From overwhelmed phone lines to SA Health's first virtual employee

How we built Zoe in six days to respond to COVID-19

If you've been on **SA Health's website** since early 2020, you've probably met Zoe. She's a chatbot that we built and launched in six days to help SA Health respond to a surge in COVID-19-related queries to the state's hospital switchboards and contact lines.

Here's a look at how we built Zoe in six days and some of the top level results that SA Health has enjoyed since. But first, let's start with the problem:

Too many enquiries, not enough customer service agents

As COVID-19-related queries lit up contact centres around the world, health departments like SA Health were being bombarded with enquiries from concerned citizens looking for health information at a time of uncertainty.

COVID-19 presented a unique business need requiring rapid responses and deployment, fitting with Clevertar's capabilities," says SA Health chief executive, Dr Chris McGowan, who soon became aware of the product and expressed interest in trialling it.
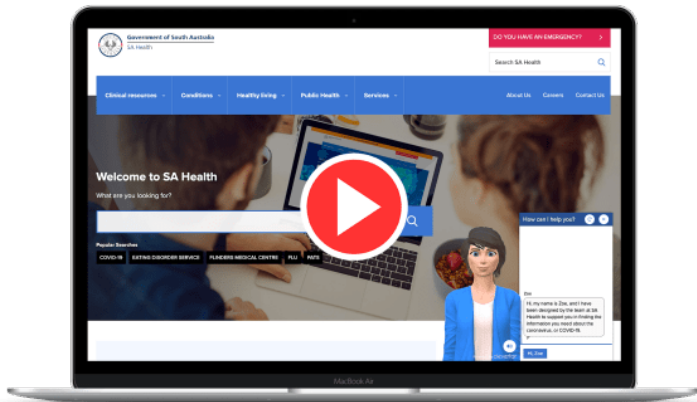
"The primary objectives were to provide the public with an additional, reliable source of COVID-19 information, and ultimately allow our operational services to focus on delivering health and emergency services."

Establishing Zoe's operational purpose

In the high-volume environment that ensued following the COVID-19 outbreak, triage became a priority.

Zoe had to be built to connect people with content and answers that don't really require a human interaction— really the lion's share of the massive influx of enquiries. To get there, the team had to answer these questions and rapidly:

- Why are people calling?
- What are they most worried about right now?
- What is the most high-value piece of information SA Health needs to convey to the people of South Australia?
- What are Zoe's objectives?
- What is the ideal outcome for the customer and their customer?

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SA Health Chief Executive, Dr Chris McGowan

Organizing and structuring the information already available

To deploy Zoe fast, the next step was to determine what information we already had available that she could use to handle customer enquiries.

We started with the graphic below. While this document is useful in and of itself, it's one-way—it relies on the person reading it, understanding it, and then acting on the advice.

The benefit of having a chatbot to communicate this information is that it's happening conversationally. People can articulate their question or issue in their own terms, ask follow up questions, and drill down to what they need much faster.

Determining a content design plan

To create this kind of experience, we took the information provided by SA Health (see graphic below) and put it into a format that can be used as a decision tree by our chatbots (Zoe).

This stage is about taking the expertise from our client and putting it into a content design that can be communicated by our chatbots—so they can share that expertise 24/7 in a two-way, conversational way.
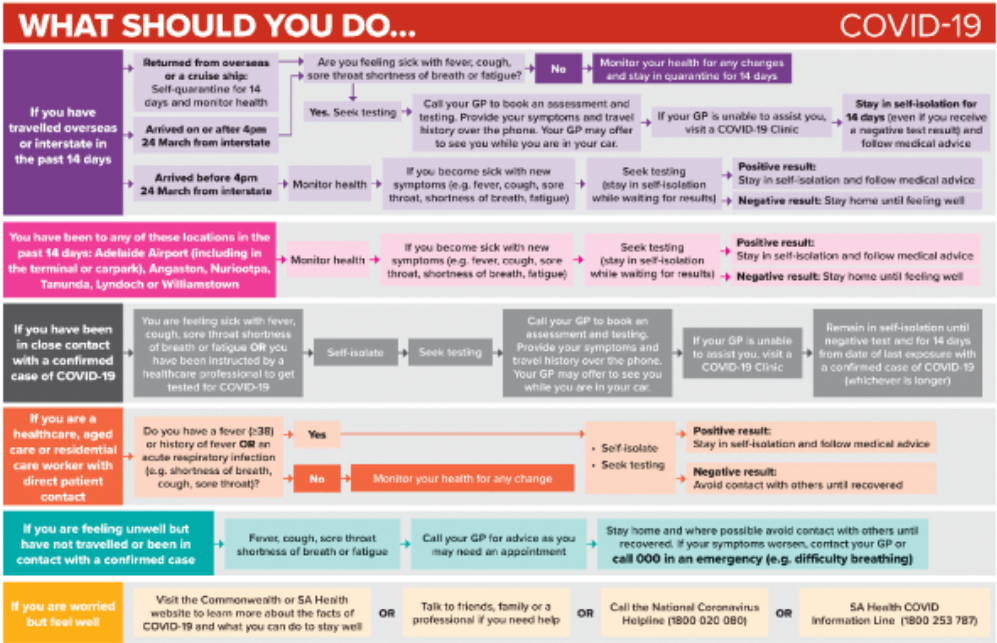
What does a COVID-19 expert look like?

