



Indiana Office of Technology

Powering a State that Works

State: Indiana

Agency: Indiana Office of Technology

Category: Artificial Intelligence

Project Title: Ask Indiana – A portal-wide Generative AI chatbot

Project Dates: October 2023 – April 2025

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Executive Summary

The State of Indiana is continually striving to enhance the digital experience for its customers. The primary objective is to provide necessary information or complete transactions efficiently, allowing clients to get back to their lives as quickly as possible. The latest innovation from IN.gov is the Ask Indiana generative artificial intelligence chatbot that pulls information from the entirety of the IN.gov web domain, becoming the first State generative AI chatbot with that breadth of knowledge. The purpose of Ask Indiana is to reduce the time it takes for customer interactions with the IN.gov site. Data since its launch demonstrates that users are spending less time on the suite of IN.gov websites.

IN.gov Chatbot Project Analysis

Idea

To modernize how Indiana residents interact with state services, IOT deployed "Ask Indiana", an AI-powered assistant embedded on the state's digital front door, www.in.gov. This chatbot leverages generative AI with natural language processing to help users navigate a wide range of government services, from information on renewing a driver's license to locating tax resources or applying for Medicaid. The solution is designed to break down agency silos and respond in real time, making critical information accessible 24/7. The bot has guardrails to only pull state-generated content hosted on IN.gov.

Indiana adopts a dynamic one-to-many service delivery model through syndication, enabling information to be centralized and effortlessly distributed across a diverse range of platforms. This innovative approach to data and knowledge management guarantees that users can access reliable and consistent information, no matter where they choose to engage with it. That structure allows for training the Ask Indiana bot to be a better managed experience.

IOT supports more than 386 state agency websites in a single content management system, making it a challenge for site visitors to find the information they are seeking. The State doesn't expect visitors to be experts in how government is organized, so how can we make it easier to find the information they are seeking?

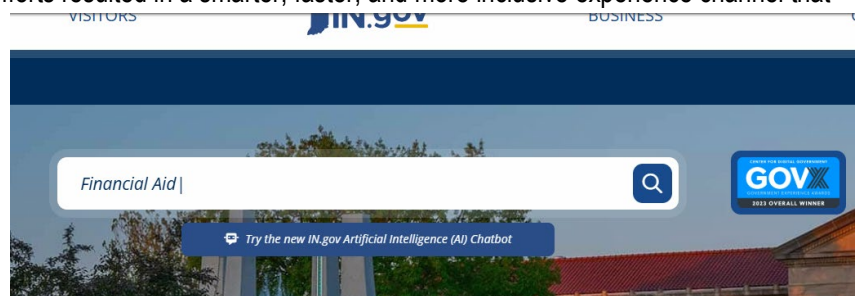
Ask Indiana addresses the challenge of navigating the complex Indiana state government website ecosystem. It serves as a quick and efficient lookup tool for all webpages (nearly 100,000) and documents hosted (hundreds of thousands) on the www.in.gov domain, helping users find relevant information and resources. The chatbot directs users to appropriate webpages, PDFs, and Word documents based on their inquiries, ensuring they quickly access the information they need without having to manually search through multiple pages by relying on traditional search that doesn't provide context.

What makes "Ask Indiana" innovative is its seamless integration across multiple agencies and its ability to scale content without scaling headcount. Indiana implemented a fine-tuned model that allows for continuous iteration as new services are added or resident needs evolve.

Beyond the technology, the State's process was equally forward-thinking. IOT convened a cross-agency design team to map user journeys and prioritize high-impact use cases. Feedback loops were built into deployment, enabling rapid updates to improve relevance and responsiveness for residents. Combined, these efforts resulted in a smarter, faster, and more inclusive experience channel that reduces service friction and builds public trust.

Ask Indiana was deployed to Beta starting in June 2024, where it was available on the State's homepage nested under the primary search bar as an alternative method to find information.

On April 22, 2025, the State moved to full production, redoing the homepage so that Ask Indiana was the default customer engagement option, replacing traditional search – though that is still a choice for customers.



