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# **INTRODUCTION**



## WHAT IS A CHATBOT ANYWAY?

Let's start with the basics. In its purest form, a chatbot is a computer program designed to allow interaction between humans and technology. As the name implies, this was originally confined to just text-based communication, however, over the years, this interaction paradigm has evolved to include other input methods such as voice and gestures.

Chatbots have also, in the recent past, almost exclusively been deployed as customer service tools. They allow consumers 24/7 access to businesses and empower self-service, but that too is changing. As the technology powering

chatbots has improved, so have the number of use cases that they cover. The 21st-century chatbot has evolved from a simple question-and-answer bot into a swiss-army knife of automation that can enhance not

#### What's in a name?

You've no doubt noticed that there are myriad different names out there for chatbots. Some popular ones include virtual assistant, Al chatbot, intelligent assistant, conversational agent... and the list goes on!

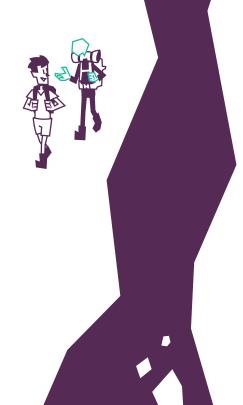
These names are basically all interchangeable and will vary based on the vendor or solution. At boost.ai, we prefer the name 'virtual agent' because an agent, by definition, is "a person who acts on behalf of another person or group". It makes sense then, that chatbots powered by conversational Al should go by another name when, as you'll learn from this guide, that they can do so much more than just chat!

just customer support and service, but an organization's operational efficiency, too.

What really distinguishes a good chatbot from a bad one is the underlying technology powering it. Artificial intelligence has revolutionized what's possible to accomplish with a chatbot. Even the most basic bot with off-the-shelf tech can automate simple tasks. Larger enterprises, however, have equally larger needs and require sophisticated chatbots with more powerful technology in order to automate customer interactions at scale.

That's where conversational Al comes in and when things start to get really interesting, but... hold that thought, we'll get back to this topic shortly.

First, let's rewind a bit and look at where chatbots came from.



## **A BRIEF HISTORY OF CHATBOTS**

The first chatbot - or proto-chatbot, if you will - was developed in 1964 at MIT by computer scientist Joseph Weizenbaum. Named ELIZA, it is considered an early example of a natural language processing computer program and was designed to simulate communication between humans and machines.



It used a basic pattern-matching algorithm and substitution methodology to give users the illusion that the chatbot understood them, but in reality, had no ability to contextualize events. Even though ELIZA was pretty basic, it laid the groundwork for the future of chatbots. Below are some other significant milestones in chatbot history that brought the technology to where it is today.

## **The Turing Test**

Even before ELIZA was a glimmer in its creators' eye, Alan Turing posed the question of whether a machine could think in his seminal paper

'Computing Machinery and Intelligence'.

## 1950

1966

#### **ELIZA**

The world's first chatbot was proof positive that humans were eager to communicate with machines. ELIZA could carry on (relatively) convincing conversations by mimicking

#### **PARRY**

Described as "ELIZA with an attitude", this Standford-developed chatbot attempted to simulate a person with paranoid schizophrenia and successfully fooled many experienced psychiatrists.

## 1972

1988

## **Jabberywacky**

Jabberwacky was an early attempt at creating an artificial intelligence through human interaction and was designed to simulate natural chat in a humorous way. It was eventually released online in 1997.

#### A.L.I.C.E

Inspired by ELIZA, the Artificial Linguistic Internet Computer Entity was the natural language processing chatbot that itself served as the inspiration for the 2013 film Her.

### 1995

### **SmarterChild**

Available on AOL Instant Messenger and MSN Messenger, SmarterChild was the first chatbot to achieve mainstream adoption by millions of users in the early 2000s.

2001

#### Siri

Launched initially as a standalone iPhone app, Siri was integrated into iOS with the launch of the iPhone 4S in 2011. This ushered in the era of voice-enabled virtual assistants that included Google Assistant and Amazon's Alexa.

## 2010



2016

## **Facebook Messenger Bots**

The wide-spread adoption of chatbots exploded when Facebook announced that it would begin allowing bots onto its popular messaging platform. By 2018, there were more than 300,000 active chatbots on Facebook Messenger.



