



The Inner Circle Guide to AI-Enabled Agent Assistance

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The Inner Circle Guide to AI-Enabled Agent Assistance (UK edition)

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Odigo is the European CCaaS provider of choice for contact centres migrating to the cloud. We offer organisations carefully planned migration and deployment experiences with strategic advantages:

Orchestrate seamless customer journeys thanks to omnichannel visibility, AI-powered support, and the elimination of informational siloes by integrating CRM and UCaaS solutions. Provide rapid issue resolution and create an environment where customer interactions flow effortlessly.

Innovate with Odigo by introducing new processes and engineering performance highs. Tailor your analytics dashboard, alerts, and routing rules in real time to adapt to dynamic contact centre conditions. Leverage connectors and 3rd-party integrations to create a bespoke set of tools tailored to your customers' needs.

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- ✓ Sentiment analysis
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Odigo handles over 3 billion interactions a year on voice, email, chat, messaging and social media and can connect with your customers anytime, anywhere.

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ABOUT THE INNER CIRCLE GUIDES

The Inner Circle Guides are a series of analyst reports investigating key business issues and the customer contact solutions that can help, along with various use cases, the reality of implementing and using these technologies and a view on what the future holds.

The Inner Circle Guides are free of charge to readers. Sponsors have **not** had influence over editorial content or analyst opinion, and readers can be assured of objectivity throughout. Any vendor views are clearly marked as such within the report.

There are Inner Circle Guides to:

- Agent Engagement & Empowerment
- AI-Enabled Agent Assistance
- Chatbots, Voicebots & Conversational AI
- Cloud-based Contact Centre Solutions
- Customer Engagement & Personalisation
- Customer Interaction Analytics
- First-Contact Resolution
- Fraud Reduction & PCI Compliance
- Next-Generation Technology
- Omnichannel
- Omnichannel Workforce Optimisation
- Outbound & Call Blending
- Remote & Hybrid Working Contact Centre Solutions
- Self-Service
- Voice of the Customer.

These can be downloaded free of charge from <https://www.contactbabel.com/research>.

As well as explaining these solutions to the readers, we have also asked the potential users of these solutions whether they have any questions or comments to put directly to the report's sponsor, and we have selected some of the most popular to ask. These branded Q&A elements are distributed throughout the report and give interesting insight into real-life issues.

The statistics within this report refer to the UK industry, unless stated otherwise. There is a version of this report available for download from <https://www.contactbabel.com/research> with equivalent US statistics and findings.

“Small” contact centres are defined in the report as having 50 or fewer agent positions; “Medium” 51-200 agent positions; and “Large” 200+ agent positions.

AI-ENABLED AGENT ASSISTANCE: AN INTRODUCTION

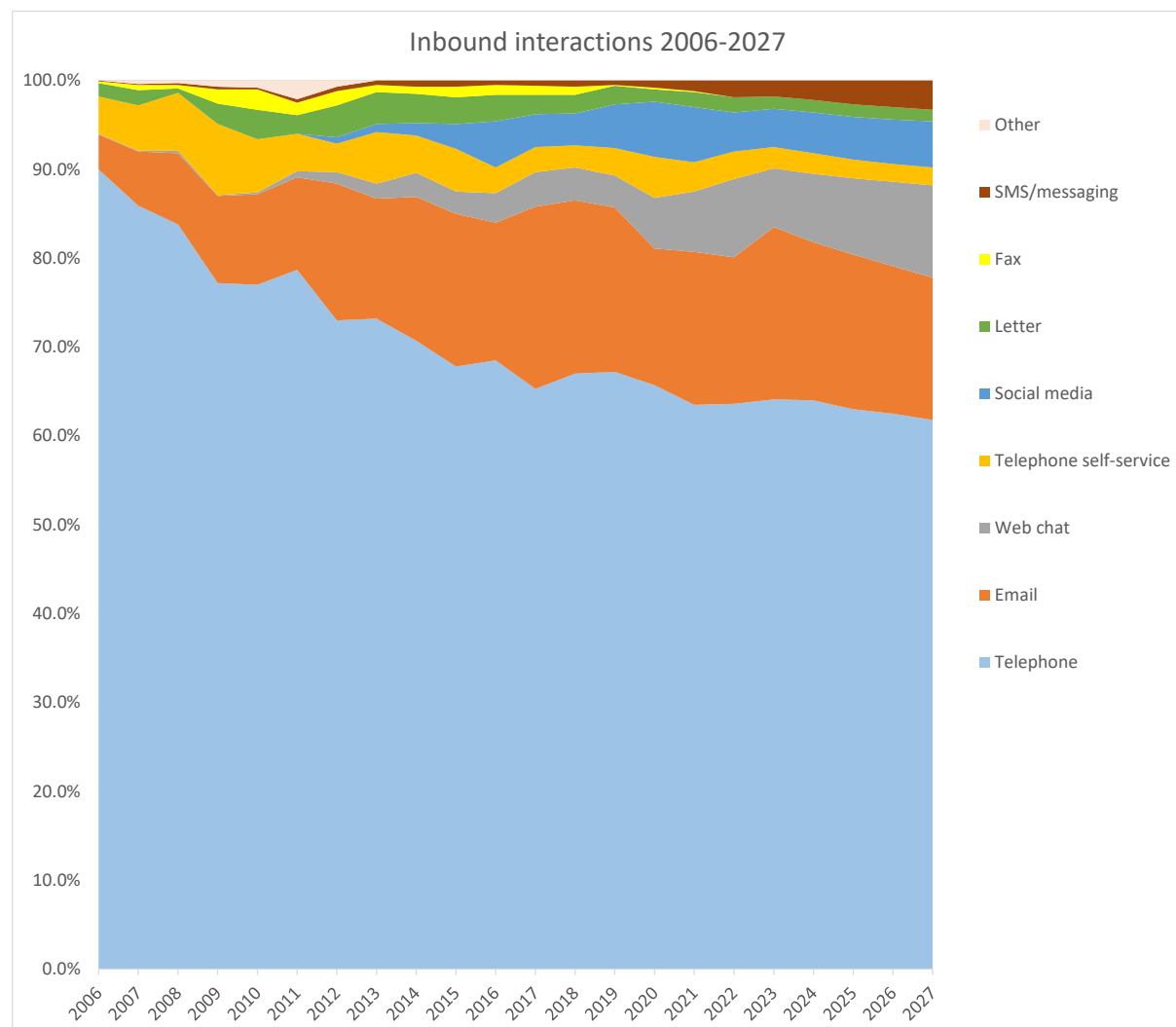
With the rapid rise of AI, the question is often asked whether eventually there will even be a need for people to work in contact centres, answering calls.

At the least, surely call numbers and employment will drop drastically, meaning investment focus should be elsewhere?

The answer is resoundingly negative. There is evidence to show that customers' preference for the phone channel is stronger than ever, and that businesses accept this. For the foreseeable future, live agent contact will be vital to the customer experience and the success or otherwise of organisations.

Despite a very significant drop in the proportion of inbound interactions coming into the live phone channel, this has steadied and both businesses and customers expect this to continue.

