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# ESSENTIAL ELEMENTS OF CONVERSATIONAL AI

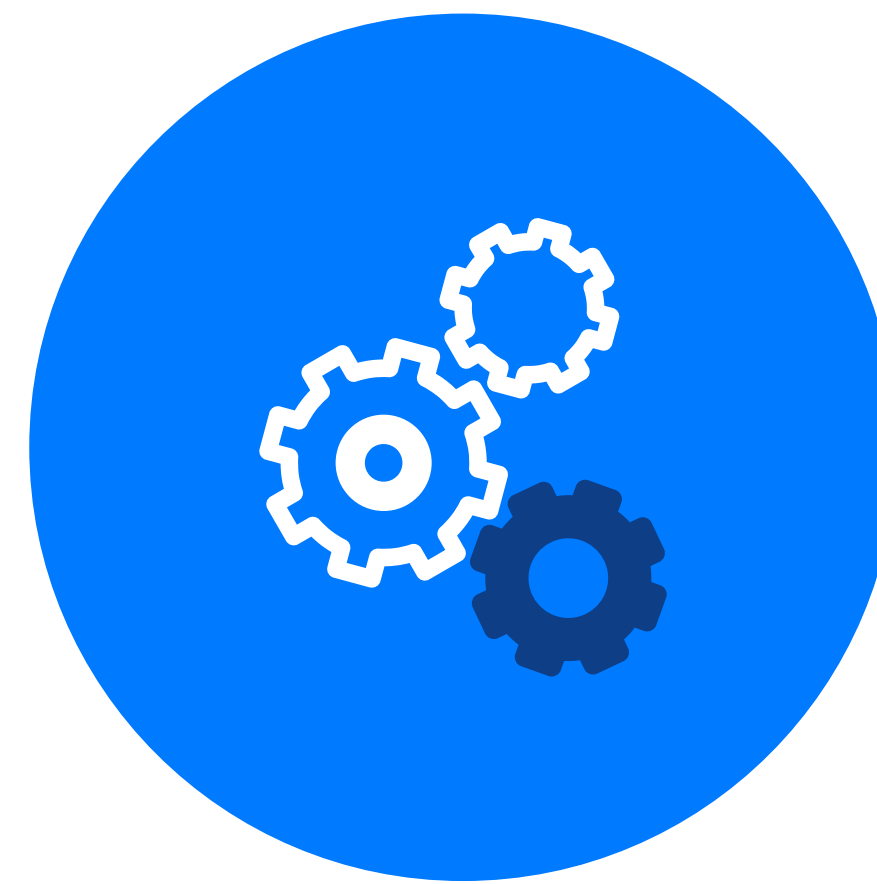
How human-emulated conversations improve user engagement and solve business challenges

## What is Conversational AI?

Conversational AI is a field of artificial intelligence (AI) focused on creating computer systems that can:



**Communicate with people  
in ways that feel natural**



**Solve problems**



**Improve over time**

Conversational AI creates a more stable and sustainable bridge between your business and the customers you serve – because conversation builds trust.

*By 2022, 72% of customer interactions will involve an emerging technology such as machine learning applications, chatbots or mobile messaging, up from 11% in 2017.*

**Gartner**, Plan Now for Critical Shifts in Customer Interaction Patterns, 27 June 2017

# Why Conversational AI is Critical for Your Business

- In your enterprise, the ability to elevate your customer and employee interactions in magnitude allows you to make vast strides in top- and bottom-line results. Conversational AI becomes a driving force for your business by enabling humans and computer systems to interact in real time. Your customers enjoy improved results through fast, accurate, personalized responses.
- Your employees find their productivity and efficiency are enhanced with simplified and automated tasks.

With enterprise-wide application, Conversational AI extends beyond single use case actions to support your initiatives across multiple channels and devices that people rely on.

Powered by contextual understanding and backed by data, it not only can solve your current challenges but also evolves over time as your customer demands and business initiatives change.

