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Conversational design for virtual assistants

Key principles for smarter customer engagement.

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Brochure
Virtual assistants

Contents

As virtual assistants continue to rise, they won't be judged on the technology they use— they will be judged on the quality of their conversations. Which is why conversational design is quickly becoming the key to customer engagement success.

This paper will explore the key principles for having successful conversations, and how they can be used to create smarter conversational design for virtual assistants and chatbots.

In 2018, Opus Research reported a

75%

growth rate in organizations offering a virtual assistant in their customer service.[1]

Virtual assistants are predicted to save enterprises up to

$11bn

per annum by 2020.[2]

1 Decision Makers' Guide to Enterprise Intelligent Assistants 2018 Edition. Opus Research.
2 Juniper Research. Chatbots to Deliver $11BN Annual Cost Savings for Retail, Banking & Healthcare Sectors by 2023. July 3, 2018.

An age-old conversation

Conversational design isn't a new concept. In fact, it has been studied for many years—even before virtual assistants existed.

Paul Grice, a British philosopher of language, made a huge impact on the study of conversations—and his work can still be used to guide conversational design today.

In 1975, Grice came up with four key principles[3] every person—or in our case, virtual assistant—needs to follow to have a successful conversation:

— Give just the right amount of information

— Make sure your information is correct

— Keep your responses relevant

— Keep your response clear

When these principles are put into a customer service context, they can be used to improve conversational design for virtual assistants and create more human-like interactions.

Let's take a closer look at these principles and see how they work in the world of customer service.

| GRICE'S MAXIMS OF QUANTITY, QUALITY, RELATION AND MANNER	
Enough, and just enough (Grice's maxim of quantity)	— Make your contribution as informative as required — Don't make your contribution more informative than is required
Tell the truth and make sure it is correct (Grice's maxim of quality)	— Be truthful — Don't say what you believe to be false — Don't say what you lack adequate evidence for
Relevance (Grice's maxim of relation)	— Be relevant
Get to the point and keep it simple (Grice's maxim of manner)	— Avoid obscurity of expression — Avoid ambiguity — Be brief (avoid unnecessary prolixity) — Be orderly

3 HP Grice. Logic and Conversation, Syntax and Semantics 3: Speech Arts. 1975.

1. Give just the right amount of information (Grice's maxim of quantity)

When a customer has a problem, it's likely their first reaction will be to look for answers on a search engine. They're often left with thousands of results to search through and finding an answer can take a lot of effort. When they arrive at your chatbot, customers want a concise answer that resolves their issue and involves as little input as possible.

Using contextual awareness, the chatbot should be able to understand the customer's problem and resolve it without asking too many questions. The quicker the chatbot gets to the answer the customer is looking for, the more satisfied they will be.

