



Case Study

Connecting product management and customer service with an **AI-based chatbot**

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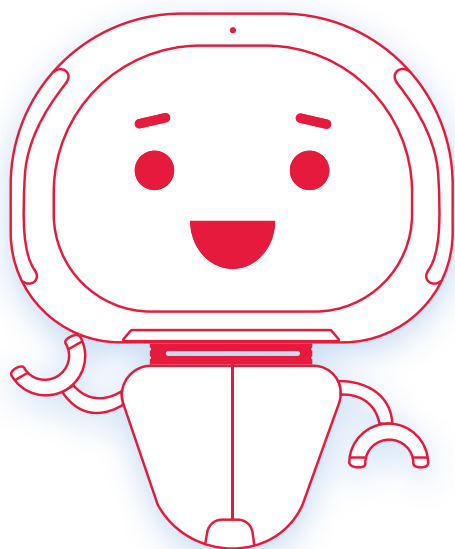
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Summary

The leading Northern European telecommunications company Elisa began working with MindTitan in 2017 to launch the customer service bot Annika. Here's how the AI-based chatbot has helped solve more customer contacts, enable the company to meet changing customer expectations and build synergies between product management and customer service departments.

Results

- Handles 45% of all the inbound contacts
- Fully resolves customer contacts with 42% FCR, meaning 20% of all inbound contacts are automatically handled
- Serves customers with a Transactional Recommendation Score (NPS) above 30
- Gives product managers control over customer interactions



I handle **45%** of all the inbound contacts

I fully resolve customer contacts with 42% FCR, meaning 20% of all inbound contacts are **automatically handled**

I serve customers with a Transactional Recommendation Score (NPS) **above 30**

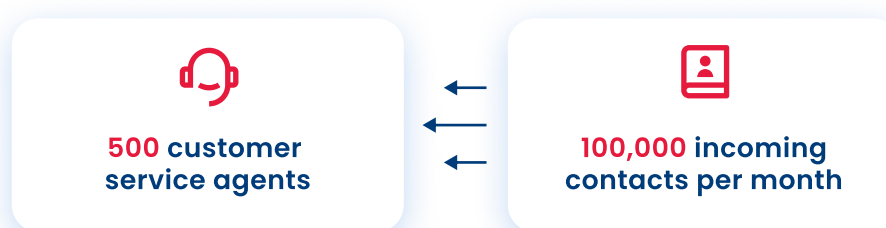
And I give product managers **control over customer interactions**

Connecting product management and customer service with an **AI-based chatbot**

Just a few years ago, companies could afford to take their time before responding to a customer service query. That's no longer the case: today's customers expect relevant responses to their questions in a matter of minutes, which is difficult to achieve for companies with a 100% human customer service team who wish to remain profitable.

Elisa (*elisa*), a leading telecommunications and entertainment company that serves thousands of customers across northern Europe, is well aware of the need for exemplary customer service. According to Maailis Ploomann, Head of Telecom Services at Elisa, "The most important thing for any telecom company is to be there for your customer exactly when they need a solution, whatever question or problem they may have". The company's more than 500 customer service agents work hard to serve around 100,000 incoming contacts per month, all channels combined.

elisa in numbers



Faced with the need to meet ever-evolving customer expectations, ensure customer service scalability, and enable collaboration between key departments, Elisa began their automation journey in 2017 in partnership with MindTitan.

Meeting customer needs in the age of instant expectations

Today's consumers are not prepared to spend half an hour waiting at the end of the line for a customer service agent to take their call. In an age when instant responses are available via social media, messaging apps and search engines, people expect swift, effective solutions.

"Customers' expectations are no longer shaped by traditional companies, but by Google, Amazon and Facebook."

Which means that when they have a question, they want an answer this instant. When they Google something, they get the answer immediately. This is the way customers experience digital services, and this is the way they want to experience your services too."

