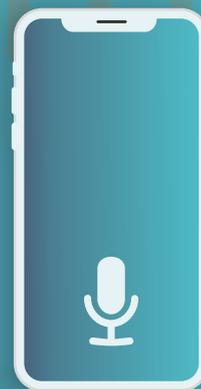


Raise your voice



*Why your company should invest in
voice assistants today & how to get started*

Introduction

Artificial Intelligence has revolutionized the quality of language understanding, enabling extremely effective human-machine communication. Reliable machine and computer interaction is the Holy Grail for organizations that want to communicate at scale with their customers in a personal manner.

Where IVR menus and waiting music used to be commonplace, we are now seeing a fast-paced evolution to automated client interactions handled by bots. These bots are able to instantly offer customers clear answers while saving a tremendous amount of time for both customers and human agents. In the foreseeable future this technology will become ubiquitous.

As soon as a voice assistant addresses its audience in their own language, numerous other services become possible, and an excellent customer experience is maintained throughout. Thanks to voice assistants, human agents are able to focus on emotion-rich, more complex tasks where human creativity is key. This ultimately benefits all those involved in the value chain.

If you are interested or passionate like us about what voice assistants can already do for your organization today, read further and discover some of the voice assistants and use cases that can truly transform your organization. Enjoy the read.

Striking numbers

- 58% of IT leaders are convinced that voice technology will help their customers to save time
- By 2024 the number of devices using voice assistants in use will "overtake the world's population" with more than 8.4bn devices
- 72% of people who own a voice-activated speaker say their device is a part of their daily routine.



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What you will learn

- How you can communicate consistently across all your channels to reach your communication goals
- How the voice assistants has evolved over the last 10 years
- Which industries are suitable for automated voice assistants
- What does it take to create a custom voice assistants
- What are the key technology components when you talk to an automated voice assistant
- What are the 9 steps to get your voice assistant project started

1 Voice assistants today

Voice applications are being used in many industries. They are serving customers at the same standard as a human agents, or even better. They are handling repetitive client requests more efficiently and rapidly than human agents.



Examples:



Banking

Imagine that you are on a business trip outside of your country. After your first dinner, you realize that your card is limited for use in your country. You can't call the bank because of the time difference..

Solution: Thanks to your bank's automated voice application you are able to activate your card outside of your country and pay the bill.

Extra advantages:

- Safety is guaranteed thanks to additional security checks
- Self-service applications can handle call peaks.
- It's always consistent.

Banking is only an example. Check out other industries where voice assistants are gaining massive importance.



Automotive

Communicating with your GPS or your music streaming service in your car has become very common. 95% of consumers use their voice assistants while driving. ¹



E-commerce

Before Covid-19, 74% of voice assistant users carried out e-commerce transactions with their voice assistant. After Covid-19, e-commerce will become an even more important driver for the consumer goods market. ¹



Entertainment

At home, voice assistants are also helping people improve their entertainment experience. Lean back and tell your TV which movie you would like to see, or ask your voice assistant to suggest one based on your history. Today, 58% of voice assistants are already doing so. ¹



Services

Ordering a meal, a taxi or sending a package ... 74% of voice assistant users are already ordering services with their devices. ¹

