Creating a Volunteer Coordination Communication Template with Twilio

Our team aimed to reduce the barriers to deploying cloud communications solutions to help people impacted by large-scale disasters by creating application templates that leverage Twilio technology and demonstrate immediate value to stakeholders. We conducted user research with disaster response organizations to identify promising template concepts, then developed a template to help volunteer coordinators field inquiries via multiple channels, resolve common questions using an AI-enabled chatbot, and efficiently handle more complex interactions using Twilio’s programmable contact center platform. The template will be released as an open-source code sample on Twilio’s CodeExchange site and featured as a blog post on Twilio’s corporate web.

Disaster Relief Overview

The Center for Disaster Philanthropy defines the disaster life cycle to be a continuous process including four phases: Response, Reconstruction, Preparation, and Resilience. In user discussions, we found that while each organization provided unique services, most require the same basic preparation work, such as training. As such, we decided focusing on the preparedness phase would provide the largest audience for our template.

Main Insight

Volunteers are what drive most disaster response. Volunteers come with a variety of technological skills and comfortability with a majority being older, retired adults. This puts great importance on the need to make resources accessible for lower tech users. Currently, volunteers reach out to coordinators on a case by case basis when they have questions or concerns. Common channels of communication are phone calls or emails, and response is dependent on coordinator availability.

Organizations

Below are the organizations we spoke to throughout this process, distilling their experiences into insights and ideas, which we then took back to them for feedback and codesign.

Solution

We created a template that utilizes a combination of Twilio products to readily answer volunteer questions when asked through either SMS or voice communications.

！Programmable SMS！

！Communication Channel！

！Programmable Voice！

！Communication Channel！

！Studio！

！Handle incoming messages and calls！

！Autopilot！

！Try to provide volunteer with answers！

！Flex！

！Connect volunteer with coordinator in real time！

At the center of the template is a Twilio Autopilot chatbot that uses natural language processing to quickly and fluidly answer questions. We pretrained the bot on common questions asked by volunteers across many organizations to make the bot applicable to a broad audience out of the box. We also designated placeholders in the chatbot so the coordinator can easily add, remove, and modify tasks to their liking. If needed, the chatbot has capabilities to redirect to a volunteer coordinator to give volunteers a fallback option if questions aren’t answered.

Quick Deploy and Blog Post

Our project is compatible with Twilio’s new Quick Deploy Feature. Many users noted time was a constraint in deploying this feature allows them to launch our product with the click of a button and no code.

We wrote a blog post companion piece to be published on Twilio’s developer blog. It introduces our template and puts it in context while also providing the steps to get started. We wrote this piece with the citizen developer persona in mind. Our goal was to demonstrate a particular application of Twilio products in hopes that others could see how it can be applicable to their needs.

User Journey

Below is a representation of a use case for our template, and how we foresee it affecting the current interactions between a volunteer and coordinator. The primary notable difference is that in many cases, the coordinator can be completely eliminated from the journey of a volunteer asking a very basic question. This means the coordinator will lose substantially less time by not needing to provide the same answers to many individual volunteers. However, as seen in Option 2, if our chatbot is unable to provide the correct answer to Volunteer Vicky, she is still able to connect with Coordinator Carl from the same call. This guarantees that Vicky will be getting the support she needs, either through the chatbot or through Carl as needed.

Personas

Based on our user interviews, we developed the personas below to describe the different groups that exist in the relief organization workspace. These personas were used to inform our design decisions as well as illustrate the current dynamics in the disaster relief workspace and the dynamics we expect after the deployment of our application template.

"If we support people in understanding, setting, and delivering on expectations, that generally results in strong volunteer engagement." – Isa, All Hands & Hearts

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