Good question! Graphically speaking, Zoe went through a few transformations as you can see below. What uniform does she wear?

What look conveys trust and subject matter authority? And does she need a uniform?

All of these questions needed to be addressed in order to create a digital persona that customers would view as authoritative.

As you see below, Zoe is wearing the South Australian government's specific shade of blue so that she's uniform and looks official.

Iteration 1   Iteration 2   Iteration 3

Introducing Zoe

A Greek word meaning 'Life'
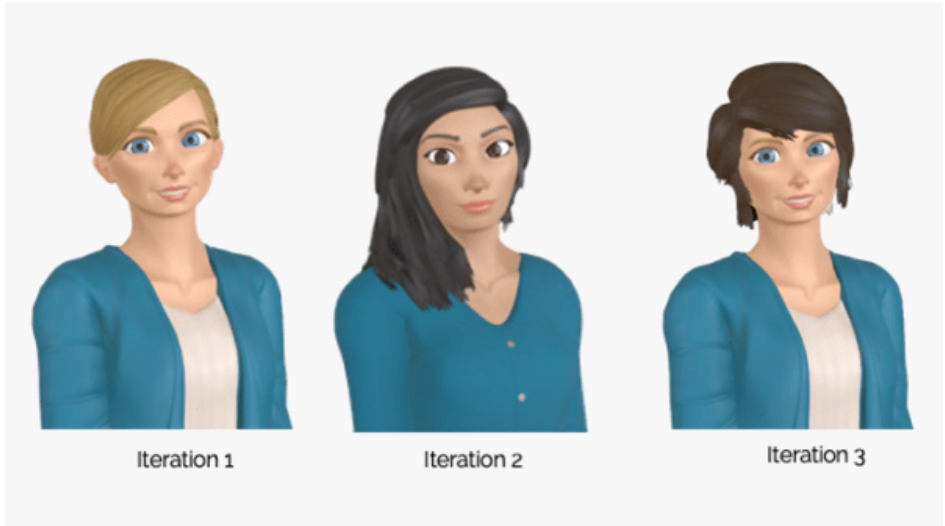
What's in a name?

Next, we needed to give her a name. You can name your agent whatever you like and in this instance, she was named 'Zoe,' the Greek word for 'life'. We and SA Health liked it because it was easy to say and easy to remember for the customers engaging with her.

What does Zoe sound like?

In a time of public panic, Zoe needed to be authoritative, calming and empathetic, so we had to find a voiceover artist who could convey both and we did so in just a few hours.

Developing content and getting it ready for testing

Next, our technical implementation team took that high-level information and, working with content experts at SA Health, began to structure it and script it out for Zoe.

Essentially, we took the SA Health flowchart and turned it into a conversation.

Testing and iteration

This was a critical part of the process. We wanted to ensure that the Zoe experience was thoroughly tested by both internal users and our customers.

Our team at Clevertar put Zoe through her paces to make sure things were working seamlessly before handing over the keys to the customer so that they could test it from their point of view.

Just like a new employee, you want to make sure your virtual agent is saying all the right things and representing your organisation in the best possible light.

On day 5, Zoe passed her performance review and was ready to be integrated on the SA Health website in a way that complements the existing look and feel.

Deployment stage and training

In a global pandemic, with information changing rapidly, you don't want to have to rely on an external team to change something in your script.

Information can become redundant in two minutes, which is why we empower and train our clients like SA Health to update content themselves through our easy-to-use web portal.