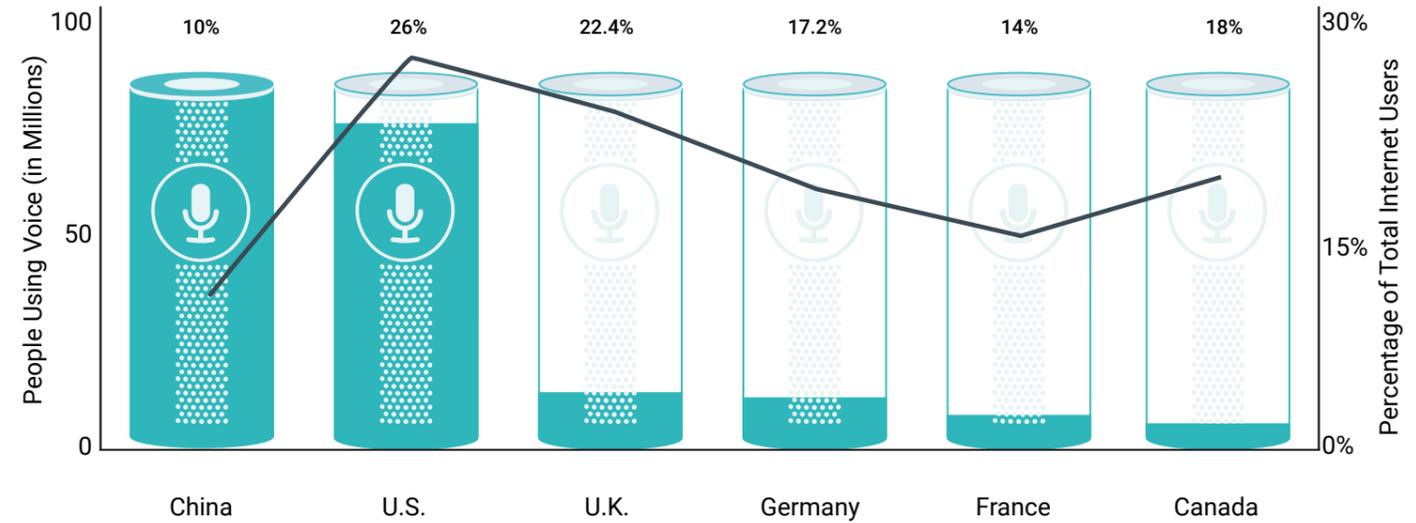


Education

Bi-modal learning is extremely useful for many people. Usage will keep increasing, for both at home and classroom study. Voice instructions can help students to achieve better results. 54% of voice assistance use in for education purposes. ¹

¹ Source: Capterra - Smart Talk - Conversational Interfaces 2019

Voice Assistant Use in 2019 (Millions and % of Internet Users)



Worldwide, internet users are shifting their online activity from classic user interfaces to voice assistants.

Source: eMarketer

Individuals of any age who use a smart speaker at least once per month; Excludes smartphones, desktops/laptops, tablets, wearables, gaming consoles, TV consoles, VR headsets, cars and smart home devices.

Case study: Innovative health care, happy customers



VGZ is a large non-profit health insurance corporation in the Netherlands, servicing more than 4 million customers. @Their goal is to provide innovative, high quality and affordable healthcare.

VGZ invested time and money in training a chatbot named Sam. This voice assistant was created to help customers accessing their IVR-solutions automatically.

Before Sam was launched, VGZ gave him a voice that matched his personality. Sam was first introduced to a limited group of customers to be trained and modified. After that, it was ready to help all VGZ clients, and did an outstanding job. Within three months, Sam was already helping over 100 customers per day.

Result: Sam now handles 25% of customer questions by himself, reducing the workload for his human colleagues. VGZ customers and staff are all happy



2 Maturity model

The voice maturity model allows you to gauge the level of capability and maturity of your project. Due to advances in conversational AI, reaching the highest tier of maturity is gradually becoming easier.

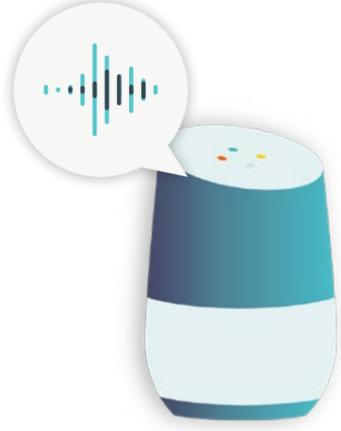
CAPABILITY



Call center
Allows for direct interaction with your customers



IVR
Route customer to the right agent (press 1, press 2, press 3, ...)



