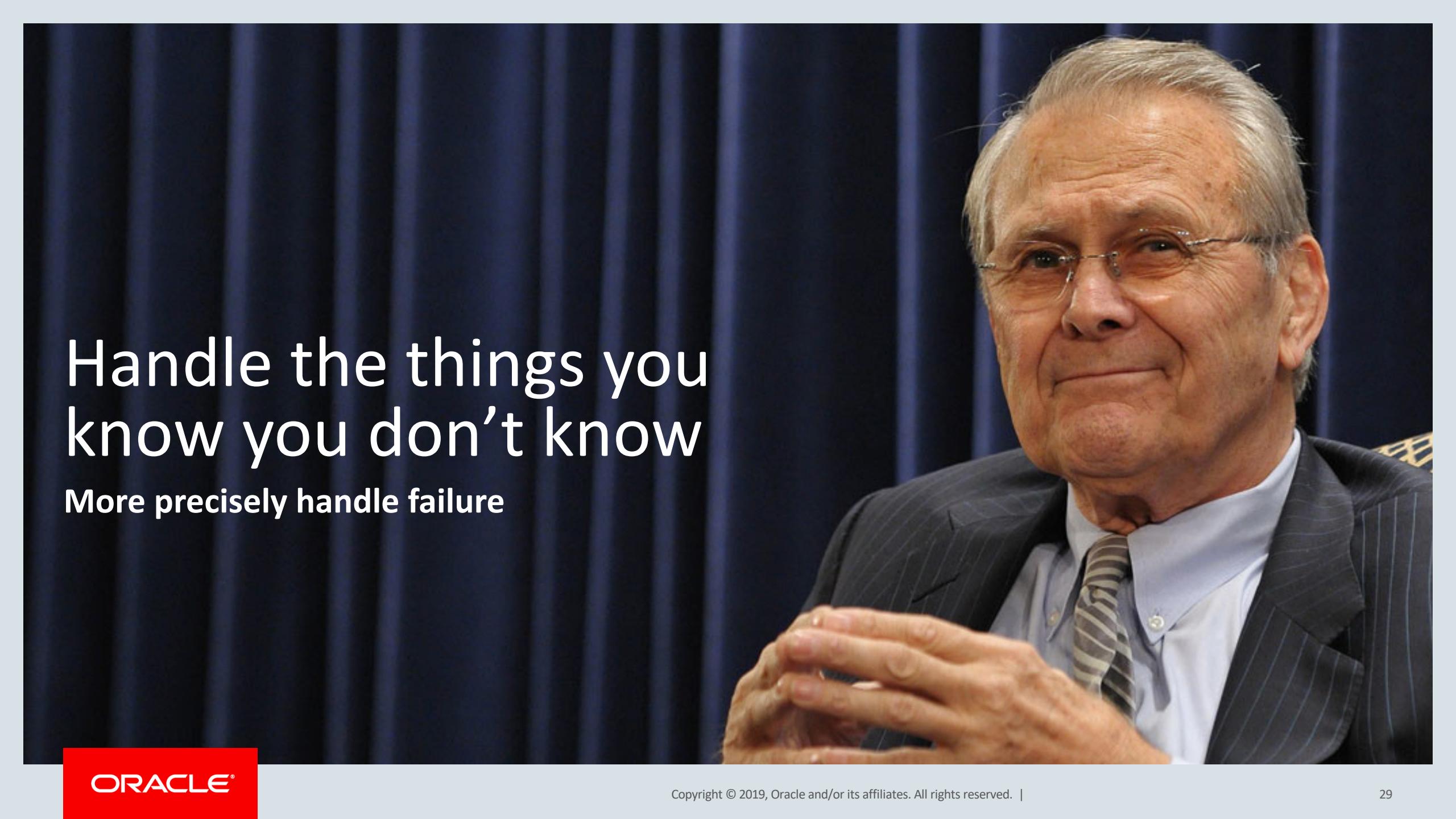
- Sometimes people state what the problem is, rather than asking the solution
 - “I can’t log into my account”
 - “How do I reset my password”
- The same action could be triggered by different types of phrases
- Have different intents which all result in the same action
 - Keeps related utterances together
 - “cleaner” separation of intents
 - Possibility to treat differently in future

