

Where Conversation Design Meets Content Strategy

Rebecca Evanhoe

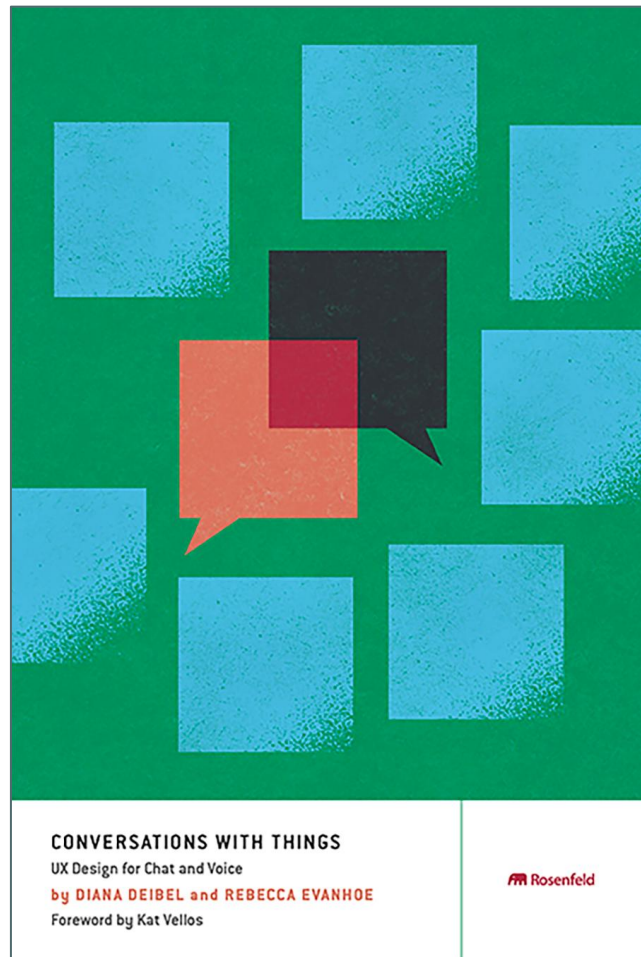


Rebecca Evanhoe

SHE / HER

Conversation Designer
& Strategist

Visiting Assistant
Professor



B.A. in
Chemistry

1st Startup Job:
“We need a writer”



Conversational AI
Designer



Conversation
Designer &
Strategist

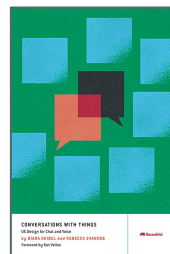
MFA in
Fiction

Joined as a “copywriter,”
but expanded into UX
writing, UX design, UX
research, conversation
design, chaos manager,
tech industry skeptic

VUI Designer

mobiquity

Author



Visiting Prof
Pratt

We need a tagging system to organize and make this usable.

We have to structure this the way the people are thinking about it.

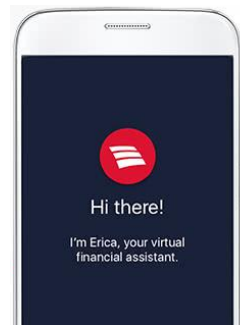
If we build it like that, we have to change the content like this, which makes it less effective.

What is
conversation design?

Conversation Design

UX design for devices that talk and listen.

Includes spoken (voice) and typed (chat) interactions.



Conversation

Turn-based exchange of language
between two parties.

SEARCH ENGINE



Uses
language



Mimics
conversation

how much did it rain last night



News

Shopping

Images

Videos

More

Tools

About 1,550,000,000 results (0.49 seconds)

<https://www.timeanddate.com> › ... › USA › Brooklyn

Past Weather in Brooklyn, New York, USA - Time and Date

Weather reports from the last weeks in Brooklyn with highs and lows.

<https://www.theweathernetwork.com> › new-york › broo...

Brooklyn, NY - Last 24 Hours - The Weather Network

Get the Last 24 Hours for Brooklyn, NY, US. ... The Weather Network. MENU. Home; Forecasts & Reports; Severe Weather ... Sat Evening. Cloudy with showers.

<https://www.localconditions.com> › past

Brooklyn, NY Past Weather For Last 30 days - Local Conditions

Brooklyn, NY past weather data including previous temperature, barometric pressure, humidity, dew point, rain total, and wind conditions.

