

WHITEPAPER

5 Reasons Conversational AI Fails and One Way to Guarantee Success

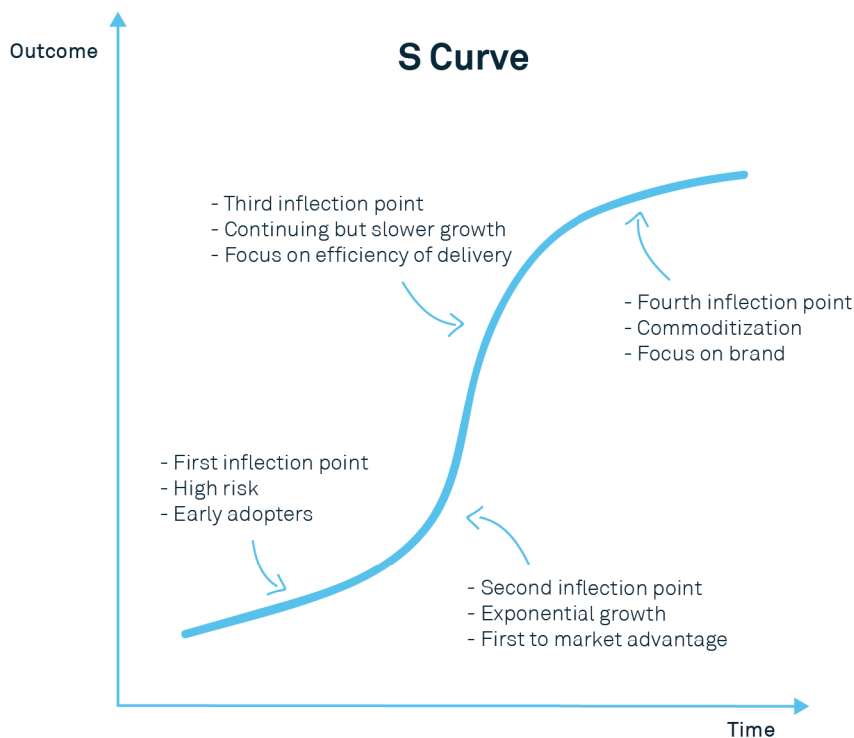


5 Reasons Conversational AI Fails and One Way to Guarantee Success

As organizations are rushing to implement the latest Conversational AI technology, they are paying little or no attention to the ongoing operational requirements.

Without proper management, training and optimization, Conversational AI will fail more often than not. In this whitepaper, we will take a closer look at why and how this happens, and what organizations can do to ensure their AI delivers the results and performance they expect.

Whether it is Big Data, Cloud or REST APIs, the reality is that every technology has and will eventually be commoditized. And the good ones, as the saying goes, eventually become transparent.



While significant advantages exist for early adopters, the massive gap between adopting new technology and operationalizing it is often underestimated. AI not only has to solve specific problems successfully, but it must also result in ever increasing levels of automation.

What makes AI challenging to operationalize?

Dynamism is AI's promise. AI is data driven and the ability to change systems by retraining a model without changing lines of code is what makes it special. This requires much more ongoing attention than a traditional IT application built to simply transport, process and store data.

AI operations must also focus on extracting, analyzing and actioning the patterns of data flowing through the AI application. This includes data cleansing and normalizing, clustering, topic modeling, deriving user behavioural insights, detecting trends and anomalies, extracting and isolating emerging patterns in data and ranking them by impacts to the overall customer experience.

A Conversational AI solution that addresses this in real time will learn faster, and in the enterprise space, where data patterns change daily, success is measured by learning rate.

Failing to appreciate the volume, velocity and variety of these daily training and optimization requirements is behind so many of the reasons AI implementations fail. On the next few pages, we discuss the top five.



1. Too much focus on the AI and not enough on the ecosystem it lives in

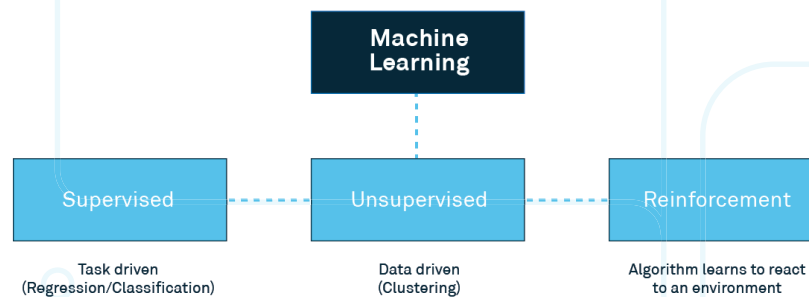
Success is collective in nature. In the enterprise space, Conversational AI resides in an ecosystem of platforms, processes and knowledge (content)— and it needs to be able to work with all of it in order to solve a real business problem and deliver on KPI's.

Quite often, teams or vendors who promise stellar results with AI fail to account for the state of the ecosystem, and realize only later that the AI alone cannot solve these challenges.

Successful AI vendors who have faced these challenges before exhibit nimbleness and pragmatism in their approach. They have flexible integration mechanisms, the tools to process vast amounts of unstructured content on an ongoing basis, and the skills and experience to address each aspect of these complex ecosystems in partnership with the enterprise.