## SINGLE USE CASE

### LIMITED VALUE

- Get information about a product or service.



## ENTERPRISE-WIDE APPLICATION

### DEEP VALUE *(For Customers and Employees)*

- Get information about a product or service.
- Find the status for a product or service
- Sign up or buy it
- Make a change to it or an account
- Get proactive notifications about it
- Get proactive recommendations for complementary products, services or information
- Provide feedback/rate the interaction
- Get recommendations based on feedback received

## What Can Conversational AI Do?

**Learn and improve** using information inputs generated from previous interactions, including chat and voice transcripts, transactions and other data

**Drive efficiencies with flexibility** to integrate with existing deployments of adjacent technologies such as robotic process automation, cognitive services, IoT, and cloud

**Solve known problems**, such as performing complex tasks that require pulling disparate data from different sources

**Tailor the conversation** through context by accounting for the user's identity, history with the organization, preferences, and engagement channel

**Uncover new needs and opportunities** that conversation insights reveal across interactions and channels

 **AMTRAK® gets on board with conversational AI**



AMTRAK'S CONVERSATIONAL AI SYSTEM, ASK JULIE:

Increased bookings by **25%**

Raised revenue/booking by **30%**

Delivered ROI of **8x**

Saved **\$1 million** in customer services costs/year



*"Conversational AI presents huge potential to improve efficiency and drive intelligence across all channels..."*

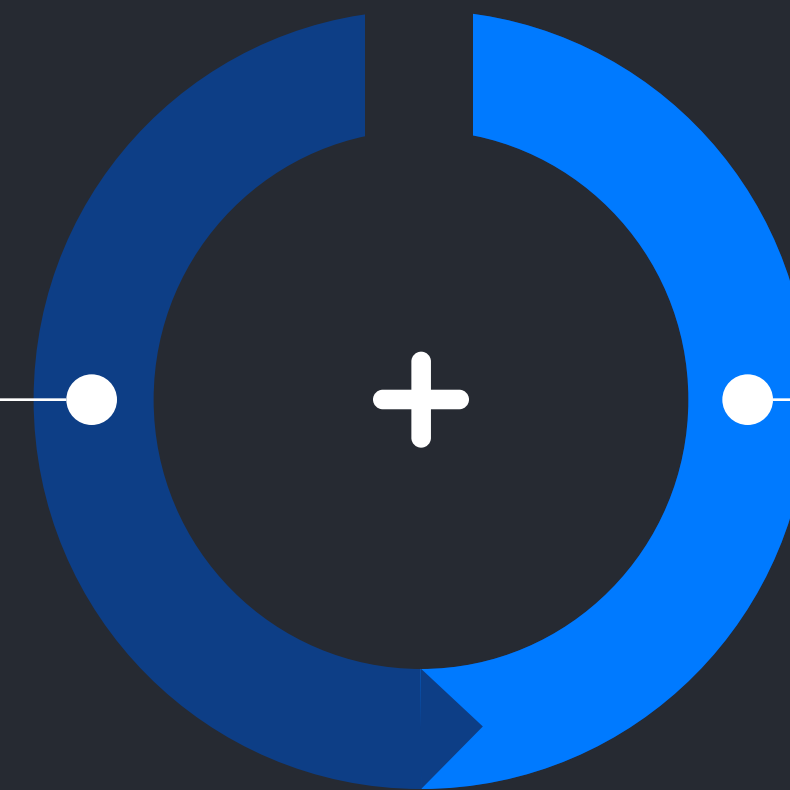
**MarTechSeries**, Why Conversational AI is the Future of Business, 5 January 2018

# Foundation of Conversational AI

Before we talk about must-have elements of a conversational AI solution, it's important to highlight two powerful toolsets that elevate enterprise results.