Figure 1: Contact centre inbound interactions by channel, 2006-2027

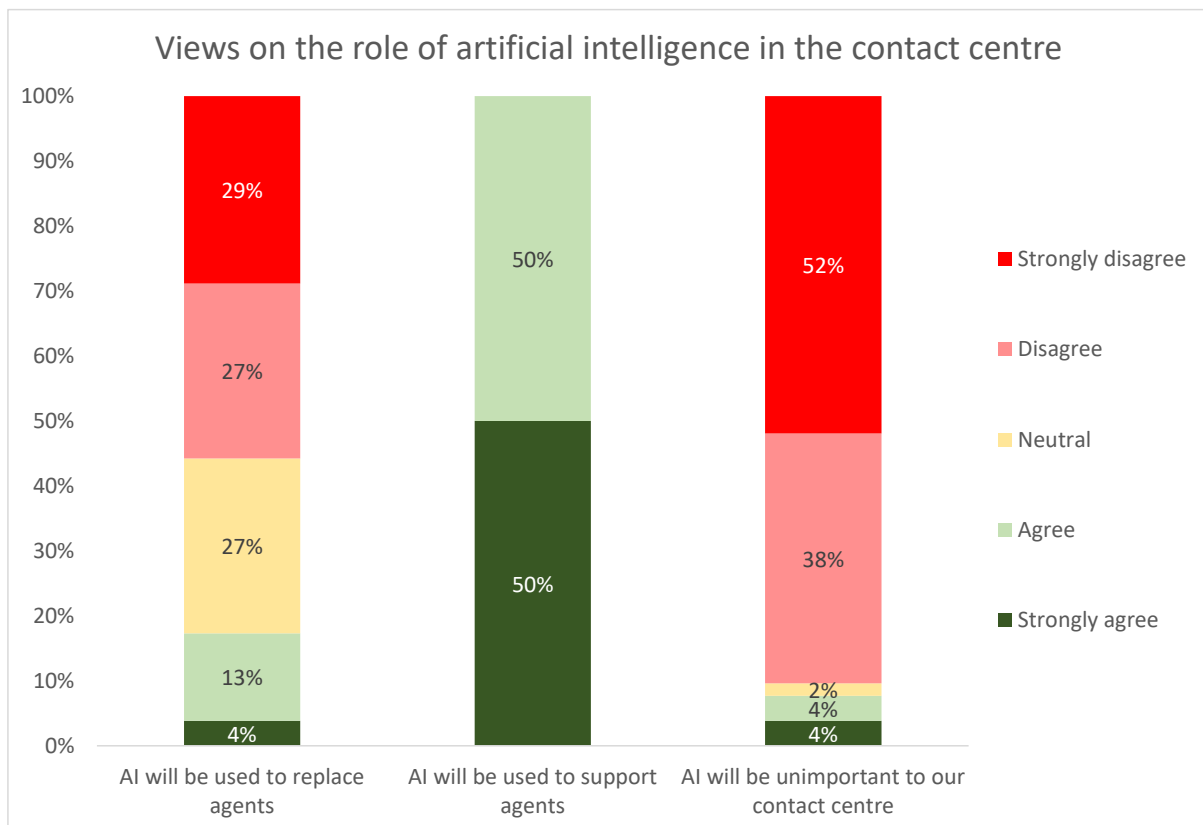


In annual surveys of over 200 businesses, survey respondents generally do not believe that AI will replace agents: only 17% agreed to some extent that this will be the case, with 56% disagreeing. It is worth noting that after a growing feeling five years ago that AI would replace agents, recent years' views are very much of the opinion that they will not.

Unanimity was found when the question was asked as to whether AI would support human agents, with all respondents agreeing or strongly agreeing that this would be the case, reducing risk, speeding up responses and providing customers with higher quality resolutions.

52% strongly disagreed that AI would be irrelevant to their contact centre, with almost unanimous agreement that AI will affect contact centres of all sizes. This figure is growing year on year as AI becomes more widespread and the benefits better understood.

Figure 2: Views on the role of artificial intelligence in the contact centre



The expectations of the people who make investment decisions in business is that in large part, AI will be used to augment their existing customer contact operations. The question this report answers is: how will this be done?

AI DEFINED

Understanding artificial intelligence is a complex matter. Definitions and terminology can differ slightly (or sometimes greatly) depending on who is describing functionality and the technology behind it.

Within the boundaries of this report, AI will be used as an umbrella term for solutions which appear to emulate human cognition through the 'understanding' of complex, natural language requirements, in order to reach its own conclusions, learn and thus improve itself.

Within the wider customer contact environment, AI involves technologies such as machine learning, speech-to-text, deep learning, analytics, chatbots/voicebots and natural language understanding, all closely integrated and working together, aiming to provide outcomes similar or even superior to those achievable by human agents.

Some of the typical characteristics of AI-enabled solutions include:

- An understanding of the customer's meaning and intent, rather than just accurately decoding the syntax of the request
- Using past outcomes to predict and deliver the likeliest most successful output
- The use of confidence levels rather than a binary right/wrong output
- The ability to learn and improve without constant human support
- The ability to improve future outcomes without constant human input or monitoring.

Here are descriptions and definitions that we will use throughout the report, although do bear in mind that other commentators may have different views.

MACHINE LEARNING / DEEP LEARNING / NEURAL NETWORKS

Through the use of pattern recognition, previous outcomes and other algorithms, machine learning enables systems to improve themselves without the need for continuous human user input, although supervision and guidance is often needed in reality. It relies upon extensive datasets and computational power in order to make predictions with continually improving levels of confidence.

Based on the workings of the human brain, neural networks consist of input and output layers as well as one or multiple hidden layers (Deep Learning uses multiple layers, each carrying out their own specific task), working to find patterns which will be too onerous or complex for humans to identify. Neural networks can be trained to spot patterns in data and provide accurate output, with programmers correcting any mistakes. Eventually the neural network can ‘understand’ whether it is producing accurate output with far less human correction.

Neural networks can be set up using supervised or unsupervised learning techniques. Supervised learning techniques involve giving the neural network a specific problem such as “is this customer likely to complain?”.

Programmers then provide the system with large datasets of customers who have or have not complained, and then the neural network will find patterns of characteristics that make some customers more prone to complaint. They are then able to predict which customers are likely to be dissatisfied, allowing the business to act accordingly. In the case of unsupervised learning, no specific output is given to the system, which will then find patterns in the data and classify groups accordingly. Supervised learning is by far the more common use of AI in businesses.

NATURAL LANGUAGE PROCESSING / UNDERSTANDING (NLP/NLU)

NLP refers to the branch of AI which enables computers to understand human language, whether spoken or written. It goes beyond speech to text processing – although of course accurate transcription is vital – and attempts to understand the actual intent and sentiment of the customer.

NLU is a subset of NLP which looks at the challenges of understanding human communication, such as mispronunciation, sub-optimal word order, slang and other elements which are a natural part of human speech but which can cause major problems for computers due to their unstructured and outlying nature.

One of the keys to successful AI is for the user to be able to describe their issue in their own words, rather than feeling that they have to use specific terms or a stilted, incomplete account of the issue.

Where AI is being used for agent assistance, the caller is unlikely to realise that an AI is listening into the call so it can be guaranteed that the customer’s natural language is being used.

GENERATIVE AI

Generative AI refers to a category of AI algorithms / models that create **new** content based on the datasets that they have been provided, using deep learning techniques and neural networks to create similar types of content. Chatbots built on top of a large language model (LLM - a machine learning application) can provide answers to users' questions in a detailed and realistic manner. ChatGPT is an example of this.

It is important to consider which LLM(s) to train your AI tools on, focusing on topics most relevant to your organisation's products and services: there have been high-profile examples of generative AI going off-topic with embarrassing, incorrect and sometimes offensive results^{1 2}. Using AI to assist agents within calls alleviates this risk considerably as it is not directly customer-facing.

It is equally important to decide which internal or external sources of information and knowledge the AI will have access to: solutions may require extensive mapping of subject categories to knowledge bases, whereas others may be able to learn to connect with the correct knowledge base after less training.

Generative AI is capable of understanding multiple languages, has a detailed knowledge of the information it has been trained upon, can carry out a certain amount of reasoning and uses language in a human-like way, including sentiment analysis.

Some experts predict that generative conversational AI – a combination of approaches – will emerge in the near future, blending the natural communication style of generative AI with the accuracy of response provided by conversational AI. The key to this is providing the right type of data and examples of successful interactions upon which to train the AI, providing it with only the relevant data specific to the work it is doing.