At the same time, the events of 2020 and 2021 have taught companies to be prepared for the unexpected. During the Covid-19 pandemic, worldwide lockdowns and closures of physical stores caused customer service enquiries to spike dramatically alongside considerable disruption to workforces. But while pandemics thankfully remain an exceptional occurrence, changes to services and company policies, as well as more significant shifts in company culture, do not.

A 2017 merger between Elisa and the Estonian cable television and Internet service provider Starman caused the company to rethink the way they approached customer service. "Merging two companies and two cultures is never easy," Mailiis says, "everyone had to learn a new set of skills and adapt them to the knowledge they already had."

"At that point, we realized that our customer service needed to be built to be future-proof, with less reliance on human workforce. That was when we decided to move towards automation."

Before deciding to opt for AI, the company had explored several possibilities, including increasing their customer service workforce. However, it was rapidly clear that a more significant change was needed.



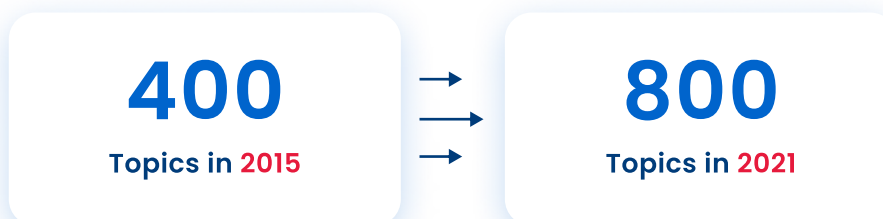
“ From a product management point of view, things usually go wrong not because of the intended procedures or the way products are developed, but because information never gets to a customer, or the customer gets information that used to be correct but isn't anymore.

Mailiis Ploomann
Head of Telecom Services at Elisa

“This is a problem every single company has had. On day one you train your staff, and everything is perfect because everyone has accurate information. And on day three, that information changes”.

Furthermore, as a company expands, the amount of information agents have to absorb increases exponentially. In 2015, Elisa customer service agents needed to master just under 400 different topics, a number that had increased to 800 by the end of 2021. Constantly updating and ensuring there were no conflicts between manuals was becoming an impossible task. Customer service departments also have to handle high natural staff turnover coupled with the intense nature of agent learning, which can take several months.

