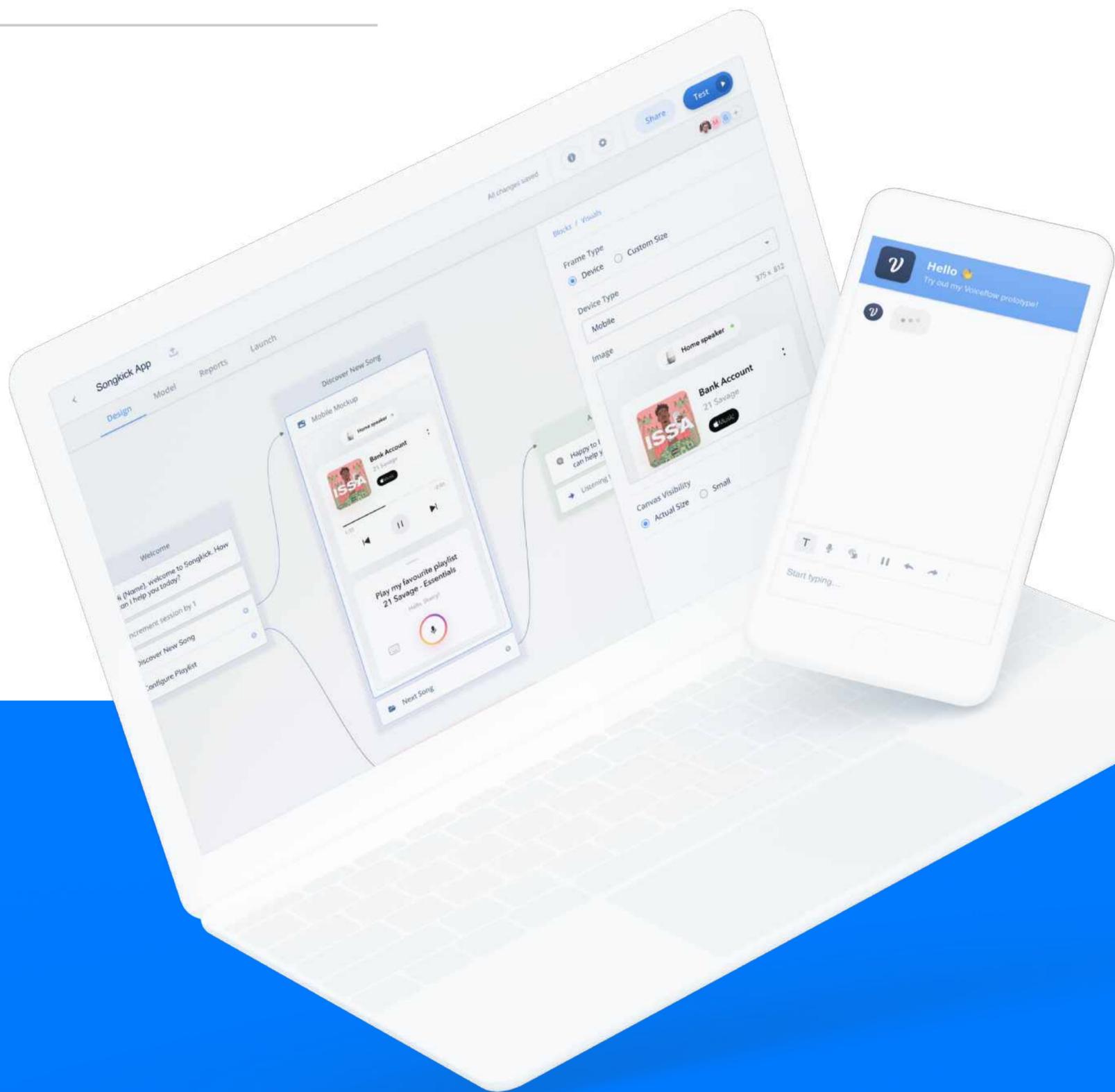


The Guide to Conversation Design

The 6 principles of conversational experiences



Voiceflow

Design, Prototype and Build Voice & Chatbots

The Guide to Conversation Design

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What is Conversation Design?

A new industry, career path, and opportunity all fall in the definition.

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A Guide to Conversation Design

Design, prototype, and launch conversation experiences across any platform. Whether you're designing for Alexa, Google Assistant, Messenger, or anything in between – Voiceflow aims to democratize conversation design for all.

voiceflow.com

Looking to connect with more conversation designers and creators? Join our community to get help on your projects, share information, or meet like-minded people.

voiceflow.com/community

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Illustrations: Emily Lonetto

Content: Sam Burns

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Introduction

Conversations have always been at the root of society. From building relationships, to negotiating deals, to interacting with people far and wide. Conversations have served as the backbone of most of society's interactions and continues to do so even today.

Conversation design is the natural evolution of human conversation. Extending into new platforms like chatbots and voice experiences, conversation design has opened up a new avenue to artfully craft conversations with – or without humans.

In this guide, we'll breakdown the burgeoning characteristics of conversation design, its impacts on human interaction, and tips to getting started designing today.

Let's begin.



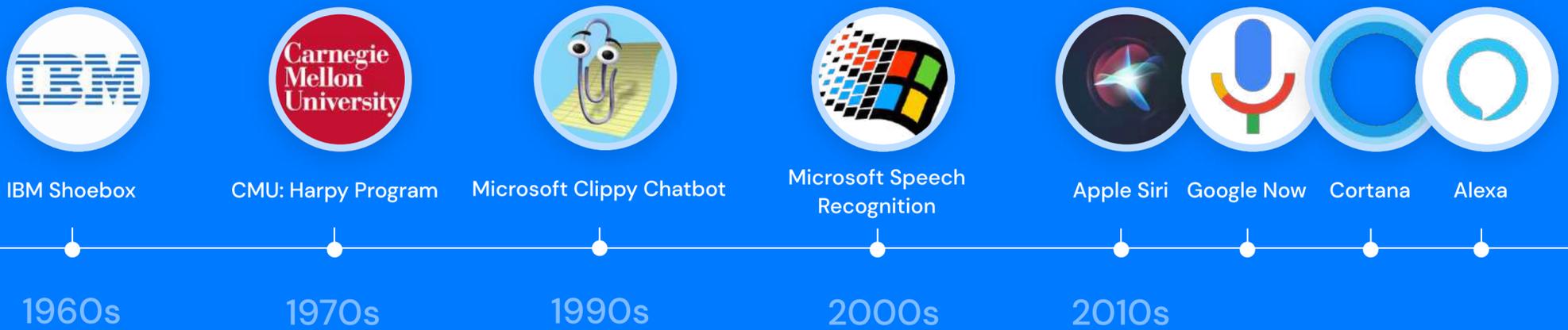
What is Conversation Design?



Greg Bennett @gabennet45

Conversation Design Principal at Salesforce

Conversation design is the practice of designing interaction flows and strategizing forms of language to build a natural conversation between a user and a system, where conversation is defined as an exchange of language between two or more participants taking turns toward accomplishing a goal.



Source: Voicebot.ai <https://voicebot.ai/voice-assistant-history-timeline/>

What is CXD?

Conversation design is an evolving art & science. Taking on many different names from: Conversation Experience Design (CXD) to Voice User Interface Design (VUI) or even most abstract titles like, Innovation Design.

DEFINITION

Conversation Design is the process of designing a natural, two-way interaction between a user and a system (via voice or text) based on the principles of human to human conversation.

Conversation design, at its heart, is about teaching computers to communicate like humans – and not the other way around.

These computer and human conversations can take place on many different interfaces – whether that’s through a voice user interface, chat, a voice-forward screen, or a multi-modal device like a mobile phone that may include typing, tapping, and swiping.

While the definition feels modern and almost futuristic, conversation design has been around for decades – spanning as far as the 1960s with IBM Shoebox to the 90s with Microsoft Clippy to now.

Conversation Design, Today

While conversation design owes many of its early findings to IBM, Microsoft and more, today, companies like Amazon, Google, and Apple have helped popularize the onset of voice technology in the form of smart speakers.

The AI assistants – Alexa, Google, Siri – have found their way into homes around the world, making homes “smarter,” introducing new realms of entertainment and even new ways to interact with existing platforms like Spotify or their bank.

These interactions however aren’t default – they require conversation designers to build realistic and useful experiences. And although the assistants are helpful, these daily use cases are only the tip of the iceberg.

Advanced conversation designers are now building adaptable IVR systems, chat experiences for Facebook Messenger and Telegram, in-car custom assistants, and even automating the drive-thru at restaurants. This list gets longer everyday, too.