# **CHATBOTS VS. CONVERSATIONAL AI - WHAT'S THE DIFFERENCE?**

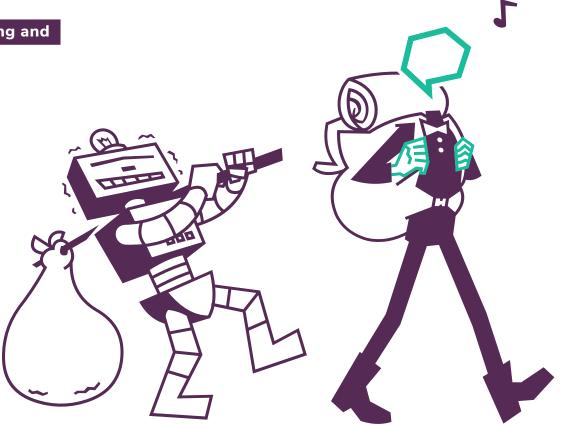
Basic chatbots only have the capacity to complete a limited number of tasks. Typically, this means answering simple FAQs and not much else. In order to meet the demands of larger enterprises, chatbots need conversational AI to enhance their ability to understand human language and to provide transactional functionality in addition to their informational capabilities.

Conversational AI is the synthetic brainpower that makes chatbots capable of understanding, processing and responding to human language.

Conversational AI can be used to power chatbots to become smarter and more capable. But it's important to understand that not all chatbots are powered by conversational AI.

## Scalability is king!

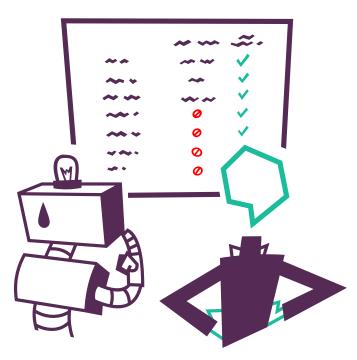
Large organizations, like banks or government agencies, often have thousands of customer service requests every day that can vary wildly. This can be impossible for basic chatbots to keep up with. Conversational AI can enable a chatbot to scale its language understanding and capacity without any reduction in accuracy.



# **CHATBOTS VS. CONVERSATIONAL AI - WHAT'S THE DIFFERENCE?**

Using sophisticated deep learning and natural language understanding (NLU) algorithms, conversational Al makes it possible for a chatbot to go beyond translating website content into simple chat responses.

It can unlock the potential for enterprises to empower customer self-service by automating complex interactions such as blocking credit cards, filing insurance claims, upgrading data packages, generating invoices and much, much more.



	Basic chatbots	Chatbots with conversational Al
Online 24/7	✓	<b>✓</b>
Natural language understanding	Keyword-based tech	<b>✓</b>
Dynamic, context-based navigation	Button-focused navigation	<b>✓</b>
Multi-level intent hierarchy	If/Then statements	<b>√</b>
Unlimited scalability	Limited improvement capacity	<b>✓</b>
Broad scope	Narrow scope	<b>✓</b>
3rd-party integration support	Limited understanding model	<b>✓</b>
Self-improving over time	<b>Ø</b>	<b>✓</b>
Consistently high-resolution rates	<b>Ø</b>	<b>✓</b>
Omni-channel	<b>Ø</b>	<b>√</b>
Entity extraction	<b>Ø</b>	<b>✓</b>
User authentication	<b>Ø</b>	<b>√</b>
Voice and conversational IVR	<b>Ø</b>	<b>✓</b>
Multi-lingual	<b>Ø</b>	<b>√</b>
Privacy & security compliant	0	<b>✓</b>

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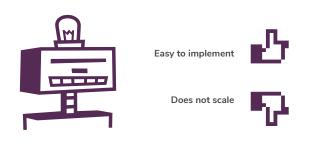
# **CHATBOTS VS. CONVERSATIONAL AI - WHAT'S THE DIFFERENCE?**

In the 2019 report, 'Competitive Landscape: Virtual Assistant Platforms, Worldwide', Gartner outlined three types of technology that most of the chatbots you will come across on the internet are built on.

Understanding the difference between these three key chatbot technologies will help you make the right decision on which one is right for your business:

### **Rule-based programming**

Common architecture of most basic chatbots. Uses keywords and other language markers to trigger predefined responses.



## **Computational Linguistics**

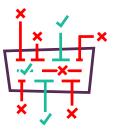
A flexible approach for dealing with multiple languages by tackling customer requests at various linguistic levels.



Easily adapted to new languages



High level of variation requires regular maintenance



## Machine Learning (conversational AI)

Most advanced implementation. Uses a large set of training data that enables deep learning algorithms to classify intents and better understand human language.



