



# **JTC Quick Response Bulletin**

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## Getting Started with a Chatbot

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## Abstract

Chatbots are commonly used in customer-facing organizations to better serve the public. Courts are currently experiencing a unique time of both urgent and overwhelming needs in some parts of the organization, while other staff may be under-utilized. Courts might consider tapping the expertise of staff sidelined by stay-at-home orders to begin gathering information and creating content for a court assistance chatbot.

## Document History and Version Control

Version	Date Approved	Approved by	Brief Description
1.0	4/20/2020	JTC	Conditionally approved.

## Acknowledgments

This document is a product of the Joint Technology Committee (JTC) established by the Conference of State Court Administrators (COSCA), the National Association for Court Management (NACM) and the National Center for State Courts (NCSC).



### JTC Mission:

To improve the administration of justice through technology

### Joint Technology Committee:

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#### **COSCA Appointments**

David Slayton (Co-Chair)  
Texas Office of Court Administration

David K. Byers  
Arizona Supreme Court

Jeff Shorba  
Minnesota Judicial Branch

Rodney Maile  
Administrative Office of the Courts, Hawaii

Laurie Dudgeon  
Kentucky Administrative Office of the Courts

#### **NCSC Appointments**

Justice Deno Himonas  
Utah Supreme Court

Judge Samuel A. Thumma  
Arizona Court of Appeals, Division One

#### **Ex-officio Appointments**

Joseph D.K. Wheeler  
IJS Courts Advisory Committee

#### **NACM Appointments**

Kevin Bowling (Co-Chair)  
Michigan 20<sup>th</sup> Judicial Circuit Court

Paul DeLosh  
Supreme Court of Virginia

Roger Rand  
Multnomah Circuit Court, Oregon

Kelly C. Steele  
Florida Ninth Judicial Circuit Court

Jeffrey Tsunekawa  
Texas Office of Court Administration

#### **CITOC Appointments**

Jorge Basto  
Judicial Council of Georgia

Casey Kennedy  
Texas Office of Court Administration

#### **NCSC Staff**

Paul Embley  
Jim Harris

Compiled and written by Lise Embley, technical writer, National Center for State Courts

### Additional contributors

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Siva Appavoo and his team at the New Jersey Courts

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## Introduction

A chatbot (chat+robot) is software that simulates human conversation through text messages, voice commands, or both. Chatbots are commonly used in customer-facing organizations to improve efficiency, provide more accurate and consistent answers, expand coverage, and better serve the public. As the COVID-19 pandemic crisis eases, court leaders anticipate a surge of urgent needs. Chatbots, available to the public 24/7, can help courts meet that surge more effectively.

While courts are currently experiencing a unique time of both urgent and overwhelming needs in some parts of their organizations, some staff may be under-utilized. Courts might consider tapping the expertise of staff sidelined by stay-at-home orders to begin gathering information and creating content for a chatbot to support the daunting demands courts will face in returning to more familiar day-to-day business.

A basic chatbot can be implemented within weeks. Now might be the perfect time to launch a chatbot project to better assist the public both during the pandemic and in the days that follow. The prep work necessary to develop content for a chatbot can begin with very limited involvement from the court's Information Technology (IT) staff. A simple Word document can be used to compile questions and answers needed to power the chatbot's interactions. As IT resources can be made available, more specific technical preparations can go forward.

## Platforms

The most common platforms for building chatbots include Amazon, IBM, and Microsoft. Each has a chatbot framework that could be used to build and deploy a basic court chatbot within days or weeks - much shorter than most application development cycles. Some tools are more robust (and therefore complex) than others, using augmented intelligence technologies<sup>1</sup> to recognize and respond to questions that humans did not consider.

Courts can begin now to develop a chat service with whatever tools and resources are readily available. A formal evaluation of platforms and features may be appropriate at some point, but there is no need to delay. Use whatever tool is available through the court's current cloud vendor or development platform.