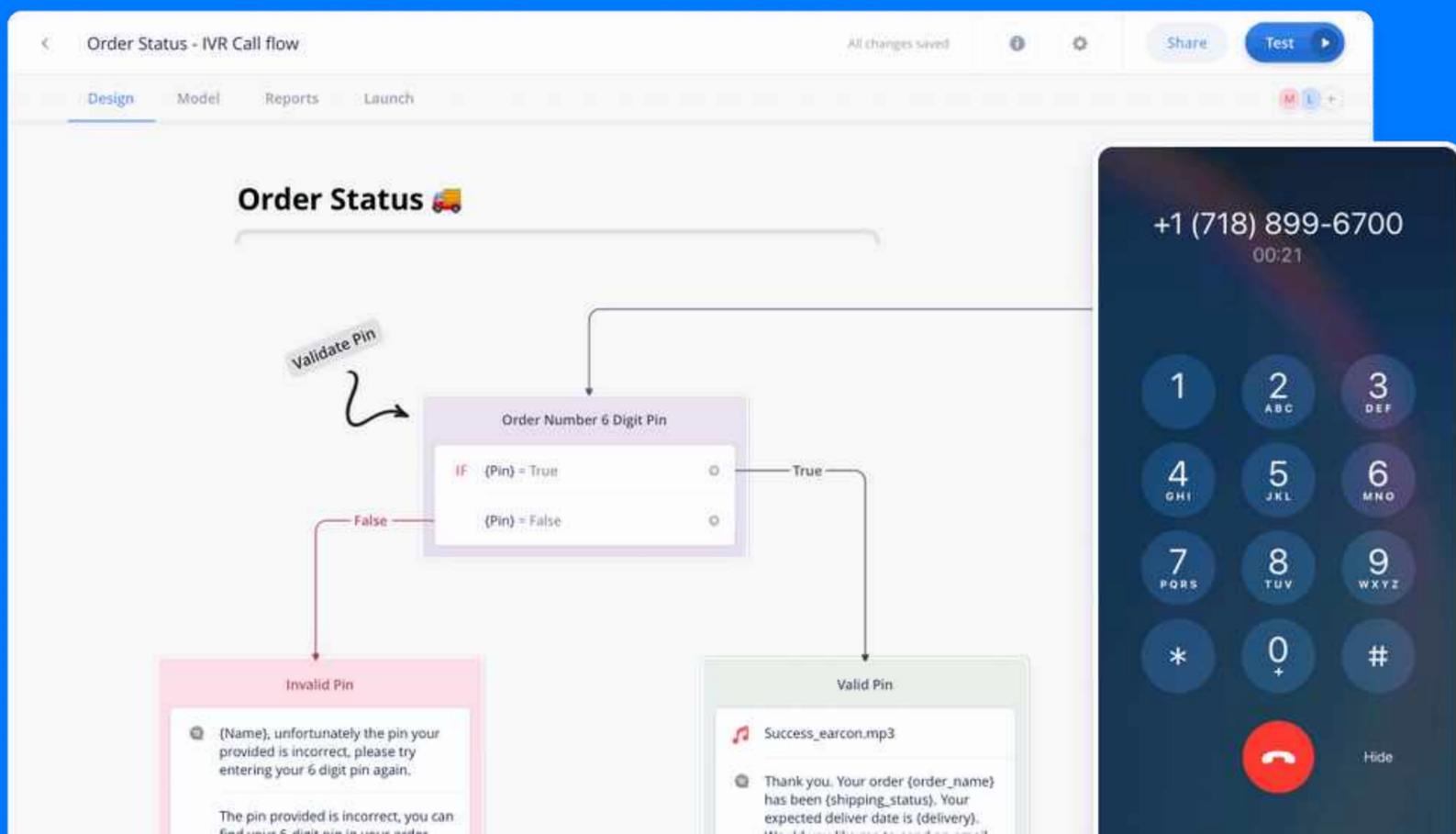
Example: IVR

IVR (interactive voice response) was one of the first examples of regular conversations between people and virtual assistants via a phone call (think: Press 1 for pharmacy). Since then, the opportunity in the field has grown proportionally with advancements in tech – most notably in speech recognition and natural language understanding.

DEFINITION

Interactive Voice Response (IVR) is an automated phone system technology that allows incoming callers to access information via a voice response system of pre-recorded messages without speaking to an agent. IVR enables callers to utilize menu options via touch-tone keypad selection or speech recognition to have their call routed to specific departments or specialists.

Source: <https://www.ttec.com/glossary/interactive-voice-response>





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Rebecca Evanhoe @revanhoe

Co-author, Conversations with Things: UX Design for Chat and Voice

Conversation design is “creating a product that’s modeled after the human mind and its ability to interpret and respond to language.”



Braden Ream @reambraden

CEO & Co-founder of Voiceflow

Conversation design is the art of conversation documentation. It’s the act of documenting and visualizing conversations that are shareable and readable to others.

How Conversational Assistants Work



Rebecca Evanhoe [@revanhoe](#)

Co-author, *Conversations with Things: UX Design for Chat and Voice*

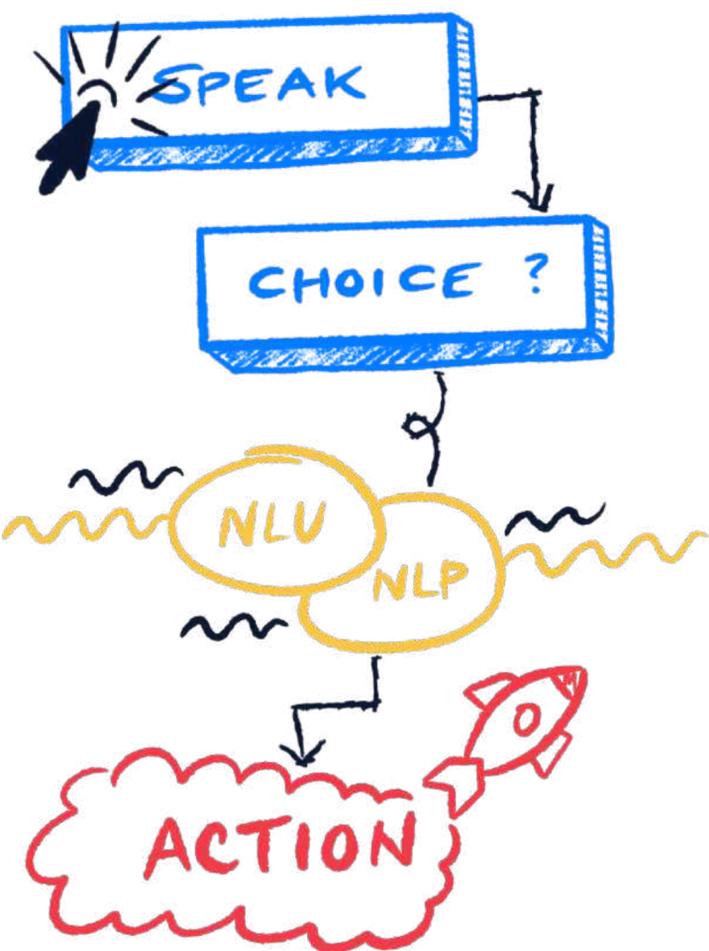
Conversation design is a specific type of user experience (UX) design, so it's both human-centered and data-driven—just with a tight focus on interfaces that “talk”

How Conversational Assistants Work

Conversation designs create a path for conversational AIs to follow. In other words, “conversation design is about teaching computers to be fluent in human conversation and conventions.”

Conversation Assistants like Google Assistant, Alexa, Cortana etc. exist with a library of information and actions they can carry out. However, when plugged into a design and empowered with an NLU/NLP (i.e. a way to understand and process what a user is saying) they truly come to life.

In this section, we break down the many things that go on underneath the hood of your conversation design. From initial user response, to translating their voice to text, to understanding and completing an ‘intent’ or ‘action’ within a platform.



Part One:

Automated Speech Recognition (ASR)

DEFINITION

ASR is a technology that converts human speech into computer text. ASR is also used for authenticating users via their voice and performing an action based on the instructions defined by the user. It is also known as Automatic Voice Recognition.

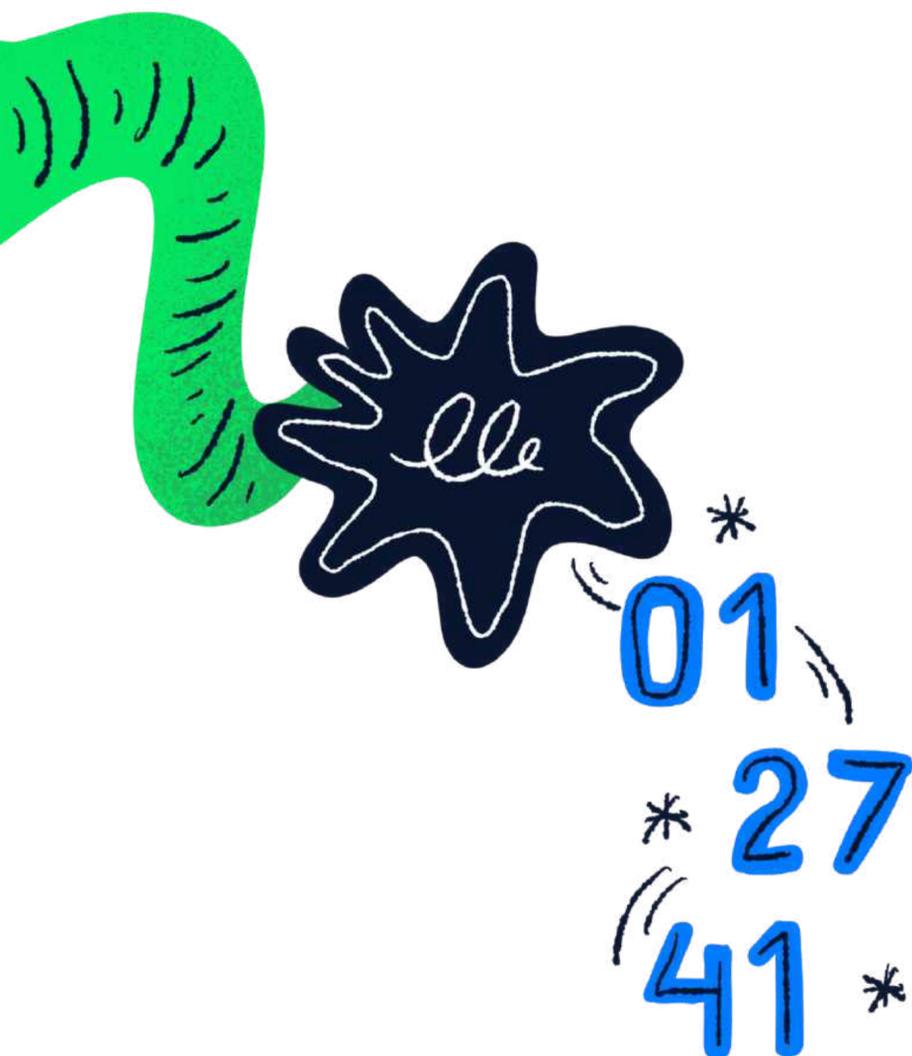
A conversation can't happen unless there's a common language between parties.

When a user talks to an assistant, Automated Speech Recognition (ASR) software translates their speech (aka. utterance) into text or a legible format for their conversational AI.

For chatbots, the utterance is text to begin with, so no ASR is necessary.

Examples

- 01 Simple banking transactions take too long → a banking assistant to handle simple to-dos
- 02 Discoverability for a local coffee shop is tough → an ordering assistant for quickly ordering based on menu favorites on any voice-enabled device
- 03 Parents want to connect with their kids better → a choose your own adventure story experience for hands-free bedtime



Part Two:

Natural Language Understanding (NLU)

DEFINITION

NLU (Natural Language Understanding) translates user utterances into intents understandable by your assistant. In essence, NLU picks apart what the user said to determine their intention which is then provided to the assistant to determine the appropriate next response.

