

5 essential steps to enhancing interactions with conversational AI



Everything you need to know
to select the right solution
and begin successfully
automating customer
relationships

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Keep track of your progress towards transformation

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Artificial intelligence is serious business.

As advancements in technology continue to grow exponentially, AI has quickly begun to permeate through to almost every corner of our lives as consumers. Everything from commercial flight planning to your email inbox spam filter is powered by some form of an algorithm or other designed to increase efficiency, minimize costs and, ultimately, make life easier.

There is no clearer a case for this than in the customer service/support sector, where spending on AI is expected to reach \$4.5 billion worldwide in 2019¹. This investment in automated virtual agents is the largest slice (12.5%) of a \$35.8 billion AI pie that itself is up 44% from 2018.

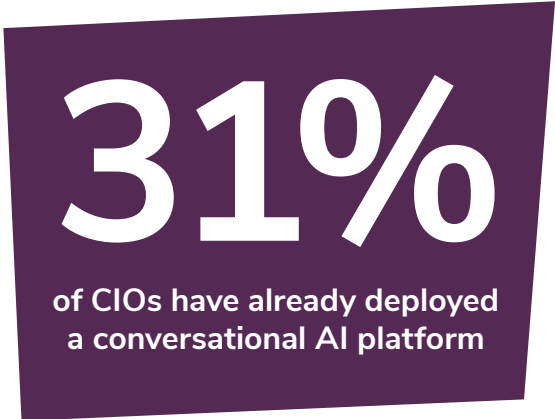
This meteoric rise has naturally brought with it an incredible amount of noise. Gartner revealed in a recent market guide that 31% of CIOs have already deployed or are in short-term planning to deploy a conversational AI platform². Any customer-facing brand that is not already making moves in this direction runs the risk of being left behind by the competition.

But the question remains: how does one arrive at the right conversational AI solution? One that not only delivers a marked return on investment but also genuinely delights customers to the point that they return, happy and willing to interact with this next frontier of customer service again and again.

The answer isn't as simple as some of the fly-by-night chatbot vendors that pollute the conversational AI space would have you believe. There are **five key factors** (and one important additional step) involved that are critical to ensuring that the customer experience you deliver via chat is well thought out, and well-rounded enough, to make the investment worthwhile. In brief, they are:

- **Identify your use case(s)**
- **Pick the right technology**
- **Outline a winning strategy**
- **Keep humans in the loop**
- **Prepare for what comes next**

Once these criteria are met, it's equally important to get the support you need, both internally and externally, in order to make the project a success. Over the course of this guide, we will go into detail on each of these steps and how they can be used to ensure that whatever conversational AI solution you settle on, it exceeds expectations and delivers measurable value with a minimum amount of risk involved.



31%

**of CIOs have already deployed
a conversational AI platform**

Define suitable use cases to understand your needs and ensure a quick ROI

□ STEP 1

Just because your competitors have rushed headfirst into building a virtual agent that tries to cover all bases simultaneously, it doesn't mean that a similar strategy is the right fit for your business. Conversational AI is great at handling a variety of tasks, but **focusing on low-risk, high-impact pain points** in the customer journey is the best way to begin seeing immediate results.



You might want to look at augmenting the already-great customer experience that you provide by enhancing something as simple as making your brand accessible to answer questions 24/7. A virtual agent is perfectly suited to be a repository for pertinent information about your business, offering instantaneous answers as and when customers need them. The trickle-down of this can result in a significant reduction in calls to your customer center, something experienced firsthand by one of Scandinavia's largest insurers, Storebrand, who successfully automated 70% of conversations without the need to involve human support.³

SpareBank 1 SR-BANK

Companies have also seen enormous success using conversational AI for very specific use cases. Norwegian bank, Sparebank 1 SR-Bank, used its virtual agent, Banki, to assist with error handling in a unique way. In March of 2018, Norway's primary electronic identification system, BankID, suffered outages leaving thousands of customers unable to log into their bank accounts. SR-Bank was able to proactively inform visitors to its website of the outage via chat, fielding over 4,000 conversations in a single day which negated the need to hire additional temporary staff and reduced the number of customer inquiries by 24%.⁴

Whether you're looking to cut customer wait times, lower costs or simply provide a better customer experience, it's important to identify clear goals at the outset so that you can build to the strengths of conversational AI and achieve maximum results in the shortest possible timeframe.