RETURNS POLICY

How do I return this item
Can I return my purchases
What is your returns policy

I bought a shirt and it doesn't fit
I got this coat in the wrong size
These trousers were bought as a gift but don't fit

Bought a DVD but it was scratched
Drawer on my BluRay player is broken
Got new iPhone but won't hold charge

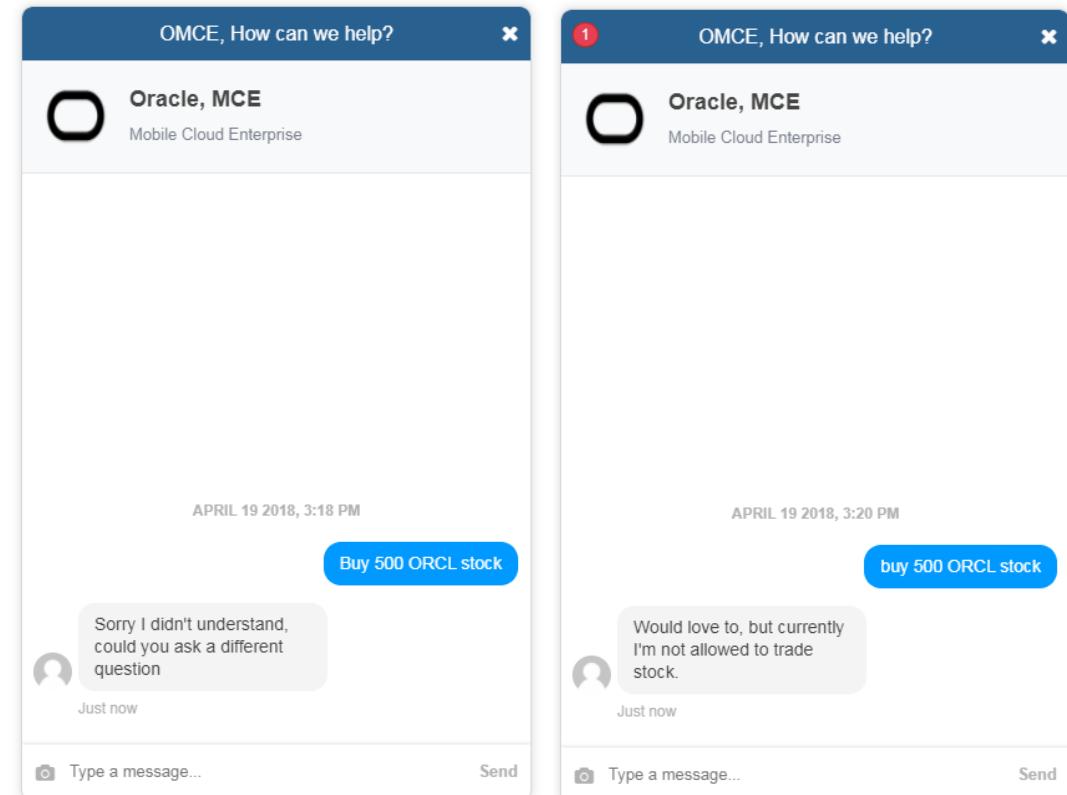


Handle the things you
know you don't know

More precisely handle failure

Handle the things you know you don't know

- Create intents for the use cases you know you can't handle
 - Your bot likely handles a subset of business functions
 - Gracefully handle the business function NOT supported by the bot
- Allows the bot to more precisely handle failure
 - User knows input was understood