Next, the utterance is sent to the Natural Language Processing and Understanding (NLP/NLU) software which determines the “intent/intention” of the user.

The NLP/NLU passes this intent to the dialog manager within the app which matches up the user’s intent with a function (action to perform) in the codebase. The action is then performed and the progress of the conversation is updated.

**NLP/NLUs can be different. Choosing one that’s trained to understand your specific use case can help improve your CxD as a whole.*

Examples

- 01 You’re designing a **healthcare voice app** – you select an NLU/NLP trained in medical knowledge
- 02 You’re designing a **voice app in Germany**, you choose an NLU/NLP trained for german dialects and jargon
- 03 You’re designing a **banking experience** – you choose an NLU/NLP trained to handle various security protocols and PCI compliancy



Part Three:

Text-to-speech (TTS)

DEFINITION

TTS is a technology that enables text to be converted into speech sounds imitative of the human voice.

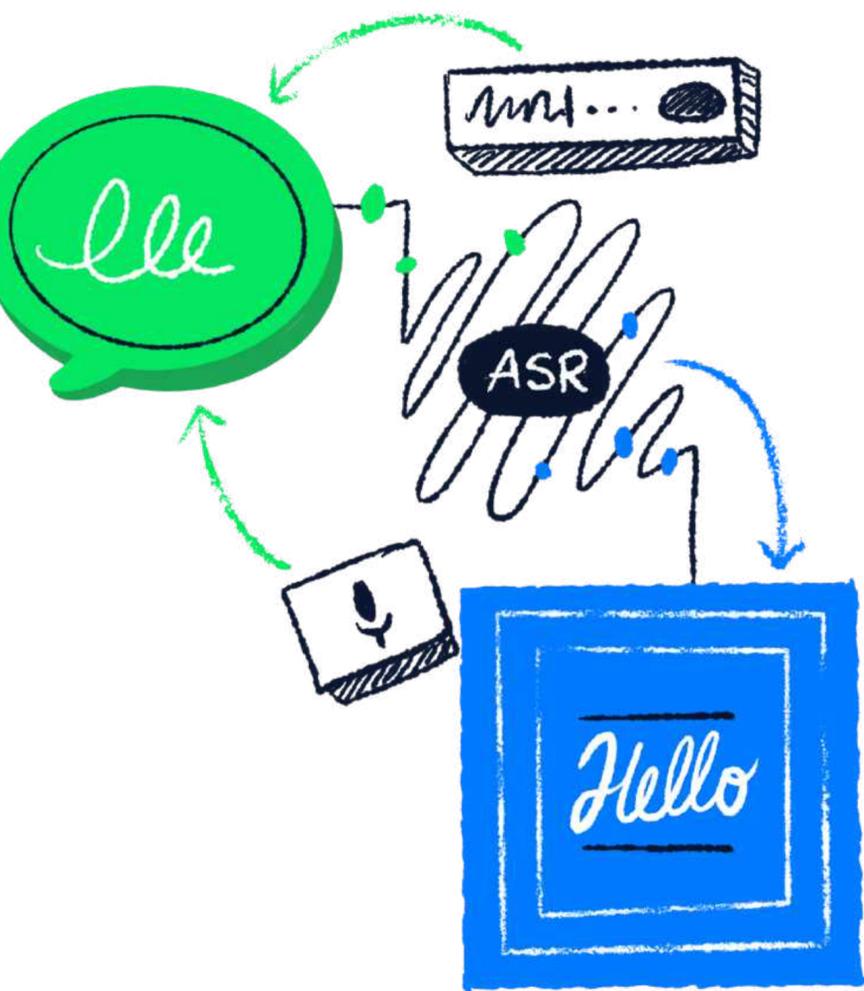
Using text to speech, the app will read new messages aloud to you and indicate the sender's name.

Lastly, the app sends a response text to the user either by chat, or with synthetic speech (think Alexa voice) after transforming the text into speech using Text To Speech (TTS) software.

This transformation not only translates speech to readable text for conversational AIs, but also enables user responses to cross from voice to chat, or into new visual modalities like screened devices.

Its important to note that while there are many steps happening in the background – this process happens almost simultaneously after the user request.

This lack of friction and high level of speed make voice a wickedly fast input for various commands, use cases, and modalities.

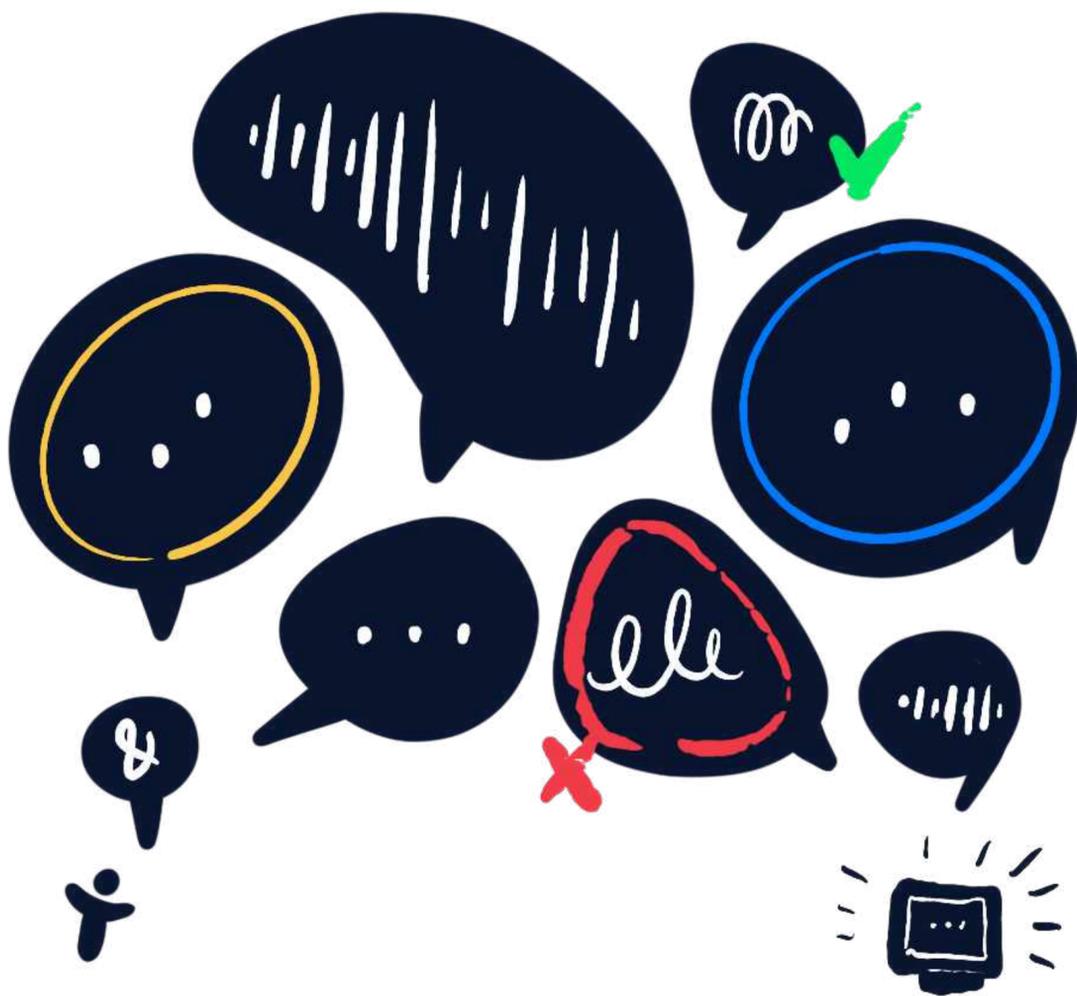


10 Steps for Building a Conversation Experience

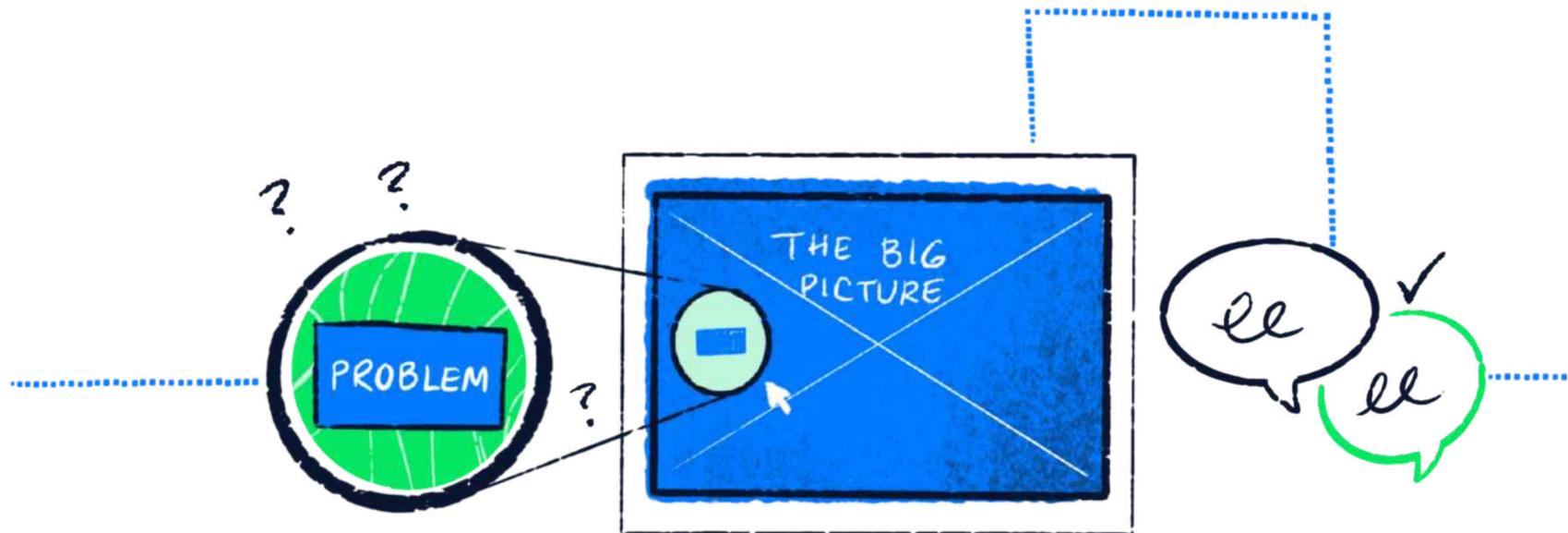
Laying a Foundation

Whether you're building an interactive quiz or a full-scale in-car assistant, the conversation design workflow requires a strong design foundation – a foundational path.

