BT

From artificial to augmented intelligence:
Enhancing the human touch.

What is AI?

Artificial Intelligence (AI) is the simulation of human intelligence by machines. This is going beyond automation, where a machine is programmed to complete a specific task, to now include learning from experiences, reasoning and self-correction – leading to augmented intelligence, where technology is supporting and enhancing the human understanding.

Why is AI important?

In business, AI was originally seen as a way of automating tasks to reduce costs. Now it's clear that it can enhance the customer experience by supporting humans. In fact, 78% of customer experience (CX) professionals now say that the use of AI in CX helps both the agent and the customer enjoy a better experience.

Going beyond simple cost cutting, AI can help achieve five key CX strategy goals:

1. simplifying and automating journeys to enhance the customer experience by diverting low value, repetitive tasks away from contact centre agents so they're free to spend time on more complex, high value things

2. reducing security risks associated with customer interactions by authenticating users

3. getting a **better understanding of customer intent** and behaviour by analysing high volumes of data

4. proactively engaging and targeting customers at the right moment with the right proposition, to help increase loyalty and market share

5. boosting the customer and agent experience through "augmented intelligence" a blend of artificial and human intelligence, where machine learning supports both the agents and customers with relevant data in real time.

By learning what customers want and how agents solve problems, AI builds the foundation to provide a better and more targeted service. It gives customers more control, so they can do things on their terms, in their own time. And much of it can be automated, so organisations can use the expertise of their people more effectively – stepping in only when needed.

How we're making it work.

We have the technology and people with the skills needed to design, set up and maintain your AI applications. AI technology for CX includes two main layers:

1. Front end applications, including:
- bots to help users or agents with voice or text conversations
- agent assist applications which select content from knowledge management systems and organise it into guided flows
- precision routing, so customers get put through to the right person, regardless of channel and without having to repeat themselves
- intelligent analytics to study customer intent, behaviour and sentiment, and help authenticate customers or proactively present them with personalised offers.

2. Underlying technologies, including:
- natural language processing (NLP) to understand what customer and agents are typing
- speech transcription systems to analyse and understand voice
- robotic process automation to streamline predictable, repetitive tasks and free agents.

Of course, technology is nothing without understanding. And that's where we excel. In fact, we filed the most AI patents of any company in the UK last year. We have the skills, knowledge and experience to make all of this work together to achieve the best possible outcome for your business.

We do this with an ecosystem of partners – carefully selected technology vendors that are agnostic and can work with any other applications. For example, one of our knowledge management partners uses their own natural language understanding engine for English and European languages but will use Baidu for Chinese or Google for certain verticals.

This flexibility future-proofs your set up. We do this for both the deep number crunching behind the scenes (the geeky algorithms around things like Natural Language Processing) and the front end CX applications.

Computer says "no"

Let's be clear: this is not just about deploying a chatbot in a channel. The current "bot-rush" to cut costs will not guarantee differentiated customer experience.

Instead, for AI to improve CX you need to use it at each step of the customer journey, from automation to evaluation, focusing on knowledge management. And it has to be on all channels, including voice and social media. That way it can hear the whole story and learn from it, rather than just getting one side of the story (the customer) or a collection of unconnected bits.

It's important to remember that an AI system needs time to learn and become more effective. And it will learn better from analysing both agent and customer. Ultimately AI needs to be holistic and collaborative. Embedded in every channel and touchpoint and learning from humans.

Our role: more than an integrator.

By taking a holistic approach to AI adoption across the whole customer journey we can help you find the right balance between cost cutting through automation and CX enhancement. By combining machine data processing power and human creativity we'll move beyond simple automation to genuine augmented intelligence – helping to accelerate ROI up to 60 per cent.

We can achieve this because:

- we focus on AI-powered knowledge management systems as the cornerstone of AI powered CX

- we use pre-defined flexible APIs – to integrate AI with your existing applications and data, as well as third party apps and public data

- we own the technology risk and complexity for you – we monitor the market, select the most innovative AI partners and integrate them into our tightly knit ecosystem to create a repeatable managed solution roadmap

- we help you adopt AI across all relevant channels – so the system can learn from more touchpoints and become more accurate, efficient and effective.