IN.gov Homepage in August 2024

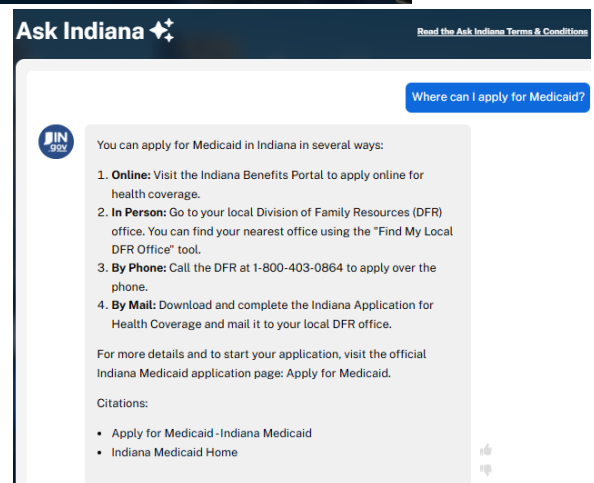


IN.gov homepage in June 2025

As a vital component of Indiana's digital engagement strategy, the chatbot improves user interactions by delivering accurate and timely information to residents and visitors of Indiana. It streamlines the process of finding government services and information, making state resources more accessible to citizens. Ask Indiana instills confidence by providing citations in each of its responses so a user can go directly to the source material.

What makes it different?

The IN.gov chatbot is innovative and distinct in several ways:



1. **Specialized Content Focus:** Unlike general-purpose chatbots, it exclusively references IN.gov content, ensuring all information provided is official and government-approved.
2. **Advanced Technical Architecture:** The chatbot utilizes a sophisticated operational flow that includes:
 - o Content search using Bing as the behind-the-scenes search engine, configured to only retrieve information from public-facing IN.gov content
 - o Retrieval and summarization using Large Language Models (LLM), such as Azure OpenAI
 - o Function calling capabilities for performing specific tasks beyond mere information retrieval
 - o Future integration with the state's customer service platform (in early stages) to effortlessly transfer complex queries to human agents
3. **Risk Management Protocols:** The chatbot employs robust content filtering, grounding in authoritative content, and low-risk system configuration to ensure reliable and safe information delivery.
4. The first portal-wide deployment of a generative AI bot in the country.

What makes it universal?

The IN.gov chatbot addresses universal state government challenges, including NASCIO's number two priority, artificial intelligence:

1. **Digital Government Access:** All states need to provide efficient digital access to government services and information, which aligns with State CIO Top Priorities for digital service delivery.

2. Information Management: The chatbot addresses the universal challenge of organizing and making accessible large volumes of government information across multiple agencies.
3. Citizen Engagement: Improving citizen engagement with government services is a priority for all states, and the chatbot provides a modern, accessible interface for this engagement.
4. Content Currency and Accuracy: The project addresses the universal challenge of maintaining up-to-date information across government websites, with specific processes to identify and archive outdated content.
5. Cross-Agency Coordination: The project highlights the need for agencies to work together to resolve conflicting information, a challenge faced by all state governments with multiple departments.

The framework developed for this chatbot—including testing methodologies, risk management protocols, and maintenance strategies provides a model that could be adapted by other states facing similar challenges in digital government service delivery.

Implementation

Ask Indiana is built on Tyler Technologies' Resident Assistance platform, which provides the user interface and API integrations into Microsoft's OpenAI API. Ask Indiana leverages a dedicated GPT 4o large language model (LLM) that is only trained on public IN.gov web content. Though the State hosts 226 local government websites, those are purposefully excluded to avoid common questions, such as 'When is the council meeting' from being provided for someone living in a different town.

The IN.gov chatbot project followed a structured roadmap:

Enterprise View Integration: The chatbot was designed as an integral part of the IN.gov website ecosystem, serving as a navigation tool for all content hosted on the www.in.gov domain. It fits into the broader enterprise strategy of improving digital engagement with Indiana residents.

