eCommerce Industry

Kompyte. Conversational Al Benchmark Study



How effective is Artificial Intelligence at understanding humans?

A Benchmarking Study of the eCommerce Industry

What is Conversational AI, and Why is it So Important?



Conversational Artificial Intelligence (AI) is:

A technology that imitates human interactions by recognizing speech and text inputs and translating their meanings. This technology is used by companies in the form of chatbots or voice assistants to interact with users. It uses large volumes of data aided by machine learning to accurately model human conversational interactions.



Why is Conversational AI Important?

Companies have found conversational AI to be a critical component in their sales and customer success operations, as the technology can process questions and interactions at a much higher volume than humans. As the model learns over time, the AI can provide contextually relevant and increasingly complex information much more efficiently.

Keys to Choosing the Right Conversational AI vendor

Not all vendors are created equal.

We recommend selecting a vendor that:

Enables the highest degree of customer experience by accurately understanding what the human is asking and translates the meaning - high Resolution Rate results

Delivers effective and efficient results with minimal (or no) ongoing model training – Rapid Time to Value results





What is the Resolution Rate? Why is it Important?



The "Resolution Rate" measures how good an AI solution vendor's model is at understanding human intentions.

The higher the resolution rate is the higher probability that the AI model is able to match user-entered questions with its intent.

If the model cannot accurately understand and translate a question (i.e. predict intent) and match it to a system-generated answer, the AI provides no value and users experience suffers.

To be effective, the resolution rate must be at least 80% or higher!

Benchmark Objectives and Methodology

How Kompyte measured "Resolution Rate" for this study*

- Measured Natural Language Processing (NLP) capabilities based on objective and a scientifically repeatable procedure
- Focused on "train-less AI" or testing intent detection without training utterances
- Targeted English and eCommerce as the segment for analysis
- Concentrated on four key topic categories (Orders, Shipping, Payment, Account)
 - For every topic we chose 10 intents typically used in eCommerce
 - For every intent we utilized several third party tools to generate 10 utterances
 - Created intents WITHOUT training data
- Analyzed each utterance to assess the performance of each vendor's ability to correctly predict the intent (e.g., 1.0 it is predicted correctly, and in 1st position, 0.5 second position, 0.25 3rd position, 0 otherwise)
- Calculated a final score by adding all numbers together to compute an average effectiveness and return an overall score the Resolution Rate

 \star Research conducted between Dec 15, 2020, and Jan 20, 2021, using 300 utterances. [<code>list</code>]

High resolution rates directly impact the success and adoption of Conversational AI in eCommerce

The eCommerce market is highly competitive, thus necessitating effective tools, like Conversational AI to ensure high volume and quality of customer interactions.

Higher resolution rates of the tools achieved with little to no model training enable rapid time to value by allowing for:

Lower set up costs - less resources spent on model development with advanced, pre-trained models

Streamlined AI training - less time to set up equals quicker go-live and optimization of the tool, driving faster customer adoption

Reduced maintenance cost - minimal model tweaking required, resulting in more stable solution and less oversight required

Higher scalability - more content, more questions, faster - Conversational AI learning allows for increasingly complex conversations with customers



Improved User Experience eCommerce companies rely on customer experience to drive acquisition and maintain retention levels. The Conversational AI resolution rate is a critical metric in measuring industry customer experience levels.

Better conversations; higher conversion rates; improved customer retention

Specialized Al Start-ups Outperform Big Tech's Resolution Rates



Overall Resolution Rates Across 10 Key eCommerce Conversational Al Vendor Solutions:

Study conducted from December 2020 - January 2021

Discussion Topics included in study:

- Order Taking
- Shipping
- Payments

Inbenta

HIGHEST 84%

Large tech companies, IBM and Microsoft, overall rate under 30%

Section: Order Topics





Section: Shipping



Section: Payment





Section: Account Management





Key Outcomes

Not all vendors are alike...

Specialized Conversational AI vendors scored highest rates across ALL topic categories with strongest capabilities to recognize and translate interactions to modeled intent, Inbenta ranked 1st in all categories - The only vendor to consistently score above the 80% resolution rate threshold.

Large, tech vendors with wide solution portfolios (e.g. IBM, Google and Microsoft) all underperformed

Higher resolution rates achieved with little to no training enable rapid time to value

We recommend selecting a vendor that not only accurately understands what a human is asking (high resolution rate) but is able to do so with minimal (or no) training of the model, delivering a rapid Time to Value result.

Vendors whose core competency is conversational AI rank highest in terms of accuracy in imitating human interaction

The "Resolution Rate" measures how good an Al vendor's model is at understanding human intentions



Insights Powered by Kompyte

Study powered by Kompyte Competitive Intelligence Automation Engine.

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