A de-risked, repeatable template for transformation

We'll remove the confusion, choosing the right technology for your operation, and integrate it into a single, secure solution. We work with a bunch of partners at the cutting edge of all this stuff and we can manage your platform to cut the complexity and take away the pain of trying to keep on top of it all by yourself.

We use a templated migration methodology to support your customer experience digital transformation process so everything is simple and predictable. Once set up, we apply the same pay-per-use commercial model and SLA to all elements, guaranteed by us. And with global concurrency you'll save up to 60% on user costs by sharing licences.

Key takeaways.

It's already happening

The pace of change is relentless and we're on the cusp of a whole new way of engaging with customers. Executives who can embed this in their organisations will emerge ahead. It's important you don't get left behind.

It's a process not a product

The key feature of AI is that it learns. And learning is a lifelong process. Any AI application is only as good as the data you feed it. The better and bigger the data, the more scope for improvement. It's all about building the knowledge base. Brands that use end-to-end solutions, with bots and agent assist acting together, are seeing a faster return on investment and an improvement in customer experience.

It needs humans

AI can deal with routine requests and tasks, learn how to improve responses and processes and, crucially, when to call in a human operator – when more empathy or creativity are called for. Used properly, it helps both the agent and the customer enjoy an "augmented" experience through more efficient, satisfying interaction.

It opens a whole world of new possibilities

With human and machine interacting together across the customer journey, we uncover a new combined, "augmented intelligence". This is where machines take care of searching, analysing and presenting meaningful data so that humans (agents or customers) can concentrate on consuming that data – using their emotional and deep intelligence to create new ideas, possibilities and experience.

AI in the real world.

Solving complex cognitive problems – augmenting the agent

An agent working in an airline contact centre (which also organises holidays) has just taken a complex booking from a customer arranging a reunion of ten families at a wedding in Dubai. The agent gives the AI Virtual Assistant the travel requirements:

- multiple flight origination points with connecting flights
- three families want to hire cars and other families want to hire mini buses
- two couples prefer a high-end beach hotel and others are happy with mid-market accommodation next to the metro
- two families need visas to visit Dubai and four of the families will be leaving on a cruise ship after the reunion.

The virtual assistant delivers a number of options, adding details of other service providers based on the customer requirements. The agent can guide the software, adjusting the itinerary based on conversations with the customer. The process means the agent can manage this complex set of requirements, all amplified by AI. This allows the agent to use human skills such as empathy to close the transaction.

Creating a smoother process – without compromising security

Organisations need to prevent fraud, but not deny genuine transactions. Speed of response is critical, especially when organisations are trying to identify and authenticate genuine customers.

Citibank[1] in Asia Pacific, for example, has been using Voice Biometrics to identify and verify customers. Since the launch in 2016, more than one million customers have subscribed to the service. Identification takes 15 seconds, a marked reduction on the 45 seconds it took previously.

Similarly, Danske Bank[2] deployed AI to better identify fraud and reduce false positives. They implemented Deep Learning Software with a graphic processing unit, moving operational decisions from humans to AI. The AI implemented by Danske Bank improved fraud detection by 50 per cent and reduced false positives by 60 per cent.

Taking on more – analysing and structuring big data

AI can transcribe entire conversations between agents and customers. This makes querying millions of customer conversations across PBX, VoIP, webchat, email, mobile and SMS far more effective. It means you can analyse the information, drawing insight and learning how to improve their levels of service.

DBS Bank Singapore[3] launched a virtual agent in Singapore, India and Indonesia across a number of channels – mobile, web and Facebook Messenger. The agent can handle 82 per cent of customer queries.

[1] Citi, Citi Tops 1 Million Mark for Voice Biometrics Authentication for Asia Pacific Consumer Banking Clients, 2017
[2] Teradata, Danske Bank Fights Fraud with Deep Learning and AI, 2018
[3] Opus Research, Case Study: Conversational AI Powers DBS digibank's Virtual Banking Assistant, 2017

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