Here's an example of an effective customer engagement in a retail environment:
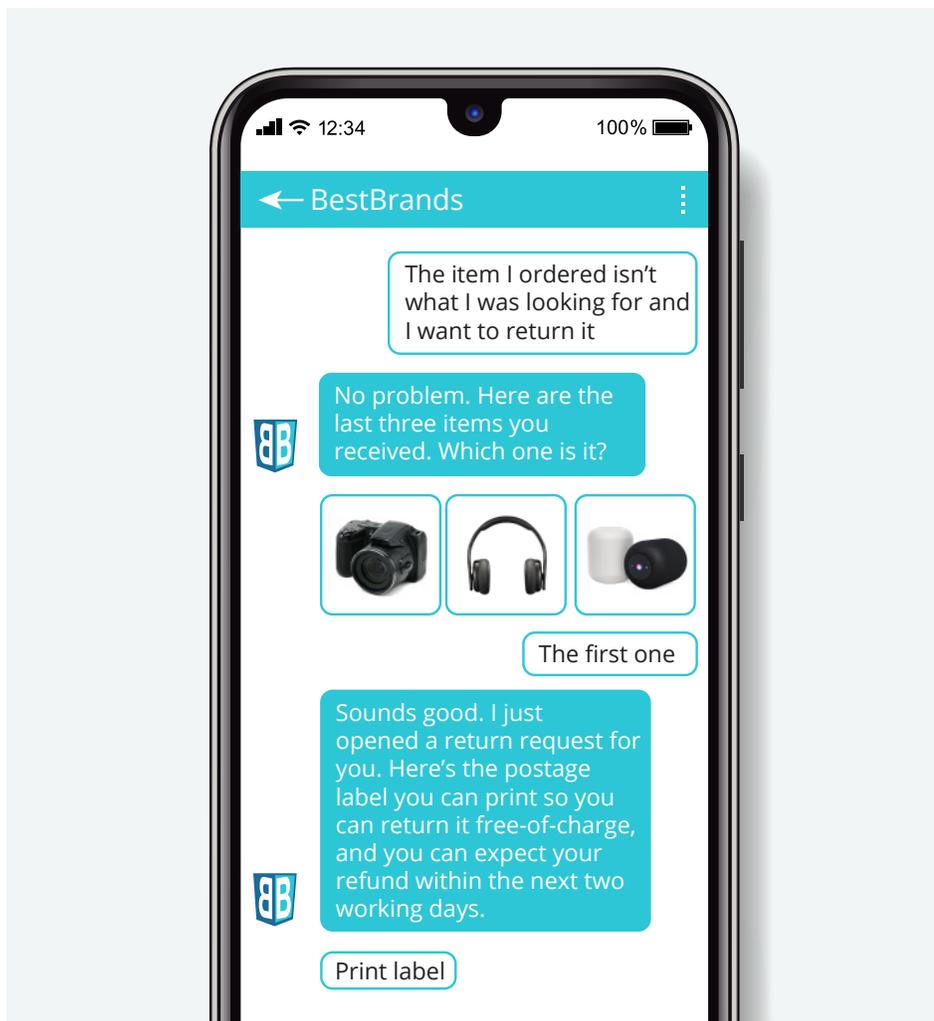
The chatbot gave the appropriate information relevant to the customer's issue and didn't overload them with unnecessary information. And using contextual information means the customer doesn't have to put in any extra effort to reach their solution.
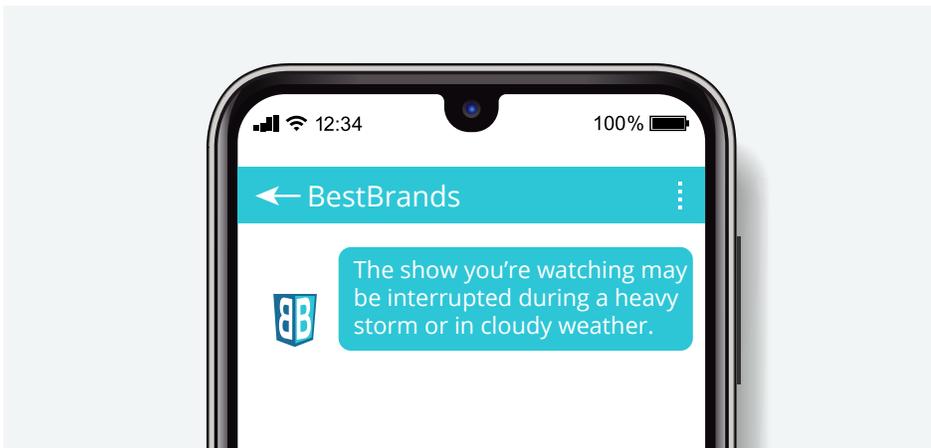
2. Make sure your information is correct (Grice's maxim of quality)

When a customer arrives at your chatbot, it's essential the information it provides is accurate—otherwise it can leave them frustrated and reflect poorly on your brand.

Of course, this is easier said than done. Customer issues can cover a huge range of topics, and they're different for every business, which means providing the perfect answer every time is a near impossible challenge.

That's why integrating your chatbot with other systems is key to finding the right solution. For example, if the chatbot has access to weather forecasts, it can send a useful notification to the customer, ensuring they are aware of a potential interruption.

To indicate a possibility—since the weather forecast could be wrong—make use of the modal verb "may". This will allow your chatbot to inform the customer without guaranteeing the solution will be right, for example…

← BestBrands

The show you're watching may be interrupted during a heavy storm or in cloudy weather.