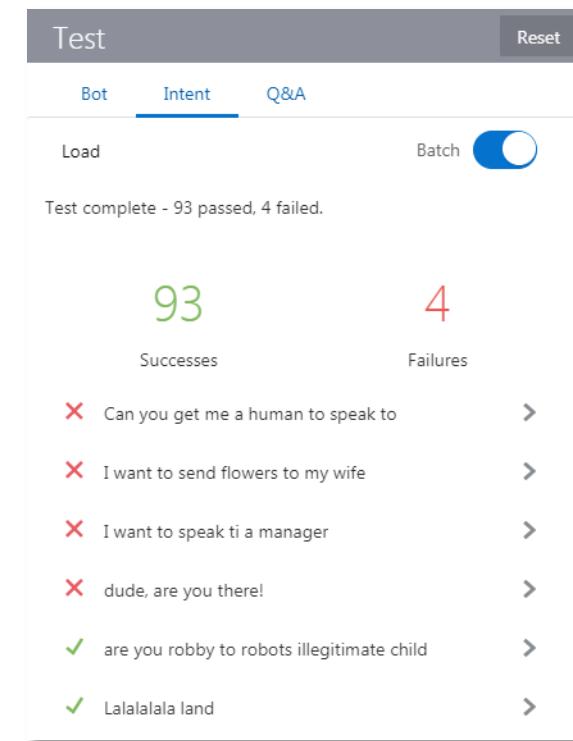


Test, fix, repeat

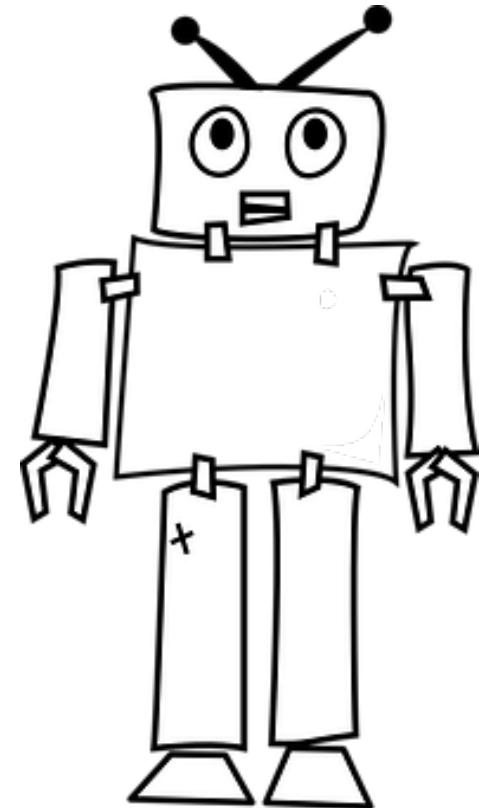
Good data comes from testing

Test, fix, repeat (often!)

- NLP is only as good as the data you train it with
- Real data comes from real users
 - Typically complete sentences
- Harvest from logs & 80/20 split training/test data
- Use batch testing
 - Confirm a minimum baseline performance
- Use analytics and insights
 - Where does the bot fail?
- Test, fix, repeat



The **two** most common NLP problems
are **testing the bot too early** with
insufficient training data and you **didn't**
train the **unresolvedIntent!!!**





Not everything is “AI magic”

AI doesn't magically make everything work

AI doesn't magically make everything work – design time challenges

- You can't simply throw data into the bot NLP
 - You need to DESIGN your intents appropriately and classify data
 - Human logs/FAQs useful, but use CAREFULLY and generally not “as is”
- AI doesn't really “understand” language (yet!)
 - It is classifying input against known intents
 - CancelPizza and OrderPizza have a high commonality
 - Negation is a challenge (“not”, “no” prefixes “un-”, “in-”, im-”)
- Consider using entities to help correct intent resolution
 - “I want to order pizza” OrderIntent
 - “I want to order drugs” NOT a valid OrderIntent

AI doesn't magically make everything work – runtime challenges

- Verbose user input can be difficult to classify
 - Consider asking the user to be more concise rather than failing classification
- If a human couldn't classify an input, don't expect a bot to
 - “Flower delivery not arrived” – complaint or check delivery status?
- Humans ask for clarification, so it's ok for a bot to
- Use conversational techniques to make the right choice
 - “Let me deal with that for you. Do you want me to first of all check the status or shall I transfer you to a manager?”

