



Digital Labor Intelligent Chatbots

Transforming how citizen customers interact
with government agencies

Recent advances in Artificial Intelligence (AI) and cognitive solutions combined with the exploding use of mobile messaging apps have given rise to a new customer service interface for corporations and federal agencies alike —making 2018 the “Year of the Chatbot.” Modern customers increasingly prefer to communicate via text through online or mobile channels. Intelligent Chatbot technology has matured to meet this demand, and computer programs can now simulate human conversations. These intelligent programs aim to engage in natural language conversations with human users, either through auditory or textual methods that enable immediate, accurate, and consistent responses while potentially reducing operational costs. With the combined factors of continuously maturing cognitive and AI capabilities and ever-increasing customer service delivery demands, the mass adoption of Intelligent Chat is imminent.

What is an intelligent chatbot?

A digital labor workforce for customer service organizations

Intelligent Chat is an AI solution that interacts with customers or internal users to answer questions, complete transactions, or walk users through a process, typically represented as a virtual avatar. Cognitive capabilities go beyond static question-then-answer formats and offer dynamic conversations that require intuition, judgment, creativity, persuasion, and/or problem solving.

“By 2020, 75% of Customer Service and Support operations will integrate Virtual Customer Assistants technology across engagement channels.”

—Gartner²

Intelligent Chats are not the standard run-of-the-mill chatbot. They offer advanced capabilities to digest data provided in a comprehensive manner—drawing intent from customer interactions. In contrast, chatbots process data and information received from users linearly, which limits the human-like interaction and can lead to customer frustration. Intelligent Chats can use machine learning to identify improvements to processes or responses and alert an organization to possible improvements. They can also be explicitly “trained” by human operators to follow business processes and serve organization-specific needs.

Intelligent Chats offer a digital labor³ solution that can be applicable for any customer-facing organization. The advanced Intelligent Chat solutions leading today’s market interact with users in a natural, conversational format and adapt to customer expressions of frustration, happiness, and other emotions. Intelligent Chats also understand the content and context of a conversation in order to solve customer problems. They learn better problem-solving processes through repeated interactions and continuously suggest improvements.

Intelligent Chats will transform service delivery by making customer interactions easier and more painless. By applying a natural language interface across delivery channels (including online portals and mobile text/messaging apps), Intelligent Chats can serve more customers in the channels they prefer. When they cannot answer a question, Intelligent Chats can escalate the customer to traditional support functions, and learn how to handle similar interactions in the future. In addition, Intelligent Chats can integrate across an organization’s technology portfolio and link to back end systems. These capabilities allow Intelligent Chats to enable a truly seamless customer experience.

“The new wave of AI-enhanced assistants are all creatures of machine learning, built with similar intentions...The kinds of jobs taken by automatons will no longer be just repetitive tasks.”

— The New York Times⁴

Four Primary Characteristics of Intelligent Chats



Human Interface

- Communicates with users using natural language
- Monitors end user sentiment and adapts accordingly



Comprehension of Information

- Comprehends what is said
- Understands what is meant, not just recognizing words
- Knows how to operate IT systems



Continuous Learning

- Listens and learns from live interactions
- Leans new skills and processes



Problem Solving Capabilities

- Interacts with person to clarify request
- Applies knowledge to solve problems

The opportunity for Intelligent Chat

Improving customer service while reducing costs

The federal marketplace is ripe for disruption by Intelligent Chats. Federal agencies are facing a myriad of challenges, including increasing customer expectations, increased service volumes, declining budgets, decreasing workforces, unfunded mandates, and historically poor customer service levels.