Voice assistant
Specific actions are automated with voice commands

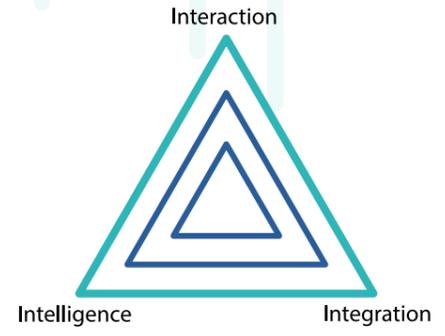
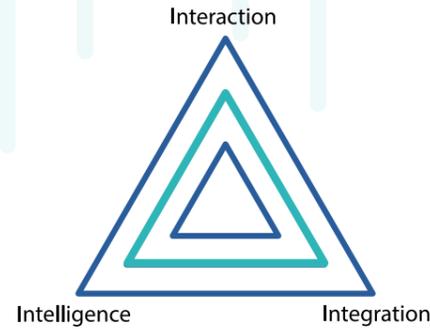
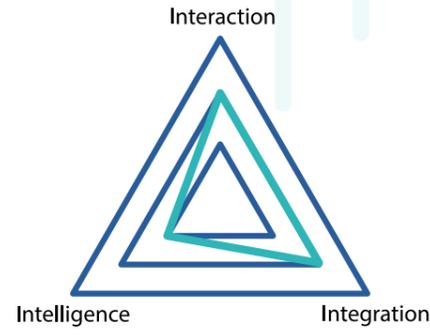
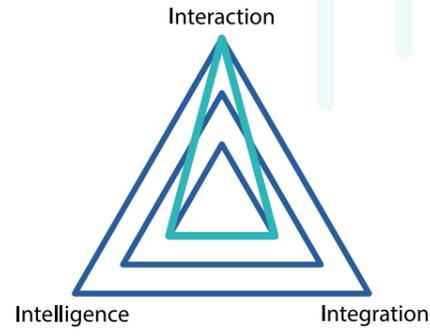


Conversational voice bot
AI-based bot that understands customers and guides them towards a solution independently

RULE-BASED

AI-BASED

MATURITY



3 A look under the hood

Machine Learning, a subdivision of AI, is a voice assistant's engine. It contains the algorithms that learn intelligently from examples. Voice Assistants tend to be constructed with the following components:



Automatic Speech Recognition

Transforms spoken speech into text. Many providers are offering high-quality ASR solutions in specific languages. They face two main challenges:

1. The ASR solution must work well in noisy environments and understand different pronunciations.
2. Being able to select a provider on a per language basis, that is also capable of handling different pronunciations puts us in a position in which ASR is ready to be used in automated voice applications.



Natural Language Understanding

Makes spoken language understandable for computers. Different from other developers, our latest development in NLU algorithms is the language independent model. In this case, the NLU model is trained with data sets from many languages. This makes it possible to train an NLU model in one language and to have your bot understand 100+ languages.



Text To Speech

Is the automated process that handles the transformation of text into spoken language. It uses a data set that contains all speech sounds, stress markers and phrasing information. As the name indicates, TTS needs text in order to generate speech. Although this might be confusing, as most of the applications in which TTS is used, actual text is not displayed.

Emotion, human warmth and tone of voice

For Natural Language Understanding and Automatic Speech Recognition we are only a few years away from matching human performance.

But human speech is more than just words and sentences. The human voice provides insights into how a person feels, their mood, age, gender and so on. This information enables a voice assistant to respond accordingly.

Chatlayer.ai and ReadSpeaker are working on getting each individual NLP component away from its silo. We are building an AI-based system that truly goes end-to-end from voice input to voice output and truly delivers on the promise of a real human conversation.

Example:

Chloe calls her bank and the automated voice assistant answers the phone.



"Good afternoon, my name is Mark, I'm the FutureBank voice assistant, how can I be of any assistance?"

Chloe just heard the bank's TTS voice.

The reason she called is to change her address details.

"Hi, my name is Chloe, I want to change my address details."