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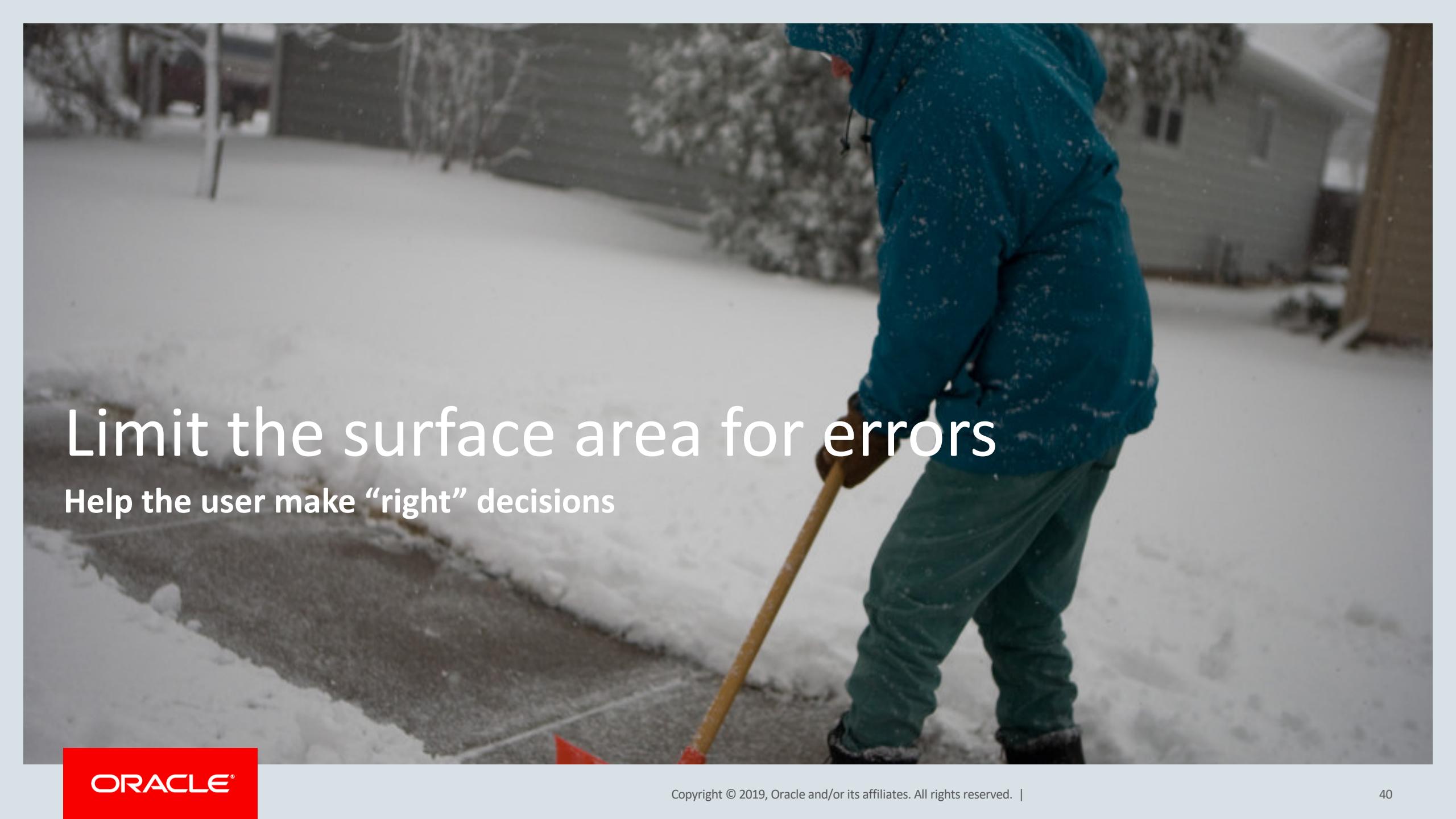