Intelligent Chats offer multiple benefits that address these challenges:

Customer experience benefits:

- Customer Preference: Enhances customer self-service options and experience
- Coverage & Responsiveness: Increases customer service availability and accessibility. Intelligent Chats can be available 24/7 and respond immediately to customers from anywhere in the world
- Knowledge Management & Customer Service Rep Support: Guides customer service agents/representatives through an interaction or process, prompting the right questions to provide more consistent and correct responses

Operations benefits:

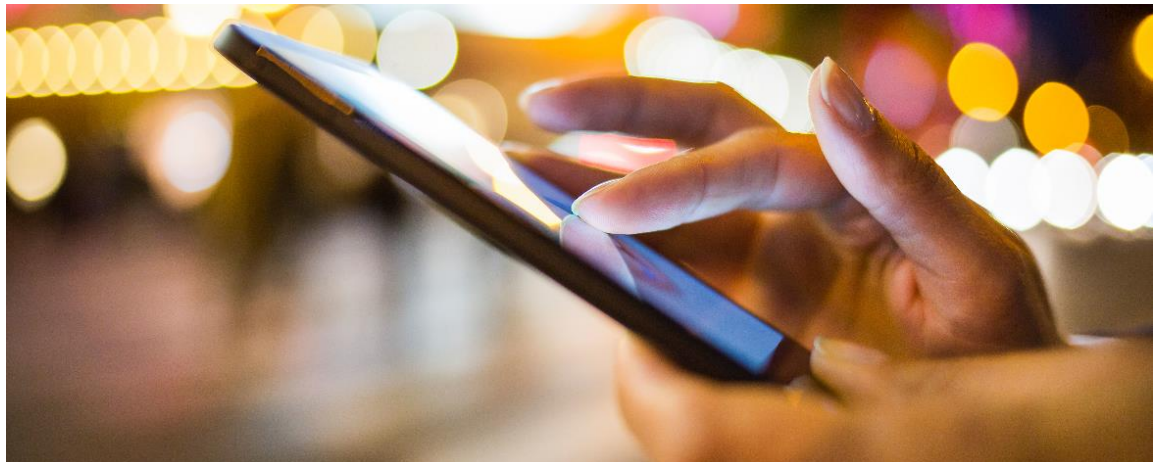
- Agility & Flexibility: Improves the ability for organizations to accommodate surges in workloads. Customer service organizations can avoid economic losses due to overstaffing and, vice versa, risks of degradation in service levels due to understaffing
- Business Intelligence: Enables automated data collection on customer behaviors, data and trends through Intelligent Chat interactions
- Volume Deflection: Improves self-service resolutions, thus, freeing up human customer service agents to focus on more complex requests
- Backend Processes: Automates ticket creation, documentation and triaging without human intervention

As a result, Intelligent Chats offer the potential to help federal organizations increase customer loyalty, trust, and retention, and support continuous customer service improvement, all while reducing overhead costs.

Implementing Intelligent Chats in the federal government

Augmenting customer service operations with digital labor using Intelligent Chats

Federal agencies are taking customer service seriously—looking to make it easier and faster for citizens, business, and its internal staff to complete transactions while having a positive user experience. Many government agencies depend on call center support that is currently overburdened and can only scale by surging staff. When supporting call centers, help desks, and public websites, Intelligent Chats can be the first line of defense and reduce this burden by handling citizen questions and transactions through self-service opportunities, enabling call center staff to focus on more complex issues. Intelligent Chats have the potential to free up 96.7 million working hours across the federal government each year, a cost savings of \$3.3B annually⁵. The Intelligent Chat can also support call center staff in navigating changing policies and procedures, and streamline the completion of routine internal activities. They also capture what citizens are asking about and allow advanced analytics to prioritize future initiatives and/or communications.



The accuracy, consistency, and machine processing that Intelligent Chats offer can also enhance the service being provided to customers. Whether public- or internal-facing, Intelligent Chats can authenticate through user accounts or physical credentials to integrate with multiple databases. The result are customized responses that have been vetted through systems, processes, and data that would normally be time-consuming for a human agent to access and analyze⁶. Through Intelligent Chats, this information can not only be quickly returned to the customer but information can also be attained, cleansed, and entered into databases. This provides a more seamless user experience allowing for providing and collecting information in a single interaction, rather than directing the customer to a form that would have to be submitted by paper or electronically.