END-USER QUESTION #1: WHAT ARE THE MOST COMMON CURRENT USE CASES FOR AI-ENABLED AGENT ASSISTANCE?



The most common current use cases for AI-enabled agent assistance include improving efficiency in handling inquiries and requests by helping agent to search in enterprise information, saving time for AfterCallWork with summarization and contextualization of each conversation and finally enhancing sales processes with personalized recommendations during a call (NextBestActions).

¹ <https://www.forbes.com/sites/marisagarcia/2024/02/19/what-air-canada-lost-in-remarkable-lying-ai-chatbot-case/?sh=65f98ea0696f>

² <https://www.bbc.co.uk/news/technology-68025677>

BUSINESS ISSUES AND USE CASES FOR AI-ENABLED AGENT ASSISTANCE

This report focuses on the use of AI to support live agents. There is another report – [“The Inner Circle Guide to Chatbots, Voicebots & Conversational AI”](#) – which looks at self-service-related use cases for AI.

As such, at the most basic level, the business drivers for AI-enabled agent assistance are around trying to make agent-handled service a better experience for customers while reducing the costs and improving the effectiveness of handling these.

Specifically, the main business issues that these solutions can help with are:

- Excessive call lengths affect cost and customer experience
- Too many repeat calls
- QA and coaching is ineffective and expensive
- Lack of personalisation means opportunities are missed.

A guide to AI-enhanced agent workflows

No two interactions are alike, and no two customers express themselves the same way. This complexity means that, despite the benefits of AI, many customers trust and would prefer to speak to an agent rather than a bot.

Why not leverage the best of both worlds with AI-enhanced workflows utilising NLU to transcribe, understand and enhance interactions in real time. Maximise on every opportunity for an amazing outcome and give your agents the power to excel.

How can AI enhance an agent workflow?

Pre-qualification	✓ Who: ID&V ✓ Why: Intent ✓ Access relevant history
Self-service	✓ Automate payment or callback ✓ Callbot interaction
Agent interactions	✓ Supply context and history ✓ Provide compliance prompts ✓ Make next-step suggestions ✓ Suggest knowledge base support articles ✓ Highlight current upselling/cross-selling opportunities ✓ Monitor sentiment in real-time ▶ Alert supervisor to negative sentiment ▶ Follow up on negative sentiment with a feedback questionnaire
Wrap-up	✓ Auto-generate notes ✓ Synchronise/update information across integrated platforms ✓ Draft confirmation emails or messages ✓ Analyse intent, solution/response and success



Are you interested in empowering agents, enriching customer experiences and increasing customer life-time value?

Talk to Odigo about making it a reality with a [cloud-based CCaaS solution](#)

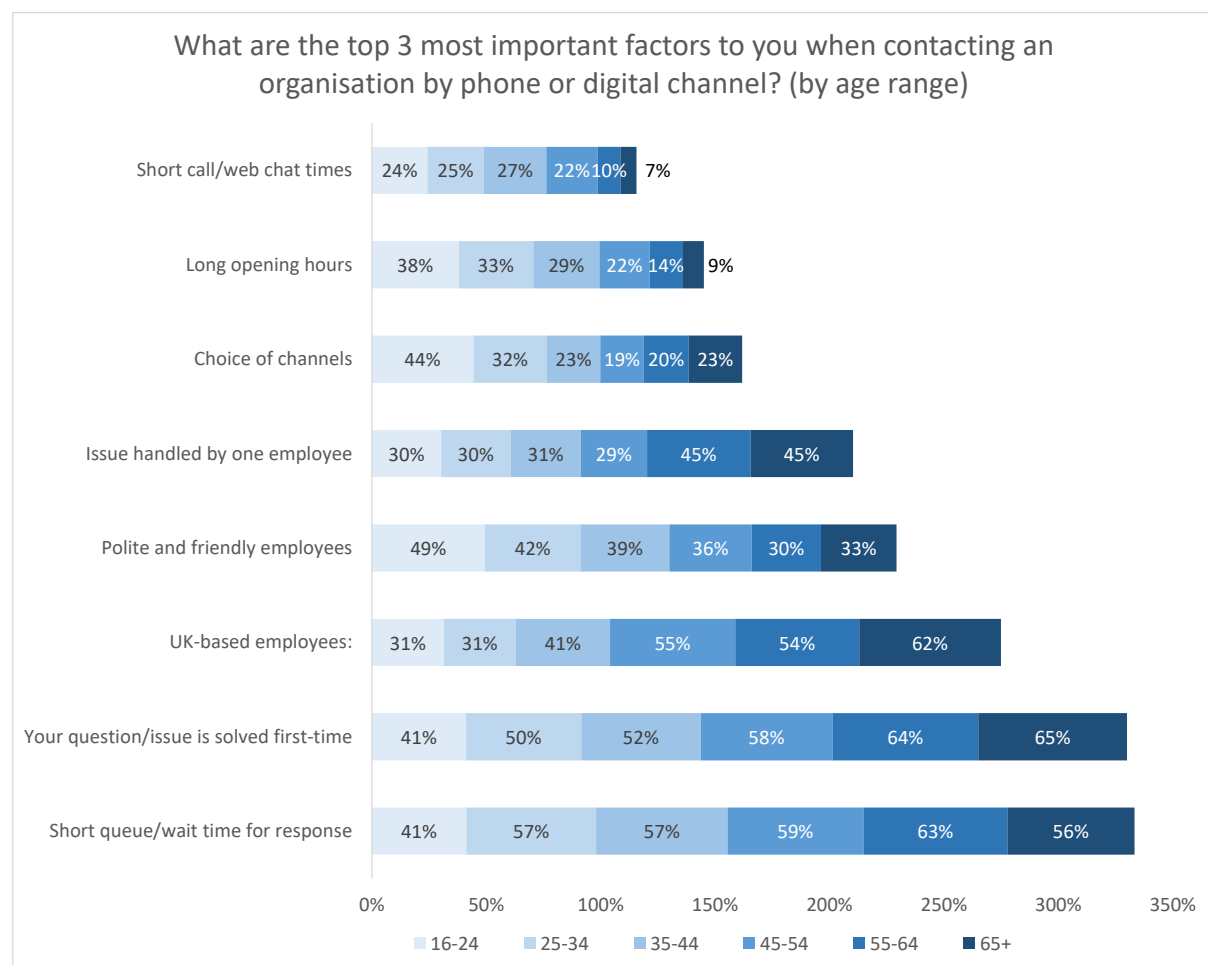
BUSINESS ISSUE #1: EXCESSIVE CALL LENGTHS AFFECT COST AND CX

The greatest potential gain from AI-enabled agent assistance comes from the chance to reduce the average call duration significantly, saving businesses considerable amounts of money and making agents available to take the next customer's call. This section looks at why this is so important, and how businesses can use AI to reach this goal.

The chart below shows the importance of various customer experience factors, based on a survey of 1,000 UK customers. Aggregating the results allows an understanding of which factors were placed in the top three overall, while also providing insight on age-related opinion. Figures below are expressed as the percentage of each age group that expressed an opinion.

Having a short queue time is seen as the most important factor driving customer experience, with respondents of almost every age group rating this extremely highly.