New challenges

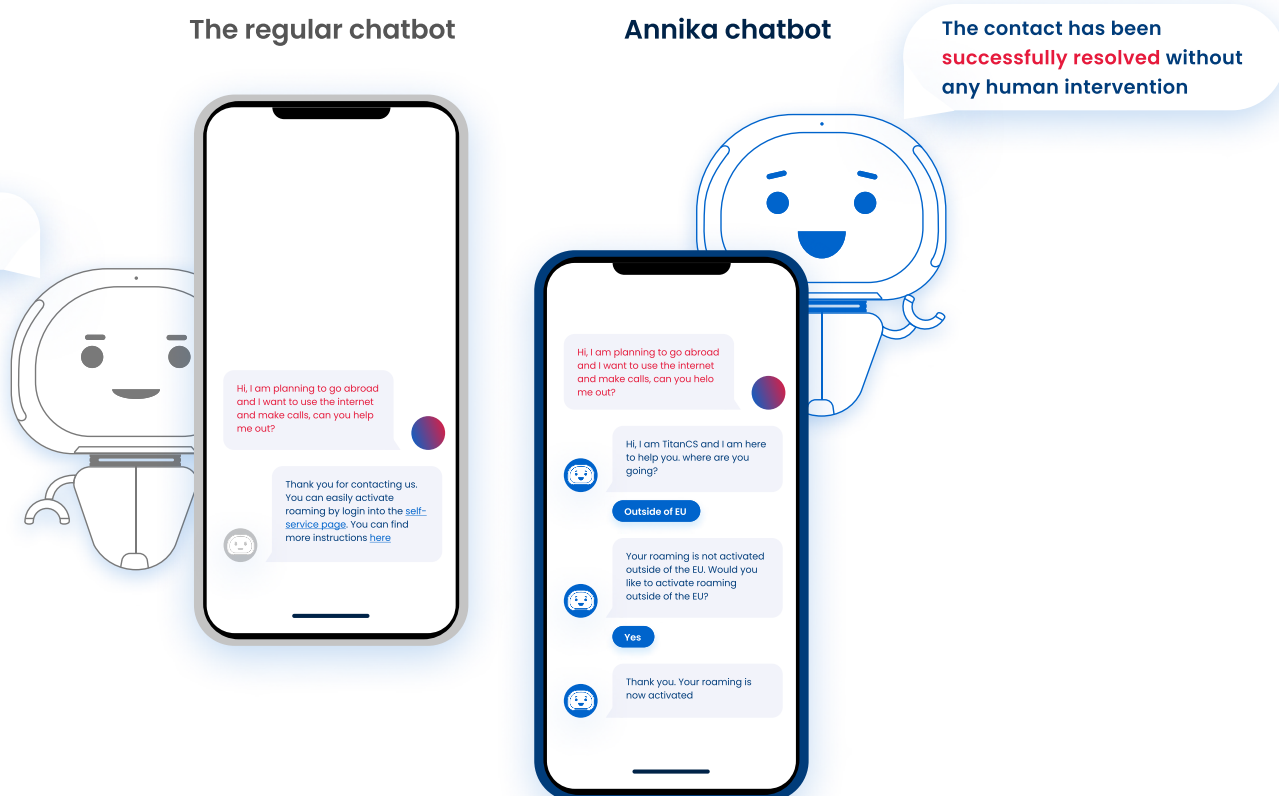


Why an AI-based chatbot made sense

Before embarking on their automation journey, the Elisa team was aware that time and commitment were necessary in order to reach significant levels of automation. Mailiis believes that before making this kind of change, companies need to figure out exactly which business problem they want to solve: “A few years back it was about experimenting, learning and proof of concept. This time has passed – the technology is ready, so choose the problem that is so important to you. That’s the best place to start.”

The team was aware from the start that they were in need of something that would provide more value than a traditional rule-based chatbot.

“Annika looks for solutions, rather than just answers.”



“Even today, many chatbots just recognize a question, provide some sort of answer and get rid of a contact. That has never been our aim. Our goal is to fully automate the customer journey and truly resolve customer contacts,” Mailiis says. Rather than providing a general answer

or a link to further information, Annika takes into account the entire customer journey in order for questions to be fully resolved.

The company adopted a product management-based approach that involved identifying the underlying business problem, finding and automating customer contacts and gathering business intelligence from their analysis. Traditionally, customer service and product management departments only tend to come into contact on two occasions: when something goes horribly wrong, and when manuals are updated. A major aim was to break these down silos and improve information flow within the company, enabling departments to work together towards common goals.

“You have to do things differently and you have to do them internally. Not just bringing in new IT gadgets, not just introducing some technology innovation – that just doesn’t bring value to your company,” Maillis advises.

Combining AI models with practical implementation

Annika was launched as a chatbot in 2018, combining models by MindTitan, who acted as Elisa's artificial intelligence partner, with practical implementation by the Elisa team. Maillis recommends working with an experienced partner when undertaking a project of this scale: “If you undertake a project like this internally, your team goes through the learning curve by themselves. That's one approach and that's okay, but it's not the way you move quickly. If you want to move quickly, you need to find someone who knows what to do and what not to do.”



Solution flow is the knowledge base for solving customer requests.

