Design Better Chatbots

Discover How To Build Chatbots That Customers Will 🖤
The Trouble With Chatbots

Advance CX By Accelerating Design Efficiency

Chatbots have a bad reputation, and it’s well deserved. Most chatbots disappoint customers because organizations hyperfocus on the technology part of the equation to the detriment of design and user experience (UX). Fortunately, an emerging discipline can help your organization create chatbots that customers will embrace: conversation design.

Customer experience (CX) professionals, design leaders, technology leaders, and everyone else involved in chatbots have a golden opportunity to help their organizations establish a solid competency in conversation design, which can make all the difference in a chatbot’s success.

This guide explains why chatbots often fall flat and provides tips for designing a successful chatbot — whether your organization already has a bot or if you’re still in consideration mode.
Why Customers Dislike (Today’s) Chatbots

Chatbots are proliferating on websites, in apps, in text-based messaging channels like WhatsApp and Telegram, and in voice-based channels like interactive voice response (IVR) systems and devices equipped with Alexa or Siri. And the spread isn’t limited to customer-facing use cases: Chatbots support employees, too.

Organizations are betting that users will like (or at least tolerate) communicating with a bot instead of a human and that users will prefer using natural language rather than hunting through nav bars and buttons.

However, chatbot efforts to date tend to leave users disappointed. Forrester’s relevant survey data and research confirm that chatbots frequently fall short because they:

• **Overpromise from the start.** Organizations commonly refer to their chatbot as an assistant and call it “smart” or “intelligent,” setting users’ expectations too high. And many configure their chatbot to ask open-ended questions like, “How can I help you?” which invites users to engage with the chatbot as if it were as capable as a human employee. Why does this happen? “Many of the people funding chatbot initiatives have expectations that are not realistic about what chatbots can do,” says Sascha Wolter, chief advisor for UX/conversational AI at railway Deutsche Bahn.

• **Underdeliver again and again.** Today’s chatbots rarely meet the high expectations they’ve set. The result: disappointment. Shirley Gao, CIO at PacSun, points out that “the AI technology is not a human being, and language interpretation is the most challenging — computers can play Go because it’s rules based, but language is harder.” Brian Smith, USAA’s lead digital product manager for conversational AI, adds that “today’s platforms have many limitations, but a big part of the problem is people not truly understanding what conversation design and AI are.”
Chatbots’ Bad Rep Is Stunting Their Spread

Forrester’s annual surveys reveal a disappointing pattern in the growth of chatbots relative to apps and websites from 2018 to 2021:

“What channel(s) do your customers primarily use in their customer service journeys prior to contacting your contact center?”

Websites (desktop and mobile) remain the most popular channels.

The popularity of chatbots is growing at half the rate of the popularity of apps.

Base: 1,177 to 1,480 global telecommunications business decision-makers who are significantly involved in contact centers (20+ employees, 50+ seat contact center)

Source: Forrester Analytics Business Technographics® Networks And Telecom Surveys, 2018 to 2021

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At The Root Of The Problem: Focusing On Tech And Neglecting Design

Chatbots have a bright future in the long term. But making the chatbot primarily an IT project is a recipe for failure. Design is a critical part of the equation, and organizations overlook it at their own peril.

Here are just a few representative samples from what interviewees told us on this front:

“Don’t overspin on technology. A lot of companies assign chatbot initiatives to IT without people who understand content and conversation — and they fail.”

Ibrahim Khoury  
Director Of Product Development And Innovation, Alight Solutions

“When you let a bunch of developers do it, you leave a lot on the table: You don’t have experience design, you don’t have the understanding of the customer, you see the FAQ become the interaction, and that’s a problem. Don’t do it that way.”

Jen Snell  
VP GTM, Conversational AI, Verint

“For companies that do it all without help from conversation experts, the outcomes are often less than stellar, to be diplomatic. It feels like a glorified IVR; it’s disappointing. Companies should bring their UX resources to bear.”

Jon Altschuler  
Senior Director, Creative Services, Enterprise Bot Solutions, LivePerson
Enter Conversational Experience

Success with chatbots requires design expertise every step of the way.

We realize this is a challenge. Some interviewees tell us that their product and development teams seek out design's help but struggle to get attention because designers' expertise is in such high demand. Others think it's enough to involve line-of-business colleagues (and some tech providers, unfortunately, nudge organizations in this direction), but those colleagues typically don't have design expertise either.

Sometimes, product and development teams don't realize what designers can do. For example, they don't understand that information architecture is primarily about adapting to the mental models of the users in your target population — not just in-house data models, like disparate back-end database schemas, that need to be reconciled.

Whether your title contains words like “design” or “UX” isn’t what matters most; the career paths of certain product managers, software engineers, and other professionals have equipped them with a real understanding of design and UX. The important thing is to recognize that the quickest way to make better chatbots is to commit to:

• **Universal best practices from human-centered design.** Information architecture, discovery research, and interaction design are just a few of the skills that are both essential to chatbot success and at the core of the design discipline. But Forrester’s Q4 2020 Global State Of Design Teams Survey revealed that only 30% of respondents reported being involved in chatbot design — far less than the 82% working on website design and 72% on app design. That’s got to change.

