## DAVID HOLIFIELD

UX & Product Design Leader

#### CASE STUDY

## Anthem Virtual AI Customer Service Agent

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ID Cards Find a Doctor



How can I protect myself agai...



Wearing a mask helps to prevent airborne viruses...

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#### VIEW MORE >



#### Use Sanitizer

Killing germs before they spread helps fight any kind...

VIEW MORE >



#### Wash Hands Regularly Washing your hands has proven to be beneficial wh...

VIEW MORE >



Check Temperature If you have an elevated

temperature, that could be ..



Overview **Anthem Virtual AI CS Agent:** Situation Task

## CLIENT Anthem Blue Cross Blue Shield

## **MY ROLE**

Sr. Design Manager, IBM Client Engineering

#### **SUMMARY**

I led my design team to deliver an AI solution that reduced customer service calls by 24% while increasing customer satisfaction scores using design thinking and co-creation.

Actions Results

Task

## SITUATION

I was managing a team of 14 designers for IBM's Client Engineering. We collaborated with IBM's top-tier healthcare clients to **innovate customer-focused solutions** using IBM products and services.



Anthem was a key account that utilized many IBM technologies and my team spent approximately 30% of their time servicing this account. Based on this relationship, Anthem viewed my team as an integral partner in their ongoing success.

Engagements typically included an account manager, data scientists, engineers, researchers, and business technical leaders.

## **PROBLEM IDENTIFICATION**

Anthem came to IBM asking for help:

## How might we improve our member experience by providing better, quicker, and more accurate customer service?

Anthem customer service agents handle ~46M calls a year and that number was projected to increase. They needed a way to quickly increase call volume while raising the bar on the level of service they were providing. And this had to be done without increasing costs of hiring additional agents.

Actions Results



#### **PROBLEM DISCOVERY**

So we spoke with the customers. In this case, customer service agents.

- A Day in the Life. By speaking directly with agents we were able to understand the variety and difficulty of their tasks.
- **Some Calls Were Simple.** Calls regarding billing questions and coverage were easy to solve for.
- Some Calls Were Complex. Other issues had fewer similarities and needed further investigation and escalations.

## I felt we needed to do a dive deeper with a design thinking workshop.

Task

# We wanted to **understand the problem space** before we looked for solutions.

- A Myriad of Tasks. Agents also provided high-level tech support for digital products, reset passwords, emailed documents, and retrieved general information.
- Several Ideas Emerged. Agents were not short of ideas on how to increase efficiency in many areas of their work.
- We Still Sought Clarity. While we found several areas where we could make improvements, there were no clear answers.

## **DESIGN THINKING WORKSHOP**

The purpose of this in-person workshop was to dig deeper into idea generation and evaluation.

After collecting additional ideas from Anthem staff, we felt we had a good set of ideas to evaluate. **Idea prioritization is only as good as the ideas you bring to the table.** 





## FEASIBILITY MAP

We mapped ideas to understand the importance to the user and business value (low to high).

Ideas were plotted on the grid by evaluating how well they helped the user reach their goal and how heavy the lift would be from a business standpoint.

This required a lot of discussion about how ideas would affect agents' work.

### FEASIBILITY MAP

We then drew rough sections across the map radiating out from the upper left. Each areas was labeled *No Brainers, Big Bets, Utilities,* and *Unwise.* 

We took notice of ideas that reflected significant payoffs for both the user and business. *Big Bets* is where we find mid to high business value and high importance to users.



#### **HYPOTHESIS**

Coming out of the design thinking workshop, we developed a hypothesis that a virtual agent built on IBM Watson AI Assistant would be able to handle a significant amount of issues we classified as "simple." This would free up agents to focus on more complex issues.

To test this hypothesis, we set out to build a working prototype of an AI virtual agent in hopes of validating our ideas.

Results Actions



# **BM Watson**



#### **ECOSYSTEM FIT**



## Actions



over Voice

Human Agent over Chat (LivePerson)

We proposed that **IBM Watson AI Assistant** would fit within the current customer service ecosystem to seamlessly support other channels.

Watson Assistant would be able to hand off more complex issues to a human agent, if needed.





**INTERACTION ARCHITECTURE** We designed a chat architecture to create a natural user interaction for their specific contexts. What we found useful in this project was to divide intents in two macrocategories: knowledge base and small talk. The former is intended to manage the actual answers we want to deflect to customer support, the latter aims to cover the basic interaction to make Watson feel a bit more human

Wait I

## SKETCHES

Once we understood how users would want to interact with the app, we started quickly sketching our initial ideas.

Our goal was to go for a **quantity of ideas** then narrow them down later. Many of our initial ideas did not stick, but this exercise gave us many good ideas that did.





#### **SCREEN FLOW**

My team and I **collaborated with AI engineers and Anthem leadership** to understand how content would be retrieved and displayed. From there we designed the general screen flow we would use for the prototype.

This also allowed us to understand the number and type of template we would need to design for.



## LOFI WIREFRAMES

We quickly went to work on the low-fidelity wireframes so that we could see how the app was shaping up.

By laying out these screens next to each other **we discovered several holes in our logic** and went back to update the screen flows accordingly.





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## **PROTOTYPE & USER TESTING**

Once we had the problems worked out that we discovered during wireframing, we put together a high-fidelity prototype.

This allowed us to watch people use the app and see where we could make improvements. Many of our assumptions were correct, but we missed the mark on others. We went back to the wireframes and made the necessary adjustments.



## **FINAL UI DESIGNS**

After a few rounds of user testing and settling on functionality for v1, we design the UI for each screen.

Using the established Anthem design system, we applied the interactions and visual treatments to our designs. We wanted to deliver a full set of screens that the Anthem team could integrate with little additional effort.



VIEW IN MAP

Type to chat with me...

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**Anthem Virtual AI CS Agent:** 

**OUTCOMES & LEARNINGS** 

it was clear the new virtual agent was having a significant impact:



60% YoY growth in messaging

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Actions Results

# After launch, Anthem started seeing the benefits right away. Within months



5M+ annual reduction in calls

#### **OUTCOMES & LEARNINGS**

We learned a lot during this process and the team agreed that we would do some things differently next time.

- virtual agent so we eliminated this feature in the end.
- scaling features as expectations grow over time.

• **Lowered expectations.** We discovered that people have lower expectations of what AIpowered agents are capable of. Next time we will keep that in mind as we determine features.

• The right content at the right time. Users were not expecting articles to be suggested by a

• **Scaled experience.** Many people were not ready to fully embrace a virtual agent right away. That meant some functionality was not immediately discovered. Next time we may suggest



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#### LOW-FI WIREFRAMES



#### Chat Title

Hello human. How may I help?

I need some help finding lorum ipsum dolar sit amet.

Here is that thing you asked for.

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#### **Chat Title**

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I need some help finding lorum ipsum dolar sit amet.

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Here is that thing you asked for.

#### What to know about high blood pressure

Blood pressure refers to the force that blood exerts on the walls of the arteries as it flows through them. Ideally, a person's systolic blood pressure should be below 120 and their diastolic blood pressure below 80.

High blood pressure starts when the systolic, or upper number is between 130 and 139 or the diastolic, or lower number is between 80 and 89, according to the American Heart Association...

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#### **UI DESIGNS**