Carefully worded responses such as this are particularly useful for organizations handling sensitive and critical customer issues, such as banking and government services. They protect the business from legal compliance breaches and help prevent customer frustration at wrong solutions.
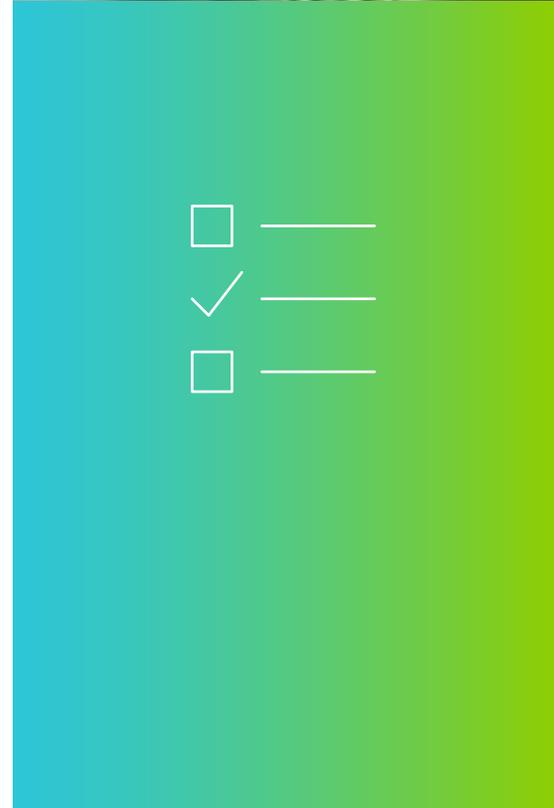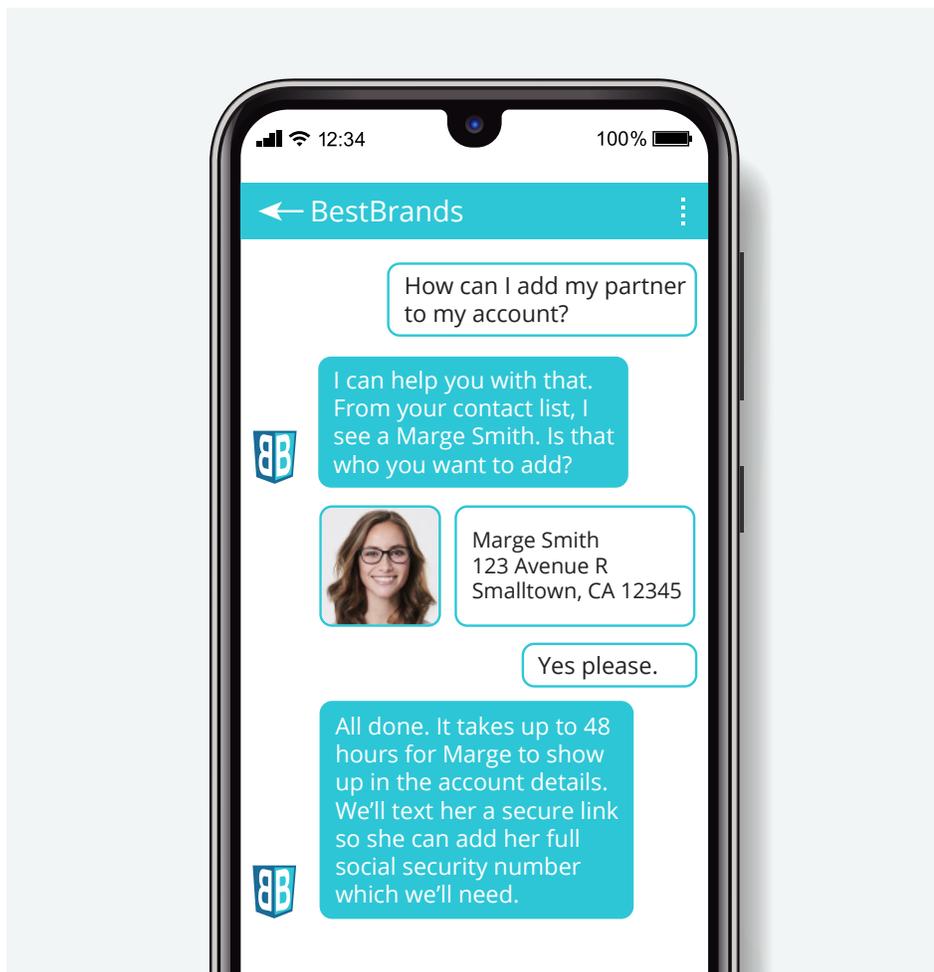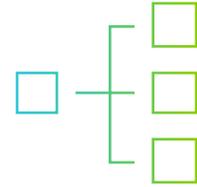
3. Keep your responses relevant (Grice's maxim of relation)