Here are the 10 steps for designing, prototyping, and launching conversation experiences.



1. Define a Problem & Goal



Conversation experiences should be created to fix a problem or improve an existing process.

Before designing, the first step is to clearly define not only the challenge but also how a conversation can navigate a solution. Creating a strong foundation and focus for your experience helps to prioritize your paths and simplify what experiences may be out of scope early on.

Consider these problem/goal pairings for different personal and enterprise use cases.

Examples

- ? **Problem:** long wait times for your bank teller
- ✓ **Solution:** create on-demand bank chat & voice experience
- ? **Problem:** It's hard to discover good, local coffee spots
- ✓ **Solution:** create "cafe suggestion" experience using voice & maps
- ? **Problem:** parents want to entertain their kids
- ✓ **Solution:** create interactive story using their kids names for Alexa

Foundation Worksheet

What is the problem you're solving?

What is the goal of your experience?

What medium/platform are you using?

i.e. Voice Only, Voice & Screen, Text Only, Multi-modal

Who is your audience?

What is the ideal (happy) path?

i.e. Welcome Message > How can I help you? > [bank transaction] > Confirmation > [balance check] > Done

What information do you need?

i.e. {name}, {date}. {bank account}. {confirmation}

How will you get the information?

i.e. User response, type, API, Integration etc.

How will you handle errors or (repair) paths?

i.e. How will you handle wrong answers, or help information

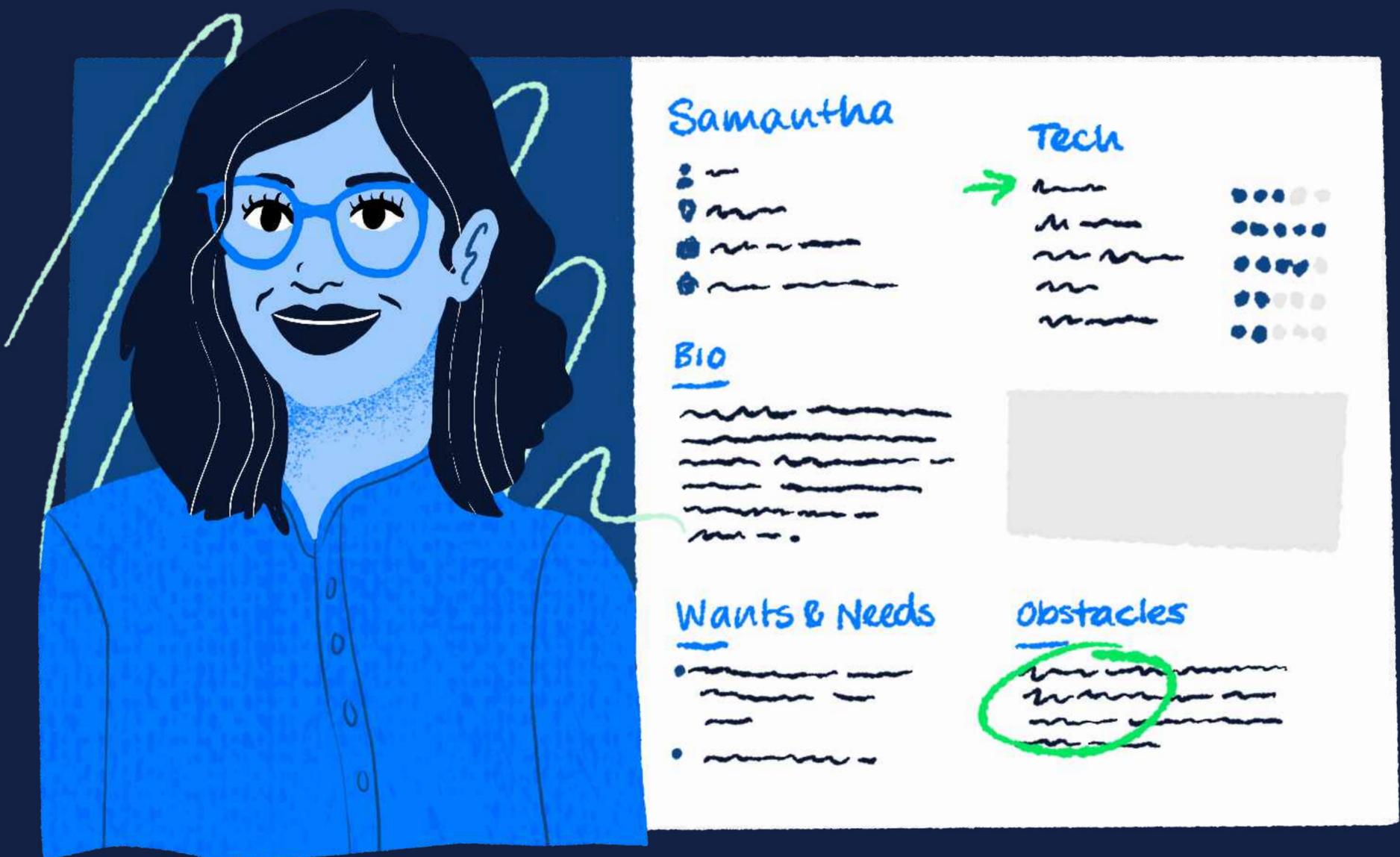
What's your context?

i.e. Where, when & how will they use your app?

2. Define the Audience & Context

Who is having this conversation?

Every conversation depends on whose participating. After you identify your problem, you must match your solution to an audience. Defining your audience & context are two key ways to personalize your experience to the users you're building for.



2. Define the Audience & Context

Context is key.

Unlike GUI (graphic user interfaces), such as computers or mobile devices, you don't always have a screen or aren't always able to use your hands with a conversation experience.

Context allows designers to factor in potential environmental factors and platform restraints a user may experience, while also tying in previous responses to build more custom responses to each individual user.

Everyday conversational context allows us to interpret a user's response based on previous dialogues and environmental factors.

For example:

In a human-to-human conversation, the answer "yes" is understood because our brains can easily connect it to a previous question or prompt. Computers, on the other hand, can only interpret context based on the programmed inputs.

Therefore context can be used to either help fill in missing information about a user (i.e. a name) for re-use later, or can even help shape what is possible in your experience, based on what platforms you've chosen to use and how users can interact with them (i.e. An Echo Show has a screen, therefore you can incorporate visuals).

A Quick Guide on Context

DEFINITION

Dialog context: in-app dialog builds additional layers of context that customize your conversation experience.

If a user asks for **help** they may get a general help flow.

If a user asks for **payment help** the conversation will redirect to a help flow contextual to payments.

DEFINITION

Context switching: handles non-linear responses. Allow users to switch from one flow to another & back.

A user can **check their balance** and quickly switch to another *intent* like, **transfer funds** at any point in the conversation. Much like human conversation, this lets the user control their path without the use of arrows.

DEFINITION

Nested contexts: embedded flows within a conversation that allow a user to complete a flow and return to the overall conversation seamlessly.

A user is in the middle of completing a **bank transfer** and asks, "where is the nearest bank?"

When the answer is given and the intent is complete, the user returns to their spot in their bank transfer.

DEFINITION

Situational context: using external factors like, time of day, weather, # of visits, languages etc. to customize the conversation design.

A customer of the bank uses their conversation experience multiple times a week. They get a different welcome message and suggestions than a brand new visitor based on their previous sessions.

3. Create an Assistant Persona

An assistant needs a voice to have a conversation. And although that voice can take the form of text or speech (or both), it's essential to define it. A banking assistant shouldn't be cracking jokes, while Samuel L. Jackson isn't the best choice for story time (unless the kids won't go to sleep).

On top of what's said by the assistant, persona can also be defined by the sounds associated with the experience – or **sonic branding**. From songs or jingles to short sound effects or audible icons called earcons, sonic branding helps an audience audibly associate with a brand.

“The assistant's persona will influence the script and almost every detail of the experience.”

Examples

Persona: Serious & Informative
Experience: Banking Assistant

At the start, the assistant says:



"Welcome to Voiceflow Bank. How can I help you today?"



<after a transfer is made, a simple bell-like earcon plays to signify that the transaction is complete>

Persona: Fun & Energetic
Experience: Banking Assistant



At the start, <sound of a small bell rings as if opening the door in-person>



<the CEO's voice then welcomes the user while soft lobby music plays underneath the message>