Figure 3: What are the top 3 most important factors to you when contacting an organisation by phone or digital channel? (by age range)



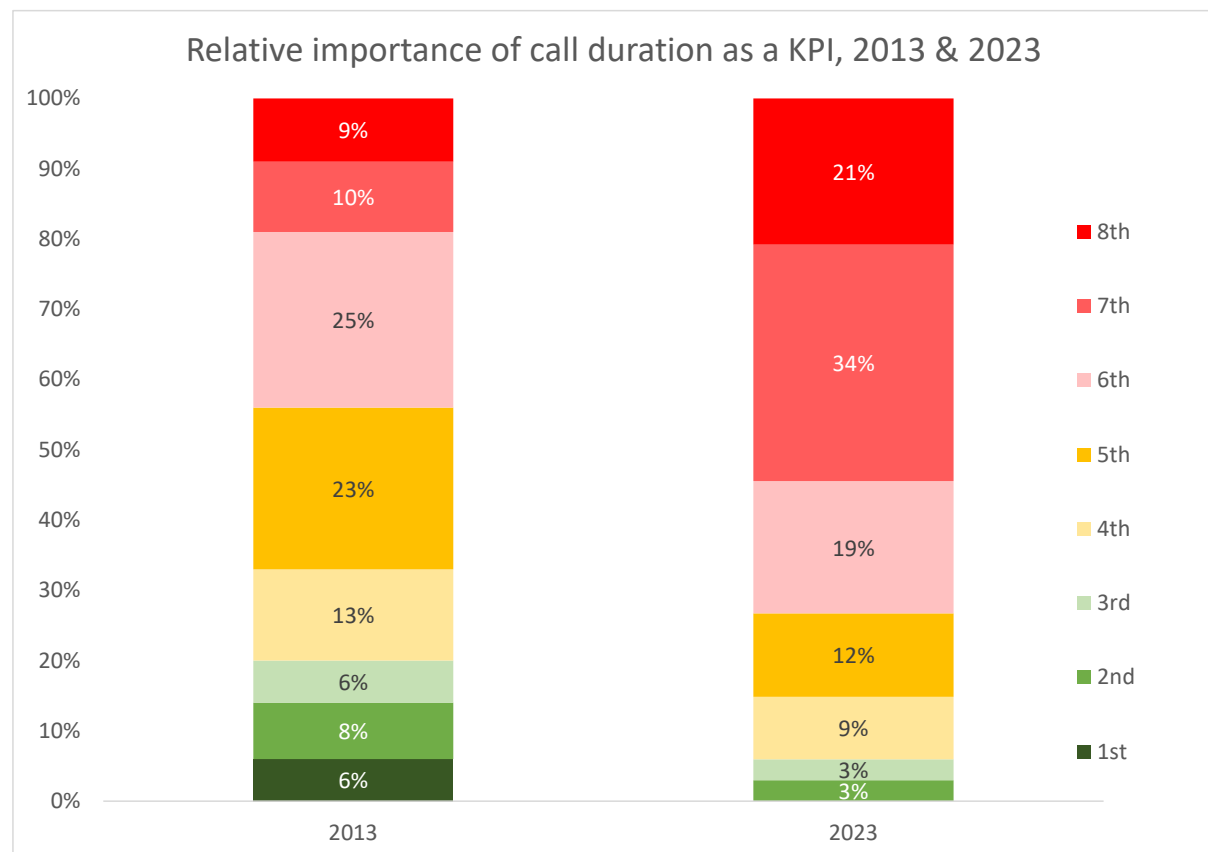
It is noticeable that short call / web chat times are seen as important by relatively few customers: in fact, only 7% of the oldest cohort places this in their top three most important factors impacting CX.

As such, it would be easy to dismiss call durations as being an old-fashioned, irrelevant metric, and in fact it has dropped in importance over the last decade as the following chart shows.

Contact centre managers were asked to rank eight key performance indicators (KPIs) in order of importance: 20% of 2013's survey respondents placed it in their top three, whereas only 6% of 2023's businesses did the same.

Furthermore, 74% of recent survey respondents placed call duration in their bottom three KPIs, compared to only 44% of 2013's businesses.

Figure 4: Relative importance of call duration as a KPI, 2013 & 2023



On the face of it, managing call duration could be seen as counter-productive to customer experience: surely a call should take as long as it needs, and if the customer leaves happy and with no need for a repeat call, both the business and customer win?

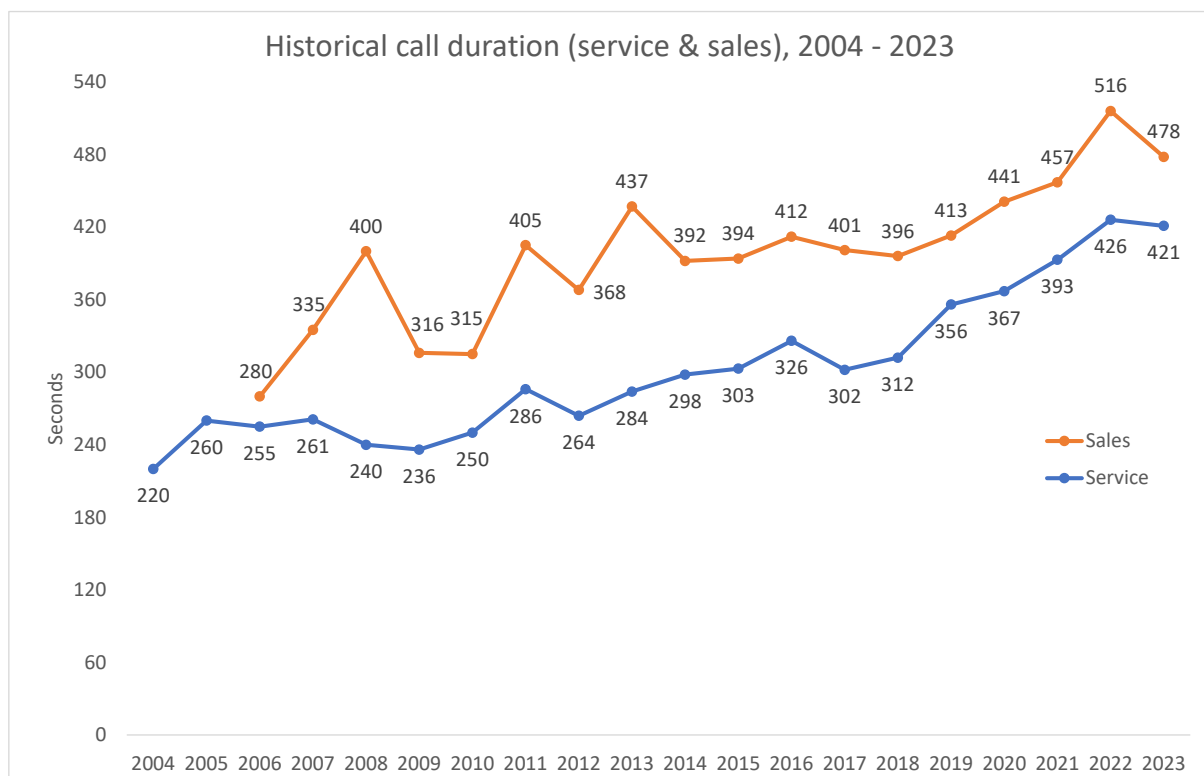
It is true that many years ago, when call duration was one of the few metrics captured (and one which was understood easily by non-contact centre senior management), there were many cases of calls being rushed through and even dropped by the agent before completion in order to hit arbitrary call duration targets.

Yet we feel that the time has come to reinstate call duration as a key metric not just of contact centre performance, but also as something that impacts directly on customer experience.

The reason for this is simple: when an agent is on a call (or handling post-call duties), they cannot be available to take the next call. This increases the queue length – and call abandonment rate – and these KPIs do directly and measurably impact on customer satisfaction and experience.

The following chart shows the seemingly inexorable rise in call duration, driven in part by the move to self-service for simple interactions, and also the need for more frequent and longer customer authentication at the start of the call. The average complexity of a live call has risen, and although not shown here, this will lead to more time spent post-call on starting processes, writing notes and putting data into systems: all factors which keep agents away from the call queue.