High response accuracy. Scalable



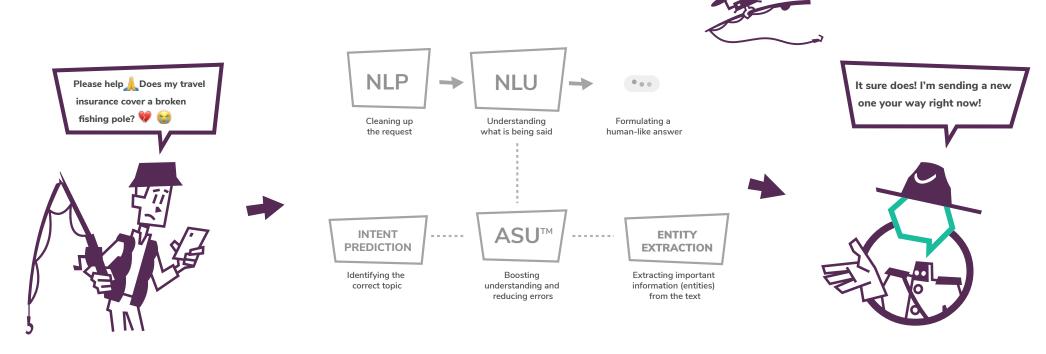
Deployment can be resource-intensive







# **CONVERSATIONAL AI - HOW IT WORKS**



How does conversational AI translate human language into something it can respond to and action on? On the surface, it's deceptively simple - a customer interacts with a chatbot and is given an appropriate response. But there are actually a number of different technologies working behind the scenes to ensure this interaction goes smoothly.

The first step involves Natural Language Processing (NLP). It's the job of NLP to correct spelling, identify synonyms, interpret grammar and break down a request into words and sentences that make it easier for a chatbot to understand.

An 'intent' refers to the goal or topic a customer has in mind when typing in a request.

Once the request has been preprocessed, a variety of deep learning and machine learning models take over.

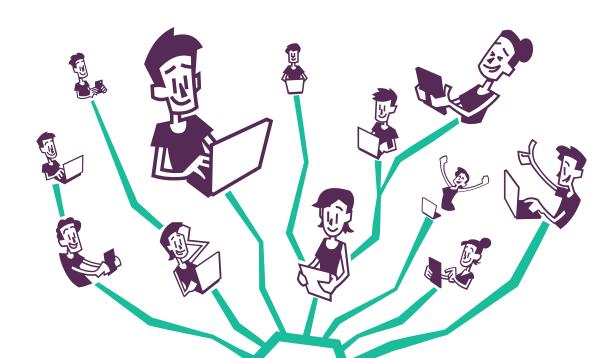
These are collectively known as Natural Language Understanding (NLU), and are a subfield of NLP. NLU is responsible for identifying the correct **intent** (i.e. topic) of a request and extracting other

important information that can be used to trigger additional actions such as context, account preferences, entity extraction, sentiment classification etc.

Tldr; NLP is anything that has to do with the processing of natural text, while NLU is more specifically about making sense of a chunk of text.

# **CONVERSATIONAL AI - HOW IT WORKS**

Once the request is understood, it's time for the chatbot to formulate a response. Conversational AI outshines basic chatbot solutions in its ability to communicate in a personalized manner. By combining the information gathered by the NLU (customer intent, contextual information, etc.) with a structured hierarchy of conversational flows, a chatbot is able to respond appropriately and in a conversational manner, whether it's answering a simple question or carrying out a complex transaction on a customers' behalf.



## Proprietary power-ups!

At boost.ai, our NLU stack includes a proprietary algorithm called Automatic Semantic Understanding (ASU). ASU helps to enhance the overall language understanding capabilities of our virtual agents, increasing their ability to parse complex sentences and reduce the occurrence of false positives by up to 90%.



As the chatbot has more and more interactions, conversational Al can grow smarter, improving how it responds. This can be aided by technology like self-learning Al that improves based on conversation data, and by human Al Trainers that tweak the model to make it more effective and efficient over time.

# **CONVERSATIONAL AI - HOW IT WORKS**

#### Do more with conversational Al

Thanks to advanced language understanding capabilities conversational AI can enable chatbots to do so much more.

## **Self-learning Al**

Build smarter and deploy faster with artificial intelligence that improves with the more data you feed it. This can mean scanning a website (or another chatbot) to build a viable model in just a few hours or analyzing conversation data to help Al Trainers optimize in real-time.

# Voice and conversational IVR

With powerful language understanding, a chatbot can go beyond text-based interactions and become the foundation for voice-driven customer service using text-to-speech and speech-to-text integrations.