Google search results.

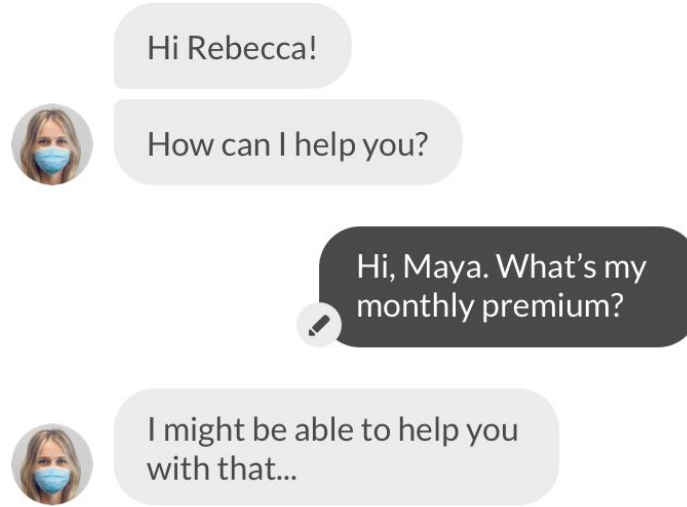
CHATBOT



Uses
language



Mimics
conversation



CHATBOT



Uses
language



Mimics
conversation



Hi Rebecca!

How can I help you?



Hi, Maya. What's my
monthly premium?



I might be able to help you
with that...



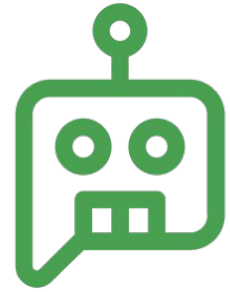
HOW PAYMENTS WORK?

FORWARD THIS TO OUR TEAM

ASK SOMETHING ELSE

As soon as something is conversational, users have different expectations, mental models, behaviors, and *utterances*.

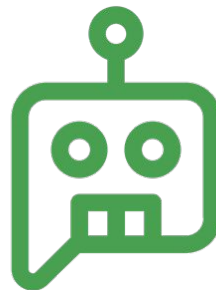
System Output



Mimics natural
expression

Human Input

System Output



Talks
naturally



Mimics natural
expression

What is a
conversational product?

Conversational Devices

Computer

Computer-based voice assistant

Web-based chatbot

Phone

IVR system

Phone-based voice assistant

App/SMS-based chatbot

Internet of Things

Smart home devices and appliances

Smart speaker

Connected auto

Immersive Tech

Wearables

Hearables

Virtual reality

Voice Assistant Ecosystems

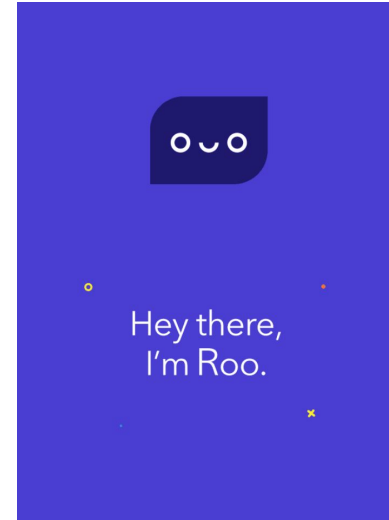
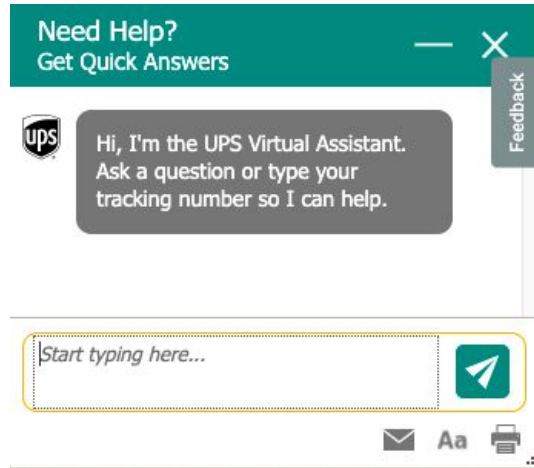
Available across devices and channels: computer, voice or text via phone, smart home and appliances, auto