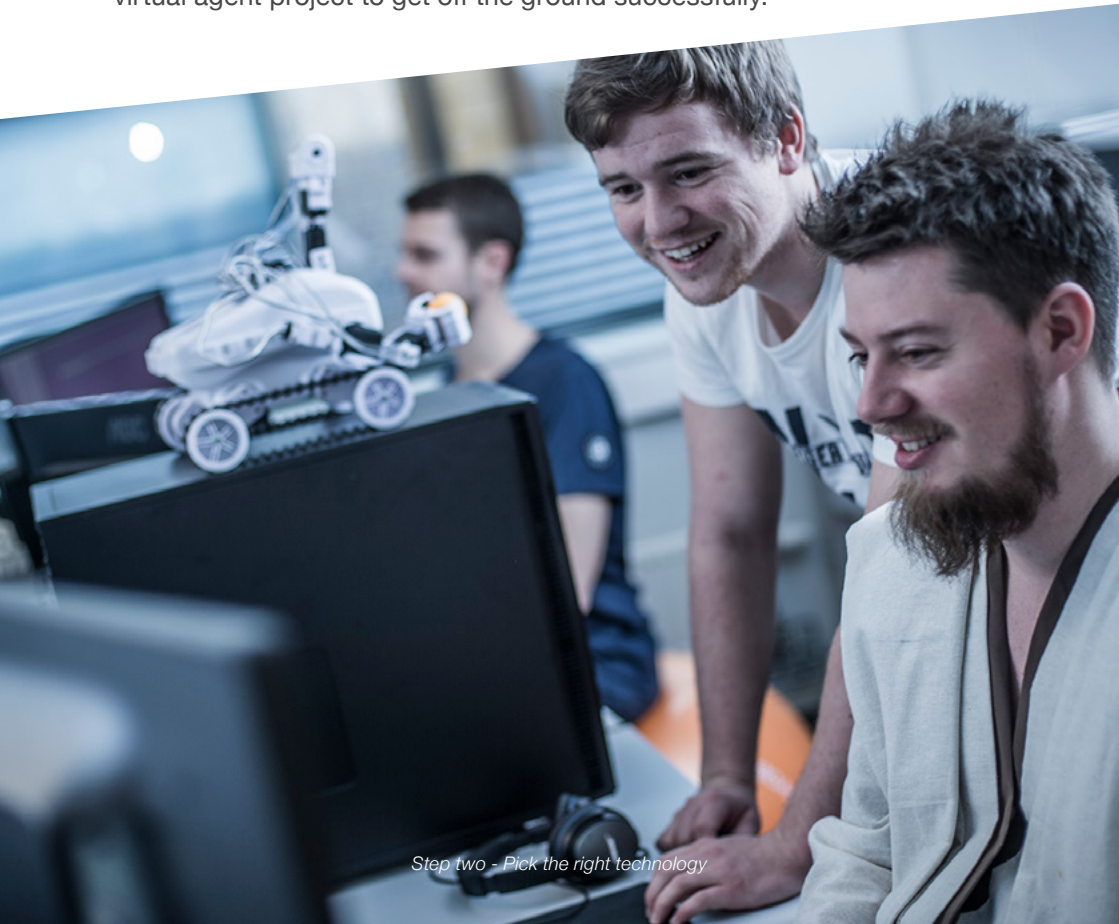
**Identify the appropriate
technology to meet your
needs now - and in the future**

□ STEP 2

Not all conversational AI solutions are created equal. In fact, there are three distinct underlying technologies - as outlined by Gartner⁵ - that make up the bulk of virtual agents on the market that you should be aware of when contemplating a solution.

Each of the three - **rule-based programming, computational linguistics and machine learning** - present their own unique benefits and challenges. They are by no means mutually exclusive, either, and a successful conversational AI solution will use some combination of each (albeit with a significant weighting towards one particular approach) to achieve results.

However, there are definite criteria that must be met for any competent virtual agent project to get off the ground successfully.



The three types of conversational AI technology

Rule-based programming

Pros: Common architecture used by most simple solutions.
Easy to implement.

Cons: Requires new rules for each new type of message.
Not considered artificially intelligent.
Does not scale easily.