Offer guidance & help

Including human help

Offer guidance and help

- Make it clear how to start a conversation
- The bot should give guidance on what services it can support
 - Hint as to what is expected next
- Offer the most relevant actions
- Remind & offer some sort of “help” or “reset” option
- Don’t leave the user “hanging”
- Offer human hand off as required

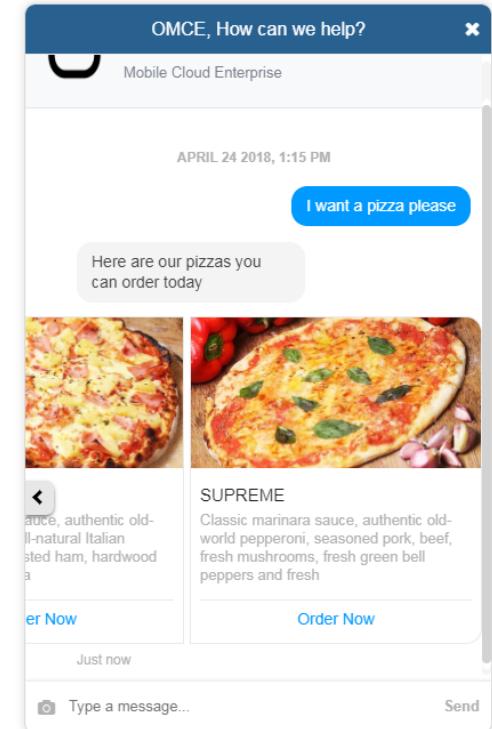
A black and white photograph of a person from the waist down, wearing a teal hoodie and dark pants, shoveling snow from a sidewalk. The background shows a residential street with houses and snow-covered trees.