Relevant responses are a good sign of an intelligent chatbot, but many of today's chatbots are failing at this. The Chatbot Report 2018 found that some chatbots still can't give detailed answers to technical questions,[4] which quickly drives customer dissatisfaction and leads to the customer abandoning the interaction.

But this isn't a technology challenge—it's a conversational design challenge. A careful balance needs to be struck between the amount of questions the chatbot asks, and the ability to provide an answer that resolves the customer's issue.

It's easier to overcome this challenge when you continually personalize your chatbot's interactions over time and optimize it to predict your customers' needs. Using your unique business data, your chatbot can learn from past conversations with your customers and become smarter over time.

Here's an example of an accurate response from the telecommunications industry that remains relevant to the customer's initial question.

BestBrands

How can I add my partner to my account?

I can help you with that. From your contact list, I see a Marge Smith. Is that who you want to add?

Marge Smith
123 Avenue R
Smalltown, CA 12345

Yes please.

All done. It takes up to 48 hours for Marge to show up in the account details. We'll text her a secure link so she can add her full social security number which we'll need.

4 Chatbot Report 2018. Octane AI.

4. Keep your response clear (Grice's maxim of matter)

Customers want a simple, clear response from your chatbot that explains the solution to their problem clearly—but too often, chatbots are riddled with jargon and confusing responses.

Here's an example of an effective chatbot in healthcare that follows these principles:

BestBrands

> I'm trying to book an appointment online, but I don't know how to.

> No worries. I can help you right here. When would you like to come in?

> I'm looking for the earliest afternoon appointment you have available.

> Sure. This week, we have an open spot tomorrow at 3:00 pm, or Friday at 1:30 pm. Do either of these work for you?

> Hmm, what about next Monday?

> Next Monday we have 1:00 pm and 2:15 pm. Do either of these work for you?

Effective conversational design is the key to keeping your chatbot simple to understand. When applying design principles to your chatbot, it's important to:

Avoid obscurity
Don't use jargon, and keep the use of acronyms to a minimum

Avoid ambiguity
Train your chatbot to ask questions that refine customer intent

Be brief
Answer your customers' questions quickly and directly

Be orderly
Use a simple structure that displays the information clearly

Conversations designed for the future

Chatbots and virtual assistants have come a long way from simply being the middle-man between customer and call channels. As chatbots become a more popular customer service channel, they will be judged not on their technology, but the conversations they have. And to push chat platforms to be an intelligent, problem-solving end-point for customers, businesses need to focus on conversational design.

Using Grice's conversation principles as a foundation, you can design your chatbot to provide smart, accurate and helpful advice for your customers that can improve their overall experience, and maintain your positive brand reputation.

To learn more about the future of virtual assistants, read the Decision Makers' Guide to Enterprise Intelligent Assistants and discover the virtual assistants leading the industry. And to learn how digital channels could help improve your customer service, get The ROI of Digital Customer Engagement.

In action: Best-of-breed conversational design

Here are just a few examples of leading organizations designing and optimizing leading-edge voice and digital customer engagement experiences.

esurance®

As a direct-to-consumer auto and home insurance provider with an A+ financial rating, Esurance knows how important customer support is. Today's customers expect help 24-hours a day, and quick solutions to their problems.

With a rising digital customer base, Esurance knew it needed to adapt to these changing expectations and deliver exceptional experiences in its digital engagement services.

The insurance provider wanted to design digital channel experiences that seamlessly combine automated and human-assisted engagements. Starting with Nuance live chat and adding a virtual assistant on the back of its live chat success—Esurance is now better equipped to face the rising number of inquiries from digital customers.