2. Not enough effort put towards training the AI

As previously stated, AI's value proposition is that it constantly learns from the data that it processes and updates its behaviour to save you more time, more money and more aggravation. For this to work, regular training is required, which can be a singular machine learning program or a blend of different programs.



The vast majority of Conversational AI tasks, such as intent classification, use a combination of **supervised** and **semi-supervised learning**.

Unsupervised learning is used for clustering tasks, such as topic modeling. Whereas **reinforcement learning** is rarely used, since most businesses prefer the predictability of scripted responses and actions instead of letting Virtual Assistants make ad-hoc decisions on the fly.

Supervised learning entails a “human-in-the-loop” approach, where AI trainers monitor the quality of data the AI learns from and the consumers behavioural compliance to the business process. As such, the frequency and quality of supervision have a direct correlation to the automation rate and customer satisfaction (CSAT) score.

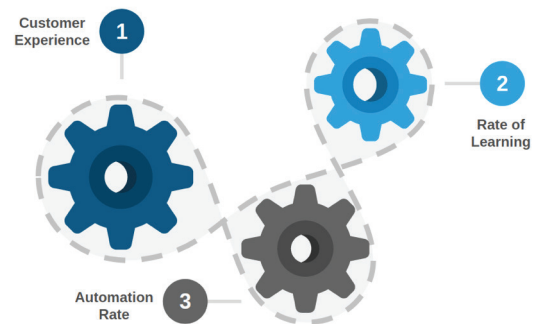
AI fails when the company using it treats its integration like a one-and-done activity. Conversational AI requires consistent post-deployment attention. If you fail to train, then you train to fail.

3. Not setting or adapting to new metrics

With AI, the metrics go above and beyond the measures for typical IT applications. While the measures for **Deflection Rates** and **Customer Satisfaction** scores remain, AI applications usher a slew of new metrics that measure the efficacy of the AI training process. These include:

Automation Rate: The turnaround time for the AI application to learn a new concept. In the realm of conversational AI, this could be the time between the application detecting a new candidate intent to the time taken to train and operationalize the new intent.

Rate of Learning: Measured as the volume of concepts learned over a period of time. The greater the number, the more the system learns and the more the deflection/automation rate is achieved.



Balancing the triad of **Automation Rate**, **Customer Experience** and the **Rate of Learning** is an ongoing endeavour.

A best practice in the early days of Conversational AI integration is to escalate to human support early in the conversation. This will result in lower initial Automation Rates but a higher rate of Customer Satisfaction. During this initial phase, it is imperative to ensure that the Rate of Learning is as high as possible.

As the platform matures, the learning rate will stabilize, and the Automation Rate and Customer Satisfaction score will both steadily increase.

4. Trapping the value of AI in silos

AI models improve exponentially as data volume, variety and velocity increase. The only way this is achieved is by liberating data from departmental or vertical, purpose-built, task-specific silos and sharing it across the organization, thereby reusing and increasing its value.

Many companies don't integrate their Conversational AI this way, choosing instead to segregate the data each AI application collects and trains from. This blocks the ability to cross-pollinate learnings within the organization and maximize the Automation Rate across all areas of the business.

For this reason, adopting an omnichannel AI approach is the only way to fully realize the value of the AI investments.

5. Insisting on a DIY approach

The world of modern Conversational AI in the enterprise space is still maturing and is far from being “plug and play.” It requires optimization techniques like tuning model hyperparameters, changing underlying algorithms to match the changing patterns in the data, and rethinking the content and knowledge bases that serve as training data.

Most Conversational AI platforms do not have the depth of insights, support programs or documentation to pinpoint where to begin the optimization process or what to optimize for that matter. And most companies lack the dedicated human resource skills needed to build, integrate, train and support their solution. Organizations treat AI as a narrow technology rather than an ecosystem, and so often take a nearsighted approach to optimization.

The one way to guarantee success

On a business impact level, the typical definition of a successful Conversational AI deployment falls into some form of the following:

- adds significantly to the end consumer experience and CSAT rankings
- maximizes revenue opportunity across online, mobile and social channels
- improves customer care responsiveness and availability
- returns call centre cost reduction through automated deflection
- promotes guided journeys for customer transactions and engagement
- provides key analytics back to business stakeholders
- amplifies the company brand

However, the expectation and promise of AI go well beyond. AI is also expected to:

- learn and improve daily
- magically adapt to changes in business
- automate transactions and personalize at scale
- offer machine driven insight
- provide ever-improving levels of customer satisfaction

Given that core technology commoditizes over time, the decision to focus on and address the complexities of AI-driven operational excellence, Automation Rate and Rate of Learning is the one way to ensure success.

Unless an organization can build their own AI operational tooling, hire a team of people with the right skillsets and experience, and commit long term to train and maintain the solution daily, a fully managed AI approach is the only way to ensure success.

The leading managed AI vendors provide a mature and well architected enterprise class Conversational AI solution, operate and train it on a day-to-day basis, identify deficiencies, work with their customers on content requirements, and provide and apply the latest insights and analytics to optimize effectively. And the very best managed AI vendors also provide KPI guarantees, ensuring the AI successfully meets its business objectives. And as the saying goes, **“alone you go far. Together you go farther.”**