
THE ROLE OF AI IN THE CONTACT CENTER



What is AI?

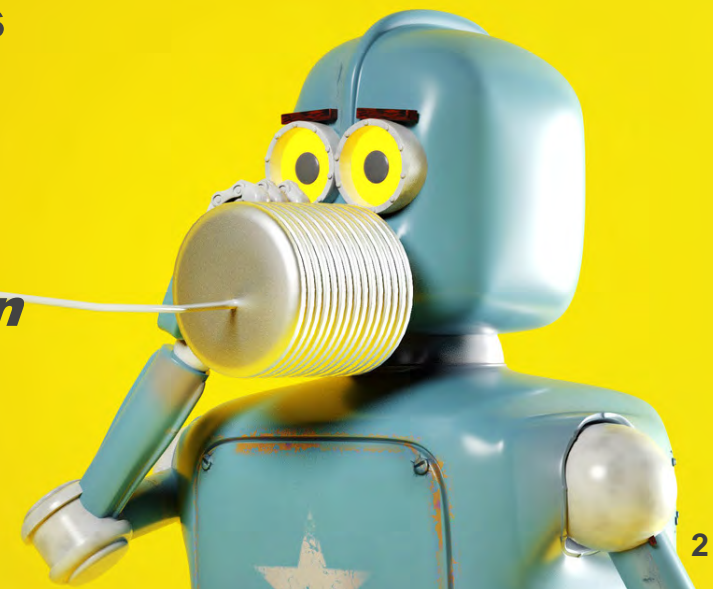
It is the field of study that gives computers the ability to learn without being explicitly programmed. Cheap computing power and proliferation of data are used in tandem to “learn” and accurately predict outcomes. AI has a learning curve. It is only as good as the input data and parameters. Given a fixed goal, AI can create efficient and actionable results.

Examples of AI:

- **Chat bots** that can answer FAQs and status in lieu of call center representatives.
- **IVRs** that understand natural language and route customers to appropriate agents.
- **Understand the context** of the caller and offer the right product.
- **Predict the sentiment** of the caller to call center representatives.

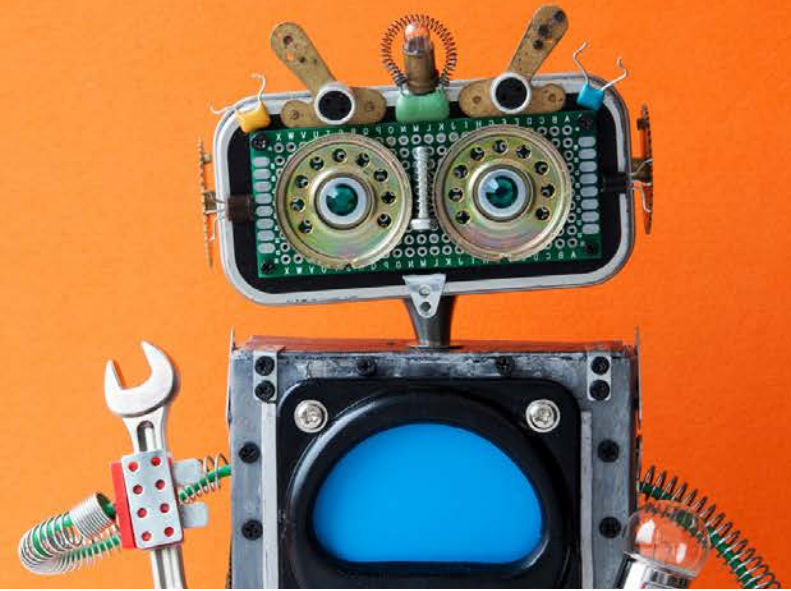
Out of the box the AI platform are blank slates. They have the capacity for deep predictive analytics, but require proper input of data and initial instructions. If you have a clear understanding of the problem and the associated data, AI may benefit you.

**Artificial Intelligence is
the science of training
systems to emulate
human tasks through
*learning and automation***



UNDERLYING TECHNOLOGY AND BENEFITS:

Let's look at some of what is under the hood of the AI engine and how it can help you.



Machine Learning

Machine Learning is a foundational component of AI. Companies today are applying machine learning for specific tasks using transactional data specific to that task. This data is used to train “models” that represent the likely path of success for that data set. The algorithms in machine learning learn rules from responses generated to actions. Examples include likelihood of purchase, churn, likelihood of payments in a collection scenario, predicting intent etc.

Natural Language Processing (NLP)

Understanding language is a key part of AI. Spoken and written (text, chat) language is learned and acted upon by converting words into command functions. The more accurate NLP gets, the better the underlying AI can interpret input and match appropriate responses.