Figure 5: Historical mean call duration (service & sales), 2004 - 2023



If the case for reducing call duration is accepted, the next steps are to look at how to do this without damaging CX and the effectiveness of the contact centre. The typical call can be broken down into customer authentication (on average, 8% of the time spent), speaking with the customer (75%) and post-call work (17%). Obviously, these will differ depending on what the customer is trying to do, the technology and processes already in place and the type of business, but it gives some idea of the structure of calls industry-wide.

Reducing customer authentication is outside the scope of this report (which looks at how AI can assist agents), but more information is available in [“The Inner Circle Guide to Chatbots, Voicebots & Conversational AI”](#) in which the use of voicebots for caller verification is discussed, and also in [“The Inner Circle Guide to Fraud Reduction & PCI Compliance”](#) which considers voice biometrics and call signalling analysis.

There are numerous use cases for AI within the call and also post-call, that have the aim of reducing call durations and call queuing time.

USE CASE: PROVIDE THE AGENT WITH THE RIGHT INFORMATION AT THE RIGHT TIME

The use of AI to assist agents in real time within a call offers the chance of a real paradigm change: by the nature of the job, an agent-customer interaction has always necessarily been between two people, and the level of support that an agent can actually receive within a call is very limited. Advice on learning points have been restricted to post-call reviews, rather than realistically being able to improve the outcome of the interaction in real-time.

AI offers an opportunity to provide timely and effective support to every agent as necessary, actually within the call. AI can provide the agent with suggestions about next best action, pull up relevant information from the knowledge base, make suggestions based on customer history and sentiment about optimal cross-selling and upselling opportunities, and even the style of conversation that this customer may prefer. This has a positive impact on first-contact resolution as well as customer experience, and is of particular use to less experienced agents and for unfamiliar subject areas.

AI monitors the real-time desktop and voice data, triggering processes such as information provision and back-office processes. It can also provide coaching or alerts if there's a lengthy pause in the conversation or anything has been done wrong. Agents can also use specific phrases, such as "I'll just look that up for you", triggering the AI assistant to take action and putting the information on a single agent desktop application.

AI can be trained to understand intent and recognise patterns through immersion in vast quantities of historical data, so that when a call is taking place, it can draw upon this knowledge. The results of machine learning that have been carried out on large quantities of previously recorded conversations provide:

- agents with the understanding of where their conversational behaviour is falling outside of acceptable and previously successful norms (such as speaking too quickly or slowly, or in a monotonous fashion)
- an assessment of the meaning of non-verbal cues such as intonation, stress patterns, pauses, fluctuations in volume, pitch, timing and tone in order to support sentiment analysis
- understanding the actions and information that have been seen to provide successful outcomes in previous similar interactions, and relaying this to the agent within the call.

A combination of customer feedback and interests can be used to develop a customer profile, adding metadata around purchase history, demographics and lifetime value. Past customer outcomes with similar customers can be used to predict the best offers, communication method, channel and actions with that customer.

AI can work alongside agents to provide relevant knowledge that may be otherwise take a long time to find, and update the knowledge bases available to humans and AI self-service systems using an automated feedback loop that is constantly improving based on actual outcomes.

It's possible to fix customer service problems before they occur: for example, sudden numerous requests about the same thing is likely to indicate a breakdown in a specific business process or the occurrence of an outside event. AI can quickly recognise that this is an issue, and deliver information solutions to an agent's screen as well as to chatbots, and even flag that changes should be made to the IVR announcement.

USE CASE: SPEED UP THE NAVIGATION AND POST-CALL WORK

The vast majority of organisations require their agents to use multiple applications within a call. There are significant dangers around not asking or forgetting to key in information, or failing to initiate the correct follow-on processes or type in consistent data, leading to unhappy customers and repeat calls. The use of multiple applications has a negative effect on training times and accuracy rates for new agents as well who have to learn not only about the products and services they are supporting, but how to use numerous systems and applications.

This is not merely an issue in large, complex environments: only 7% of respondents from sub-50 seat operations use a single in-call application.

In most cases where complex, multiple applications are used, they are necessary for the agents to do their job, so the question is not “How can we reduce the number of applications?”, but rather “How can we improve how the agent uses the applications?”.

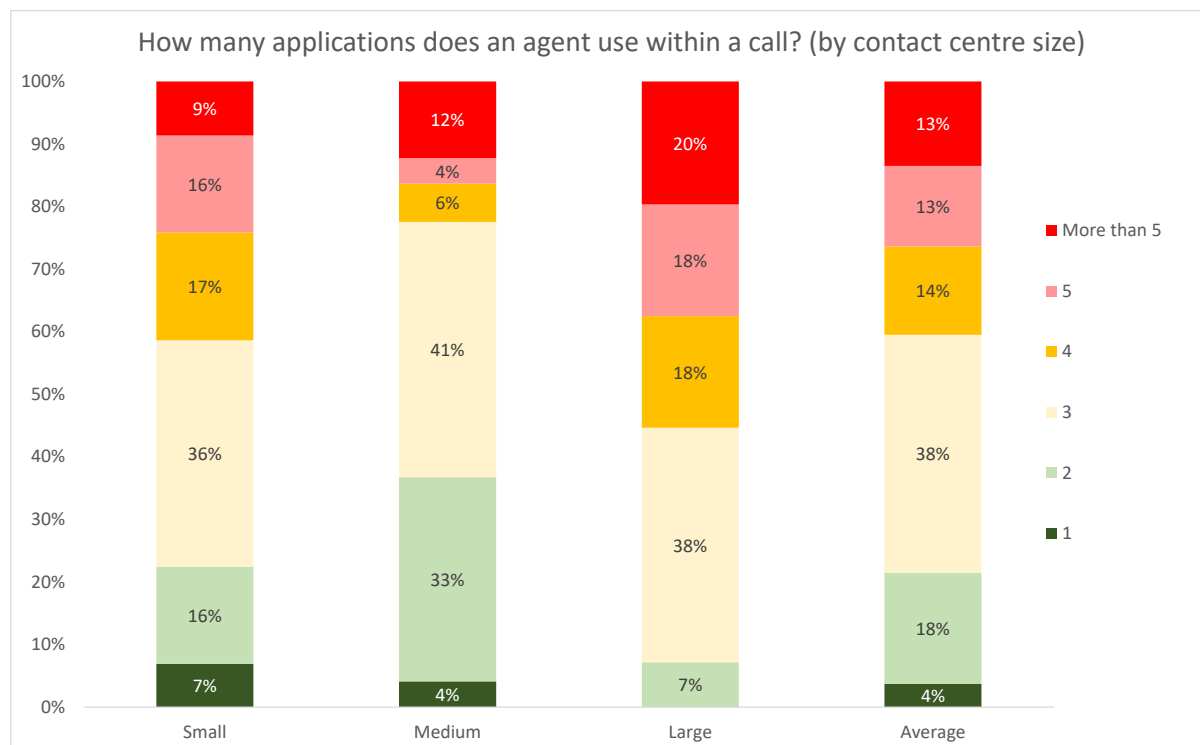
AI-enabled unified desktop solutions can remove the need for agents to log into multiple applications, assist them with the navigation between applications within the call, and make sure that customer data is gathered from the correct places and written back to any relevant databases without the need to navigate through multiple systems.

Within the call, dynamic call scripting helps the agent to provide the right information at the right time, seamlessly linking with multiple back-office applications and databases, providing only what is relevant onto the agent’s screen. Depending on the experience or profile of the agent, what the customer is trying to do and any regulatory inhibitors, on-screen buttons can be enabled or disabled, or access to fields limited according to business rules.

Furthermore, adherence to business processes can be assured by making the agent complete all of the required steps in the transaction (for example, adding call notes, reading disclaimers, etc.). If appropriate – for example in the case of experienced agents – the AI can stay in the background and only show itself if the correct process hasn’t been followed or the agent indicates that they need assistance.