The insights obtained through Intelligent Chat interactions provide government agencies with vast information to make more informed policy, operational, and resource decisions. Call centers can quickly identify areas with high volumes of inquiry that may indicate an issue or need for further investigation. Intelligent Chat metrics can integrate with already-established legacy or vendor Customer Relationship Management (CRM) systems. Additionally, should customer interactions be escalated to a human agent, the insights gained through the Intelligent Chat interaction can be provided to the agent to allow the human agent to be more productive and effective, thus extending their abilities.

Intelligent Chats address the federal government's challenges by providing a flexible technology for always-on support that could replace human agents⁷, which can extend from cloud-based to on premise service. Models to support individualized agency needs can be tailored to provide an agile deployment that fits the needs of an organization and is scalable. Intelligent Chats can also be managed by business units, not only IT organizations. This allows business units to easily adjust responses and mitigates their reliance upon the technology organization for content updates.

“Some difficult-to-solve problems require that human-to-human interaction, but as a quick first line of support, the alternative channels are becoming the norm rather than the exception”.

—Forbes⁸

Intelligent Chats offer a digital labor workforce that:

- Is always available, 24x7/365
- Follows best practices consistently
- Leaves a full audit trail
- Works at machine speed
- Scales easily
- Easy to train and re-train
- Is mostly variable in cost
- Speaks multiple languages



Conclusion

Transforming operations with relatively short implementation times and quick returns

Intelligent Chats are real, in production, and can be an effective solution for the federal government and its customer service operations. They provide a variety of benefits both to customer service and operations: helping customers solve their problems more quickly and effortlessly, and providing operational flexibility, customer business intelligence, and backend integration to reduce operating costs.

And this isn't a large IT implementation effort with long returns on investment. Initial implementation can be as short as a few months. Agencies can start out small with Intelligent Chats immediately supporting inquiries that are low in complexity and high in volume that provide immediate returns. Intelligent Chats can be hosted in the cloud or deployed on premises, and they can be scaled exponentially to other types of inquiries and processes. With the right team, federal agencies have the potential to significantly improve their customer service operations, business intelligence, and reduce overall costs.

Want to learn more?

Contact us, and we're happy to demonstrate how Intelligent Chats can transform your organization.

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Real life use case

Does this sound familiar?

A human resource organization in a federal organization has four global call centers, multiple user interfaces and portals, and is charged with supporting typical human resource issues—promotions, transfers, and dependent family members. A majority of their call center volume results from simple questions that cannot easily be found on their numerous portals and internal SharePoint pages.

Solution: A one-stop conversation with an Intelligent Chat to answer their questions about their upcoming promotion and transfer. Then, because it's an Intelligent Chat and not a typical chat bot, the Intelligent Chat prompts additional questions such as the dependent family members' impeding move and schedules an appointment for the family in support of the move – all done during the single chat interaction without time taken away from human agents focusing on more complex inquiries. **Fast, reliable, effective customer service!**

¹ Deloitte Process Robotics <https://www2.deloitte.com/us/en/pages/public-sector/articles/process-robotics.html>

² Opportunities for Conversational AI in Government <https://www.gartner.com/smarterwithgartner/opportunities-for-conversational-ai-in-government/>

³ Deloitte Digital Labor <https://www2.deloitte.com/us/en/pages/public-sector/articles/a-roadmap-for-building-digital-labor.html>

⁴ The New York Times <https://www.nytimes.com/2016/12/14/magazine/the-great-ai-awakening.html>

⁵ Deloitte AI-Augment Government <https://dupress.deloitte.com/dup-us-en/focus/cognitive-technologies/artificial-intelligence-government.html>

^{6, 7} Deloitte US Tech Trends 2017 <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/technology/us-tech-trends-2017-the-kinetic-enterprise.pdf>

⁸ Forbes <https://www.forbes.com/sites/shephyken/2017/01/07/10-customer-service-and-customer-experience-cx-trends-for-2017/2/#2494e7987063>

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