Voice Recognition

Alexa, Siri, Google home are examples of voice recognition and NLP where voice and tones are turned into text script. AI then interprets the text and delivers a response. This can be applied to contact center to create advance IVRs, voice transcriptions, virtual assistants and chatbots.

Security and Fraud using voice recognition

Voice recognition is also used as means in developing unique voice prints and conversation prints for the call center caller. These voice biometrics are used in validating the identity of the caller in the IVR, web and the call center. Voice biometrics therefore is an important application of AI that is very effective in combating fraud.

Chatbots

Chatbots are a popular application for NLP and Machine learning. Similar to voice recognition, chatbots follow key word phrases and provide appropriate responses. Chatbots are used to provide FAQs, guided help, service status, order status, tracking info etc. If a question does not meet the answer criteria then such chats are sent to a human agent.



AI Enablers:

Data

The vast amounts of data that are available today. Customer data available on the web, demographic data, sales data and data captured during interactions with customers inside the firewall in various channels are enabling AI. Patterns in data can categorize, segment and reveal hidden paths that enable enterprise to understand customer behavior and make accurate predictions. However, data has to be representative and comprehensive from all sources to make it meaningful. Biased data will cause the models to produce unfair/biased results – resulting in incorrectly routed calls, bad recommendations etc. AI is only as good as the data it receives.

Cloud

Cloud enables AI in a big way. Your IT infrastructure shifts from expensive in house investments to metered computing and storage in the cloud. You only pay for what you use and you can scale up or down. Companies can add additional computing power based on need for very large data sets without having to invest in such resources in house. Many cloud vendors also offer key technologies to enable AI such as NLU, Machine Learning functions to classify and understand data, creating ML models etc. Cloud therefore enables AI in a big way and takes it to market faster and cheaper.

What is the role of AI in the contact center?

It is important to note that the “AI” that companies currently run in their contact center is not AI but a collection of adjunct functions. True AI not only alleviates functions typically done by humans but also the ones that humans cannot possibly automate or understand using traditional programming paradigms.

Contact centers want to automate tactical functions to be strategically relevant. Contact center agents that routinely carryout repetitive functions such as:



Validating
customer's
credentials



Answering
FAQs



Registering
customer's
preferences



Filing customer
information and
call wrap up notes



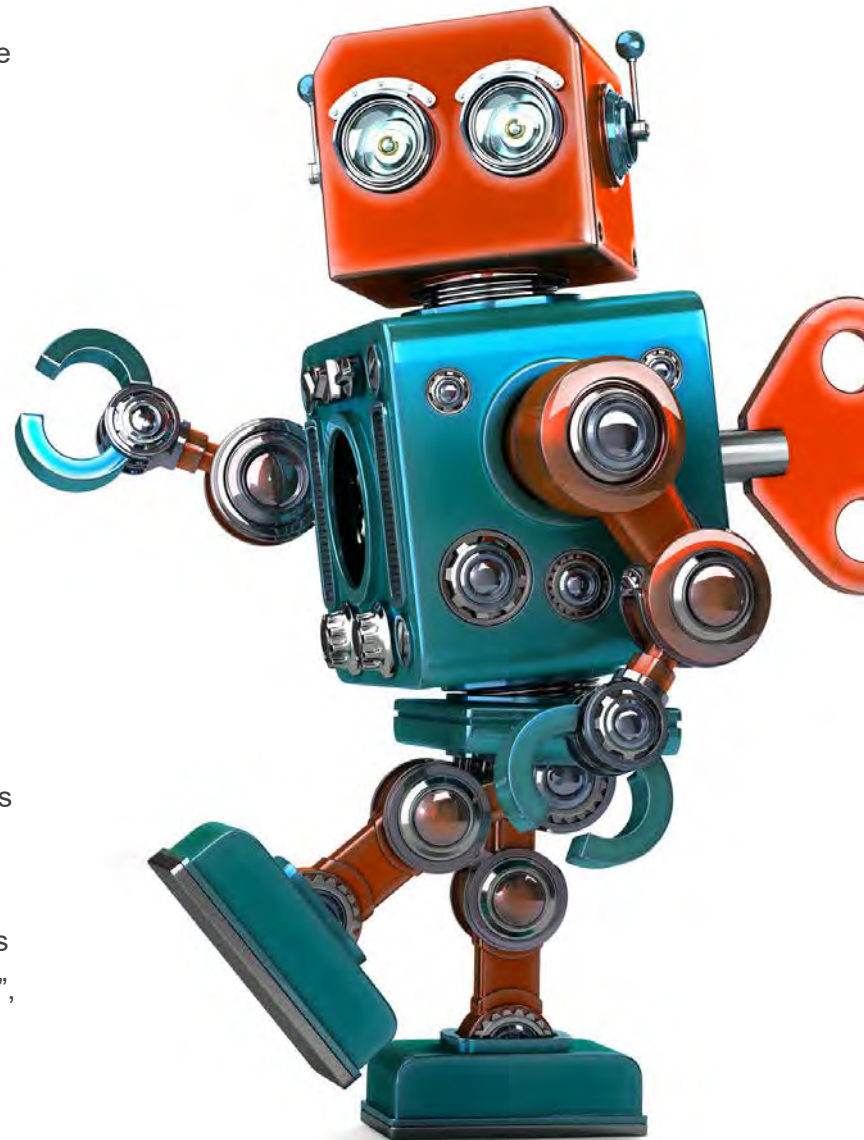
Creating
leads



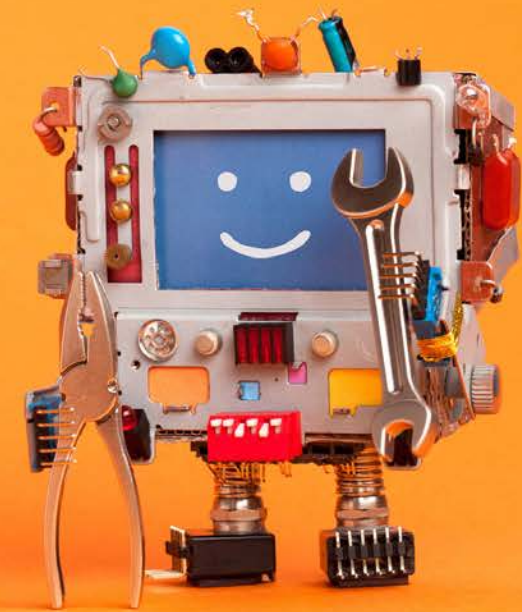
Forwarding and
routing calls

The time and resources spent on such repetitive functions is a sizeable chunk of the time spent leaving little time for strategic initiatives to serve, sell and market better. It is important that such routing functions be automated first.

Contextual messaging and chatbots can help in decreasing the tactical load by offsetting routing inquiries such as “What is my balance?”, “How much do I owe on my credit card?”, “Am I eligible for this service?”, “What is the status of my order”, “When will I receive my package”, “Pay my bill” etc.



AI CAN HELP YOUR CONTACT CENTER IN THE FOLLOWING KEY AREAS OF ENGAGEMENT:



1 Call Containment

Many companies use AI in the form of a chatbot in the IVR or as a text based interaction to deflect FAQs. If a customer has to check if their social security check was deposited or check their balance or the status of their order etc. – the chatbot should be able to recognize the user, their intent and then check the CRM for their relevant query and serve an answer. You don't need an agent to waste their time bringing up the CRM on their desktop, querying the system and provide an answer. The AI system (chatbot) can do this in a fraction of a second. Another major benefit is that you only have to develop that chatbot once. You can then deploy it in the IVR, text messaging channel(s), interactive chat (on the web site) and social media channels. The customer experience would be consistent across all of these channels. This is because the underlying conversational AI is the same across voice and digital.

The **Concentrix Experience Platform (XP)** is a complete digital self-service solution for enabling contextual conversations across all voice and digital channels. The **XP AutoML** model builder, an integral component of Concentrix XP, enables business analysts and developers to apply machine learning to real world problems without having to know the intricacies of AI.

2 Strategic and complex agent interactions including case management (Reduce your AHT and improve accuracy)

The customer might be calling about credit card fees in an international context, or disputing a bill, or purchasing a complex financial instrument or mobile service. The customer perhaps needs help from a real person. This type of engagement might be better suited to an agent.

However AI can still help. AI can collect the customer's journey breadcrumbs – since most customers start their journey on the web. It can then make sense out of the data collected i.e. determine the intent of the call. The agent in the voice or chat channel will want the context of the conversation. The more information the agent can get before the conversation starts, the less time they'll need to finish the call. During the conversation, AI can continue to support by suggesting products and services, streamline the data entry and help in call wrap up

AI can offer Context:

- Who is calling or chatting?
- Intent of the caller: What are they calling about?
- What might be the likely issue?
- What prescriptions (products, services) might best serve the caller or situation?
- What is the customer's preference?

Why AutoML?

Predictive models enable the detection of intent, likelihood of purchase, odds of opening an account, potential to churn, ability to pay in a delinquent/collections scenario etc. This can be detected in a customer's journey at the point of interaction so that corrective action can be taken immediately. Development of such models requires collecting the relevant data, expertise in data science, algorithms, analytics etc. Additionally, these models need to be periodically tuned and trained due to changing market conditions and customer behavior. Automation of developing AI models can not only reduce your time to market but also your dependency on scarce technical expertise.