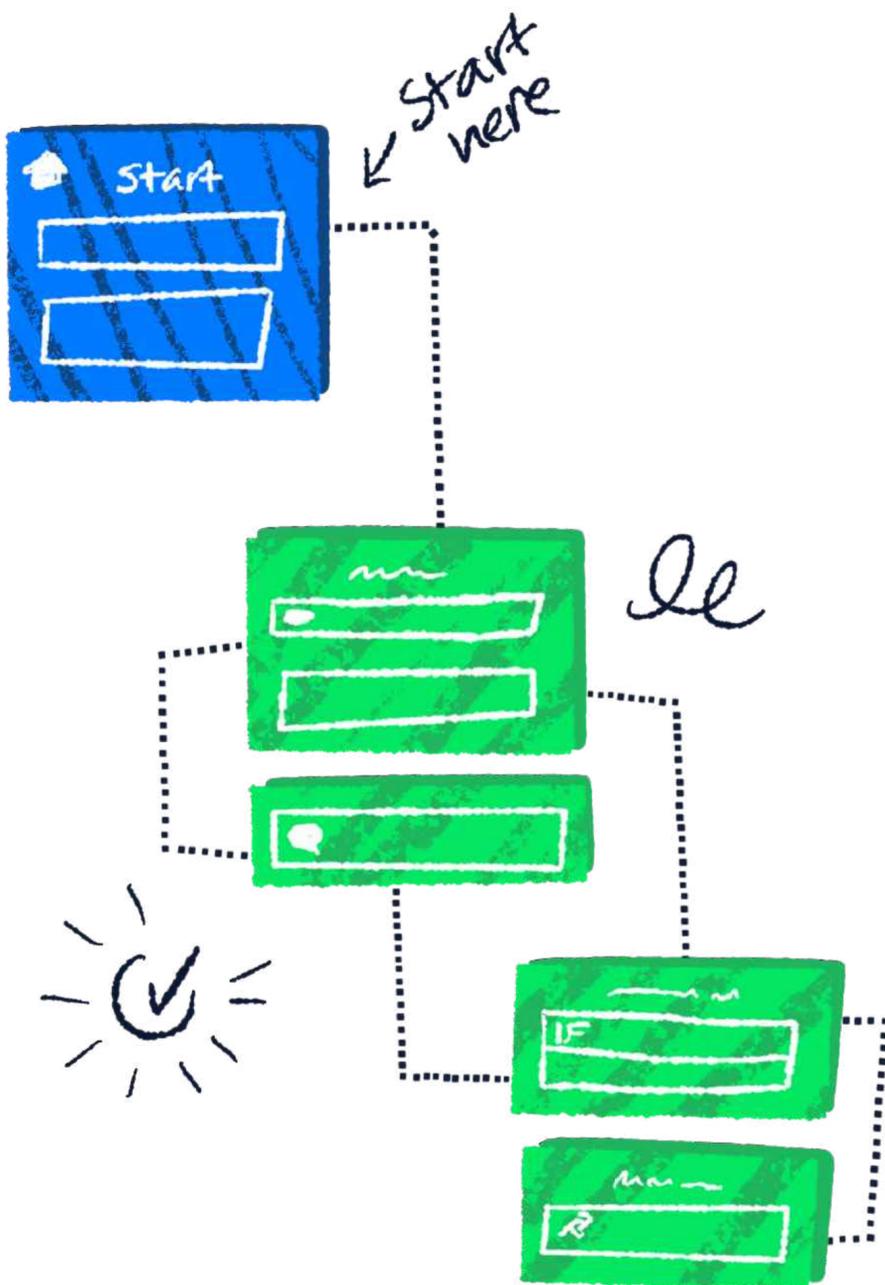
"Hi there. Welcome to Voiceflow Bank's assistant. You can't get our famous mints here, but we can do almost everything else that we do in-bank. How can we help you today?"

4. Write Sample Dialogs & Scripts

What's the ideal route this conversation should take? That's the happy path. At this point in the process, conversation designers write sample scripts and dialogues for how they ideally envision a user interacting.

This should include the **top-level intents** a user might ask for and how the experience can help with each.

A basic happy path for a banking assistant would include scripts for the welcome message, finding a branch flow, and the exit message. This is the simplest of conversation flows.



5. Initial Testing

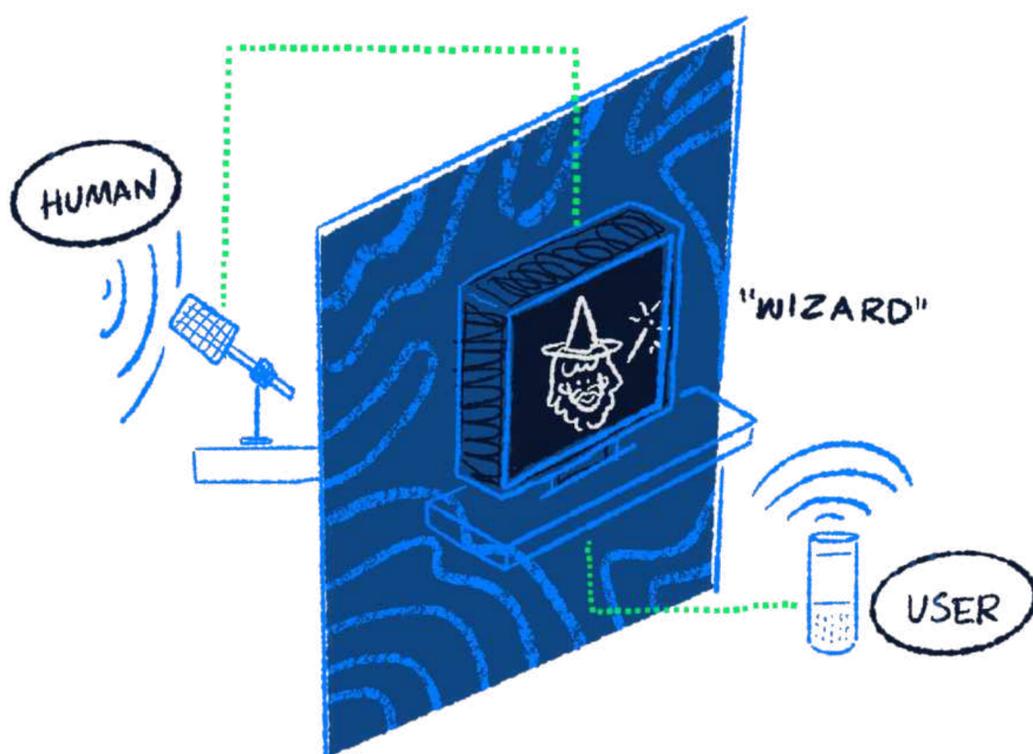
With a sample script and various conversation flows at the ready, it's time to test.

For a conversation to be great, it has to be human. And who better to test hopeful-human conversations than another person?

In the beginning, testing may look more like you reviewing your own work – reading through the dialogues to catch any glaring mistakes or awkward parts.

This may evolve into **wizard of oz (WoZ) testing**, or targeted internal tests in which another person plays the role of user while the designer reads for the assistant. This is a very guided form of testing as the designer is participating.

However using this initial data to better tailor your experiences and eventually roll out to user testing is where things get interesting.



DEFINITION

Wizard of Oz Testing (Woz) is a form of testing based off the famous film, Wizard of Oz. This signifies when a conversation designer tests their design with another human, while voicing the responses aloud. Therefore “faking” the experience by pretending to be the assistant.

6. Prototype the Conversation

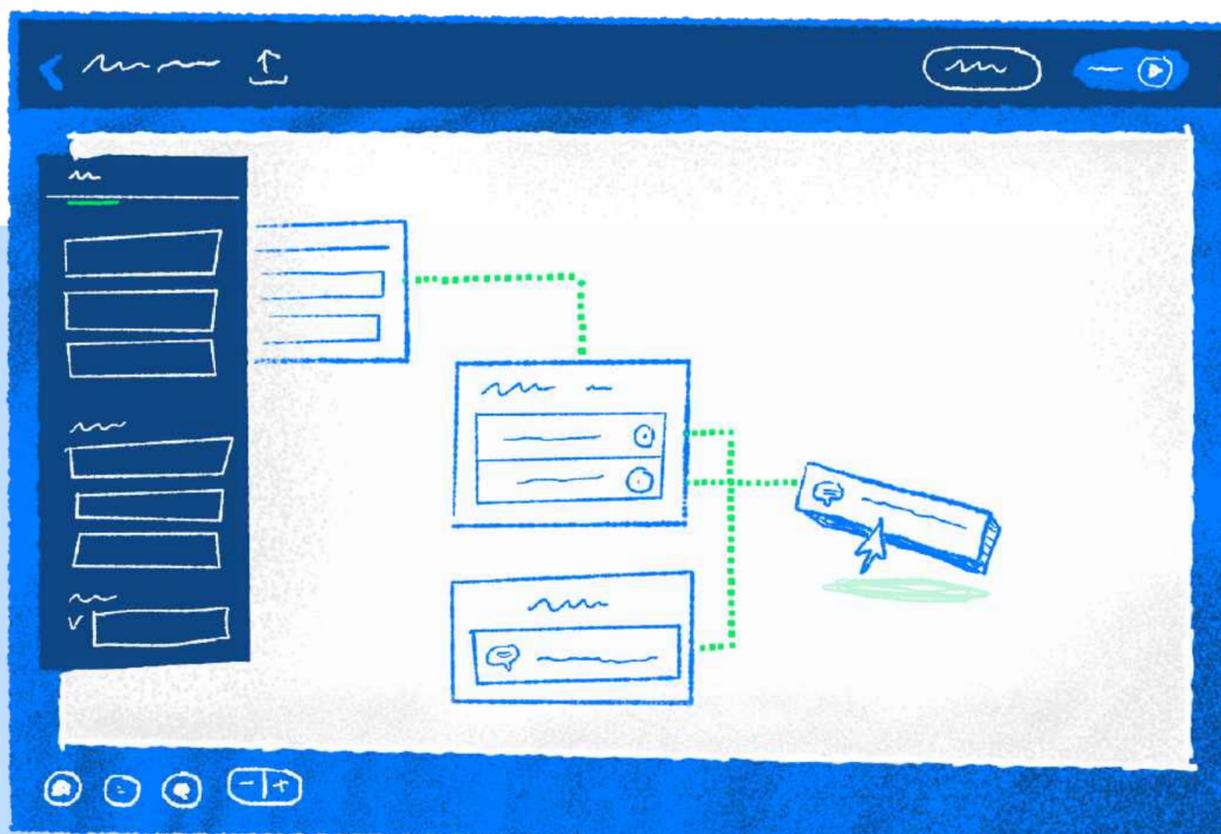
It's time to build a mock of the conversation.