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<sup>1</sup> For more information about potential uses of AI in courts, see [Introduction to AI for Courts](#), another publication of the [Joint Technology Committee](#).

## Getting started

**Determine the purpose.** What problem(s) is the chatbot meant to solve? The primary goal might be to address simple requests more efficiently and at a lower cost to the court, or to expand the hours when the public can get help (or both). Another objective might be to improve the accuracy and consistency of information provided to the public. How will the chatbot improve the public's experience with the court? Keep it simple for your first chatbot effort. It should be focused and specific, such as reducing call volume by addressing the most frequently asked questions through a text-based chatbot.

**Assemble a team.** Include someone from each case type or court who has dealt extensively with the public in a customer service role. Of particular value will be the experience and insight of staff who have served the public on behalf of the court long enough to have "seen it all." Also involve a public information officer or staff attorney.

**Log current calls.** If the court is not already recording call data, start logging calls. A simple shared document or spreadsheet can be used as a starting point. Briefly capture the substance of each call (requests for hours of operation, access to forms, questions about jury service, etc.) to establish a baseline of incoming requests. Courts that have call centers may be able to generate reports from call center software that could provide some of those details.

**Gather existing user help information.** Collect any internal documents that court personnel currently use to respond to inquiries as well as website "help" content. Brochures, quick reference guides, "Frequently Asked Question" documents, policies and procedures, and knowledge base documents can all be used to create question and answer pairs for the chatbot. The personal recollections of experienced court staff are also important.

**Compile questions and answers.** Create a shared document where team members can gather question and answer pairs. Capture questions using ordinary language, not the legal terminology that may seem necessary to provide an appropriate response. For a chatbot to ingest the information and associate questions with answers, questions should end with a question mark (?) and be followed directly in the next paragraph of the document by the corresponding answer. There will be far more questions than answers, since people may use different words to express the same idea. As information is loaded into the chatbot, multiple questions can be associated with a single answer.

**Simplify.** The longer the response, the less likely it is that the user will actually read or listen to it. One approach may be to deliver a very simplified explanation plus a link to more information (possibly to existing website help content).

**Categorize.** A slightly more complicated chatbot implementation uses separate domains for each kind of information to be provided. Chatbot accuracy will be higher if unique Q&A pairs can be created for different audiences (e.g., lawyers, tenants, landlords, juries), purposes, and courts (Probate, Tax, Juvenile, Appellate, etc.).

**Name your chatbot.** Some courts that have implemented a chatbot have given it a name and unique personality. New Jersey Courts have a female chatbot name JIA (an acronym for Justice Information Assistant). The Arizona Courts have a male chatbot named Gavel. Los Angeles County Superior Court has a female avatar/bot named Gina integrated with their traffic case management system. Brand recognition can be helpful for the public.

## Implementing

**Pick the tool.** While content is being gathered, IT staff should be determining the chatbot tool and how it will be implemented. The decision will likely be driven by the court's data structure. If your court is not using cloud technologies, this may be more difficult.

**Start “feeding” the bot.** With the help of court technical staff, start feeding structured data into the chatbot system. Depending on the tool selected, the process may be simple enough for non-IT court staff to manage.

**Test. Test. Test.** Court personnel, not the public, should be the first audience to test the bot. Consider having staff who respond to calls or emails enter every question into the chatbot. When the chatbot provides the correct answer, court personnel simply relay that answer to the court client. If the bot's answer is incorrect, staff should provide the correct answer and add that question and answer pair to the chatbot's database. Determine the threshold of accuracy before releasing the chatbot to a broader audience.

**Provide a useful default response.** When the chatbot does not have an answer, it should be programmed to deliver relevant contact information, hours of operations, and any other essential information as part of the default response. If the court has text-based live chat, the chatbot can connect the user to the court's customer service personnel.