• **Chatbot-specific best practices from the emerging discipline of conversation design.** As USAA’s Brian Smith points out, “In a conversational experience, the words are the interface. Users have no boundaries and can say and do what they want rather than working through a linear flow. Often, the visuals for users to interact with are limited — that’s why companies need the new skill sets and design standards of conversation design.” Conversational design goes deep into practical heuristics for designing successful natural language interactions, which is necessary to enable users to interact with chatbots on their terms.
Start By Assessing Existing Chatbot Efforts With Two Questions

Examine where your organization’s chatbot efforts stand today, beginning with these two questions:

• **How far along is the chatbot?** Maybe there’s no chatbot yet. Maybe you’ve scoped out a prototype or even launched a bot.

• **Is the effort’s scope well defined?** Although scoping is crucial when creating any experience, it’s especially critical when designing a chatbot. The best practice is to limit the chatbot’s set of intents (i.e., the requests it’s meant to be able to respond to satisfactorily) to a narrow domain.

Map Your Answers To One Of Four Scenarios

Based on your answers to these two questions, identify which of the following scenarios matches your situation best. That way, when you reach into the toolbox of design techniques, you’ll know which tools are right for the job.

But before we dive into that, let’s briefly touch on **the design framework**, a concept frequently used to demonstrate an effective design process. Check out the three spaces and four principles of effective design:

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**The Design Framework**

![The Design Framework Diagram]

**Problem space**

- **Discover**

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**Solution space**

- **Define**

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**Implementation space**

- **Create**

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- **Evaluate**

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- **Develop**

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- **Monitor**

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**Four principles**

- **Diverge**

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- **Converge**

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**Evidence**

Prioritize data (quant and qual) over instinct.

**Iteration**

Repeat cycles to increase quality and value over time.

**Expertise**

Rely on skilled, experienced design professionals.

**Inclusion**

Tap people with varying traits and perspectives.

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Source: Forrester Research, Inc. Unauthorized reproduction, citation, or distribution prohibited.
With the design framework in mind, determine which chatbot scenario is closest to your organization’s current situation:

- **The chatbot doesn’t exist yet, and its scope is not yet defined.** This is the ideal scenario. Why? Because design pros know how to identify user needs objectively, without making invalid assumptions that lead to experiences that misfire.

  In the design framework, this scenario maps to the problem space. Have design pros lead the effort to cycle iteratively between discovery and definition until your company has an accurate baseline understanding of users’ needs — and which needs the chatbot can best address.

- **The chatbot hasn’t launched yet, but its scope is well defined.** This scenario is common because the impetus behind many organizations’ chatbot efforts is to deflect incoming calls to (or live chats with) human reps. Therefore, the organization has typically documented which requests human reps receive most, winnowed the list to the simplest, and created a prototype bot based on those.

  In the design framework, this scenario maps to the solution space — specifically to iterating between creation and evaluation work.

  This scenario isn’t ideal, but it’s not a recipe for failure either. The problem is that organizations will likely miss additional opportunities to serve users better that they would’ve uncovered through real discovery and definition work. If you find yourself here, look for opportunities to do that work before proceeding, if possible.

- **The chatbot exists already, and its scope was never well defined.** In this scenario, it’s time for a reset. When the scope is poorly defined, the range of intents the bot needs to recognize is typically too broad, so it fails much too often. If this is your situation, the best thing to do is to cut your losses and start over.

- **The chatbot has launched already, and its scope is well defined.** After you launch a chatbot, you’ll need to adapt it as new needs are identified and existing ones become obsolete. “A lot of chatbot design is iterative in nature. Even with the initial training data, you can’t guess all the ways people will say things. After you build it, invest three months in a pilot, starting out with a few users in the first month, then more people after that,” says Harshal Pimpalkhute, senior principal product manager of Amazon Lex at Amazon Web Services.

  In the design framework, this scenario maps to the implementation space — specifically to iterating between development and monitoring work. And the iteration never ends. As Jon Altschuler told us, “Some people think you can just put a bot out there and leave it alone, but you can’t. It’s not alive, but it requires continual nurturing.”
Design Real Conversational Experiences

Whichever scenario best describes your chatbot efforts so far, your organization will benefit if you:

• **Bring design expertise to the table.** If designers aren’t yet an integral part of your chatbot efforts, it’s urgent to rectify this. If you don’t have the organizational power to make it happen unilaterally, use the content of this guide to make the case to those who do.

• **Establish conversation design competency through a mix of hiring and upskilling.** Conversation designers are in high demand: “Bringing on a contract conversation designer right now costs $150,000 for a four-month gig, based on the quote that a staffing agency we use gave me,” says Michele Bowman, SS&C’s head of digital strategy. So, while doing your best to budget for professional conversation designers, ensure that everyone involved in chatbot projects understands the rudiments of chatbot design and that a core group builds deep expertise.

• **Keep it simple if just getting started; take the zero-AI approach for now.** Google’s Chris Tompkins, staff interaction design manager, says that “a well-designed decision tree is the place to start, whether it’s for customer service or sales and marketing; most companies are not ready to design, develop, or support an experience based on ML as their first step. Start with a basic tree, and once you find success, add in ML.”

And according to Sascha Wolter at Deutsche Bahn, “You can solve about 80% of the issues if you take the simple approach — with no AI and some clever conversation design.”

Chatbots can be a win-win, serving your customers’ needs and your business goals. Your organization will likely exceed the success of competitors by developing a strong base of customer understanding, starting simply, setting accurate expectations, and iterating.
Recommended Resources

How To Scale Digital Accessibility

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Words Matter: Inclusive Experiences
Start With Inclusive Language

LEARN MORE

Seize The Design
System Opportunity

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