Project Management Approach: The project followed a phased implementation approach:

1. Development of the chatbot's technical architecture
2. Comprehensive testing phases conducted at various stages of the implementation:
 - Automated testing with 50 frequently asked questions derived from historical search data (repeated for each GTP upgrade)
 - Broad testing with dedicated resources validating question-answer pairs
 - Adversarial testing to detect potential edge cases and security vulnerabilities (repeated for each GTP upgrade)
 - State user testing involving multiple stakeholder groups
 - Public beta testing with diverse user demographics for several months
3. Continuous refinement based on feedback and analytics
4. Preparation for full deployment

Assessment Framework: The project's success is measured through:

- User engagement metrics (visits, interactions)
- Response accuracy and relevance
- System performance (uptime, latency, processing speed)
- Completion of the Beta Checklist, which includes criteria for performance, testing, user feedback, content accuracy, and risk management

Who was involved?

The IN.gov chatbot project involved multiple stakeholder groups:

Key Groups:

- IN.gov Program representatives (leadership and approval)
- Tyler Technologies staff (development and technical implementation)
- Indiana Office of Technology (IOT) employees (testing and feedback)

- Management Performance Hub (MPH) employees. MPH is the state's data and privacy agency.
- IT directors from state agencies (testing and feedback)
- IN.gov Advisory Council (a group of webmasters from more than 50 state agencies)
- Public beta testers (including diverse demographic groups provided with targeted objectives and free-flow observations)
- Agency legal counsels (testing and feedback)

Like many of its services, the State used an extensive testing protocol to ensure that Ask Indiana is a high-quality service. First, IOT established 50 commonly asked questions generated from historical search data. Responses were scored by a panel of users and used as a baseline that each iteration used moving forward, with scores compared to document improvement. IOT conducts adversarial testing on each deployment to detect potential edge cases, biases, and security vulnerabilities.

Additionally, Ask Indiana underwent an AI Readiness Assessment based on NIST AI Risk Management Framework conducted by MPH, Indiana's data and privacy agency. IOT also tasked separate groups (legal, communications, & IT) to offer feedback before moving to public beta testing. Combined, these efforts ensured that the State and customers were confident in Ask Indiana.

How did you do it?

Resources Required: The project utilized:

- Human resources: Tyler Technologies staff, IN.gov Program representatives, state agency webmasters, IT directors, legal counsels
- Testing resources: UserTesting.com, automated testing systems, analytics tools

Technical Architecture: The chatbot's technical architecture includes:

1. Content Search: Uses Bing as the search engine, configured to retrieve only IN.gov content
2. Retrieval and Summarization: Employs Large Language Models (Azure OpenAI) to process and summarize information
3. Function Calling: Performs specific tasks beyond information retrieval
4. Genesys Integration: (Early stages) Allows transfer to human agents for complex queries
5. System Prompts: Follows predefined guidelines to maintain consistency and compliance

The IN.gov chatbot utilizes a systematic approach to deliver relevant and summarized content to users in Indiana. Below is an overview of its operational flow:

Content Search:

- The chatbot begins by conducting searches for relevant information using Bing as the behind the scenes search engine. It is configured to only retrieve information from a select range of public-facing IN.gov content as approved by IOT. This ensures that users receive up-to-date and pertinent information in response to their queries.

Retrieval and Summarization:

- Once relevant content is identified, the chatbot employs Large Language Models (LLM), and Azure OpenAI APIs, to retrieve and summarize the information. This step is crucial for providing users with concise, easy-to-understand answers.

Function Calling:

- The chatbot is equipped to perform specific functions beyond mere information retrieval. This includes advancing requests or executing specialized tasks based on user context, allowing for a more dynamic interaction.

System Prompts:

- Throughout the interaction, the chatbot follows predefined system prompts and guidelines. These instructions help steer conversations and ensure adherence to internal processes, maintaining consistency and compliance.

Since Beta launch, Ask Indiana has seamlessly undergone three under-the-hood upgrades to its underlying GTP that demonstrated significant improvements to its answers.

Impact

What did the project make better?