Concentrix AutoML dramatically reduces time to market for developing predictive models by automating key components of the model building process.

3 Customer Journey Analysis and Improvement

Customer journey analysis is increasingly important to create actionable insights. These insights enable us to understand the obstacles and opportunities for us to remain competitive, improve sales and service.

We have voluminous data around our customers. The more information we have on our customers, the more accurately we can predict their needs and understand their preferences. However big data requires automation and AI to understand the patterns of behavior. At Concentrix, we turn your data into insights using predictive and prescriptive analytics, voice of the customer software and services, operational analytics, journey analytics, social media analytics, sentiment and emotion analytics etc.



HEALTHCARE

Predictive analytics drives
higher claim accuracy delivering

\$100M
in annual savings



MEDIA & COMMUNICATIONS

Datamining the customer
experience led to optimized
processes delivering

34%
improvement in NPS

4 Call Center Optimization & Improving Agent Performance

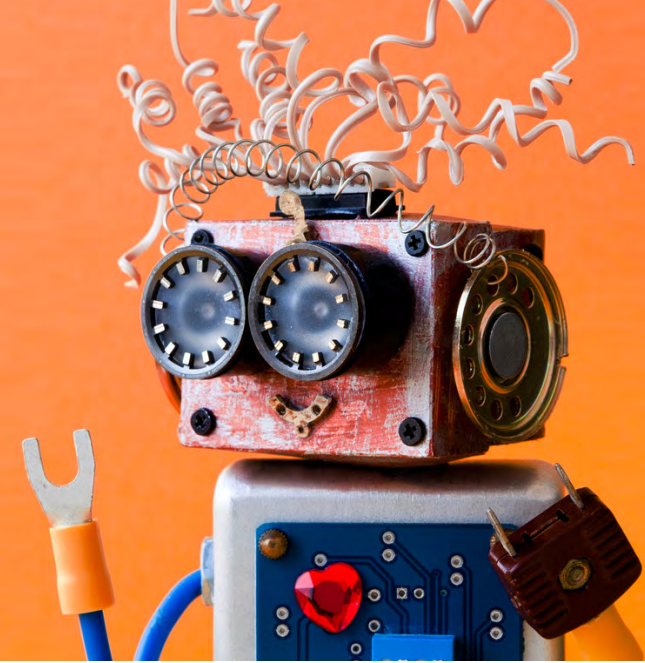
How do you measure the success of each interaction? Are there call types that can be optimized for best outcomes? How do you automate feedback to better future interactions?

Machine Learning enables us to detect and predict which practices are successful and profitable:

- Match caller to the right agent by analyzing previous and current journey, channel selection and web navigation and determine best routing for both customer and agent. This improves FCR and CX.
- Machine Learning can predict which debtors are likely to pay up in a collections scenario.
- Predict which customers are likely to churn enabling agents to adapt to a different script during the call.
- How often do agents stick to a script or deviate in discussions to meet SLAs
- Analyze customer sentiment to alert agent

GENERAL CONSIDERATIONS AND PITFALLS IN USING AI:

AI is not a miracle cure for business problems. The accuracy and effectiveness of AI models are only as good as the data used to build those models.



Key Considerations to look for

Problem Definition

- Make sure you have a thorough business understanding of the problem you are solving
- Describe the data and graph it on paper/excel
- Visualize on paper what the output and results might look like
- Define your variables and outcomes.
Outcomes can be as simple as “Yes” or “No”

Data Collection

- Make sure you collect data from all sources that are relevant.
- Categorize your data
- Analyze your data on paper to make sure it has all the attributes to solve the problem

AI Model Fairness

- Your data has to be representative of the population it represents
- Data has to be diverse and broad
- Biased training data sets (not broad and diverse enough) will cause the model to produce unfair/biased results e.g.:
 - Product recommendations may not be accurate
 - Calls may not be routed correctly

HOW DO YOU **PREPARE FOR AI?**

It is important that you are prepared for digital transformation first before you jump into AI. Messaging, Chat, Omni channel, analytics etc. should be the initial focus. Get a complete view of your customer interactions, collect lots of data and then analyze the data for patterns of behavior. Use this analysis and data, then get prepared for AI.

In a hybrid contact center some activities will be fully automated with no human intervention and others will be a combination of human and machine. The challenge is to figure out what technologies to implement and when. This approach will need to be strategic. The data you have collected should help you in making those decisions.

To learn more, visit our www.concentrix.com/businessmessaging/.

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