Only 4% of this year's survey respondents use a single agent desktop, with 96% requiring their agents to navigate multiple screens and applications within the call, and 40% needing agents to handle four or more.

Figure 6: How many applications does an agent use within a call? (by contact centre size)



It is logical to hypothesise that using complex, multiple applications without any specific agent support will often lead to longer calls, exacerbating the problems around handle time. However, this is not the end of the problem as this type of work also tends to initiate requests for processes to be carried out within the back-office (e.g. initiating an engineer or sales visit; sending out literature; moving a customer request onto the right department with the right information; flagging a customer as a hot prospect for a specific marketing campaign; etc.).

The post-call wrap-up stage wastes a lot of time and effort through sub-optimal manual processing of data. For example, a change of address request could take many minutes in a non-unified environment, with several separate databases having to be altered, which is itself a process prone to error, risking at least one extra unnecessary future phone call from the customer trying to put things right.

Reducing wrap-up time through AI-enabling the agent desktop is not simply a matter of writing consistently to the correct databases, although this is a key element. The contact centre also initiates a number of processes elsewhere in the enterprise: it is the prime mover for sending out documents, instructing the warehouse to release goods, arranging deliveries, taking payment and many other key elements to a successful customer-business transaction. Automation solutions (including robotic process automation - RPA) can handle these processes in a consistent, accurate and rapid manner.

USE CASE: CREATE QUICKER AND MORE ACCURATE CALL SUMMARIES

Agents can spend a significant amount of time making notes in calls, and then writing them up afterwards. This not only means that the agent is not available to take other calls, but also that they are perhaps not giving the customer their full attention during the call.

Using generative AI, call summaries detailing all of the relevant information can be created in real-time which can then be checked and amended by the agent, speeding up the process. Agents will have varying writing and summarising capabilities, so this ensures consistency of quality.

The next agent to speak with that customer will also benefit from having a concise and accurate note of what has been discussed previously, meaning that it is not only the original call which is shortened.

If appropriate, the call summary can also be emailed to the customer, which shows them that the business has understood their query and is acting upon it. Having an accurate call record at hand could also remind the customer of key points and prevent unnecessary repeat calls.

This use case should be considered seriously for implementation, as it has the benefit of being internally focused (thus reducing risk) and can also be applied to almost every call received. Post-call notes do not have a particularly high profile outside the contact centre as they are a hidden part of the interaction, but this use case has huge potential for spectacular ROI.

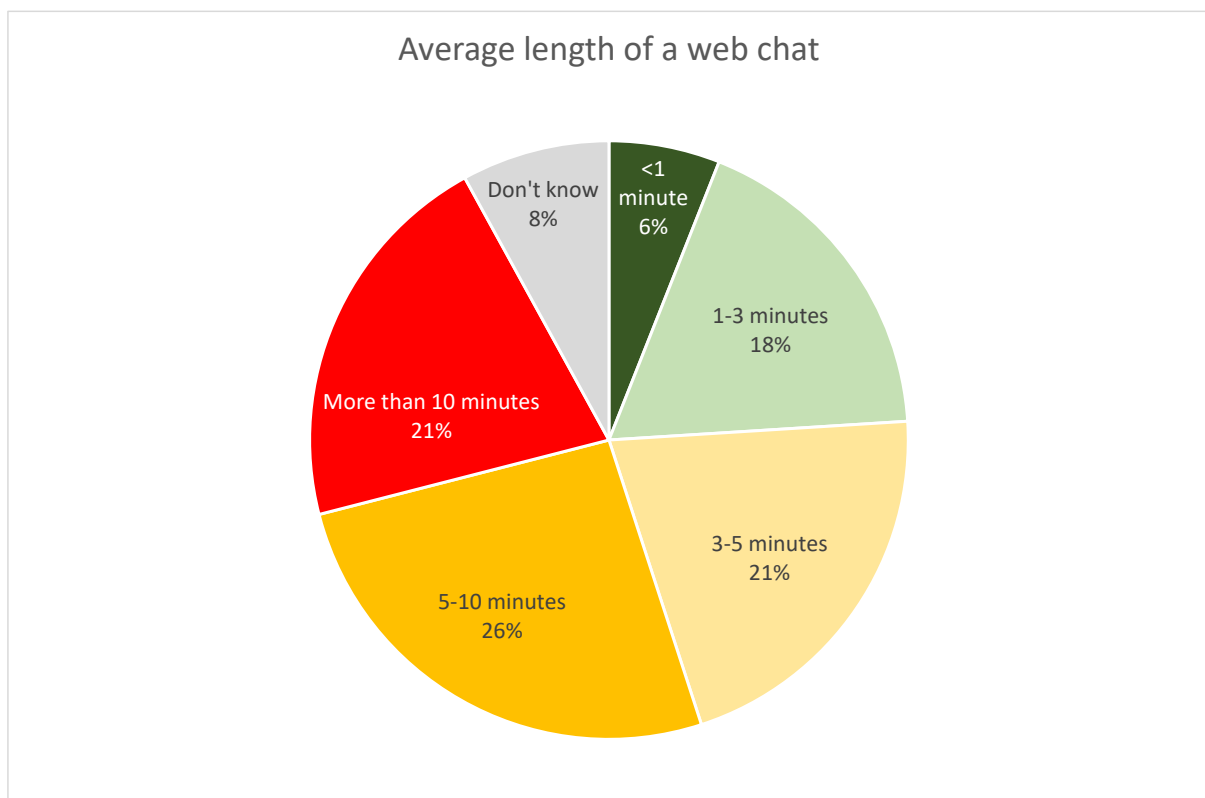
USE CASE: SPEED UP DIGITAL INTERACTIONS

It is not just phone calls that AI can help speed up: many web chats often take considerably longer than comparable phone calls (due to agent multitasking, and typing time) and even after decades of email customer service, many response rates can still be measured in days.

It would be a mistake to compare the content of web chats directly to that of phone calls: web chats tend to be about simple matters, whereas phone calls are more likely to have complex or multiple issues. As such, far more can currently be achieved in a five-minute phone call than a five-minute web chat.