Computational linguistics

Pros: Can be easily adapted to new languages.
Compact size of model requires less storage/compute resources.

Cons: High level of variation demands constant maintenance.

Machine learning

Pros: Highest level of accuracy of the three methods.
Generalizes easily.
Scales easily.
Efficient solutions do not require a lot of training data.

Cons: Large resource requirements to implement in some cases.

Natural Language Understanding (NLU)

This is the core technology that gives conversational AI its smarts - the AI's 'brain' if you will. NLU is made up of a combination of machine learning and deep learning models that work in concert to allow a virtual agent to accurately interpret customer queries and respond in as human-like a manner as possible.

Proprietary technologies by vendors can then be layered on top of this to enhance a virtual agent's conversational AI abilities further. Automatic Semantic Understanding (ASU), for example, is used in our solution to handle challenges such as when a customer asks for multiple things at once or poses a long-winded question that is especially complex. It also has a high rate of success in reducing false-positive answers to a minimum.

Scalability

Competently answering questions from customers 24/7 is a big job for any virtual agent, but doing so at scale can lead to lesser solutions buckling under the pressure. Any conversational AI solution you are considering needs to be able to handle thousands of complex customer interactions daily with near-instantaneous response times. Anything less will result in a sub-optimal customer experience as traffic to your virtual agent scales up.



User-friendliness

All of the smartest technology in the world won't help you if the interface to program it is a UX nightmare that can only be navigated by someone with a Ph.D. in data science. The backend of a conversational AI solution should be as human-friendly as the conversations it has with customers.

This means clear and intuitive tools for building and maintaining conversation flows, with a minimum of employee training required. The software should also offer the flexibility to make changes on-the-fly to meet the needs of your customers as they evolve. You don't want to be stuck with a virtual agent that's built on outdated information that is difficult to update.

Enterprise features

A suite of well-implemented enterprise features is key to a successful conversational AI project. If your virtual agent is to be a model representation of your brand, it needs to have enterprise-grade features to help get the most out of every customer interaction. That means everything from deep analytics tools and the ability to quality-assure content via staging environments, to integrations with major software, chat and voice platforms. You should look for a solution that's designed to help your company achieve optimal customer satisfaction with a minimum of fuss.



Security and Privacy

Data protection is paramount for any customer-facing business, and artificially intelligent chat channels are by no means exempt. It isn't enough for a vendor to say that their solution provides watertight security features, either. It should be a requirement that conversational AI puts GDPR and privacy controls into the hands of customers, allowing them to delete or download conversations directly from within the chat window as needed.

Market-tested technology

Building a virtual agent from the ground up can be a daunting task. Especially for large-scale organizations with varied product and services portfolios. Plug-and-play solutions require tremendous amounts of time and development resources, and often prevent you from owning your data. They also leave it up to you to bring in knowledge from your field.

This is why it's important to seek out a vendor that offers pre-built, industry-specific content that can save you hundreds - if not thousands - of hours of work. Industry expertise is critical in getting you to market faster and can be a great starting point for a quick return on investment.

Determining your strategy: options for automated CX success

□ STEP 3

Now that you've established the technological parameters necessary to build a virtual agent that will best represent your brand, it's time to begin thinking about how to implement it.

Forbes reports that 62% of customers surveyed are open to the use of AI to improve their experiences⁶ - 54% even say that they trust companies to use the technology in a way that benefits them. Conversational AI is poised to help your business meet and exceed these expectations, but only if implemented in the correct way.

Choosing the right implementation for your virtual agent is crucial. Even if all roads may eventually lead you to handle between 60-70% of traffic via conversational AI (as we have overwhelmingly seen from our financial sector clients), the path you take to get there faster depends on your business needs. It could be the difference between a virtual agent becoming the pivotal component of your company's customer experience strategy, or it languishing in relative obscurity, gathering dust on the back pages of your website.

Let's look at the recommended strategies you can employ where conversational AI helped businesses see dramatic results.

62%

of customers are open to AI being used to improve their experiences



The Concierge

Positioning a virtual agent front and center to act as a concierge that either, instantly helps customers with their queries, or seamlessly transfers them to specialized human support staff as and when required. This approach requires no specific integrations to begin with, and allows you to create a lot of value from the outset. Companies within the financial sector have reported decreases in traffic to human chat of between 50-70%, achievable within 6 months of launch.