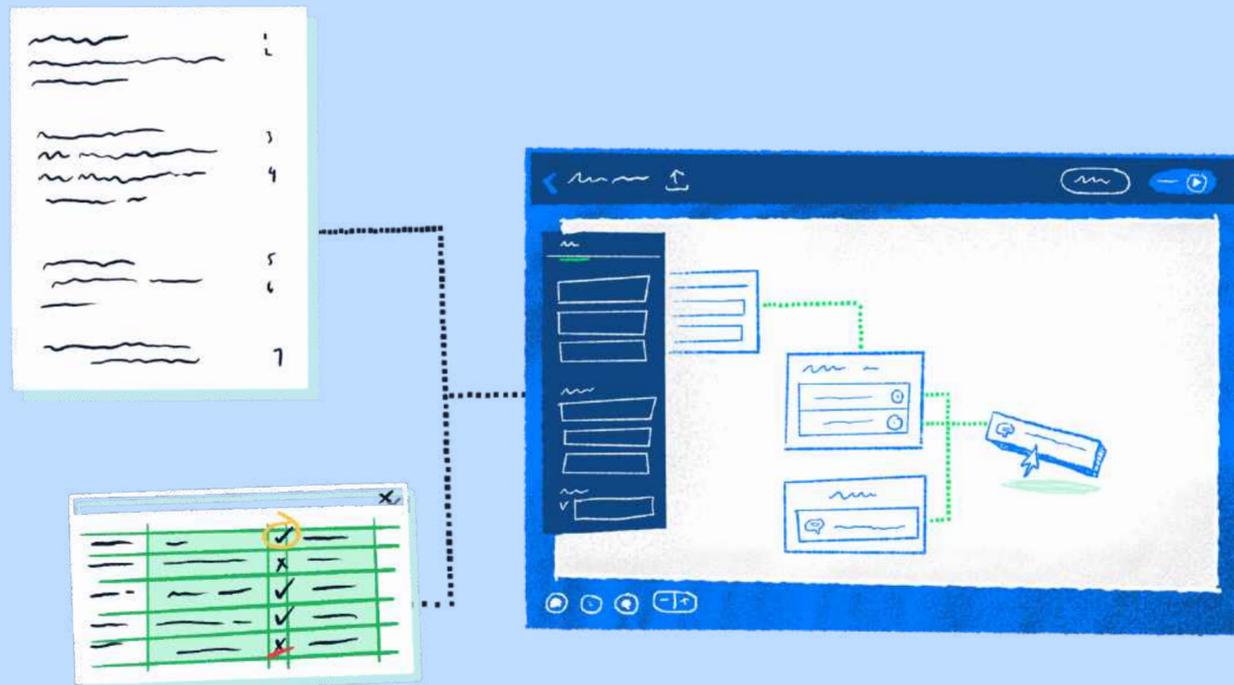
Each of the steps along the scripted happy paths are now visually laid out and connected in a way that makes for a natural conversation between user and assistant. Outside of the happy paths, a designer also builds in help step(s) as a catch-all for the user experience.

A designer uses a prototyping tool here to do rapid testing of each iteration as they build. This could mean mimicking devices or sending off a configurable prototype.

The designer decides between assistant responses (speech, audio, visuals) and user inputs (choice, intents, prompts). More advanced conversation prototypes can include API calls, conditional logic, and data captures.

Each step helps the designer get a feel for the conversation flow and overall experience across a variety of modalities.





7. Map the Copy

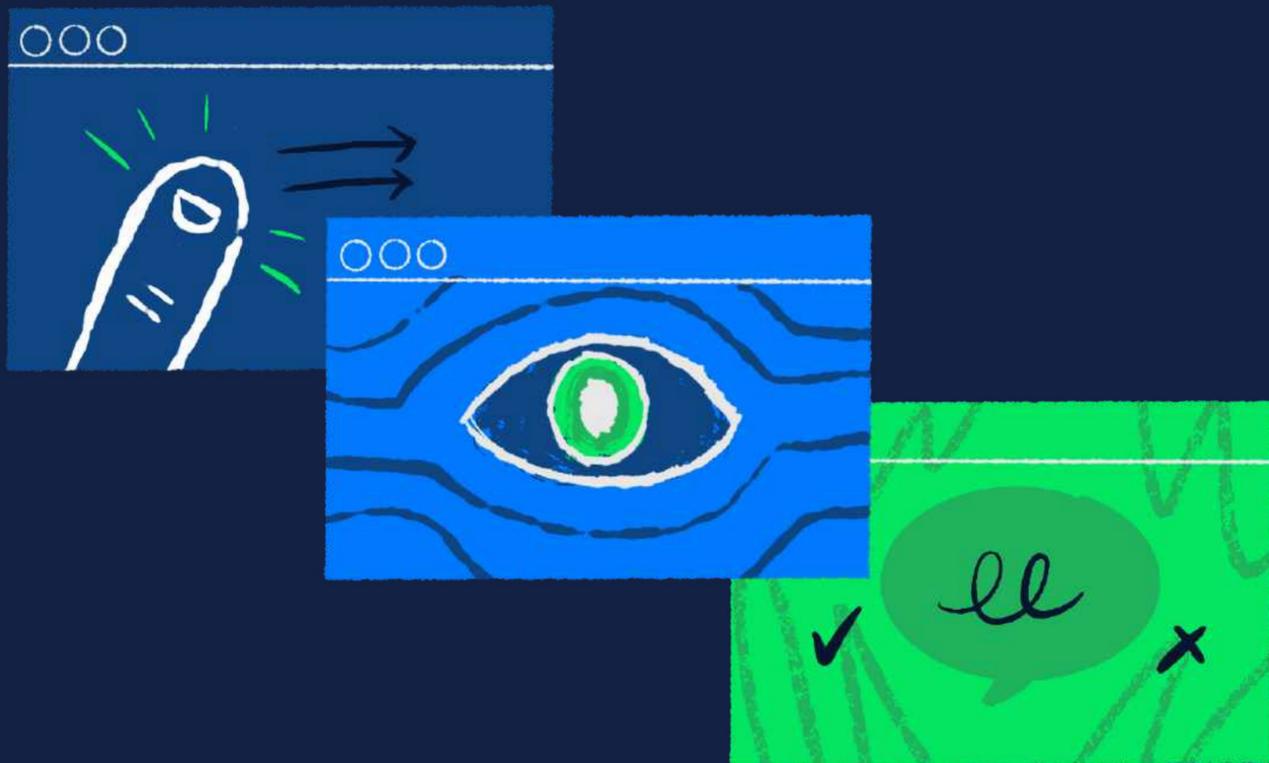
With each of the laid out conversation steps established, the designer now adds the content for responses and prompts.

This could include the utterances a user might say (i.e. "make a transfer" or "check a balance") and the replies an assistant can give ("Welcome to the banking assistant").

It's important to note that each step up until this point will have refined the content and copy to better serve the user experience at every turn.

PRO-TIP 🙌

Mapping the copy could be as simple as connecting two steps together with an arrow/flow or as easy as setting up multiple intents for your design to trigger.



8. Unguided User Testing

The experience is built out, so now it's time for in-depth tests.

A user (or set of users) from the decided target audience test the final experience without designer guidance.

Here, the conversation designer can see first-hand if the assistant accomplishes the goal decided back in step 1 - is the assistant helpful in solving the problem?

It's important for the designer to actively implement final changes to the experience throughout user testing.

Since this step is unguided, the designer will be able to see where the conversation fails without interference.

For instance, if the users are asking for an intent that does not exist, or any sticking points that slow the natural flow of the conversation.



9. Hand-off to Development*

Depending on the scope of the conversation experience, the designer hands-off the project to a developer or the development team here.

For Example

Using a tool like Voiceflow to publish directly to Alexa & Google may be very easy. However, if you're looking to build something more custom, like a custom AI or In-Car assistant you might need to hand-off to developers to publish.

In-depth experiences and custom assistants often require additional code, though. It's becoming increasingly important for conversation designers to design in a way that makes this hand-off to developers seamless.

They should be able to take the prototyped conversations and build on-top of the file - with no-need to recreate the conversation in their own language. Tools like Voiceflow make that possible.



10. Measure & Optimize

A live experience does not mean a conversation designer's work is done.

Many of these steps will need to be repeated for different use cases, new conversation steps, or emerging goals that need to be met. It's important that a designer is listening to the users to make sure the experience is optimized to be authentic and helpful.

For a choose your own adventure family skill, the optimization may only require adding new stories once per week to refresh the content.

On the other hand, if a conversation experience or voice app is much newer – it may require more frequent measurement and iteration. This is particularly useful if your app is experiencing a large drop-off or to identify any problems that are worth further investigating.

Example: Building A Pizza Ordering System

Foundation Worksheet: Pizza Ordering

What is the problem you're solving?

Wait times to order a pizza are too long, causing customers to turn away without placing an order. We're losing potential sales.

What is the goal of your experience?

Create an on-demand experience that speeds up the ordering process & records/pushes customer orders to our internal system.

What medium/platform are you using?

Amazon Alexa, Google Assistant
Voice & Text

i.e. Voice Only, Voice & Screen, Text Only, Multi-modal

Who is your audience?

Any resident in the delivery area can use the pizza assistant, so adding local terminology is acceptable. The audience can vary in age, so the assistant needs to be approachable and helpful for everyone.

What is the ideal (happy) path?

Customers open the voice app, select "place an order" and answer with their preferred {size} {type} {delivery method} & {location}. After placing their order, they receive a confirmation from their device that their order has been placed and the order is sent to the pizza ordering system. Their order is saved for future preferences.

i.e. Welcome Message > How can I help you? > [bank transaction] > Confirmation > [Balance check] > Done

What information do you need?

{name} {size} {type} {delivery method}
{location}

i.e. {name}, {date}, {bank account}, {confirmation}

How will you get the information?

1. Intents & slots: user response
2. Suggest location based on device

i.e. User response, type, API, Integration etc.

How will you handle errors or (repair) paths?

1. Help Flow > sample flow to retell what is possible with the app
2. Cancel Order > reset order flow
3. Reprompts > 2 reprompts + fallback
4. Error Message > indication of error

i.e. How will you handle wrong answers, or help information

What's your context?

Usage window: Dinner / Late (5-12am)
Location: based on their device (via Amazon or Google Location)
How: single order for multiple people, payment accepted via text authorization

i.e. Where, when & how will they use your app?