CHATBOTS IN WEBSITES



UPS Virtual Assistant

Accessible through UPS
website
(usually in the
lower right corner)

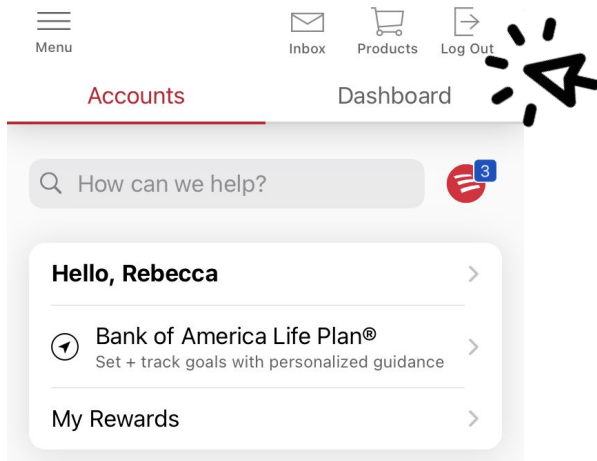


Planned Parenthood's Roo

Accessible through a custom
website:

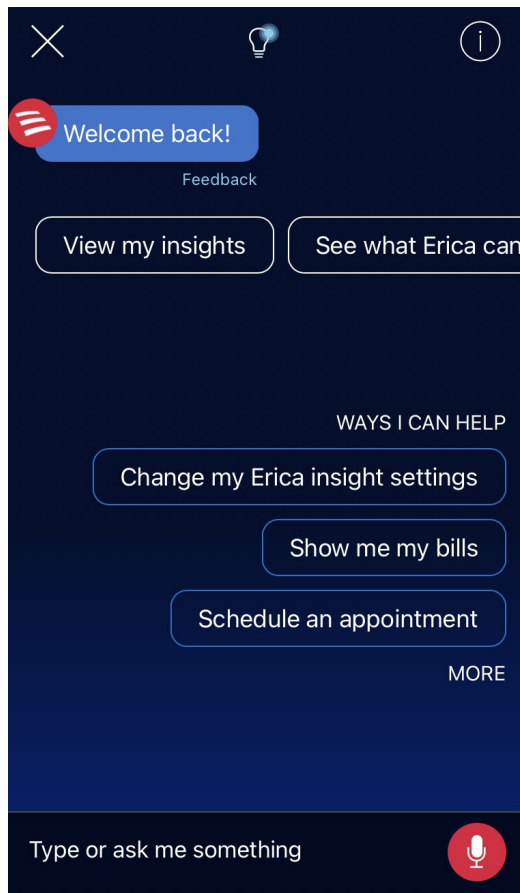
roo.plannedparenthood.org

CHATBOTS IN APPS



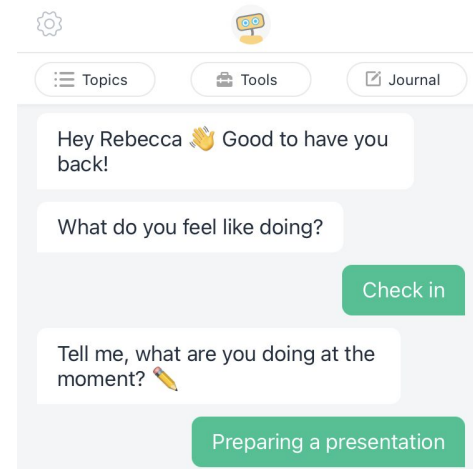
**Bank of America's
Erica**

Accessible through
BoA app

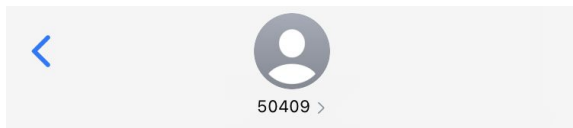


Weebot

Dedicated app with
push notifications



CHATBOTS VIA TEXT / SMS



Resist

Hi Rebecca, I'm Resistbot!
Message and data rates may
apply. Message frequency
varies. Reply HELP for help, or
STOP to stop receiving
messages.

If you're using an iPhone,
please tap <https://rs.bot/hGdzjE>
to switch to iMessage!