Pros

This approach gives you the quickest value for your investment. By placing the virtual agent as early as possible in the customer service chain, you get the benefit of both saving money fast and also collecting the data necessary to continually improve. It is also relatively inexpensive to set up since you require fewer resources, particularly on the technical side.

Cons

It can be difficult to predict each and every question customers will ask, so there may be instances when your virtual agent is unable to assist. You can mitigate this risk by providing frictionless access to human support and a responsive AI trainer team in the backend that ensures that your virtual agent is continually maintained and updated.

Recommendations

A foundation consisting of pre-trained, industry-specific intents is crucial to the success of this approach delivering a quick time-to-market with a maximum return on investment.





20%

**automation of all
customer service
traffic**

DNB

A 'chat-first' approach

In 2018, Norway's largest bank, DNB, placed its virtual agent, AINO, front and center of its digital customer service strategy. By having AINO as the first point of contact for customers visiting its website, the bank was able to successfully automate 55% of all incoming chat traffic.⁷ As of July 2019, AINO now handles 20% of customer support traffic at DNB across all channels including phone and email.

The Smart Helper

Enhance the abilities of your existing customer support staff with a virtual agent so they can increase their effectiveness and productivity. This approach can work in two unique ways: support can use the virtual agent as a resource to answer difficult questions on behalf of customers who get in touch via phone (or other channels). Or, it can be integrated directly into the chat panel, following along with conversations to offer assistance with information it pulls from various data locations i.e. knowledge base, website, data warehouse, etc.

The second scenario allows the virtual agent to remain part of the conversation in a similar way to the first but has the added benefit of gradually expanding its knowledge over time to the point that it can eventually become self-sufficient.

Pros

Employing a smart helper is a less intimidating approach for those still hesitant about whether conversational AI is a ‘mature’ enough technology. Since customers are never in direct contact with the virtual agent, risk is minimized and you get the upside of dramatically increased response rates.

Cons

It can take a longer time to recoup your investment with this approach since you are *only* increasing the efficiency of your employees. Customers also interact differently when communicating with a machine versus humans, so you won’t be able to capture as many of the nuances and intents needed to deliver a full-scope virtual agent. It requires integration with key back-end systems to develop good responses, which is costly and time-consuming.

Recommendations

This is a relatively specialized functionality that not all vendors currently offer. Look for solutions that can either provide a bespoke human-chat application with smart replies, or integrate with existing platforms such as Puzzel and Genesys.

Augmenting human support

Danish insurer Tryg, uses an employee-facing chatbot named RoSa to give sales reps access to a knowledgebase of 38 different life, auto and home insurance products that they can query without putting customers on hold. RoSa is able to provide the right answers, or give useful relevant links, explain contract conditions and offer guidance to internal processes with a 97% success rate.⁸



The Specialist

This approach is recommended when you have one particular use case in mind for automation. Are you a bank wanting to focus solely on giving your customers the latest information on mortgage rates? Or, a taxi company looking to automate its booking process? The idea is to start small and continue expanding the capabilities of your virtual agent over time.

Pros

A specialist virtual agent has a clear purpose (e.g. purchase ordering) that is easy for users to understand. Due to its limited scope, a less powerful conversational AI is required in order for it to succeed. It is also easier to foresee how customers interact with the virtual agent and adjust script and integration needs accordingly.

Cons

It can take a much longer time to cover all use cases, especially if there are several critical examples required early on. As a result, this approach usually provides a slower return on investment.

Recommendations

When picking a vendor it's important to ensure they have a strong track record of delivering multiple use cases beyond the original project scope.



Tackling travel first

By focusing solely on assisting its customers with travel insurance inquiries, Denmark's second-largest insurance company, Topdanmark, allowed its virtual agent Globus to excel at solving simple requests on a large scale. Globus answers 80% of all travel-related questions correctly, saving customers time and countless resource costs for the company.

The Internal Support Agent

Starting with a virtual agent that assists with internal processes at your company is a great way to ‘field test’ conversational AI. Instead of employees asking HR or IT colleagues the same old questions, a virtual agent can give consistent answers and be more cost-effective. It can also be used as an effective method of onboarding new staff and to keep current employees proactively informed of important information.