**Conversation Intelligence** results when you discover and document user intent (the person's purpose or motivation). To get there, you need a powerful language classifier, a data insight tool that maps to your ROI and an intelligent recommender engine that together interpret what your customer or employee is requesting from direct and indirect factors such as requests, statements, context, history, tone, and emotion.

**INTELLIGENT  
PROCESSING  
OF INPUT.**



**Conversation Experience** is the delivery of human-emulated interactions in the user's preferred channel to solve their issues and help drive your business goals, such as better responsiveness and higher efficiency. To get there, you need scalable, powerful tools to extract interactions, manage content for intelligence assistance, rate the experience, measure value and perform reporting.

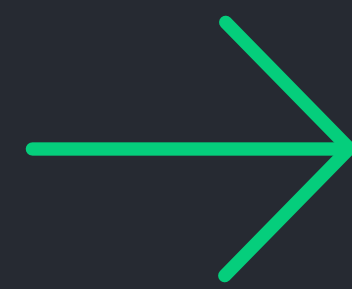
**CREATING  
EXPERIENCES  
FOR OUTPUT.**

Together, they feed a virtuous cycle of continuous improvement and ongoing learning for your AI system.



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# ESSENTIAL ELEMENTS OF CONVERSATIONAL AI



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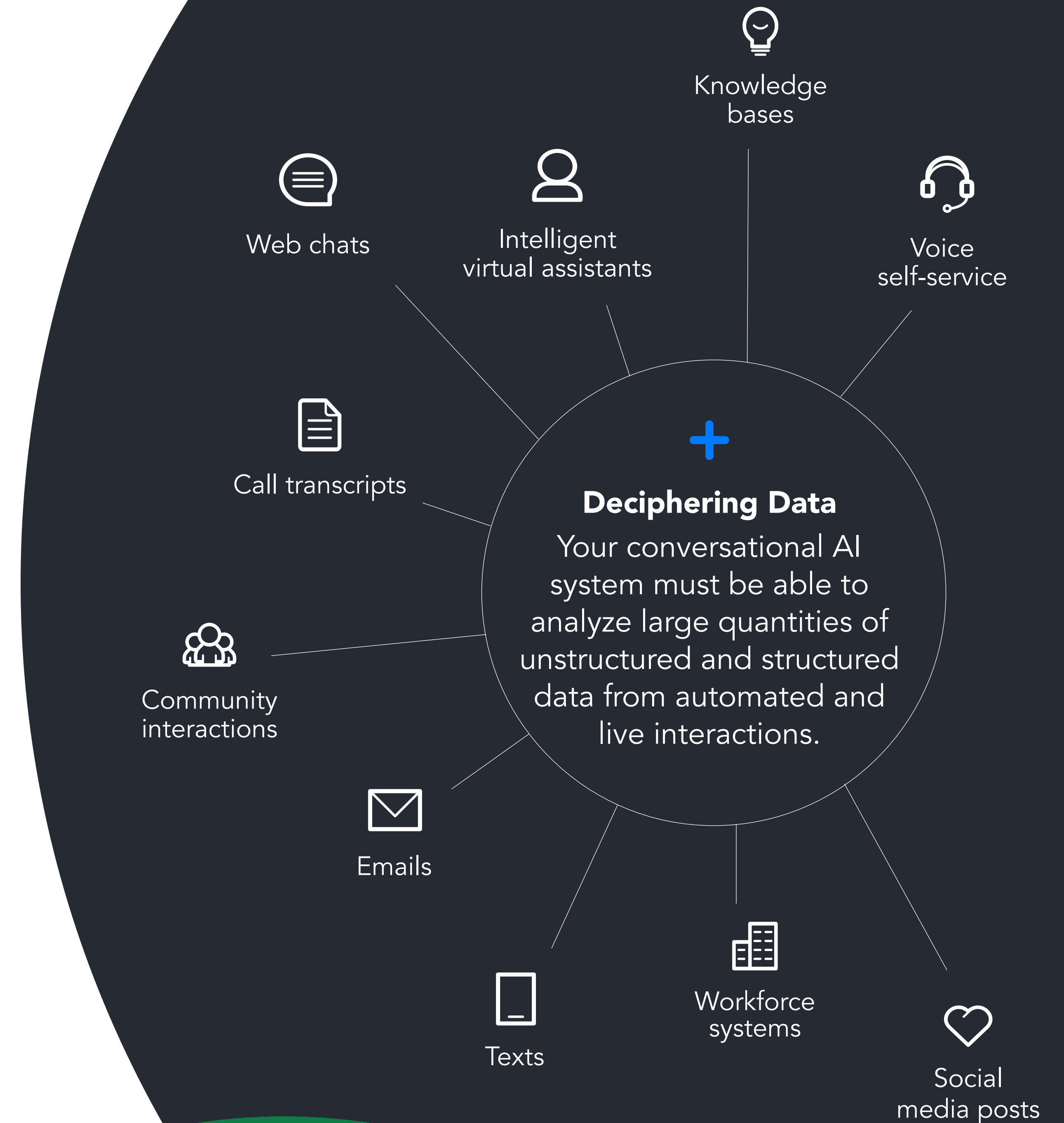
Data