Reply with:

CONGRESS, STATE or MAYOR
to contact officials;
TRENDING for top petitions;
DRIVE to turn out votes in
elections;
or COMMANDS for more
keywords!

[RESIST Bot](#)

Text 50409 to contact your
local, state, and federal
representatives

VOICEBOTS AND IVRs



Bank of America

Customers can call for basic account info and maintenance

*Welcome to Bank of America.
Please enter the last 4 digits of
your debit card or SSN. ...*

*Your checking account balance
is \$X.*

*In a few words, tell me what
you're calling about. To hear a
few options, press 9.*



Amtrak's Julie

Call 1-800-USA-RAIL to talk to Julie, or chat through Amtrak website

VOICE ASSISTANTS



Alexa
(Amazon)



Google
Assistant



Siri
(Apple)



Bixby
(Samsung)

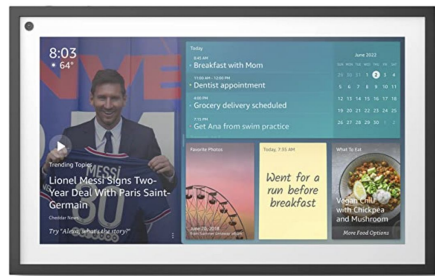


Cortana
(Microsoft)



Custom

Hey, Alexa...



Tap or say "Alexa"



See recent voice shopping activity

View product details and terms



Access Devices

Configure your devices or add new devices and groups



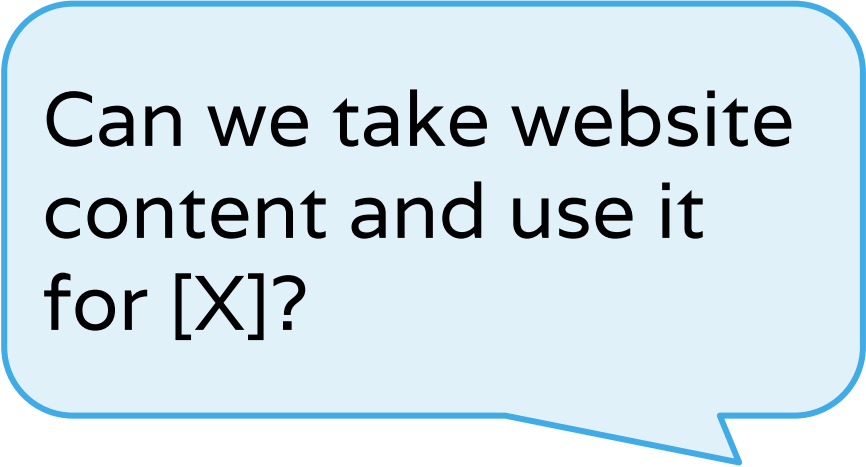
Start a Shopping List

Add shopping items and share the list



What does “content”
look like in
conversational products?

Our entry point:



Can we take website
content and use it
for [X]?

where X =
voice assistant or
chatbot

DATE

For immediate release: Thursday, September 30, 2021

HEADLINE

Youth E-Cigarette Use Remains Serious Public Health Concern Amid COVID-19 Pandemic

SUMMARY

Almost 85 Percent of the More Than 2 Million U.S. Middle and High School Students Who Used E-Cigarettes Used Flavored E-Cigarettes in 2021

BODY PARAGRAPH 1

A study released today (attached) from the U.S. Food and Drug Administration and the U.S. Centers for Disease Control and Prevention (CDC) estimated that more than 2 million U.S. middle and high school students reported currently using e-cigarettes in 2021, with more than 8 in 10 of those youth using flavored e-cigarettes.

What's the latest news on e-cigarettes?

The latest press release on that topic was published **Sept 30, 2021**.

The headline is: **Youth e-cigarette use remains serious public health concern amid COVID-19 pandemic.**

Want to hear the summary?

Sure.

Ok, here's the summary: **Almost 85 percent of the more than 2 million U.S. middle and high school students who...**

Voice and chat products *can* use existing content***, but they require new content elements or pieces, too.

*** *If* it's well-crafted content. Not always a fit.

What's the latest news on e-cigarettes?

New content:
What the user says

The latest press release on that topic was published **Sept 30, 2021**.

The headline is: **Youth e-cigarette use remains serious public health concern amid COVID-19 pandemic.**

Want to hear the summary?