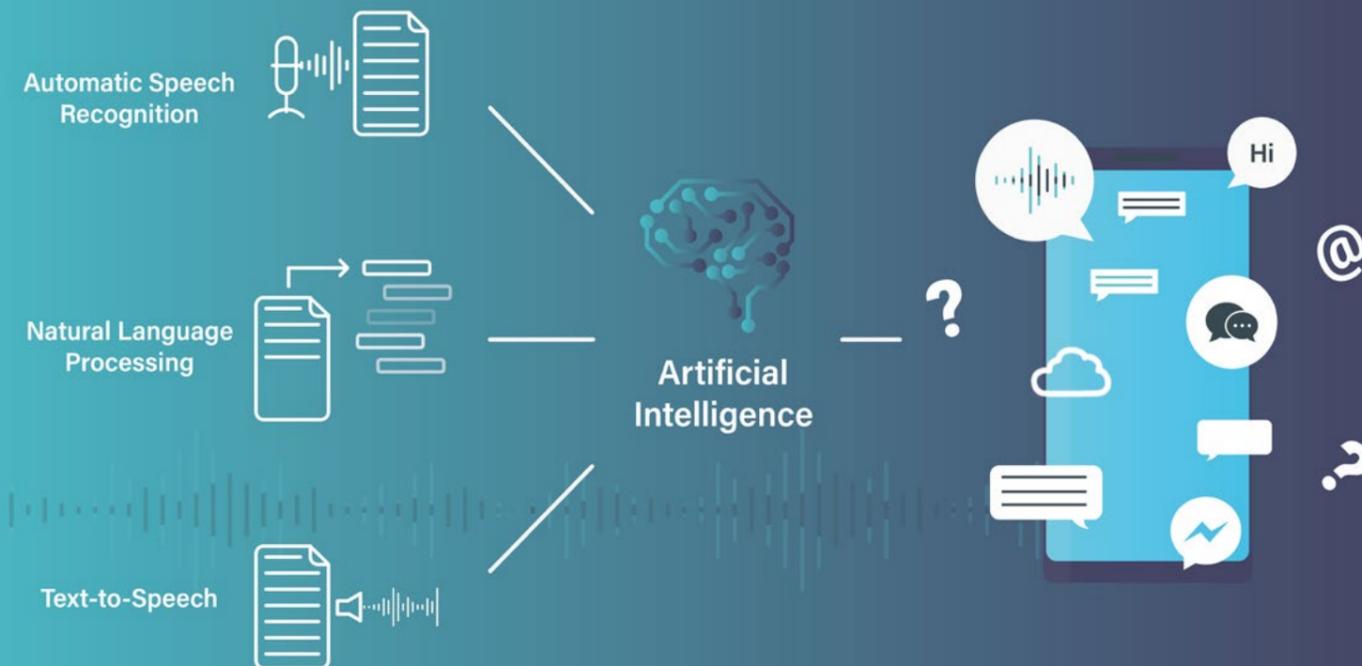
Automatic speech recognition was used to transform her voice into written text.

Now NLP steps in:

Chloe said: "I want to change my address" or she could have said, "I live in Amsterdam now" or

"I moved from Utrecht to Amsterdam."

The example sentences are three totally different ways of saying the same thing: she would like to change her address details. In this case, Chloe's intention is to change her address details. She can use different expressions (ways of saying this) to achieve her goal. The NLP algorithms should recognize all three possible expressions and connect them with the same intention - namely changing her address details.



4 Giving your brand a voice

Branding in the 21st century is not only about creating a catchy visual style. You also need a voice to embody your brand values. Think about how you can make your brand's voice sound like a familiar and trusted reference point for your customers. Like a jingle on the radio but more personal. Sonic branding is expected to be one of the most important marketing assets of the coming decade.

Representing your brand values

Choosing a voice is like designing a logo. What do you want it to represent? How do you want it to interact with clients and users? Your voice will represent all your company's values. And you get to decide every aspect of what it's going to sound like. You can choose the gender, style, accent... whatever fits your organization's philosophy.

How does it work?
You have two options:

1

For specific cases, recording static voice prompts, spoken by a selected voice actor, can be a good idea. In this case, every possible reply in the designed conversation is recorded as a separate unit, and these voice prompts are later implemented in the particular application context. This is very common for commercials.

2

For the greatest reach and versatility, you can opt for an automated voice. The process starts by recording scripts with a selected voice actor. Then we build a text-to-speech voice, using AI. This option is extremely flexible and provides the best ROI, especially when you need to provide information that is changing constantly, e.g. in your product catalogue. A synthetic voice immediately adapts to any context. It is consistent across touch points and is effortlessly integrated into your omnichannel strategy.



5 What's the next step?

Choosing your brand's voice is certainly the most important part of the process. The next step is creating it. Here's how we do that.

The process of developing a synthetic voice starts with recording an actor's voice. The actor can be the one who stars in your radio or TV commercials. That makes your branding even more powerful.