## **Virtual Agent Network**

Large enterprises can break down departmental silos by connecting multiple chatbots together in a network. Advanced NLU detects and transfers users to the correct bot seamlessly and within the same chat window to maximize the customer experience.



### Al-assisted human chat

Connect a chatbot to existing knowledge
base systems and supercharge its ability to
assist front-line customer service staff.
Conversational AI can provide helpful
suggestions and increase employee
productivity without needing to put
customers on hold.

## **Integrations**

Conversational AI can make it possible for a chatbot to integrate with applications you already know and love. That means front-end integrations like Zendesk, Facebook Messenger and Slack, and powerful back-end integrations like RPA and OCR.

## **CHATBOT FEATURES AND BENEFITS**

Now that we've established what chatbots are and how they work, it's time to dig in and find out how they can help.

When deciding on the right conversational Al platform to deploy for your business it's important to have a clear understanding of the key features and benefits that an Al-powered chatbot can deliver.

Here's a list of enterprise-grade features you should look for and expect:

## High accuracy & resolution rates

A chatbot can't help if it doesn't understand. That's why conversational Al needs to be built on robust language understanding algorithms in order for it to be effective at automating customer requests. A chatbot must be able to:

Interact with customers in a conversational manner

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- Understand and act on customer intent, regardless of how complex the request is
- Identify multiple intents in the same request and provide customers with actionable responses for each
- Understand context to keep interactions from veering off-track
- Ask follow-up questions to clarify information and gather actionable data

These crucial features make it possible for conversational Al chatbots to achieve high automation rates of up to 90%. Without these in place, you run the risk of frustrating customers and reducing their confidence in your chatbot.



Many basic chatbot solutions are only able to automate actions and answer questions on 100-200 topics at most. This is fine in the case of a florist or food delivery service but soon becomes untenable for larger enterprises such as banks, insurance companies, telcos, e-retailers or government organizations.

Larger organizations often have complex product and service offerings that require a scalable chatbot solution. A robust conversational Al platform will allow a chatbot to handle a number of intents orders of magnitude higher than rulebased chatbots, averaging in the thousands, rather than just a few hundred.

Conversational AI places intents into a hierarchical structure making it easier to scale. Having all intents at the same level (which is typical of many solutions) makes them difficult for the AI to keep track of. Instead, categorizing intents per subject matter (i.e. insurance types, banking products, etc.) negates the need to scroll through a long list in order to find the correct intent.

## Broad scope vs. narrow scope

Trying to solve a narrow set of problems with a chatbot may seem like a quick fix but, ultimately, will not lead to sustainable returns on investment. Conversational Al makes it possible to cast a wider net and deploy chatbots that have a broad scope.

This approach is particularly applicable to enterprises that have large volumes of customer service traffic every day, and goes hand in hand with a chatbot's ability to scale and automate at consistently high resolution rates. A conversational Al chatbot with a broad scope can help an organization achieve long-term strategic goals instead of just short-term wins.









## **CHATBOT FEATURES AND BENEFITS**

### Total cost of ownership

As conversational Al becomes smarter and more capable, it's natural for enterprises to want to be more in control of what their chatbots can achieve. This means moving away from the need to hire data scientists and developers towards solutions that offer low-code or no-code software and puts the power of automation into the hands of customer service reps, leveraging their expertise and experience to build dynamic customer interactions.

Value per interaction

By giving an organization complete ownership of the solution - from building and implementation to optimization - you achieve greater organizational buy-in which results in better customer experiences overall.

# Pre-built, vertical-specific content

Launching a brand new chatbot from scratch can mean a lot of initial work. This can be mitigated by selecting a conversational Al platform that offers ready-made content for your specific vertical. Instead of building banking intents from the ground up, you can implement a banking-ready chatbot that has knowledge about credit cards, mortgages and more, and then tailor its responses to match your brand guidelines.

Combined with self-learning Al, this can dramatically reduce implementation timelines from weeks and months to only a few days.



**Number of interactions** 

Value created

#### **Conversation analytics**

Analyzing and understanding what your customers are asking about is crucial to chatbot optimization. Look for analytics tools that allow an organization to mine conversation and interaction data, with features such as advanced search, tagging and quality rating, clean-up reports and API support.

#### **Seamless human hand-off**

The advantage of robust natural language understanding is that it allows a chatbot to correctly identify when it doesn't recognize a customer request. Conversational AI can use this information (complete with a chat transcript and account info) to seamlessly loop in a human agent to assist without the customer experience breaking down.