New content:
"Connective tissue"

Sure.

Ok, here's the summary: **Almost 85 percent of the more than 2 million U.S. middle and high school students who...**

Human Input

System Output



Training Data

What people say
and variations on
how they say it

What's the latest news on
e-cigarettes?

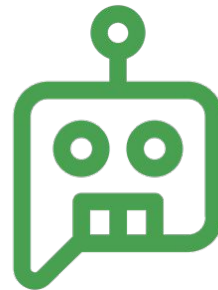
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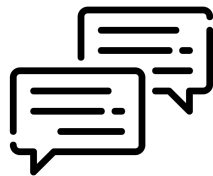
Ok, here's the summary:
{summary}.



Prompts

What the bot says

Conversational Content



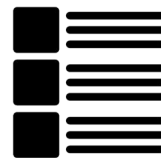
Prompts

“Connective tissue”
— everything the
bot says



Content “Pieces”

Existing content the
bot pulls in from a
repository or API



Training Data

What the user says —
organized for the
algorithm

More Content

Audio: “earcons”
(navigation, jingles,
effects), music,
voice-over recording

Images and video:
screened devices
include visuals as part
of the experience

**Email or text
messages:** devices
can send links,
follow-up content

**Translation or
localization tables:**
content in multiple
languages

Stored user data:
gathering info like
name, city, to refer to
later

Microcopy copy:
Button names,
descriptions,
instructions, etc.

Another example.

Website

Recalled Food

Seafood distributed by Northeast Seafood Products of Denver, Colorado

- Distributed to restaurants and grocery stores in Colorado through October 7, 2021
- Sold at seafood counters in Albertsons, Safeway, and Sprouts grocery stores in Colorado
- Seafood types include Haddock, Monkfish, Bone-in Trout, Grouper, Red Snapper, Red Rock Cod, Ocean Perch, Pacific Cod, Halibut, Coho Salmon, Atlantic Salmon Portions, Lane Snapper, Tilapia, All Natural Salmon Fillet, Pacific Sole, and Farm Raised Striped Bass
- Products were distributed fresh but may have been frozen later by consumers and businesses

Voicebot

Are there any seafood salmonella outbreaks?

Yes, there is one alert: salmonella **reported in seafood distributed by Northeast Seafood Products.**

Would you like to learn more?

Are there any seafood salmonella outbreaks?

Yes, there is one alert: salmonella reported in seafood distributed by Northeast Seafood Products.

Would you like to learn more?

Yes.

Ok. Here are the affected seafood types: haddock, monkfish, bone-in trout, grouper, red snapper, red rock cod, and tilapia.

VOICE CONTENT CUSTOMIZATIONS

- ✓ More concise
- ✓ More casual language
- ✓ Shorter lists; more curation
- ✓ “Chunking” (info bundles)
- ✓ Pronunciation tweaks with SSML
- ✓ Additional pauses or emphasis for better aural comprehension

Question and Answer Fit

People ask questions based on what they want to know, using their own words.

- Level of specificity
- Vocab / jargon

Recalled Food

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- Products were distributed fresh but may have been frozen later by consumers and businesses

What grocery stores are affected?

Is the fish at Sprouts okay?

I bought haddock — should I throw it out?

What grocery stores are affected?

If you purchased seafood in Colorado, from Albertsons, Safeway, or Sprouts, the products may be affected.

What type of seafood did you buy?

Is the fish at Sprouts okay?

Some of the seafood at Sprouts grocery stores in Colorado has been recalled.

I bought haddock — should I throw it out?

Haddock is potentially one the recalled products. Where did you purchase it?

Grab bag / buffet.

Formal   **Casual**

Expert   **Novice**

Warm   **Cool**

Excited   **Calm**

Formal



Welcome to
Huntington Plein Air
Market. What's your
favorite cuisine?



Casual

Honk-honk! Get on
the Food Truck.
What're you having?

Expert



Good morning. Your
investments are up 1.5%
which is a substantial
increase from last
night's closing bell.



Novice

Hi there. Hope you're
as eager to learn about
money as I am. Ready
to jump in?

Warm



Hey there! I'd like to
get to know you.
What's your name?



Cool

Hi. We typically start
with names so please
tell me yours.