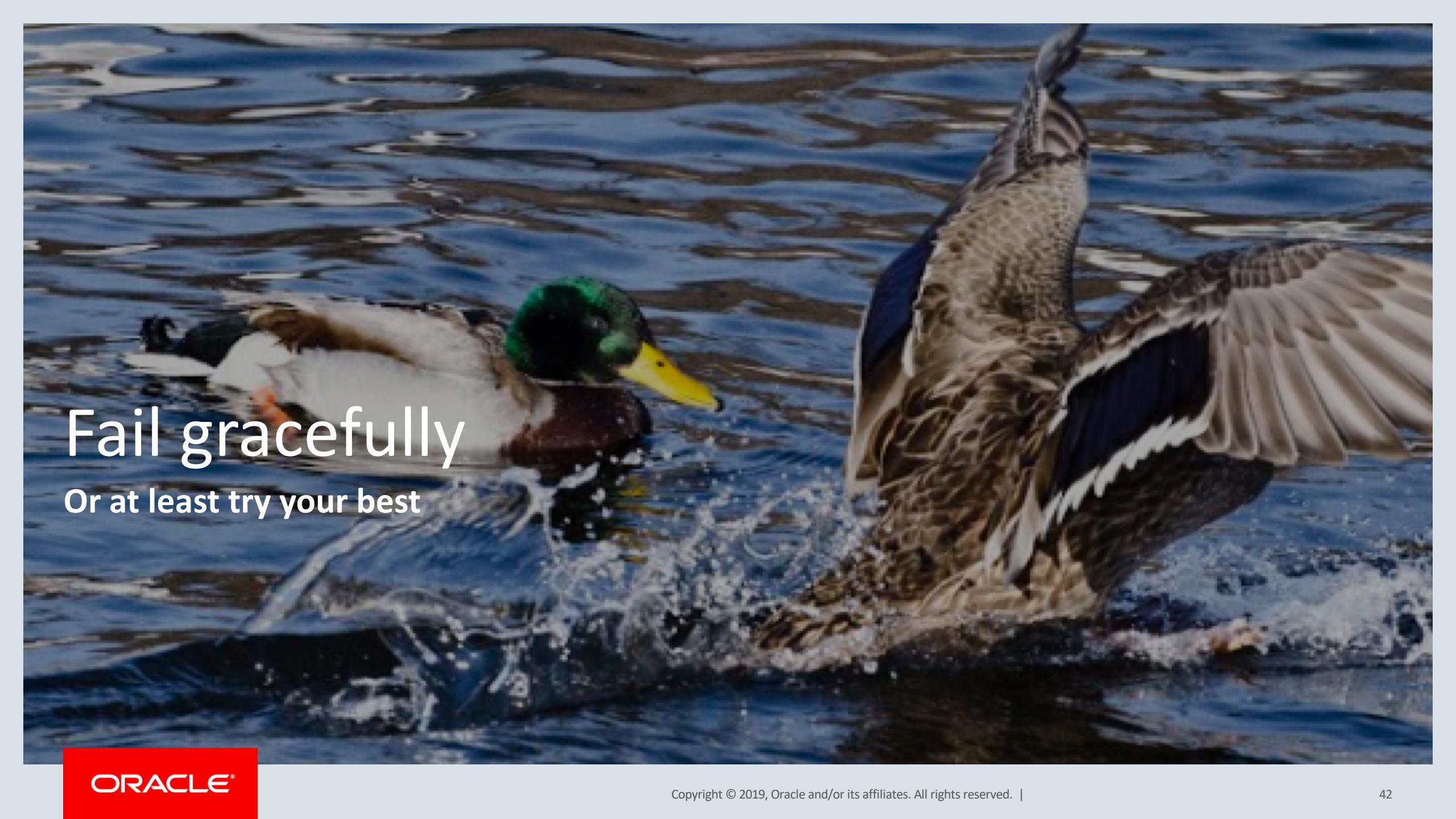
Limit the surface area for errors

Help the user make “right” decisions

Limit the surface area for errors

- Guide and give indications of what the bot is expecting
- Guide the conversation back to the happy path
- Avoid open ended questions
 - “Do you want anything else” vs “Do you want to order drinks, dips or cookies?”
- Ask before committing a transaction
 - Verbs and nouns instead of simple Yes/No
- Consider use of quick replies, cards and carousels
 - Easier to read
 - Quicker and more accurate to select





Fail gracefully
Or at least try your best

Fail gracefully

- Fail gracefully
 - Don't blame the user
 - "You neglected to supply" vs "If you could tell us.."
 - "Invalid order id" vs "Hmm, I can't seem to find that order"
- An opportunity to re-enforce the bot personality
 - It's not that you fail, its how you deal with it that is remembered
- Give the user intelligent options to get back on track
 - Show the nearest resolving intents
 - Give an option to reset the conversation
 - Human agent hand-off

Integrated Cloud Applications & Platform Services

ORACLE®



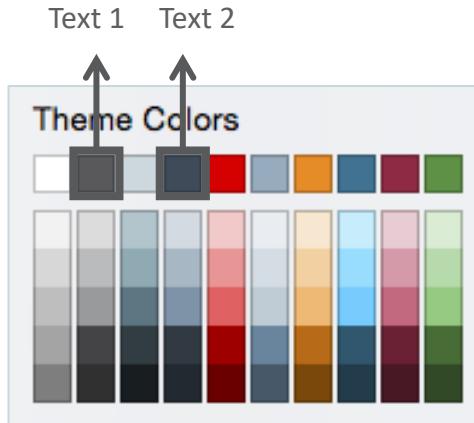
Oracle Digital Assistant Hands-On

TBD

Text and Background Contrast

Use **White** text over dark backgrounds and **Text 1** or **Text 2** over light backgrounds.

Oracle Color Palette



	Background 2	Accent 2	Accent 3	Accent 4	Accent 5	Accent 6
Text 1	Text 1 Text 2	White	White	White	White	White
Text 2	Text 2	Text 1 Text 2	Text 1 Text 2	Text 1 Text 2	Text 1 Text 2	Text 1 Text 2
White	Text 2	Text 1 Text 2	Text 1 Text 2	N/A	Text 2	Text 2
White	White	Text 1 Text 2	Text 1 Text 2	N/A	White	Text 2
White	White	White	White	White	White	White