By recognizing when something is outside of a chatbot's scope and leveraging human support to help instead, you stand to increase customer satisfaction and loyalty.

## **HOW AI CHATBOTS DRIVE BUSINESS VALUE**

Customers prefer to use chatbots over legacy channels like phone and email because they are convenient, easy to use and empower self-service. Chatbots also have a number of benefits for enterprises including helping to reduce operating costs and increasing employee productivity.

Here is a list of the top areas where conversational Al-powered chatbots can drive value to both businesses and consumers:

#### **Instant response times**

69% of consumers prefer chatbots because of their ability to provide fast answers to simple questions.

Consumers value speed and convenience when seeking help online. All chatbots eliminate the barrier between a brand and its customers by providing immediate responses.

#### Increase revenue

Chatbots expected to drive \$112 billion in retail revenue by 2023.

Chatbots powered by conversational Al can interface with a customer's account and suggest products and services they

may be interested in, helping to increase sales and drive revenue.

#### Keep costs down

Chatbots can cut operational costs by up to 30%.

A scalable conversational Al-powered chatbot can do the equivalent work of hundreds of human agents, without an organization needing to onboard any additional staff.

# Increase employee efficiency

70% of white-collar workers will interact with conversational platforms on a daily basis by 2022.

Free up employees to focus on highvalue customer interactions by using a chatbot to empower self-service and automate repetitive inquiries.

## Open up new channels

Chatbots saw a 92% use increase since 2019, making it the brand communication channel with the largest growth.

Chatbots allow enterprises to deploy and test new, fully-automated omnichannel experiences for sales, service and support without tying up resources to onboard and manage new teams.

## **Bolster brand loyalty**

67% of US Millennials say they would purchase a product/service from brands using a chatbot.

Deliver your customers a dynamic and memorable self-service experience and they'll keep coming back (and spending more!).

### **Available 24/7, 365**

Over 50% of customers expect a business to be open 24/7.

In today's connected world, it's not unexpected that customers should want to reach you outside of office hours. Chatbots present a fast and scalable way to answer customer queries about your business when it suits them best.





# **USE CASES AND CASE STUDIES**

With the right conversational Al platform powering it, a chatbot can be a powerful tool for both customer-facing support/sales and optimizing organizational efficiency.

In this chapter, we will explore a variety of chatbot use cases that can be applied across industries, and share examples of client success stories.

### Banking, credit unions & financial services

#### Automate core banking services

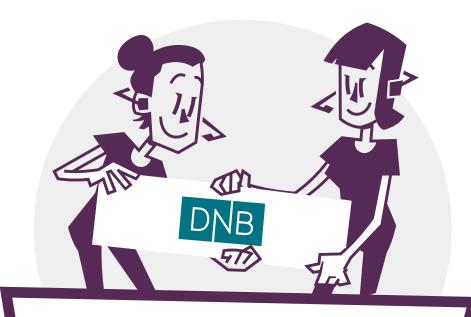
Whether it's opening a new account, reporting a lost card, checking account balance, processing mortgage payments or any other core banking services, conversational AI makes it possible for customers to have agency over the process via a friendly, conversational interface without needing to involve a human operator unless they want to.

#### Instant & personalized service

Break down customer service and support barriers by delivering instant, accurate and consistent answers to questions related to your bank's products and services. User authentication can allow for personalized and proactive responses, tailored to individual customers' needs, that improve over time.

#### Onboarding and internal support

Combine conversational AI with RPA to automate time-intensive back-office processes, such as document management and contract review, ultimately increasing employee productivity and streamlining operations. Onboard new staff with training and knowledge base content built directly into the AI chatbot.



## Case study: DNB

**Challenge** Norway's largest bank needed to scale customer

support to handle high volumes of incoming chat traffic

**Solution** Routed all customer service chat traffic through

conversational AI chatbot

**Result** Chatbot automated over **50%** of all incoming

chat traffic in 6 months.

Now accounts for **20%** of all customer service automation, including channels like phone

and email



# **USE CASES AND CASE STUDIES**

#### **Insurance**

#### **Automate claims processing**

For insurance companies, ensuring a fast and frictionless claims process is key to maintaining strong customer relationships. A chatbot can answer questions about claims instantly, while interfacing with back-end systems and 3rd-party integrations (i.e. Optical Character Recognition), to fully automate the claims process.