Excited



Oh my gosh, HI! Today
at T-shirt Emporium you
can buy ANY shirt and
we'll ship it FOR FREE!



Calm

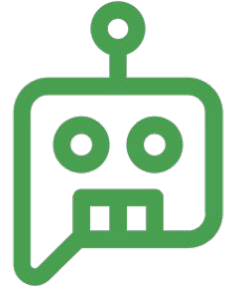
Welcome to T-shirt
Emporium. Today's
sale is free shipping
on any shirt.

Accommodation

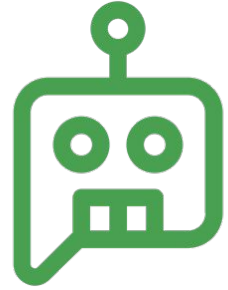
Adjusting how we talk based on our conversational partner (words, accent, gestures, prosody).

*Gotta figure out
the bot's **tone!***

*It has a huge
impact on...*



*... how a person
responds.*



Bot A: What can I help with?

User A: I need help changing my password.

* * *

Bot B: Ask me a question!

User B: How do I change my password?

* * *

Bot C: In a few words, tell me why you're calling.

User C: Password reset.

Literal Tone of Voice

Script and voice go together.

Financial Market Example:



Justin



Kimberly

Challenges in Conversation Design

CHALLENGE #1

Language variation.



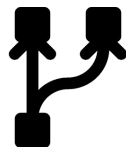
Infinite variation and permutation within a language



Dialects and accents across regions and cultures



Subtle changes in word or grammar can have opposite meanings



Languages evolve over time; new words emerge (COVID)

CHALLENGE #2

Cognitive load.



Accessible language:
Avoid jargon, complex
sentences without
oversimplifying



TTS voices —> higher
cognitive load, especially
for longer prompts



Chunking: Breaking
information down in
“bite-sized” pieces



Adding markup for
listenability (pacing,
pauses)

CHALLENGE #3

Content needs.



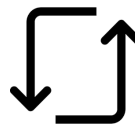
Context: Prompts depend heavily on context, state, and data



Content for voice needs special attention: brevity, chunks, SSML, less options presented



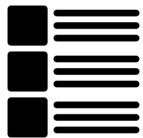
Stakeholders: Many stakeholders need to sign off on different content that's hard to understand



Iteration: Prompts and training data are highly iterative, requiring testing and upkeep

CHALLENGE #4

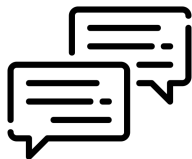
Interconnected parts.



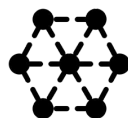
How intents are created impacts how the prompt would be written.



Personality impacts user's expectations, mental model, and utterances.

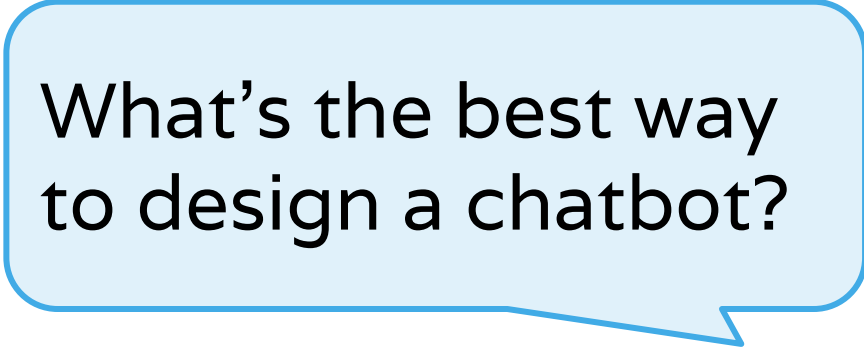


How prompts are written influence users' utterances.

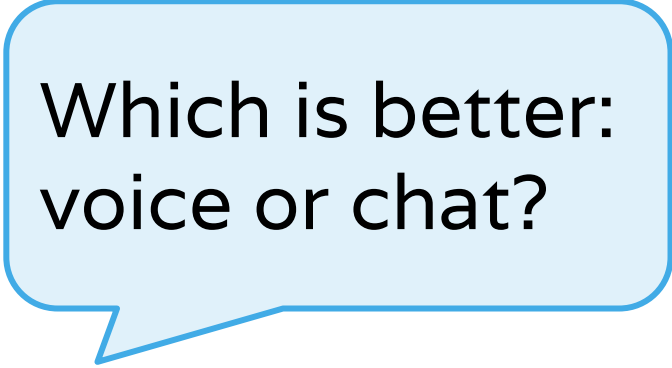


Context (use case, scenario, technical capabilities...) influence everything.