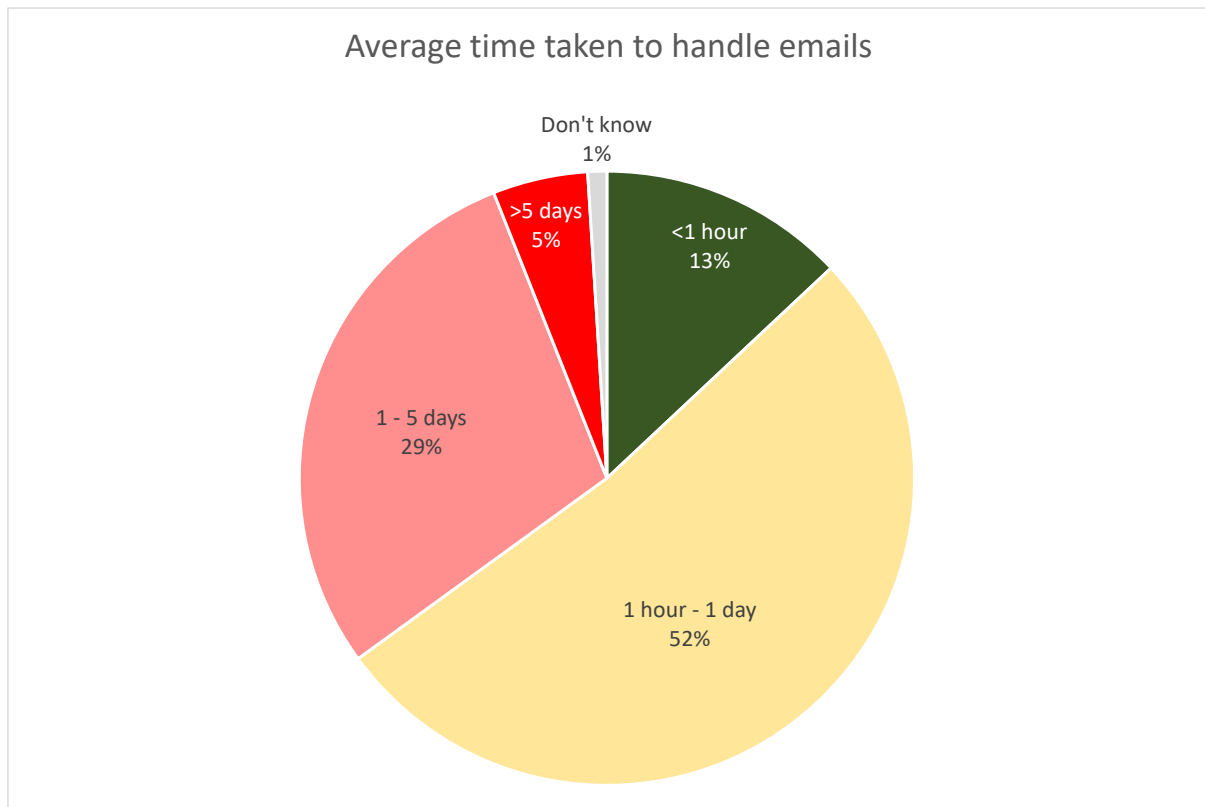
[“The Inner Circle Guide to Chatbots, Voicebots & Conversational AI”](#) looks in-depth at the use of AI-enabled chatbots to handle chats without an agent being involved at all, but AI can also make suggestions to agents about how to handle live chat, creating responses that the agent can then amend or send. Having a live agent in the loop reduces the risk of generative AI going off-script and providing an incorrect or damaging response.

Figure 7: Average length of a web chat



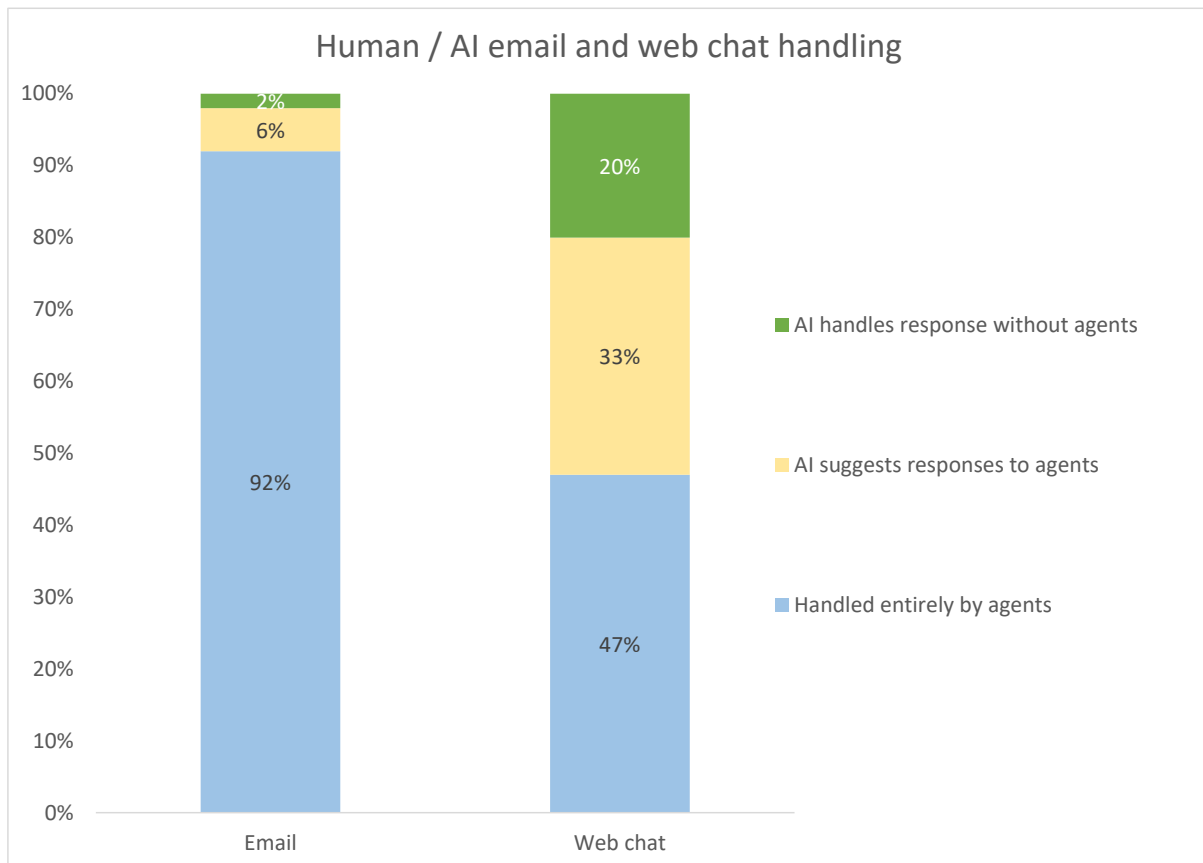
AI can also be used for email to create responses that look as though they have been written by a person rather than a machine, using natural language processing and generative AI to write content as well as understand it. Emails can be tailored based on the customer's history and behaviour, optimising marketing messages as well as providing high levels of service. As the chart below shows, email response times still leave something to be desired.

Figure 8: Average time taken to handle emails



Digital channels may work quite well for customers, but businesses are not generally seeing the cost savings that automation can bring. While very few emails are handled entirely by AI, this year has seen another increase in the proportion of web chats being dealt with by AIs working alongside agents, suggesting responses which agents can then accept or amend. This way of working is most likely to be the norm in the foreseeable future, with the speed of automation and the emotional intelligence of humans providing superior service at a lower cost, while limiting the risk of having customer-facing AI delivering an incorrect or damaging response.

Figure 9: Human / AI email and web chat handling



USE CASE: IMPROVE CALL ROUTING

While CTI-like screen popping is useful for cutting time from the early part of a call, the insight that this functionality provides is often limited. AI enables an instantaneous gathering and assessment of data from multiple sources to occur even before the call has been routed, which allows accurate prioritisation and delivery of the call, helping agents by matching skills and requirements, and providing them with information before the call.

For example, an AI working in an airline contact centre may judge a call to be urgent if the caller:

- Has booked a flight for this day
- Rarely calls the contact centre, preferring to use self-service
- Is a frequent flier
- Is calling from a mobile phone rather than a landline
- Shares a similar profile with other customers who only tend to call for very urgent reasons.

In such a case, the AI may consider that there is a likelihood that the call is directly related to the flight that is happening today (e.g. there's a danger of missing the flight and the customer may need to rebook), and is able to move the call to the front of the queue and route it to an agent experienced in changing flights, and whose communication style suits the situation and customer profile.

Taking this a step further, the AI is able to augment the conversation with suggestions based upon what the agent is doing on the screen and also, through listening to the details of the conversation, is able to provide relevant information without the need for the agent to search for it, such as the next flight to the customer's proposed destination or the refund / transfer options.

At the end of the call, the AI can then email or text the agreed solution to the customer without the agent having to do this manually.

END-USER QUESTION #2: HOW CAN AI HELP AGENTS WITH REMOTE WORKING?



AI can help agents with remote working by providing virtual support tools such as chatbots for agents to help them to handle customer inquiries and AI-powered analytics for monitoring performance and providing insights for improvement, all accessible from any location with an internet connection.

BUSINESS ISSUE #2: TOO MANY REPEAT CALLS

While reducing average handle time is a major use case for AI-enabled agent assistance, it can help in other ways as well.