There's an innate conflict between understanding what users really need and what businesses think they need. Your customer may be asking for their current checking account balance, but the bank wants to let them know about low-interest loans. Conversational AI can help resolve this conflict and give both parties what they want.

**The key is using AI to analyze real-world conversations and apply the results to your machine learning:**

- Build your system library of natural language terms, business intents and unique actions
- Enable the conversational AI technology to learn and improve
- Expand and fine-tune system responses
- Identify unmet needs that your business can address
- Collect insights that can improve the user experience
- Understand opportunities for achieving ROI, KPIs, and other goals such as growth

Access to the data is just the start. Gaining the ability to uncover, understand, develop, sustain, and scale AI data tools over time is essential for enterprise-wide results. That means being armed with real-world expertise to surface what is happening or not happening, and being able to execute on it within the constraints of your strategy, processes, and budget.



The next two essentials go hand-in-hand. They're all about determining what the user is asking and taking action or responding appropriately.

# 2

## Natural Language Understanding (NLU)

The key to success is fully grasping the user's intent: not just what they are requesting, but what motivates them, what they need, and what they care about. This can be tricky, as people convey the same requests in many different

ways. Discovering intent requires the right mix of user input and data, including the context of the conversation, the user's previous conversations and interactions with the business, and the sentiment or emotion behind the words.

# 3

## Natural Language Generation (NLG)

Once the user's intent is clear, the conversational AI system can respond or take action.

- Each communication channel requires a response in the same format (chat to chat, voice to voice, etc.)

- Similar questions from different users may require different responses, based on the system's understanding of preferences, views, opinions, feelings and inclinations.

### Interpreting intent

Two different customers ask to update an auto insurance policy.

One says that she just got married.

The other says she is moving out of state.

### How might the response vary in light of these different intents?

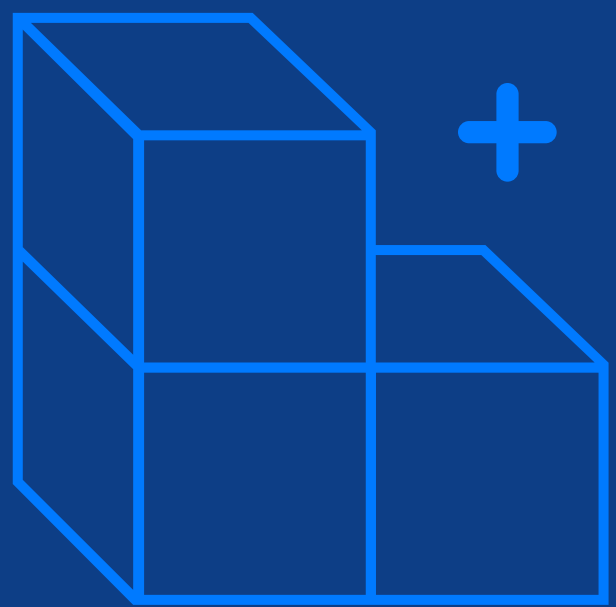
A complex language intent model relies on machine learning as a baseline. The model learns what you need to solve your business goals – to predict intent. Human intelligence skills augment the model by building classes and types of intents that correctly and consistently solve new needs.