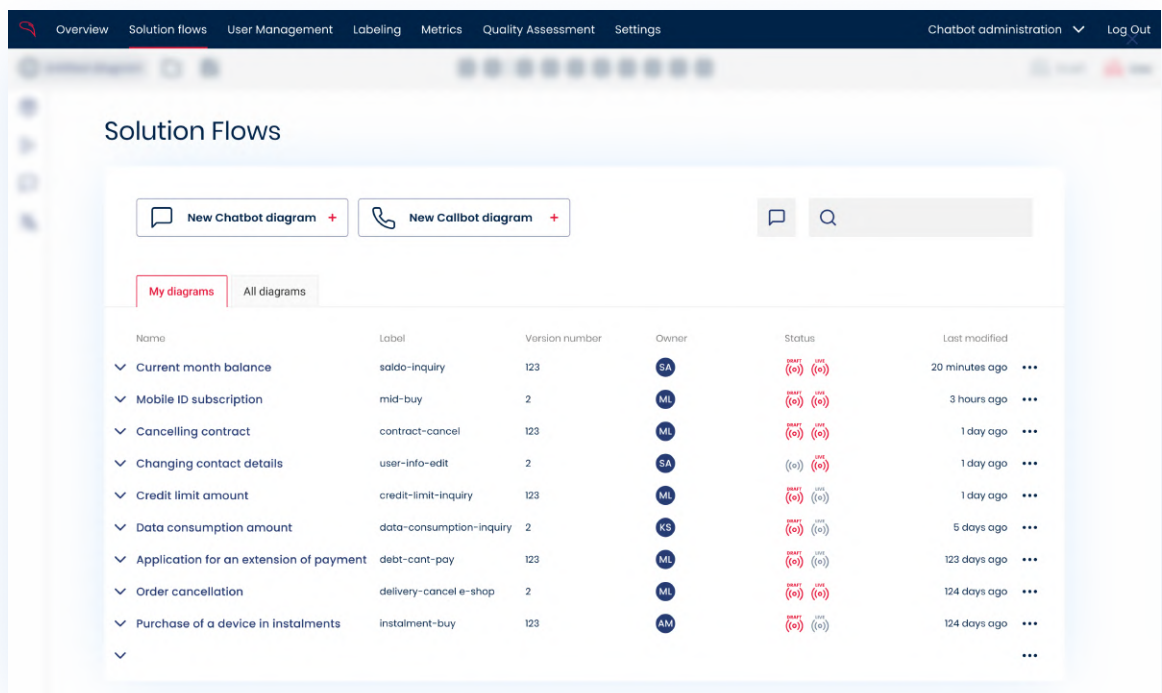
Annika was initially launched as a chatbot in order to provide training data, enabling the AI to learn to recognize different intents through examples. For Elisa, this meant sketching out ideas for solutions to a wide variety of customer cases, including the edge cases that can make up a significant proportion in complex customer service. Developing effective solution flows from the beginning was fundamental to ensuring a positive long-term outcome.

The process also involved identifying the contact owners who deal with those issues daily and ensuring their commitment. People change more often than positions and responsibilities, meaning it's necessary to allocate specific roles and to ensure that information is correct and necessary updates are made.

“Superheroes who know the best solution to all contacts unfortunately do not exist in a complex business.”

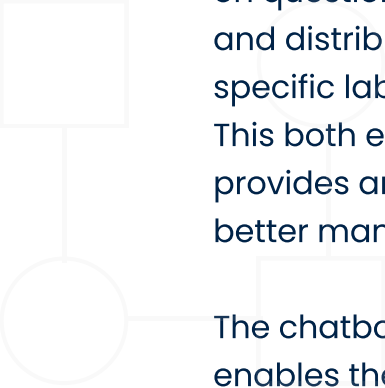
This can be achieved through correct bot ownership structure.

At the same time, ensuring effective cooperation between product managers, IT, customer service and other stakeholders is essential. Information from CRMs and other systems help estimate how long developments will take. Elisa furthermore found it important to manage expectations and make colleagues aware that the business is responsible for creating solutions for their customers – after all, they are the ones who know how they want their customers to be treated.