#### **Boost employee productivity**

Complex policy structures and documentation can be accessed by support and service staff via an internal-facing chatbot, instead of needing to call back-office support lines. This can increase productivity and help to maintain consistency of the information provided to customers, while simultaneously reducing overall call times.





## Case study: Tryg

**Challenge** Denmark's largest insurer needed to reduce

complexity for human support staff in order

to increase operational efficiency

**Solution** Deployed internal Al-powered chatbot to

assist customer support staff by answering questions about policy and products without

needing to put customers on hold

**Results** Chatbot answers questions on over

**1,200** topics with a **95%** success rate.

Assists over **750** employees daily

#### Fight fraudulent activity

Chatbots powered by conversational AI can help insurance firms to fight fraud and protect customer privacy. Natural language technologies can be trained to identify early warning signs of fraud and allow for automation processes put in place to mitigate potential challenges.

## **USE CASES AND CASE STUDIES**

#### **Telecommunications**

#### Powerful upselling potential

Combine existing customer data with conversational AI to create intelligent cross-selling opportunities. Purchase history and account info can be leveraged to offer personalized plans and services that customers didn't even realize they needed.

#### Increase acquisition rates

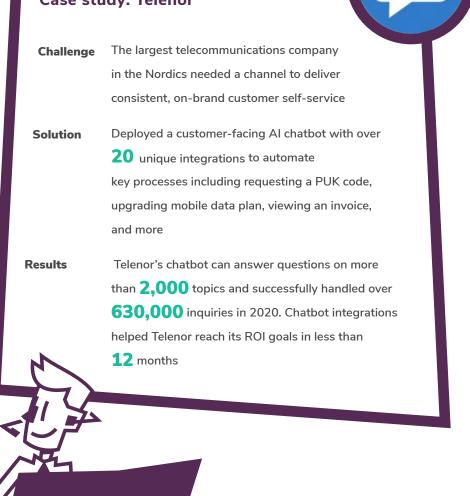
Chatbots present a unique and dynamic channel for customer acquisition. Potential customers can get to know which of your products and services are the best fit for them through targeted questions and Al-powered recommendations based on past user behavior.

#### **Product and technical support**

If a customer has a question about one of your products or is experiencing technical difficulties, a chatbot saves them from having to wade through FAQs to look for an answer. Conversational AI can help diagnose the issue and either provide automated support or transfer the customer to the correct human operator for further assistance.



## **Case study: Telenor**



# **USE CASES AND CASE STUDIES**

#### **Public sector**

#### Easy access to public data and information

Chatbots are a great way to give citizens access to public information that may otherwise be difficult to track down on government websites or by phone. This can include anything from information on new legislation to what day of the week the rubbish is collected in your neighborhood.

#### Extending office opening hours to 24/7

Government agencies are famously known for having limited opening hours, making it difficult to get in touch with them.





Chatbots don't have this problem. They are available 24/7 (yes, even on public holidays!) and can help citizens with queries outside of standard office hours.

#### **Collecting feedback**

Implementing a new policy and want feedback? Chatbots provide a unique way for citizens to engage with local and national government through dynamic conversations that can act as surveys or simply as a place to let people's voices be heard.

## Case study: Norwegian Labour and Welfare Administration

**Challenge** Help businesses and citizens maintain access to key social benefit

programs during coronavirus pandemic

**Solution** All chatbot was deployed to help assist with questions related to

pension, child support, unemployment benefits, employee sick

leave and more

Result Conversational Al allowed chatbot to scale to handle over

**270,000** inquiries at peak of the pandemic, doing the

work of **220** FTE with an **80%** success rate including

channels like phone and email

# **USE CASES AND CASE STUDIES**

#### E-commerce

#### Promote sales and marketing campaigns

A chatbot can intelligently make recommendations to customers based on active sales and marketing campaigns by asking questions or interfacing with a CRM system for personalized recommendations.

#### Re-engage customers

Avoid abandoned carts by using conversational AI to remind customers that they have an unfinished order. Chatbots can help complete lingering purchases by providing additional product information or helping to resolve any issues a customer may have.

#### 24/7 order support

Extend your support hours to 24/7 with the help of automation. Offer automated return processes and assist customers with inquiries outside of contact center office hours so that they can keep buying your products and services when it suits them, not you.



## **Case study: Posten**

**Challenge** Norwegian postal service needed to scale customer

service and support during busy holiday period

**Solution** Chatbot launched with advanced functionality

including parcel tracking and address change

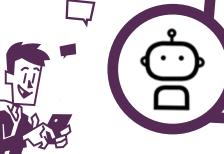
**Results** More than **370,000** customer service inquiries

successfully automated in December 2019.