Esurance customers can now get quick answers from the virtual assistant or be directed to the chat agent with the right skillset. And with the co-browse capabilities, agents can see what the customer is seeing by sharing a common screen, enabling them to provide an even more personalized experience.

The insurance provider hasn't stopped there. Using customer

and application analytics, Esurance can continuously optimize its digital services based on customer behavior and continue to deliver the highest quality of customer service.

85%

Virtual assistance issue resolution of 85%

$4.4M

Live chat generated incremental revenue of $4.4 million (Q3FY18)

NYC 311

NYC311—the largest and most comprehensive municipal government service platform in the world—receives an average of 20 million calls per year.

New York City residents call 311 about a wide array of issues, ranging from problems in their neighborhoods to taxi complaints and other non-emergency cases.

Handling thousands of customers every day, the service's IVR plays a huge role in its operation. But

until recently, the IVR was still using a touchtone system that limited customers to only a small number of service options.

NYC11 was looking for a way to improve its customers' experience, and at the same time reduce expenses and increase operational efficiencies.

Working closely with Nuance, NYC311 designed and launched a new IVR platform using Nuance Natural Language Understanding (NLU) technology. The service's IVR now understands customer intent from conversational speech—removing the need for touchtone options altogether. Based on the customer's intent, the system then provides the requested information, or routes the call to the appropriate agency, department or call center agent. The service now offers seamless, conversational interactions between customers and the system.

"Nuance was fully committed to designing a system that would meet the needs of our extensive customer base and our high expectations for service quality."

— Andre Williams,
   NYC311 IT and IVR Manager

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Queensland Government

Queensland Department of Transport and Main Roads (TMR) receives public calls across three main services—car registration and licensing enquiries, driver and vehicle assessment bookings, and road traffic information.

Using a legacy IVR system, the department found its IVR was regularly failing to send customers to the right agent, resulting in agents having to manually transfer customers themselves.

The process was not only taking up agents' valuable time, but also creating long wait times for customers trying to get in touch. TMR knew it needed to optimize its IVR to provide the best customer experience possible.

Working closely with Nuance, TMR took a humanized approach to its IVR application, and designed and delivered a conversational experience for its customers using Nuance Natural Language Understanding (NLU).

Customers can now say what they need—in natural, conversational speech—and the IVR routes them to the right agent based on their intent. This process cuts down on customer wait times and routes callers correctly more than 90% of the time, giving agents more time to focus on helping the right customers.

"We are very pleased with the implementation and, more importantly, our customers are telling us the ease of communication with us has dramatically improved."

— Greg Bubke, Director of Customer Services, Queensland Department of Transport and Main Roads

Major Telco

For telco brands, excellent live chat experiences are critical to successful customer service. Customers expect to get easy access to the right agents, and quick answers to their problems.

When a major telco wanted to optimize its live chat service without adding to the cost of service, it partnered with Nuance to help it increase conversion rates, improve customer engagements on mobile devices, and improve upsell and cross-sell performance.

Working closely with Nuance, the company made multiple design optimizations—including using a more granular data pass. The data pass improved personalization across the chat service due to a rise in behavioral data, enabling the telco to re-target agent focus, banner offers, and online details based on customer behavior.

And even better, operations recommendations are now continually made and implemented to train agents and their supervisors to understand customer behavior and improve performance.

Looking to take its chat service even further, the telco is now working with Nuance to design and implement a virtual assistant.

AI innovation from Nuance

For more than 20 years, we've helped ambitious enterprises transform the way they deliver customer experience, cost reduction, and growth, by using intelligent customer engagement systems powered by AI. From automatic speech recognition and Natural Language Understanding, to text-to-speech, biometrics, and more—we've been at the forefront of driving innovation in AI technologies.

Today, our AI-powered solutions for omni-channel customer engagement are used by the world's largest organizations to deliver personalized, consistent experiences to customers across IVR, web, mobile, IoT, and messaging channels.

Next steps

Opportunities in customer engagement

To learn more about the coming challenges and opportunities in customer engagement, get expert insights from Ian Jacobs, Principal Analyst at Forrester, and Nuance's Marina Kalika.

[Watch the webinar](#)

AI-powered customer experience

To find our more about how Nuance can help you deliver outstanding AI-powered, conversational experiences, explore our full range of products and solutions.

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