**Make it inconspicuous.** Before making a public announcement about the bot, consider doing a “soft release” by simply adding the chatbot to the court's website. Monitor the bot's accuracy and make adjustments to address the kinds of questions the public asks. When the bot's accuracy meets the court's criteria, release it to the public with a formal announcement and launch.

**Make it obvious.** To be useful to the public and beneficial to court functioning, the chatbot must be easy for the public to find. Siderail tabs or the lower right corner of the landing page “above the fold” are common places for chatbots to reside. Ideally, the chatbot would be visible on each page of the court’s website. If your court has an established social media presence, it could be helpful to utilize the platform’s native chatbot functionality to link the public to the court’s chatbot.

## Improving

**Build in a feedback loop.** There are a variety of tools that can be deployed to measure the public’s satisfaction with their chat experience. Examples include thumbs up/thumbs down or smiley face/frowny face emojis, [Helpful]/[Not Helpful] buttons, and customer satisfaction star ratings (1-5) with a feedback text field. Major vendors have built-in analytics tools that are sophisticated enough to cover most needs.

**Measure.** Establish measurable objectives. Chatbot software can provide a daily report of the volume and nature of questions and the answers provided. Continue to measure call activity, as well. Ideally, call volume will begin to decrease as chatbot usage increases.

**Continually refine.** Chatbots learn over time, so continue to “teach” through new answers or corrections. In most platforms, a chatbot will give a “default” answer if it doesn’t know what to do/how to react. Review chat logs to find any questions that received the default answer. Create new Q/A pairs for questions that cannot be associated with existing answers. The goal is to eliminate the use of the default answer.

**Explore other uses.** As court staff develop understanding and expertise, the court may consider delivering core functions via a chatbot:

- Responding to case inquiries: details, calendars, etc.
- Finding legal aid
- Automating a business function, e.g., paying a fine, docketing a complaint
- Opening a help desk ticket

## Conclusion

Developing and deploying a chatbot can happen quickly and for very little cost. Start simple and begin now. Establish processes and build internal skillsets that will facilitate more complex implementations in the future. Time invested in preparing content for a chatbot is an investment that can be transferred to a more robust tool if the chatbot proves useful and additional features are needed.



A court may rapidly “outgrow” their first chatbot and that’s a good thing. As court staff become more familiar with chatbot technology, they will likely see other ways a chatbot or other AI technologies could help the court better serve the public. In future phases, a more robust chatbot could take on more complex questions and may begin to offer more features: support for texting; integration with language translation tools, personal digital assistants, the court’s case management system or other databases; or reminders for hearings, jury service, payments, and appointments. By next year, Alexa may be the public’s most common entry point into your court’s help resources.

In addition to providing information to the public, a chatbot will also create a new feedback loop to the court. The number and nature of questions that are asked will provide insights the court can use to adjust online and in-person processes, as well as to develop and refine chatbot questions and answers. Methodical efforts to consolidate information for a chatbot can also facilitate process improvements that will yield benefits long after the immediate impacts of the pandemic are gone.

If a chatbot can directly answer even a portion of the public’s questions, human court staff will be freed up to handle more complex matters.

Court chatbots at work:

- [New Jersey Courts](#)  
Click on “chat” on the right side rail to ask basic court information questions.
- [Arizona Judicial Branch](#)  
The chatbot is set in the lower right corner of the court’s website landing page. Select either Spanish or English and enter your question.
- [Superior Court of California, County of Los Angeles](#)  
From the court’s home page select [Traffic Tickets]. A female avatar/bot offers, “May I Help You?” in both English and Spanish. Clicking on the chatbot opens a dialogue box that offers four additional languages. Text and audio are both available. The chatbot is integrated with the traffic case management system. Users can look up their ticket using their driver’s license or information from the ticket or courtesy notice, and can simply pay it, ask to attend traffic school, set up payments, and more.

For more information, contact NCSC at [technology@ncsc.org](mailto:technology@ncsc.org).