In December 2020, Posten's chatbot surpassed

over **1** million customer interactions





posten

# **USE CASES AND CASE STUDIES**

#### Healthcare

#### Provide critical information

A chatbot can be a great resource for a hospital or medical organization to provide accurate and updated information on procedures, illness symptoms, mental health, health insurance and more.

#### **Support doctors**

Conversational AI can interface with medical databases and other systems to help doctors retrieve information that can be helpful during patient diagnosis. Answers to queries on symptoms, medication, dosages and more are just a chat away.

#### **Assist patients**

More than just answer-bots, AI chatbots can also help patients in a proactive manner. They can remind you when it's time to take medication, provide instructions for how to apply simple treatments and, with the help of 3rd-party integrations, help monitor patient health.



## Case study: Västra Götaland

**Challenge** Sweden's second-largest county needed a reliable

and always-available channel for its 1.7 million

residents to access information about the latest

coronavirus guidelines

**Solution** All chatbot developed and launched in just

**6** working days in collaboration with local

healthcare professionals

**Results** More than 800 conversations automated each day. Chatbot proved so effective that it

was adopted by the wider Swedish population





Building and implementing a chatbot powered by conversational AI can be a daunting task - but it doesn't have to be! In this final chapter, we want to share a list of best practices that the boost.ai delivery team has developed from hundreds of successful virtual agent implementations across Europe and North America.

Following these recommendations can help you, as a project manager, successfully deliver your next conversational AI project quickly without compromising on quality.

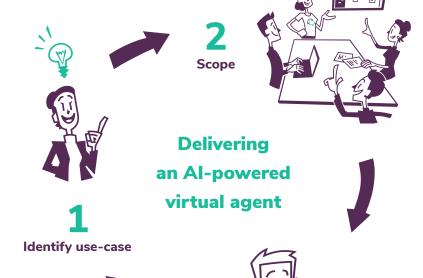
#### Decide on the correct use-case(s) for your chatbot

Identify which parts of your organization would benefit most from automation and then decide on relevant use-cases. Use-cases can include:

#### Service and support Internal knowledge (external chatbot) (internal chatbot)

- Automated first responder
- Automate a portion of customer service and support
- Increase self-service rates
- Increase support capacity
- Cost-effective 24/7 support
- Handle unexpected peaks

- Centralized knowledge base
- Convenient and anonymous
- HR, IT and payroll support
- Personalized
- Cost-effective 24/7 support
- Handle unexpected peaks
- Al assist with Smart Replies



## Sales optimization (external sales chatbot)

- Automated sales
- Self-service and web-form quidance
- Increase up-sell and cross-sell
- Revenue goals with tracking and analytics
- Design and optimize customer journeys

S For more information on industry-specific use-cases refer back to chapter 7.

## Set and agree on a clear scope

Establish the scope and KPIs for your chatbot and ensure all stakeholders are aligned. This is where you can set goals for your project and assess what resources may be needed. When setting scope and expectations, remember to:

Outline goals and clarify expectations, so that all stakeholders are on the same page about what they want to achieve

Define the requirements for the product, process and project. This means focusing on what questions need to be covered by the chatbot

Identify any limitations that could slow down or impede the project from moving forward

### Assemble the right (dream) team

Buy-in across all levels of your organization can be crucial to your chatbot's success. We recommend the following structure for your internal (your company) and external (the chatbot vendor) teams. This can, of course, vary from organization to organization but is a good starting point for how to set up a winning project team.





#### Internal team

- Executive sponsor (critical)
- Project manager
- Content Designers/AI Trainers
- User testers
- Frontend developer

It is important to include an 'Executive sponsor' on your internal team. This should ideally be someone in a senior position who can act as a champion for the project and help to remove any roadblocks.

## **External resources**

- Project manager (optional)
- Al Supervisor/Platform expert
- Al Trainer
- Technical specialists

# Integrate your chatbot with your support team

Some AI chatbot solutions are black boxes that need a team of developers or data scientists to operate. This is not the right approach for enterprises that may require greater control over their customer service automation.

It's important to opt for a conversational AI platform that has a user-friendly, no-code or low-code, interface. This will allow for an organization's best customer service resource - its existing customer service staff - to take ownership of training and maintaining the chatbot. These subject matter experts, due to their experience and expertise, are best positioned to develop the kinds of

dynamic interactions and conversation flows that make for the best automated customer experiences.