Pros

A quick, easy and low-risk way to get started with conversational AI. As only employees are exposed to the technology it's a great method for eventually migrating to a customer-facing virtual agent in the future.

Cons

An organization typically needs to be of a certain size to benefit from this kind of approach. There is potential for an internal virtual agent to be overkill within smaller companies who would benefit spending resources on a solution that assists customers instead.

Recommendations

Supporting all possible questions an employee can ask can be a daunting task. Look for a vendor with pre-built content within internal support to help get the project off the ground faster. Consider also implementing the virtual agent as a specialist if you choose this approach.



Empowering employees

Aker BP uses an internal virtual agent to perform a range of tasks to help increase the productivity and efficiency of its employees. Thanks to the flexibility of conversational AI, the Norwegian oil exploration and development company is able to streamline HR and IT support, document control and both on- and off-boarding employees via a centralized chat window.

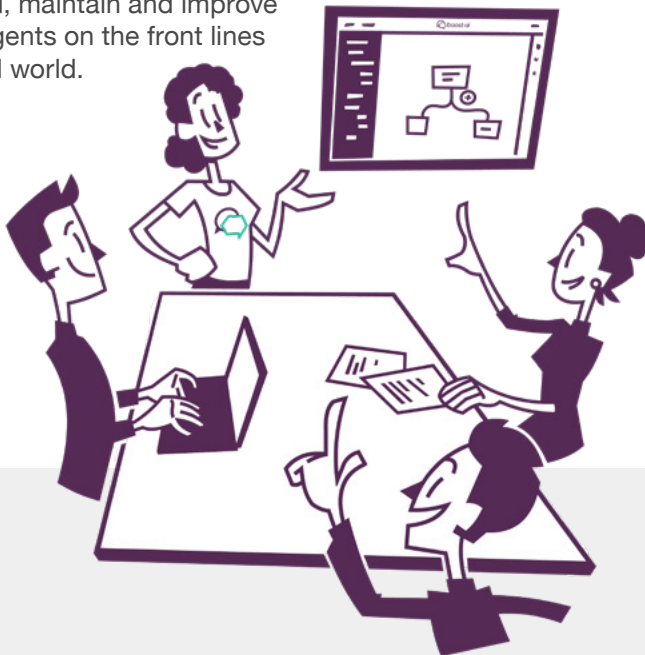
The crucial human factor of AI

□ STEP 4

We are in the midst of a fourth industrial revolution with artificial intelligence at its center. As economies around the world embrace this seachange, we will see a sharp uptick in the job market for specialized roles that help tap into the near-limitless potential of artificial intelligence.

The World Economic Forum reports that by 2022, artificial intelligence could make way for upwards of 58 million new jobs.⁹ In the customer service/support sector, many of these will undoubtedly take the form of reskilled customer service agents who bring their expertise and product knowledge to the fore, helping build, maintain and improve the virtual agents on the front lines of a digitized world.

58 million jobs in artificial intelligence by 2020



To prepare your employees for a future working alongside AI, a comprehensive e-learning platform and certification process is a necessity when considering a vendor. Without this foundation, the complexities of the technology could lead to frustration and the possibility of high employee churn.

There are currently more than one a thousand AI Trainers working with our solution, certified across three distinct disciplines:



Content Design

Able to create the kinds of precise, informative and personable answers and conversation flows that customers expect from a virtual agent.



Predictions & Training

Able to setup intent hierarchies, write effective training data and connect it all together so a virtual agent always understands what customers are asking.



Advanced Features

Able to develop a transactional virtual agent that can connect to third-party APIs and other VAs to automate tasks on behalf of customers.

The right balance between human and machine

Another piece of the human-AI puzzle relies on keeping human support staff very much in the loop of the customer journey. This is incredibly important as humans are sometimes a better choice at solving particular problems than machines.

As discussed in the 'Concierge' implementation, the key is to have a plan in place (and the right technology to correctly assess every situation) to seamlessly transition customers to human support staff when a question arises that is outside of your virtual agent's scope. This requires integration with live chat platforms and results in a frictionless experience in which customers always arrive at the answers they need, regardless of whether it comes from a human or machine.