Step 1: Pick a Problem & Goal

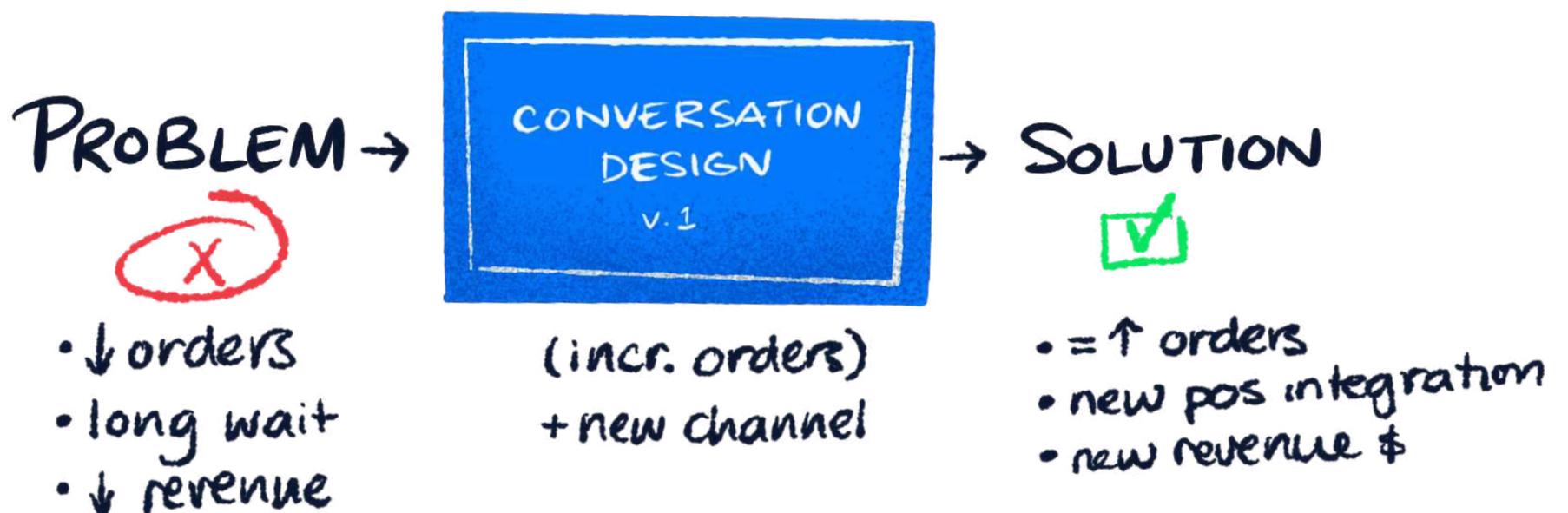
Problem

In this case, a local pizza shop (Voiceflow Pizza) has identified their ordering system is limited to the phone – which leads to a longer wait time for ordering and potential human error during busy hours.

GOAL

Solution

By creating an on-demand voice application, they can introduce a new way to collect orders and process them in their system. This will increase the amount of orders they can process and provide faster turnaround times for returning customers if they can save their order and re-order in the future.



Step 2: Define an Audience & Context

Audience

Since the experience relies on two options: pickup and delivery – the audience must be geographically limited to residents within a 25 mile radius. Customers can vary in age, so the assistant must be intuitive and resemble the experience of ordering in person. Customers must also have access to a smart speaker or voice-enabled device.

Context

For this experience, we will be using various types of context:

Dialog context: all scripted dialogs need to be contextual to the current state of the conversation to ensure a helpful and authentic conversation

Context switching: multiple intents mean a user should be able to switch between each as needed (i.e. asking for a location in the middle of ordering)

Nested contexts: let's make sure that user can come back to the order where they left-off after hearing the location

Situational context: we have many long-time customers, so after they hear the welcome message the first 3 times, let's skip the introduction

Step 3: Create an Assistant Persona

About the Persona

Voiceflow Pizza has been around for more than 25 years. The brand is based in their hometown of Grand Rapids, Michigan and they've been a staple in their community for decades. Quality service and quality ingredients are their motto so the assistant's persona should follow that same identity with no frills or complications – only straightforward, friendly, and helpful.

Sound

For this experience, we've opted to use the base Alexa voice and experiment with using the same sound/jingle used in their radio ads for sonic branding.



Step 4: Write Sample Dialogs & Scripts

Defining the Happy Path

The happy path for this experience results in the user starting and completing their order correctly within three–five minutes. Here’s an example of the dialog that could be used.



You've been invited to have a conversation with **Voiceflow Pizza**

[Start Conversation](#)

 Hi **{name}**, welcome to Voiceflow Pizza! You can use this app to place an order, check the status of your order or ask about locations & hours.

What can I help you with today?

[I want to order a cheese pizza for pickup](#)

 Great! I have a large cheese pizza for pickup. Is this correct?

[Yes](#)

 How will you be paying today?

[Mastercard](#)

[Adjust Order](#)

[Cancel Order](#)

[Get Directions](#)

Type a message...   

Step 4: Write Sample Dialogs & Scripts Cont'd

Defining the Repair Path

While a happy path is our ideal outcome. It's important to plan for undefined responses and potential errors in your experience. A repair path helps to bring a user back into a flow if they give an undefined response or need to provide additional information to complete their intent.

For example: If the user does not give us the type of pizza topping along with the size, here's how the conversation could function, too.



You've been invited to have a conversation with **Voiceflow Pizza**

[Start Conversation](#)

 Hi {name}, welcome to Voiceflow Pizza! You can use this app to place an order, check the status of your order or ask about locations & hours.

What can I help you with today?

[I want to order a large pizza for pickup](#)

 Great! What type of pizza would you like?

[Cheese](#)

 Got it! I have a large cheese pizza for pickup. Is this correct?

[Yes](#)

 How will you be paying today?

[Mastercard](#)

[Adjust Order](#)

[Cancel Order](#)

[Get Directions](#)

Type a message...




Step 5: Initial Testing

The designer starts by reviewing their own work to find errors or areas for improvement.

Next, an employee, the owner, and a long-time customer read for the user role in wizard of oz (WoZ) testing. Different ages and backgrounds give unique insight into how the experience performs. All three users feel as if the happy path makes logical sense and feels natural when ordering.



Step 6: Prototype the Conversation

Designing your prototype

Using a prototyping tool like Voiceflow, the experience is mocked and tested. Each top level intent (welcome, order a pizza, help) is mapped to the written dialogs and built out on the canvas.

Testing on your device

Once built, the designer can begin rapid testing each iteration and use their smart speaker or the built-in smart prototyping tool to test their voice and text experiences.

The screenshot displays the Voiceflow Pizza v7 interface. The top navigation bar includes a back arrow, the title 'Pizza Demo', and buttons for 'Saved', 'Share', and 'Test'. Below the navigation bar, there are tabs for 'Design' and 'Launch'. A sidebar on the left lists various flows: Home, Store hours, Payment help, Help Flow, Payment flow, Order confirmation, Stop Flow, Cancel order, Close app, Place Order, order_status, other_flow, Confirm order flow, and confirm order help. The main canvas shows a flowchart starting with a 'Start' flow (Alexa, open Voiceflow Pizza) leading to a 'Welcome Flow' (main_menu, What can I get for you?, Listening for an intent...) and an 'Order Flow' (order_pizza, Place Order, Will there be anything else?, Listening for an intent...). A smart speaker is overlaid on the bottom right of the interface.

Step 7: Map the Copy

Place your copy into your prototype

Using the initially tested scripts and dialogs, all copy is placed in the conversation steps on the canvas. The assistant is ready to interact with a user and make the pizza ordering process simple.

Iterating copy

Once on the canvas, it's easy to make quick edits and variants for any of your system responses or dialogs. This makes it easy to keep your experience fresh and quickly fix any user experience errors you discover during testing.

The screenshot displays the Amazon Alexa Developer Console interface for a 'Pizza Demo' skill. The main workspace shows a flow diagram with several steps:

- Payment flow:** A blue box containing a 'user payment prompt' and two options: 'by_credit' and 'by_debit'.
- Confirmation (Green):** A box with two system messages: 'Please have your credit card ready at delivery.' and 'Your order has been placed.'
- Confirmation (Blue):** A box with a system message: 'Sorry, we only take credit right now.' and a user question: 'Will you be able to use credit for today's purchase?' with 'Yes' and 'No' options.
- End experience (Pink):** A box with a system message: 'Sorry we will be with you today.' and a red arrow indicating 'Skill ends in current state'.

On the right side, there are two 'Block / Speak' panels showing system responses:

- The top panel shows a system message: 'Sorry, we only take credit right now.' with an 'Alexa' dropdown and an 'ADD EFFECT' button.
- The bottom panel shows a system message: 'Sorry, we will be with you today.' with an 'Alexa' dropdown and an 'ADD EFFECT' button.

The left sidebar contains a 'Design' tab and a 'Launch' tab. Under 'Design', there is a 'STEPS' and 'FLOWS' section. The 'FLOWS' section is expanded, showing a list of flows including 'Home', 'Store hours', 'Payment help', 'Help Flow', 'Payment flow', 'Order confirmation', 'Stop Flow', 'Cancel order', 'Close app', 'Place Order', 'order_status', 'other_flow', 'Confirm order flow', and 'confirm order help'. The 'Payment flow' is currently selected.