Solution Flows						
<div>New Chatbot diagram +</div> <div>New Callbot diagram +</div> <div>My diagrams</div> <div>All diagrams</div>						
Name	Label	Version number	Owner	Status	Last modified	
Current month balance	saldo-inquiry	123	SA	OK OK	20 minutes ago	...
Mobile ID subscription	mid-buy	2	ML	OK OK	3 hours ago	...
Cancelling contract	contract-cancel	123	ML	OK OK	1 day ago	...
Changing contact details	user-info-edit	2	SA	OK OK	1 day ago	...
Credit limit amount	credit-limit-inquiry	123	ML	OK OK	1 day ago	...
Data consumption amount	data-consumption-inquiry	2	KS	OK OK	5 days ago	...
Application for an extension of payment	debt-cant-pay	123	ML	OK OK	123 days ago	...
Order cancellation	delivery-cancel e-shop	2	ML	OK OK	124 days ago	...
Purchase of a device in instalments	instalment-buy	123	AM	OK OK	124 days ago	...

Solution flow management. Different problem owners are responsible for creating solutions flows for solving customer requests.



Product managers are responsible for creating solution flows focusing on questions they are responsible for. All incoming questions are labeled and distributed among product managers, making them owners of specific labels, and therefore responsible for those incoming contacts. This both ensures clients receive the most up-to-date information and provides an overview of their most common questions, which enables better manuals.

The chatbot does not remove the need for human staff, but rather enables them to focus on customer contacts with greater added value by relieving them of routine queries and mindless, repetitive tasks. “There is now a greater need for emotional intelligence, creativity and critical thinking... The part that people actually enjoy, that provides them with fulfilling development opportunities,” Mailiis says. Human agents use the same solution flows as the chatbot, with a process in place to ensure that all information provided is correct.

Over the first year of the process, the team realised that the bot and its solution flow management system could serve as the knowledge base for a future automated customer service, supporting the frontline and solving the age-old problem of updating manuals while enabling faster onboarding of new staff.

Looking to the future with a cross-channel knowledgebase

In 2019, Annika was introduced to the Elisa call center, where she listened to customer calls and directed clients towards the most qualified human agent. By replacing their traditional IVR (Interactive Voice Response) system with Annika, the company was able to modernize their company center and streamline the way they obtained information from incoming calls.

What’s more, Annika monitors calls and flags anomalies to the software monitoring center in real time. A language model provided by Mindtitan transcribes calls and provides statistics as to why customers are calling and the main issues they are facing. “Now, the classifiers understand why you’re calling and route you to the correct team with over 90%

accuracy,” Mailiis says, “It takes you less than a minute to speak to Annika and get transferred to the right agent. A minute saved for every call – that’s actually quite a lot of time.”

In 2020, the chatbot successfully solved 18,000 customer contacts on 70 different topics. Working with the customer center, she had served over 300,000 clients, saving the company more than half a year of net time. At this point, Annika isn’t able to speak to customers herself, but that will most likely be the next step in the process. Elisa is looking forward to using the chatbot’s solution flows to implement voice synthesis in the near future, enabling Annika to answer customers’ questions vocally and guide them towards relevant solutions.

18 000

successfully solved
customer contacts

70

different topics

300 000+

clients served

“Certain interactions are better handled over the phone, others are more suited to live chat. It depends on the reason for contacting us in the first place. This will enable us to guide customers toward the channels that are best suited to help them,” Mailiis explains.

The team views each project as part of a comprehensive system that provides business insights in order to solve customers’ issues. “We are moving in the direction of developing Annika into a cross-channel knowledgebase, which has proved to be useful for the business side, but also from a data science perspective, rewarding us with record breaking short launch times for new solutions,” Mailiis says.

Takeaways

- Work with a trusted partner with significant experience in AI.
- Set automation goals by defining the main goals for your chatbot.
- Skim through all relevant data and identify the most frequent contact reasons in order to create effective solution flows. This could be chats, emails or calls, and its goal is to understand the most popular contact reasons and how those contacts are solved.
- Ensure effective cooperation between product managers, IT, customer service and other stakeholders. The key is to assign responsibility and ownership for incoming contacts.
- Cooperate closely with your IT team and understand what data can be accessed from your CRM and other systems.
- Allocate specific roles in order to ensure that information is correct and necessary updates are implemented.
- Listen to your customers and seek to understand what is working for them and what is not. Actually solve contacts, rather than creating an additional channel where the same mistakes are repeated.

