



Getting the ROI with AI

Looking back over the past couple of years, the one subject that seems to have captured communications professionals' imagination more than any other is AI. A quick Google search for Contact Centre AI yields over 770 million results. This demonstrates that a lot of people are talking about it but is everyone making sense? Does everyone even agree on what AI is?

Of course, our fascination with AI is not a new thing. If we try hard enough, we can trace the origins of AI back to ancient civilisations and the basic principles of automation. However, what most people think of when they hear the term AI, has been influenced by the latter half of the 20th century.

Pop culture has played a role in shaping our opinions about AI and has fuelled our obsession with the idea that "one day, the machines will take over!" Admittedly, we've come a long way since Fritz Laing's Maria in a dystopian Metropolis (1927). But even since the origins of "modern" AI in the 1950's fiction has been dominated by the negative portrayal of a "singularity" that becomes self-aware and thinks the world would be a better place without humanity.

In many instances, AI was anthropomorphised into an "evil" robot, but the 1980s saw an element of convergence between science fact and science fiction. AI began to be portrayed as a "system". Of course, Skynet in Terminator and WOPR in War Games still thought they'd be better off without us.

What is AI?

AI as we know it today is an amalgam of technologies; including classification, decision-making, natural language processing, big data analytics and machine learning. The reality of AI is more augmented experience, less mutually assured destruction. Or, if you prefer; support, not supplant.

At their core, AI systems are about knowledge management. They source, sort, store, search and serve information. The difference between a good AI and a bad AI comes down to how effectively they carry out these tasks and what degree of cognition is involved in generating a response, or "single truth".

The cognition element here is the most important. Inferior systems can carry out all these tasks efficiently, but without intelligence their ability to add value to an engagement is limited. The start of a workflow typically comes in the form of a query; either systems generated or, in the case of a customer experience (CX) engagement, a question.

Truly intelligent systems think outside the basic parameters of these processes. They have a degree of prescience, something that enables them to predict the start of a workflow – perhaps by recognising an event that originates from a connected, but separate system. Real-world examples of this could be a remedial workflow triggered by an IoT sensor reading, a priceredrop on an e-commerce platform leading to increased sales enquiries, or a cancelled flight leading to abnormal levels of customer service activity.

Simply capturing the content of the query is only half the battle. AI systems also need to apply a layer of context to the data. They need to understand why the question is being asked, not just what the question is. This goes to intent. In human-to-human interactions, what we say is not always what we mean. So how do they do that?

Two of the core principles of AI are Natural Language Processing (NLP) and Classification. In a CX scenario, the AI needs to recognise the language and understand the intent of the enquiry before it can interrogate a database of potential responses and serve the most appropriate response. With fear of stating the obvious, not all AI systems are the same. The degree to which they understand the query, and the database of potential responses they can access, has a significant impact on their effectiveness.

This comes back to cognition. A simple chatbot on a website is an example of an "inferior" AI, as it can only do lineal thinking; calling upon a pre-determined set of responses, to a pre-programmed set of questions, under a pre-defined set of circumstances. What happens if a user asks a new question outside this realm?

Next-generation, conversational AI systems leverage machine learning and big data to continuously improve the quality and relevance of their interactions. They can be used to interrogate the entire contents of a website to serve answers to questions in a more natural, fluid manner. Whilst we wouldn't go so far as to say these systems are self-aware, they do appreciate their own limitations. If the information required to answer a query is not available, the conversational AI knows when to handover to a "real" person.





AI in action

Targeted, or “narrow” AI is already having an impact on our day-to-day lives, from the intelligent voice recognition systems in Siri, Cortana and Alexa, to hazard awareness systems in self-driving cars; or e-commerce platforms and audio/video streaming services that recommend “other things you might like”. AI is also being used extensively within the contact centre world to enhance person-to-person and self-service interactions.

Perhaps the most overt use of AI in the contact centre is the use of voice analytics for user identification and authentication, or for intelligent routing of inbound calls. As AI systems become more sophisticated, or learn more, we will see an end to the “press one for sales, two for accounts, three for technical support” approach to automated call handling. Natural Language Processing will enable an automated system to simply ask “how may I direct your call?” and route the enquiry based on the content and context of the verbal response.

Of course, as more engagement goes through social media and self-service applications, the same language abilities will be used to aid site navigation or provide responses to text, email and online enquiries. Self service represents an increasing share of customer service engagement. Intelligent engines that serve contextually relevant information, at the right time and in the right place, will help create frictionless experiences, reduce shopping cart abandonment in e-commerce environments and lower the number of escalations.

The contact centre is an information rich environment, with vast quantities of “big” data captured every day. AI is helping with the sourcing, sorting, searching and serving of

this data; providing personalised self-service experiences and supporting agents with automated data capture and access to centralised data and customer engagement histories.

AI’s ability to collate and interpret huge amounts of data also has implications for trend and behavioural analysis. AI is better equipped to identify emerging trends in behaviour and enable contact centre managers to upskill, re-train or resource appropriately.

Customer-centric AI is not the only active area of development within the contact centre. AI also has an important role to play in supporting agent activity and monitoring performance. By better understanding the nature of an inbound enquiry, an AI can more effectively route calls to appropriately skilled agents, trigger an automated response if applicable or automate repetitive tasks.

NLP can be used to improve agent training and assessment, as well as customer experience. Real-time monitoring of a customer conversation can analyse both content and context, including such diverse metrics as keyword analysis, speech clarity and volume. It can even be used to monitor stress levels or make sure an agent is “sticking to the script”. As the system analyses the conversation it can interpret the customer intent (this goes back to people not always saying what they mean) and serve relevant information to assist the agent in handling the enquiry.

An ROI for AI

AI is helping to provide added value to every engagement, using what it has learned from previous engagements to predict follow-up questions and pro-actively serve relevant information at the point of contact. This is having a positive impact on a wide range of KPIs, including customer satisfaction (CSAT), average handling time (AHT) and first contact resolution (FCR). However, the business case for AI goes beyond these traditional contact centre metrics.

A return on investment in artificial intelligence is primarily outcome-based. Depending on your desired outcome: process automation, optimisation or personalisation; AI can deliver a range of tangible benefits.

Automating processes can result in significant time and resource economies. Remember, AI is not about replacing people, it's about enabling them to do more with their available time. It's about eliminating repetitive or low-value tasks and freeing up time for more complex process management or call handling.

Intelligent automation can also have an impact on revenue making opportunities. In an online environment, this could mean serving the right information at the right time to reduce abandonment rates; or it could mean accurate positioning of add-on or up-sell opportunities. Classic examples of this include the "people who bought this also bought this" advice or bundled offers such as "save 10% if bought with".

Process optimisation is about getting the most from every stage of a workflow. Correctly routing the initial enquiry helps to improve first contact resolution. Screen popping relevant support information helps improve the agent and customer experience alike. Once again, serving the right information at the right time can help agents identify additional sales opportunities, or eliminate the need for customers to make multiple enquiries.

A personalised experience is always going to be better than a generic, process-driven experience. Customers don't like to feel they are being handled or processed. Although automation and optimisation are essential elements of the customer service experience, they don't need to come at the expense of personalisation. Whether in an online, self-service experience or an agent assisted engagement, we all like to be treated as an individual.

One final thing to point out about AI

It is a data-driven technology. If it is going to deliver on its promise, AI needs to have access to the right knowledge base. By its nature, AI (like real people) gets more intelligent with the number of interactions had. Its able to draw on more experience (a bigger database) to make better informed decisions. This means, the AI experience you get on day one will differ from the one you get a year down the line.



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