The IN.gov chatbot is designed to assist visitors by providing a quick and efficient way to navigate the IN.gov website. It serves as a lookup tool for all webpages and documents hosted on the www.in.gov domain, helping users find relevant information and resources. The chatbot directs users to the appropriate webpages, PDFs, and other information based on their inquiries, ensuring they quickly access the information they need. This service is integrated directly into the main IN.gov website, offering a streamlined and focused resource guide exclusively referencing IN.gov content.

The primary goal is to get people off IN.gov as quickly as possible, and results are showing Ask Indiana is successful. Compared to the same time frame as last year:

- 10% reduction in time on the IN.gov homepage
- The average time spent on all IN.gov pages is down more than a minute

Ask Indiana is surfacing a diverse set of content that traditional search couldn't replicate. Since go-live, Ask Indiana has cited 238,135 different sources in its answers from IN.gov, be they webpages, PDFs, Word documents or other uploads.

Multilingual:

• Users can interact in their native languages, including Spanish, German, French, Italian and Japanese - to name a few – and receive responses back in their native language. Since launch, Ask Indiana has conversed in 61 languages. Top languages shown on the right. IN.gov has a translation feature, but back-and-forth multi-lingual conversation far surpasses the capabilities of translation in the search results page.

Language	Share
English	94.83%
Portuguese	0.67%
French	0.47%
German	0.47%
Spanish	0.46%
Danish	0.43%
Korean	0.37%

Top 7 languages conversed with by Ask Indiana

Before the Project:

- Citizens had to manually navigate through multiple IN.gov webpages to find information
- Finding specific documents or services was time-consuming and potentially frustrating
- No immediate assistance was available for website navigation
- Users might miss important information due to navigation challenges

After the Project:

- Quick and efficient access to information through natural language queries
- Direct links to relevant webpages, PDFs, and Word documents
- Improved user experience with the IN.gov website ecosystem
- Higher engagement with state government digital resources
- More accessible government services for all Indiana residents

The chatbot has proven its robustness and reliability as a valuable resource for residents seeking access to state services. The iterative enhancements made during the beta phase have successfully addressed initial challenges, refined its natural language processing capabilities, and expanded its database to encompass all pertinent IN.gov webpages and documents.

Why does it matter?

The IN.gov chatbot matters because it significantly improves citizen access to state government services and information. The business rationale is supported by impressive engagement metrics since it was released to PROD in April 2025. A huge indicator of success is the reduction in traditional search. Going back to 2016, IN.gov averages 954,779 searches per month. Since go-live, that number has plummeted to less than half of the average. Conversely, Ask Indiana is averaging 3 questions per session, and has answered approximately 60,000 questions. The hypothesis is that the previously mentioned reduction in site time, combined with the steep decline in search is that Ask Indiana is getting people to the correct content more quickly.

Without this solution, citizens would continue to face challenges navigating the state's digital resources, potentially missing critical information or services. The chatbot reduces the time and effort required to find information, improving the overall citizen experience with state government.

The high average of 3 questions per user demonstrates that the chatbot successfully engages users beyond just answering a single question, showing its value in providing comprehensive assistance.

What now?

Long-term Plan: The long-term maintenance and enhancement strategy includes:

1. Continuous Monitoring and Evaluation:
 - Automated transcript reviews to identify potential issues
 - User feedback integration from multiple sources
 - Periodic updates to the chatbot's underlying AI models
2. Risk Management:
 - Ongoing content filtering to exclude harmful content
 - Grounding in trusted content sources on IN.gov
 - Maintaining low-risk system configuration
3. Rapid Response Capabilities:
 - Quick guardrail adjustments to correct inaccurate information
 - Fallback options if significant issues arise
4. Content Management Improvements:
 - Collaboration with agencies to keep web-facing content current
 - Clear expectations regarding content indexing timeframes
 - Coordination between agencies to resolve conflicting information

The Ask Indiana generative AI chatbot has significantly improved the citizen experience by providing quick and efficient access to information and services on the IN.gov website. By leveraging advanced natural language processing, the chatbot helps users navigate a wide range of government services and reduces friction in finding key information. This innovative tool reduces the time spent on the website, enhances user engagement, builds public trust, and makes state resources more accessible to all Indiana residents.