

INNOVATION SUCCESS STORY

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AI Powered Cognitive Search



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Bridging the business-to-tech divide



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PREFACE

Every company is experiencing unprecedented growth in all forms of its structured and unstructured data. Every minute of everyday company's customer, billing, payment, sales, and operations data is exponentially exploding.

The high percentage of unstructured data is an important consideration. It is information void of a data structure and no pre-defined data model, making it hard for computers to understand and analyze it.

STRUCTURED DATA



Further complicating matters, companies are storing this data in different locations, in different storage formats and with no means of correlating the siloed data repositories.

Combine the above with the fact the below companies have changed people's expectations of what search should be.



Fast forward to today, where users frequently tap the microphone icon on their phone and say, *"Give me a list of four-star restaurants near me that are open today"* and **expect—and get—a real answer.**

There is no doubt data has become a precious resource (i.e., an asset). Data is the new currency.

The best companies are capitalizing on that resource to deliver a superior customer experience, optimize operations, and uncover hidden insights.



USE CASE

CALL CENTER AGENT TRYING TO FIND INFORMATION

Problem Statement

In their moment of need, Call Center Agents **cannot find** or spend too much time trying to find the **information** they need to **perform their jobs**.



They must search across a myriad of **disconnected data sources** only to find the returned result set contains an excessive amount of **non-relevant information**, which they must sort through to locate the specific information they need – **if they can find it at all**.

SERVICE

CUSTOMER
SATISFACTION**Leading to:**

- Potential loss of customer and revenue loss
- Costly escalations and follow-ups
- Employee frustration

THE DRIVERS & ENABLERS

Artificial Intelligence is exponentially improving due to:



- **Computing Power** is enabling faster and faster processing speeds
 - ✓ Low cost of connectivity (bandwidth costs 40x less than 10 years ago)
 - ✓ Cloud computing (mitigating future IT cost increases)
 - ✓ Open systems (Scale and speed of development)
 - ✓ Quantum computing power
- **Large Amounts of Data** is available now allowing rich machine learning
 - ✓ Every year we are doubling the amount of data (Big Data)
 - ✓ Storage space costs are reducing in 1/2 every year
- **Sensory, AR/VR, IoT and Interactive Sensors driving predictive solutions**
 - ✓ Smartphones (largest IoT device today – average user checks 150 times per day)
 - ✓ GPS (“know everything about you” ., predict illnesses)

THE INNOVATION

Behind every search is an INTENT – a need / want – for a product, service or more information. In this use case, the Call Center Agent is looking for a specific customer’s information to answer the question being asked.

The solution is an AI-powered cognitive search app, widely accepted as the next evolution of enterprise search. Using a Call Center Agent’s location, job title, department or other attributes, it delivers dramatic improvements in the accuracy and relevancy of the returned search information needed to respond to the customer’s specific question.



The solution’s simplicity is its greatest strength. Emulating Google’s search, it consists of a search bar, powered by either voice-to-text or manual entry, and a results pane ordered by the trained confidence score.

The cognitive search solution stitches together the following advanced technologies:

- Application Programming Interfaces (APIs)
- Voice-to-text
- Intelligent Character Recognition (ICR)
- Natural Language Processing (NLP),
- Natural Language Understanding (NLU)
- Knowledge Graphs
- Machine Learning (ML)

The cognitive search solution gets better over time as it continuously learns.

THE IMPACT

A vastly improved Call Center Agent's experience of how they ask, find, and access information they need to do their jobs. Below are the realized benefits:

- A happier customer through a better customer experience
- Increased efficiency in finding and responding to customer requests
- Increased accuracy of information provided
- Increased job satisfaction
- Employees can focus the time-savings on more engaging value-add activities rather than searching fruitlessly for information that should be readily available



We look forward to discussing how we can help your business in **translating today's technology to tomorrow's business value™**.

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**We invite you to contact
us to learn more**

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