Step four - Keep humans in the loop

Planning for the future

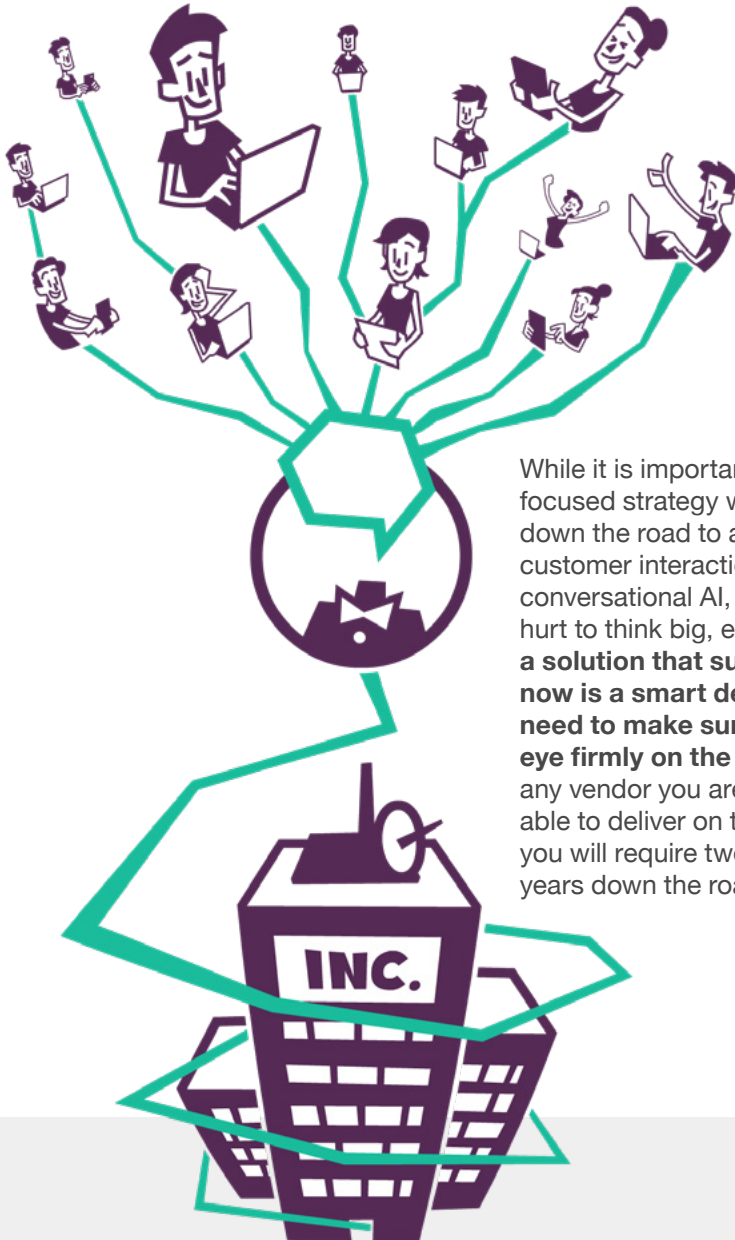
□ STEP 5

As we've already established, conversational AI is a powerful tool that a business can use to supercharge the customer journey. Using a virtual agent as a repository of information to give customers instantaneous, 24/7 access to your brand can already deliver incredible results today. But why stop there?

AI has the potential to do so much more, offering even greater value to both customers and brands. In the not-too-distant future, voice control will become a mainstay in how we interact with conversational AI - it's in the name, after all. It's not difficult to imagine customers soon being able to complete banking transactions via the voice assistant on their phone, or a device like Amazon's Echo, for example.

Other future-looking integrations are even less far off. Today, many of our clients are already able to automate core business functions thanks to APIs. And that list keeps growing. Remember Banki? SR-Bank is currently in the process of certifying its virtual agent as an authorized financial advisor, allowing it to assist customers with bigger-picture concerns such as pension plans and mortgages - a truly game-changing advancement.