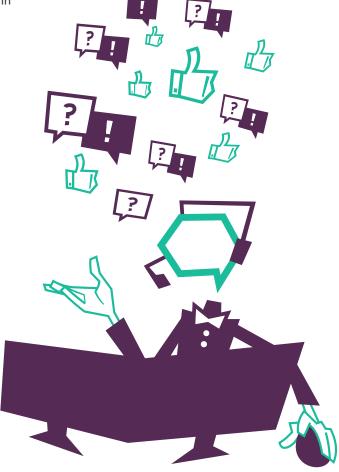
### Choosing the right KPIs

When setting KPIs, you need to be mindful of the use-case that you have selected for your chatbot, and the scope you have landed on.

Here are some common performance metrics that you should look to measure:

- Resolution rate
- Deflection rate
- Avg. handling time
- Reduction in queue times
- Number of sales automated

Also, it can be important to monitor what types of inquiries your human support staff see an increase or decrease in once the chatbot has been implemented. This will give you a good indication of where the bot may be helping most.









## **Chatbot visibility matters**

Visibility is one of the core principles of (interaction) design. The more visible an element is, the more likely users will know about it and, in turn, interact with it. This applies to chatbots just as much as it does to websites, buttons, or content.

If you make your virtual agent difficult to find, customers will typically interpret this as you not wanting them to get in contact - a cardinal sin in customer service. Here are some best practices to follow for virtual agent visibility:

## Consider going 'chat-first'

For the best ROI, we recommend that our clients adopt a 'chat-first' approach. This is where all incoming chat traffic is directed through the chatbot first before other channels like phone or live chat. This allows an organization to automate the highest possible amount of interactions, and our NLU will intelligently transfer customers to the right human agent if a request is outside of the chatbot's scope.

We have many clients that successfully use this approach to automate upwards of 40% of their total customer service traffic, including phone and email.

Ensure your chatbot is easy to find on your webpage

 Design a visually appealing avatar that is instantly recognizable

Use text to encourage engagement with the chatbot, i.e. "I can help!"

- Use dynamic designs such as avatar animation or text pop-ups when hovering over the chatbot
- Proactively launch the chat window to grab the customer's attention

Chatbot visibility should also align with your KPIs. There is no sense in hiding your chatbot away on the 'Contact' page of your website if you set a KPI goal to automate 50% of all chat inquiries. It needs to be visible on the front page and promoted so that it can reach its full potential.

## Anticipate and mitigate risks

All projects inherently have some level of risk attached to them. If you can plan for these risks in advance, then it can mean the difference between being surprised by an unexpected roadblock, and deftly navigating around it.

These are some recommendations for how to think about risk mitigation for a conversational AI chatbot project:

- Identify and describe potential risks
- Determine the probability of how likely it is for a risk to become an issue
- Categorize the level of impact the issue might have on the project
- Have a plan in place for what mitigation measures to adopt to deal with the different categories of issues that may arise



## **CHATBOT BEST PRACTICES FOR ENTERPRISE**

## Chatbot project pitfalls to avoid

Without proper planning and foresight a large-scale chatbot project can quickly derail. Here are five of the most common pitfalls to avoid to ensure your virtual agent launches on-time and on-scope.

- Insufficient planning Failing to plan is a big no-no. Establishing a detailed roadmap for where you want to see your chatbot in 12, 18 or 24 months crucial to reducing overall risk and failure rates.
- Scope creep Keeping your eye on the prize, and scope under control, is critical for efficient delivery. There will always be time later to add in additional functionality to your new chatbot.





- Not anticipating hiccups Even the most carefully planned project can run into trouble. Sometimes hiccups are unavoidable, but it helps to acknowledge that they can happen, and to try and have an contingency plan in place in case they do.
- Undefined or misaligned expectations Your c-suite may define success in a completely different way than your front-line support team, so it's important to make sure your Critical Success Factors are easily measurable.
- Not thinking about the 'ever after' You need to be thinking ahead to after a project is completed; how will the solution be operated, built-upon and continue to grow? Taking time to consider these factors will make you ready to tackle them later.

# **CHECK OUT OUR OTHER GUIDES**

Conversational AI trends in customer service: 2021 and beyond

5 essential steps to enhancing customer interactions with conversational Al

How conversational AI can significantly improve customer experience in the financial services industry

Conversational design vol. 1 - Interaction: Using data-driven insights to build a better user experience for your virtual agent

Conversational design vol. 2 - Visibility: How to maximize user experience for your virtual agent

Conversational design vol. 3 - Avatars: Considerations, approaches and recommendations for virtual agent avatar design