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# Modular Platform

Another must-have for conversational AI is a modular platform. Why is a modular vs. a monolithic system so important?



**Enterprise scale:**

Address and solve strategic business needs by leveraging capabilities for a multitude of customers and employees at enterprise scale.

**Integration:**

Connect to relevant intelligence and experience tools, backend databases and functionality for a customized solution

**Flexibility:**

Easily expand or evolve the system by plugging in new modules.

**Learning:**

Bring multiple data sources together for system learning and improvement.

**Cost savings:**

Test or fix individual modules instead of involving the entire system.

**Privacy and security:**

Configure the platform to meet regulatory requirements across different geographies.

**Future-proofing:**

Keep up with the latest breakthroughs in the fast-moving AI field.

*“A primary differentiator among conversational platforms will be the robustness of their conversational models and the API and event models used to access, invoke and orchestrate third-party services to deliver complex outcomes.”*

**Gartner**, Top 10 Strategic Technology Trends for 2018, 3 October 2017

## 5

## Defining and Measuring Value

### Your modular conversational AI platform should be configured to:

- Respond to user needs with fast, accurate and personalized responses and actions
- Meet business goals and KPIs, such as efficiency and cost control and promotion of products and services

### How do you balance these potentially conflicting requirements?

- Compare user data with business goals using machine-driven analysis and human evaluation
- Look for opportunities to improve the system
- Share reports through integration with systems like workforce management for live agents
- Update capabilities to keep pace with AI technology advancements

### Machines can't do it alone

AI platforms rapidly analyze huge volumes of conversational data.

- Conduct real-time data collection
- Generate reports on opportunities and trends
- Identify unexpected user behaviors or risks in the system
- Track trends

A cross-functional team of conversational AI pros, including data scientists, support and oversee the AI system's improvements in breadth, depth, and understanding of intent.

- Interpret results and spot opportunities
- Address new user intents
- Change or enhance responses
- Extend to more engagement channels
- Develop robust access to backend systems

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# Perspective and Experience

Conversational AI within a modular platform can be a powerful instigator to evolve your business. To realize its potential, you must first understand and define your business cases to establish a baseline for what you want to achieve and align these to your conversational AI strategy.

- What ROI, KPIs, and goals are you measuring against?
- What problems must be solved today?
- What capabilities do you need to meet future growth objectives?

SUCCESS REQUIRES:

**Advanced technology**

Look for a platform vendor with years of experience, a comprehensive, modular solution, a robust library of user and business intents across multiple industries, and skilled AI scientists.

**Strategic perspective**

Conversational AI should be a long-term investment, not a tactical fix. You need buy-in and collaboration across all levels of the organization.

**Continuous improvement**

Be prepared to enhance and fine-tune the system on an ongoing basis as you gain insights into user interactions and as new AI capabilities emerge.

**Verint's  
Conversational AI Platform**



**The world's largest and richest data**  
library of business intents

Proven ROI across  
**4 continents and 11 industries**

**12+ years solving**  
enterprise-level challenges



# Understand the Business Case for a Modular Conversational AI Platform.

Watch this informative...and brief...Modular Conversational AI Primer Video. In just 12 minutes you'll discover what it is, how it works, and why a modular approach is critical for flexibility, cost control, and easy adoption of new AI breakthroughs.

**Watch Video**

When you're done, [let's talk.](#)

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