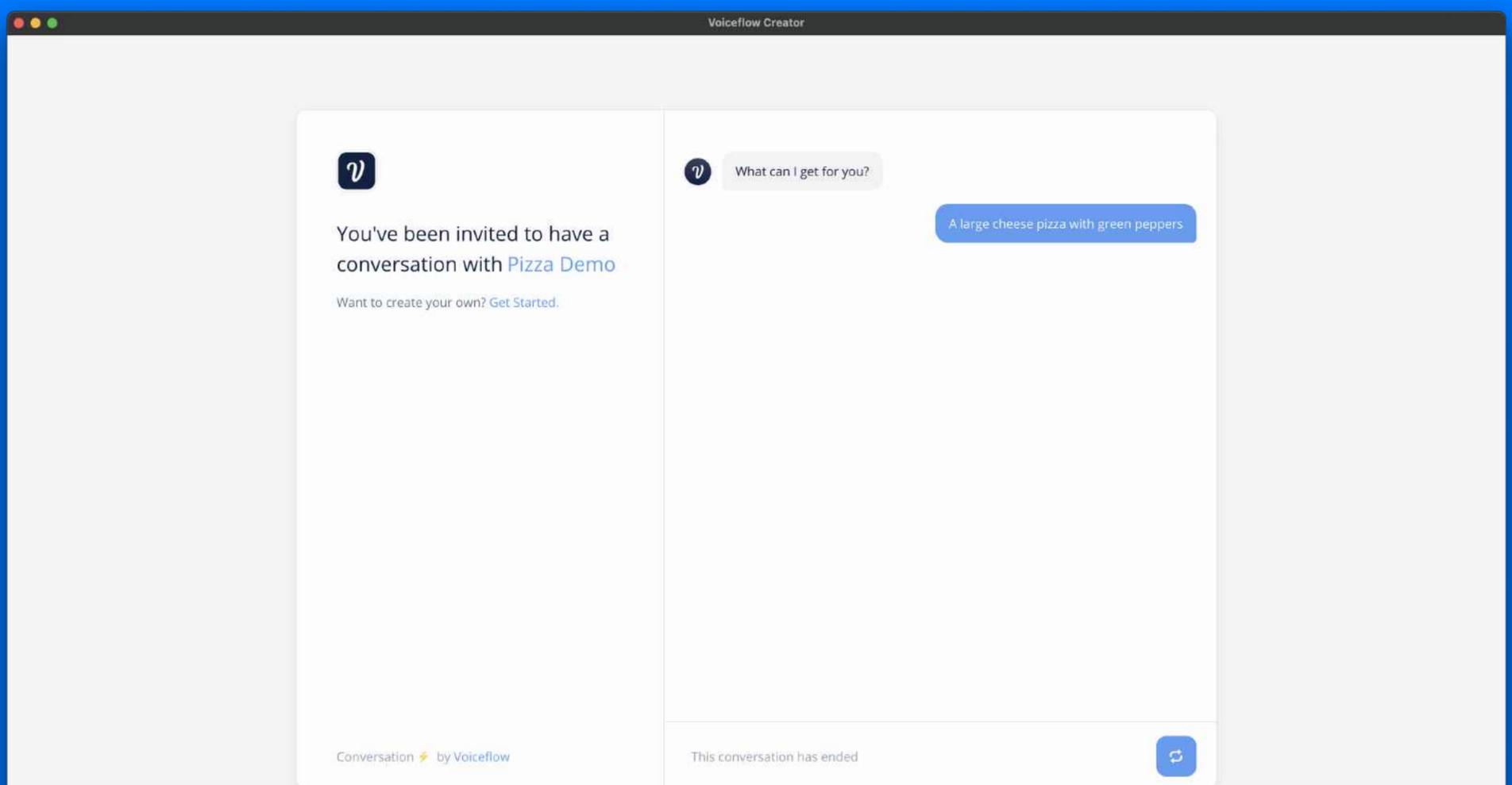
Step 8: Unguided User Testing

Stress test your experience

With the experience ready to roll, a testing link is sent to other customers, shareholders, and team members. This step allows you to get an unbiased view into your experience and potentially identify user experience improvements.

PRO-TIP

BETA Testing: we recommend that you keep a list of potential BETA testers or early users to send your prototype to. If you don't have a BETA list, try sending to a handful of friends & family. **Bonus:** follow up with a survey to see if there's any suggestions or qualitative feedback from your early users.



Step 9: Hand-off to Development

Final polish & publish/export

After additional edits to the experience are made post-testing, the project is ready to go live. Using Voiceflow, the project is published directly to Alexa and Google. For the website chat version of the assistant, the .VF project file is shared with a developer who uses Voiceflow's SDK (software development kit) to write an additional 15 lines of code for the chat experience.

Voiceflow Pizza's assistant is now live on Alexa, Google, and website chat.

Translating your designs to code

Every block in Voiceflow is backed by real code – meaning when you pass your design over to development, your project is automatically translated into a coding language they can understand. No need for extra translating or sending complex diagrams to explain your design to your development team.

The image shows a composite screenshot of the Voiceflow development environment. In the background, there is a dark blue code editor displaying JavaScript code for a `SpeakHandler`. Overlaid on this is a white chatbot design canvas. The design includes a welcome message: "Hi {Name}, welcome to Home Spark. I can help you with things like change lights, or modify the temperature. How can I help you...". Below this are two choice blocks: "Modify Temperature" and "Configure Lights". To the right, there is a logic flow starting with an "IF {sessions} is equal to 1" condition, followed by an "Else" branch, a "Send GET request" action, and a "Success" state. In the bottom left, an "Export" dialog is open, showing options for "Content Format": "Image", "PDF", and "Local File (.vf)" (which is selected). The dialog also includes a "Learn More" link and an "Export" button with a refresh icon.

Step 10: Measure & Optimize

Marketing & analyzing early results

As Voiceflow Pizza begins to market the assistant and customers use it, performance monitoring is important. After a month, they notice that customers keep asking to use a gift card for payment, which was not scripted.

The team quickly adds the option in the payment flow and always looks to optimize with future feedback.



Learnings from Conversation Designers

"I was able to buy my wife a car in August, and picked up this one yesterday. I'm paying my monthly house payments all with the money from skills I've built with Voiceflow."



Nate Munk

Software Engineer, Ford Motor Company

Software Engineer by day, Conversation Designer by Night

Platform: Alexa | 81 Skills | 19 Monetized Skills | 15,000 users



Nate Munk

Software Engineer, Ford Motor Company

Meet conversation designer Nate Munk. He's a software engineer at Ford Motor Company just outside of Detroit, Michigan. In his spare time, he builds Alexa skills – many of which he's been able to monetize. **He's built 81 skills, is monetizing 19 of them, and draws over 15,000 unique users** across his catalogue of apps every month. This type of sustained traffic has helped Nate generate rapid growth and income, exemplified by his latest purchase: a brand new truck.

His most successful series of skills built on Voiceflow has been Relaxing Sleep Sounds. As a conversation designer, Nate researched the audience and found an opportunity: users did not have a white noise sleeping app that they wanted, even in the crowded space.

Existing options only offered 1 free hour of audio streaming with the option to upgrade to 4 hours through ISP (in-skill purchasing). These skills also had a built-in looping system that abruptly stopped and started after a track finished. The users were not happy and Nate took note.

Instead of 1–4 hours of audio, Nate's skills offer 5 hours completely free. His 'enhanced looping' feature provides a smooth transition between tracks & restarts. His premium version or "gold edition" provides users with 12 straight hours of audio – a big jump from the 4 to 8 hours of paid listening available in competing apps. To assist with paid conversion, each gold edition comes with a generous 31-day free trial – a crafty way to encourage skill usage with the hopes of generating familiarity. It's worked, too. Nate is seeing a more than 80% trial to paid conversion rate with only 10% of those users churning.

"I believe Conversational AI is the future. And that future needs writers, designers and strategists to create amazing automated experiences that get results."



Hillary Black

Conversation Designer & Co-founder of Mav

Mixing marketing & community with conversation design

Platform: Chat | 100+ chatbots | 2,000+ members



Hillary Black

Conversation Designer & Co-founder of Mav

Meet conversation designer Hillary Black. On top of her brand marketing, content creation, and speaking skills, Hillary is a self taught CxD.

This forward-thinking vision wasn't baked over night, though.

After starting her first business, she also designed her first chatbot. Seeing the opportunity in the field, Hillary began writing about her experience and cultivating the Conversation Designers Internet Club community, which now has more than 2,000 members.

Her passion for growth as a conversation designer did not stop there. In 2017, Hillary joined a conversational AI consultancy as a co-founder and head of marketing, which soon rebranded to offer an AI SMS assistant for customer acquisition and growth marketers.

With this dense experience, Hillary has actively reinvested in the conversation design community.

Alongside the UX Writers Collective, she launched Chatbot Writing & Design – an online course. Additionally, she regularly contributes to CxD industry publications, including Amazon, while also recently rolling out a job board specifically for conversation designers – ConversationDesignerJobs.com – the first of its kinds with the largest audience of conversation design talent in the world.

Hillary is also passionate about hosting online events to introduce others to the world of conversation design. Most recently, she built her first voice app live alongside the Voiceflow team.

"Conversation designers take the natural instinct of knowing when an interaction sounds off to the next level and create easy and memorable user-driven experiences."



Elaine Anzaldo

Conversational UX Designer, NLX

From tech contractor to full-time conversation designer

Platform: IVR | 50+ prototypes | freelancer to full-time



Elaine Anzaldo

Conversational UX Designer, NLX

Meet conversation designer Elaine Anzaldo. Currently working on conversational AI experiences for enterprise brands in her role at NLX, her title looked very different just one year ago in early 2020.

Elaine was an account manager for a large technology company, making outbound calls at least 60 times daily. Her work revolved around using client calls to inform decisions on major online business profiles. Every day, she went through the pain of calling interactive voice response (IVR) systems. The machine recorded phone systems (think: “press 1 for pharmacy” or “our menu options might have changed”) were the opposite of enjoyable.

Elaine knew these experiences between humans and computers could be better. She thought, “Are people even working on this problem?” To her delight, they were.

After discovering and diving into all things conversation design through articles, online events, and podcasts, Elaine was hooked and quickly took on a contract role at Apple on their Siri team to get her foot in the door.

This momentum continued as she earned a conversation design certificate through Voice Tech Global’s Advanced Conversational Experience Design course. Here Elaine was introduced to the frameworks and tools that designers use, including Voiceflow.

Today, Elaine is hard at work on Voice Compass — a new product offering from NLX. With her CxD skills, she’s dedicated to creating multimodal experiences that put the user in the driver’s seat and let them design their own journey at every step.

CxD Resources

Thank you!

Anyone can start in the conversation design space. Whether it's a personal project or a career goal, learning these skills can vastly improve daily to-dos or consumer experiences.

Get Started with Conversation Design



Voiceflow YouTube: For visual learners, the video tutorials walk conversational designers step-by-step through the process of using Voiceflow. youtube.com/voiceflow



Blog: Deep dives into product updates and thoughts on the industry are shared regularly on the blog. voiceflow.com/blog

Events: Digital workshops are ideal for sharpening design skills and learning new use cases. voiceflow.com/events

Community: The Facebook Community is filled with conversation designers from around the world. It's the perfect place to ask questions of our team and learn from others. bit.ly/vfcommunity

Forum: Looking for technical Q&A or to connect with existing conversation designers & developers? Dive into our forum. forum.voiceflow.com

Voiceflow

A special thanks to everyone that contributed to this guide including, Greg Bennett, Rebecca Evanhoe, Israel Vasquez, Matt Gareau & Joel Brody.

A special thank you Nate Munk, Hillary Black, Elaine Anzaldo for sharing your stories.

This guide is dedicated to Bill McCarthy

You never forget your first believers – and Bill was exactly that. His natural curiosity, creativity, and warm heart made him a staple in the community and one of our earliest and most memorable friends in the space.

Thank you Bill for all you've done to make the team, the community, and future designers that much better – you'll forever be an inspiration.

In our hearts always.