Testing

To test the suitability of a voice actor's voice for text to speech, a linguistic team records a test sample. The experts then assess the voice quality to ensure that the pronunciation is consistent and that the style is stable

Script development

Meanwhile, a linguistic team works with the client on what is known as "the script". This is the stage in which your voice gets all the attributes it needs to communicate your brand personality.

Timeline

It takes about 6 weeks to create a high-quality text to speech voice. That includes 15-25 hours of recording. ReadSpeaker's linguists coach the voice actor during the process to ensure the correct output. When this phase is complete, our development team starts training the model, using AI technology. Extensive testing is also included in the timeline. That's how we make sure that your brand-new voice perfectly meets your requirements.

Deployment

The voice solution can be deployed on site - provided as a Software Development Kit (SDK), or as a Speech Server. The latter is the most popular solution in terms of the volume of requests handled and the voice generation speed. Some clients prefer in-cloud SaaS solutions for their custom voice. You can count on us for the right advice and the necessary aftercare.

The human touch

The linguistic experts are always available to assist you - before, during and after the development process has been completed. Along with our world class expertise as industry innovators, our 24/7 support service makes ours a truly high-end voice solution appreciated by clients across industries.



6 Getting started with a voicebot

The best way to decide if a voicebot would be useful for your organization is to start testing this with you clients/ target audience. We'd like to help you set up your first use case using the following 9 steps:



1 Get expert knowledge

Dig into the market and consult our expert knowledge. We can give you the market insights you need to make your voice marketing decisions.



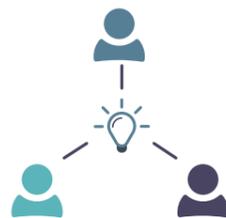
3 Select your first voice use case

Start by choosing a small and simple use case in your organization.



5 First scripts and Wizard of Oz testing

It's especially important to keep the use case and tone of voice in mind. Before you start using any technology, apply the Wizard of Oz testing method to find out if your script works. This method is a lot of fun and is always useful!



2 Brainstorm voice for your brand

Get your team together to define the voice marketing needs of your organization. Define your goals and your customers' expectations.



4 Define your sound and tone of voice

A voice project might be the first occasion to think about the sound and tone of voice. Keep your brand style guide close when making decisions about your company's voice.



6 Choose the technology

Define the technology you need to deploy your first voicebot. We will help you select a good voicebot platform and text-to-speech engine.



7 Start building the first test project

Now that you have prepared everything, you are finally ready to start building your first voicebot. Remember to keep it simple the first time!



9 Start expanding to other use cases

Evaluate your first project and start expanding to other use cases.



8 Improving your voicebot

Actual user data will show how successful voice can be for your organization. This data is also really useful for continuously improving your voicebot and the user experience.

About the authors



Chatlayer.ai
a **sinch** company

Chatlayer.ai is the leading AI voicebot and chatbot building platform. We enable businesses to easily build bots and make them available in 100+ languages. There is no limit to the size of your bot project, and our state-of-the-art Natural Language Processing (NLP) allows the deep-dive analysis on the performance of your bot.

Headquartered in Belgium, Chatlayer services many different industries around the world. Telco, Banking, Insurance, Real Estate, Government, Healthcare, We are helping industries bridging the gap between technology and having effective automated conversations with maximum customer satisfaction.

Chatlayer.ai is proud to be part of [Sinch](#), a global CPaaS provider.

Get inspired on [Chatlayer.ai](#) and follow us on social media to stay tuned.

ReadSpeaker 

The ReadSpeaker VoiceLab works closely with companies to create custom branded voices that promote brand values across all consumer touch points. Leveraging two decades of expertise and cutting-edge AI technology, we deliver unique voice solutions that enable brands to connect with target audiences in personalized and compelling ways – improving engagement and enhancing business performance. ReadSpeaker Custom Voices perform flawlessly regardless of the technical environment or domain.

ReadSpeaker has proven expertise in custom voice development and uses the latest in Deep Neural Network (DNN) technology. We create branded voices that speak exactly like you want them to. We are strongly privacy-focused and take pride in our uncompromising QA and continuous quality improvement policy.

Visit us on [Readspeaker.ai](#) to find out all about voice assistant possibilities.