You don't need to be a software engineer to update it either, so as restrictions or health advice would change, SA Health's team were able to quickly make changes to ensure Zoe was up to date at all times. This remains true today.

Optimisation and constant iteration

You can test and optimise for as long as you want, but the true test is getting real customers to engage with Zoe. These interactions create a tremendous amount of data, which can be used to refine the experience.

While Zoe was initially developed in six days, we then spent ten weeks constantly refining Zoe to answer a wider range of complex questions beyond the set of pre-defined interactions we launched with.

We were able to be responsive to trends we were seeing and updated the flowchart five times in three weeks to reflect the latest health advice and information.

In South Australia, the testing regime changed very rapidly so it was essential that Zoe be constantly optimised to reflect that. Today, her playbook is expansive, and she's even able to provide links to additional information.

Key changes over the ten weeks

- Zoe has now got five times the amount of content that she did at inception.
- Zoe started with ten frequently asked questions, that's now more like 60 FAQs.
- Introduced natural language understanding, which allows users to write free text into the system and have Zoe analyse what they are asking and then send them the correct information.
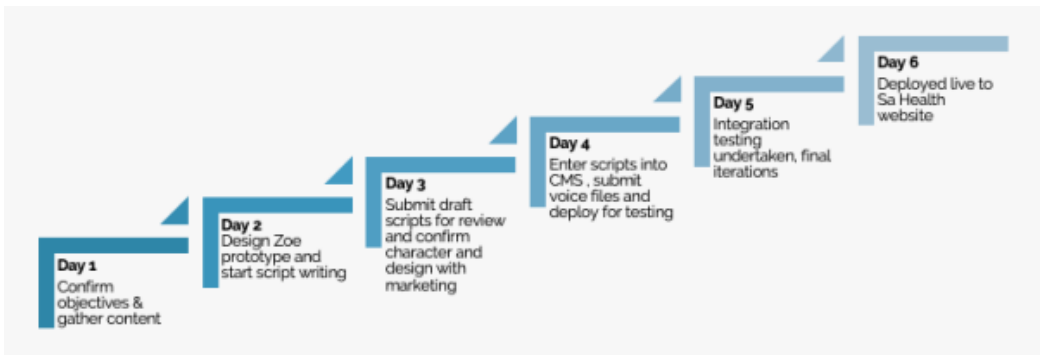
Results. Did people actually use Zoe?

Yes, they did. Since her launch on the 8th April, Zoe has assisted more than 34,000 people, with half of those enquiring late at night after the call centre has closed.

As the content has been built out, customers are now engaging with Zoe for longer, on average around a minute and a half and end the conversation once their query has been answered.

The length of the conversation really depends on subject matter. Our mental health agents speak with a customer for an average of four minutes.

How did we do it in six days?

By following these steps, leveraging SA Heath's existing expertise and materials and scaling the conversations that were already happening.

Day 1
Confirm objectives & gather content

Day 2
Design Zoe prototype and start script writing

Day 3
Submit draft scripts for review and confirm character and design with marketing

Day 4
Enter scripts into CMS , submit voice files and deploy for testing

Day 5
Integration testing undertaken, final iterations

Day 6
Deployed live to Sa Health website

Why does Zoe work?

Gone are the days of waiting on hold for hours with customer service, particularly during a pandemic. Today, people are more and more tech-savvy, especially younger generations, and they prefer easy, on-demand options as a result.

The numbers don't lie: according to Microsoft, 90% of consumers now expect an online portal for customer service enquiries. Research also tells us that younger generations have a preference for online information readily available at their fingertips. In fact, Mindshare found that 63% of young people prefer to message an online bot to ask business questions.

Plus, our own research has shown that people enjoy engaging with our chatbots. One trial demonstrated people enjoyed talking to our chatbots more so than their doctor.

Six days is a quick turnaround, but necessity is a great motivator. Ultimately, we were so proud to assist SA Health in alleviating some of the pressures on the health system, allowing their vital staff to triage more complex enquiries and make sure everyone has access to accurate and timely information about COVID-19.

Ready to deploy a chatbot on your website?

If you'd like to learn more about Clevertar's leading-edge chatbot platform and its impressive results in real-world deployments, check out **www.clevertar.com**.

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Clevertar is an award-winning Australian company that provides specialised chatbots for consumer engagement.

We improve the customer experience through conversational interactions.

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