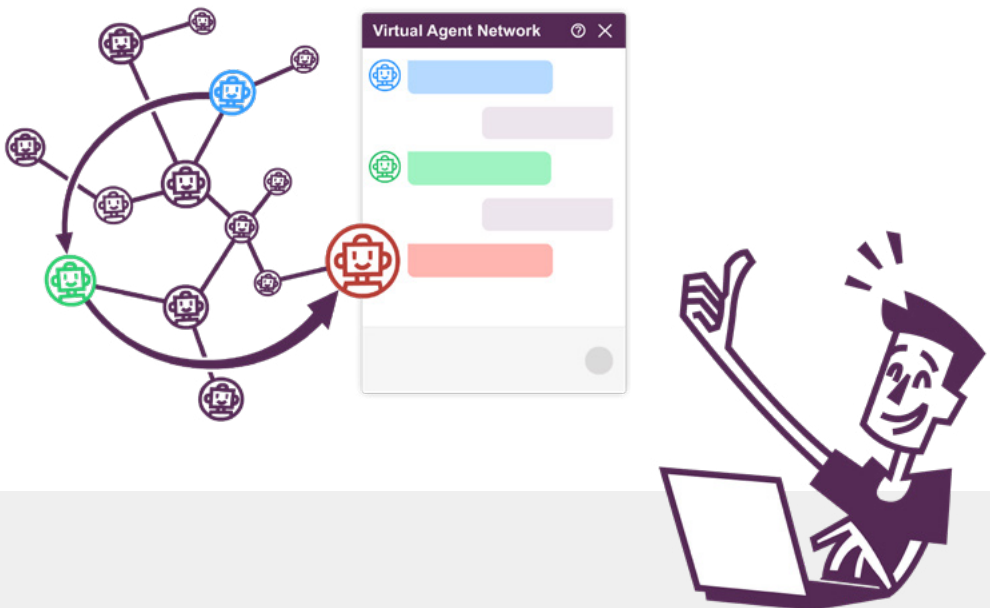


While it is important to have a focused strategy when beginning down the road to automating customer interactions with conversational AI, it certainly doesn't hurt to think big, either. **Settling on a solution that suits your goals now is a smart decision, but you need to make sure you have an eye firmly on the future** and that any vendor you are considering is able to deliver on the functionality you will require two, five or even ten years down the road.

Virtual agent network

The Finnish government approached boost.ai to develop a solution that would allow foreign entrepreneurs easier access to its immigration, taxation and company registration offices when setting up a new business. In November 2018, the world's first virtual agent network was launched.¹⁰ This unprecedented level of functionality connects the virtual agents of each separate department so that visitors to any of their websites can seamlessly transition between departments as related questions arise - and all within the same chat window.

The same technology can be easily implemented to assist large companies in the enterprise space, connecting different business units, streamlining communication across organizations and breaking down departmental silos.



**Getting the necessary
buy-in (from your peers,
support staff and customers)**

□ BONUS STEP

The previous five steps outlined the foundation necessary for achieving success with a conversational AI solution. But what about the risks involved?

By 2021, Gartner predicts that nearly one in six customer service interactions globally will be handled by AI.¹¹ It also expects 40% of the chatbots launched in 2018 to be abandoned come 2020. Many of these will likely be replaced by smarter, more future-proof virtual agents.

AI will handle nearly

1 in 6

of all global customer service interactions by 2021

What this indicates is that while the conversational AI market is hotly contested, navigating it can be perilous. Getting that all-important consensus from the relevant stakeholders (internally and externally) to go ahead with a vendor necessitates a certain amount of due diligence and proof that the risks involved in a project of this scale can be mitigated.

A surefire way to ensure that the outcomes you hope to achieve can be met is by **entering into an accelerated POC (proof of concept) or POV (proof of value)**. A 2-3 day workshop (rather than a months-long process) can allow for an expedited understanding of the stakes involved and give you important hands-on experience with conversational AI. You'll be able to make more informed decisions and quickly learn to identify vendors that deliver tangible results and not just hype.

Finally, retaining ownership of the production, process and maintenance of the project should be prerequisites to any agreement that you enter into. A competent vendor will design an implementation plan that places you and your team at the center, providing the necessary tools to effectively manage your virtual agent with only as much oversight as your require.



Closing thoughts

As the hype surrounding AI reaches fever pitch, the importance of choosing the right conversational AI solution to meet your digital automation goals has never been more critical.

Artificial intelligence is already changing the face of customer service as we know it, with little signs of slowing down. For businesses, it stands to help **increase profit margins, improve quality of life for employees and revolutionize channels of communication with customers.** And for those same customers, AI has the potential to elevate the experiences they expect from your brand to meet their ever-growing expectations.

Footnotes

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