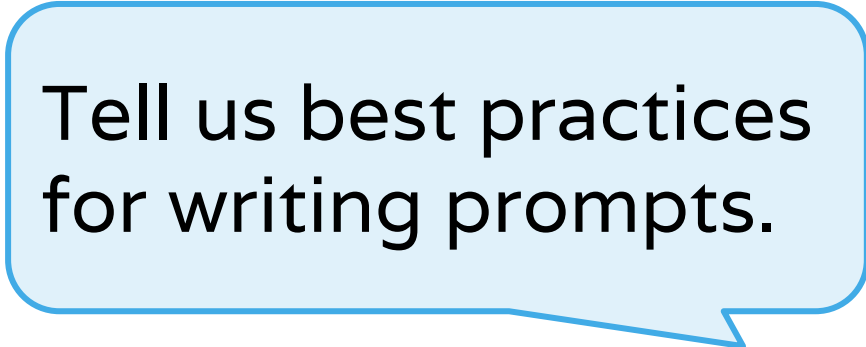
Where's the “strategy” part?



What's the best way to design a chatbot?



Which is better: voice or chat?



Tell us best practices for writing prompts.

AUDIENCE

Who is this for?

What problem are we solving for the user, or what are we improving?

How are people solving the problem today?

What technology do they have access to?

PURPOSE

What are the business goals for the product?

What does success look like?

What are we trying to learn, and what will we do with the information?

FIT

What content is available? Is voice-specific content required?

What form of technology best supports the goals?

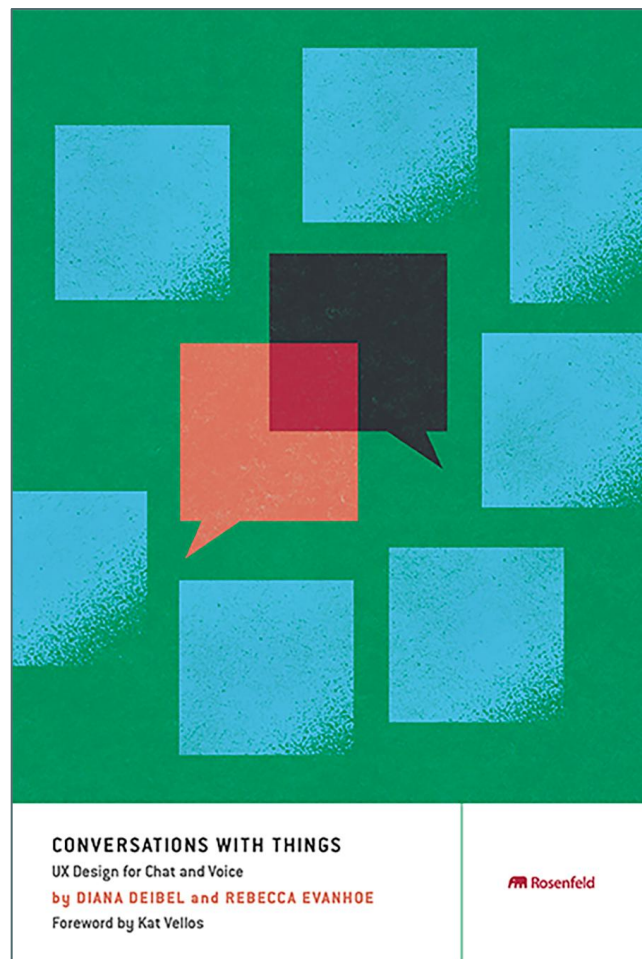
How will it reach the intended population?

And content operations, too!

Lots of room to
connect and grow.

*Conversations with Things: UX
Design for Chat and Voice*

Rosenfeld Media, 2021



CONVERSATIONS WITH THINGS

UX Design for Chat and Voice

by **DIANA DEIBEL** and **REBECCA EVANHOE**

Foreword by Kat Velloso

 **Rosenfeld**

Thank you for your time.
Questions?