It can be stated with confidence that first-contact resolution (FCR) is one of the keys to a successful contact centre, as the vast majority of survey respondents place first-contact resolution as being one of the top 3 metrics that are most influential on customer satisfaction.

The ability to understand a query and deal with it in a reasonable timeframe at the first time of asking is the key to a contact centre's success, reducing the overall number of contacts and cost while providing the customer with a good experience.

It also has a positive effect on the agent's morale (and thus, staff attrition and absence rates) and increases the chances of a successful cross-sell and up-sell being made.

Little wonder that the first-contact resolution metric has grown hugely in importance: unlike many other metrics, it works for both customer and business – a true 'miracle metric'.

USE CASE: IMPROVE FIRST-CONTACT RESOLUTION

AI agent assistance helps first-contact resolution by providing the right information at the right time, something which is especially useful for inexperienced agents.

The AI draws on the knowledge base, and also through following the conversation in real-time, can gather the relevant information and present it on the agent's screen without them having to navigate across multiple screens.

The AI can also make sure that the agent has followed all of the correct procedures depending on what they are trying to do – for example, reading out contract details and writing data into all of the fields required for a successful sale – which reduces the risk of repeat calls due to agent error. Post-call work can also be optimised through automatic initiation of any back-office processes required.

AI can also help with reducing repeat calls through maintaining and disseminating consistent and correct information across all channels, making it available to digital agents as well as phone agents.

BUSINESS ISSUE #3: QA & COACHING IS INEFFECTIVE AND EXPENSIVE

Quality assurance is a large part of any contact centre's business, but the number of interactions typically observed as part of a traditional manual QA model do not represent a statistically valid sample set. Many contact centres score only a sample of interactions, which are then used to estimate the score for all interactions of the same type, for the same group or for the same agent.

When using a sample to make inferences about the entire set of interactions, larger sample sizes will consistently result in a more precise estimate. Using one or two recordings per week may be enough to facilitate an effective coaching session with an agent if obvious errors on every call are spotted, but measuring just a few interactions out of hundreds is neither fair nor valid, especially when such a small sample is used to affect an employee performance review and compensation, or used to make critical and costly business decisions.

USE CASE: AI CAN MAKE QA MORE ACCURATE AND IDENTIFY COACHING OPPORTUNITIES

Implementing AI-enabled analytics moves the contact centre away from making anecdote-based decisions, and some order is put on the millions of interactions that many large contact centres have in their recording systems, improving the reliability of the intelligence provided to decision-makers. The need to listen to calls is still there, but those listened to are far more likely to be the right ones, whether for agent evaluation or business insight.

Scorecards based on 100% of calls rather than a small sample are much more accurate, and support better training and eLearning techniques, and have great potential to cut the cost of manual call QA. Having AI analyse all interactions also means that QA professionals are made aware of any outliers – either very good or very bad customer communications – providing great opportunities for the propagation of best practice or identifying urgent training needs.

Organisations using AI-enabled interaction analytics can carry out an evaluation of chosen calls – for example, unhappy customers – the results of which can be then be fed back into the existing quality assurance process. These are then treated in the same way, without upheaval or any need for altering the QA/QM process, only improving the quality and accuracy of the data used by the existing solution.

By monitoring and scoring 100% of calls, the opportunity exists to connect analytics, quality assurance and performance management, collecting information right down to the individual agent level.

Businesses no longer have to rely on anecdotal evidence, and can break the call down into constituent parts, studying and optimising each element of each type of call, offering a far more scientific, evidence-based approach to improving KPIs than has previously been possible.

AI is also being woven into solutions that identify current pitfalls or potential customer experience improvements and predict trends that may affect customer experience and contact centre operational efficiency. With the introduction of AI and machine learning techniques, questions such as "How many agents do I need on Monday morning" can be answered by automatically identifying patterns in large datasets.

BUSINESS ISSUE #4: LACK OF PERSONALISATION MEANS OPPORTUNITIES ARE MISSED

Customer personalisation has long been within the remit of organisations' marketing departments which, despite doing so at scale, try to make new and existing customers feel that offers and products are tailored specifically for them.

Moving beyond the mass-production model employed historically in many contact centres, customer personalisation has recently become of great interest to businesses looking to improve their customer experience within the contact centre and other service channels.

By doing so, businesses aim to extend the positive reach of the brand beyond the original marketing touch points, keeping customers positively engaged and turning them into loyal, long-term advocates for the organisation.

To do this effectively at scale, there are numerous requirements, solutions and techniques that can support personalisation, including:

- a clean and preferably large pool of customer data that is accessible in a timely fashion by any person or system that needs it
- the segmentation of customer types and personas which provide a starting point for understanding the requirements of a particular customer and make successful outcomes more likely
- various customer identification techniques – preferably requiring a low effort from the customer themselves – which can then allow other systems to decide how best this particular customer can be served
- the automated analysis of large pools of customer data will allow businesses to recognise likely customer intent and predict the next best action, whether through a live agent or automated system
- the ability to understand all elements of the customer's history, including all interactions regardless of channel
- the capability to offer consistent levels of service across any channel that the customer chooses to use
- agent assistance and augmentation solutions which can provide an agent with relevant information and suggest successful actions and resolutions in real-time
- the ability not only to ask and measure what customers feel about their experience, but then to act upon this immediately: for many instances of negative feedback, a successful customer rescue can in fact lead to greater long-term advocacy and brand loyalty.

USE CASE: AI CAN HELP AGENTS OFFER A PERSONALISED CUSTOMER EXPERIENCE

There are numerous opportunities for AI to assist in providing a more personalised customer experience, through:

- Categorising types of call and then looking for the occurrence of similar types of words and phrases can give an insight into the reasons that customers are contacting the business. From a customer personalisation perspective, this information can be matched against customer profiles, or those which have recently carried out specific actions in order to predict why they are calling, and have the relevant information on the agent desktop
- Retrospectively analysing interactions in order to identify where customers have defected from the company or not renewed their contract. Typical indicators may include use of the words “unhappy” or “dissatisfied”; customers may have a larger-than-usual volume of calls into the contact centre; use multiple channels in a very short space of time (if they grow impatient with one channel, customers may use another); and mention competitors’ names. If this occurs within the call, it can be flagged to the agent along with recommendations that have worked most often before
- AI-enabled sentiment models are not only able to understand language, but are also trained to notice changes in tone, volume and speaking rate, instances of agent/customer talkover and the detection of laughter, silences or sub-audible noises expressing emotion, such as a snort of disgust or amusement. Although some agents will comprehend this naturally, having AI listening and suggesting next best actions will enable a greater consistency of approach
- AI listening into calls in real-time, understanding the context and intent of the customer, and then providing the agent with strategies and information relevant to that particular issue.

IMPLEMENTATION, SUCCESS AND PITFALLS

It's important for businesses to understand that if they're not already using AI, then they haven't already missed the boat, and that even with unlimited budget and resource, there will still be many customer service activities that are more appropriate for a live agent to do.

For first-time AI deployments, the focus should be on the solution delivering a high-quality solution to a relatively small and clearly defined business process or issue, rather than taking on more complicated situations, even if there is a potentially higher benefit.

Business may consider that agent assistance is a low-risk way of implementing AI, in that it is internally facing rather than interacting directly with customers. There are also several use cases which have great ROI potential, particularly around reducing call lengths.

END-USER QUESTION #3: HOW CAN USING AI TO ASSIST AGENTS HELP OUR ROI?



Utilizing AI to assist agents can improve ROI by reducing operational costs through automation, increasing customer satisfaction and retention through quicker and more accurate responses, and optimizing sales conversion rates through personalized recommendations.

IMPLEMENTING AI SUCCESSFULLY

Apart from the dangers associated with an overly complex initial AI project, scale is also an issue to consider. To begin with, businesses may consider it wise to limit the number of concurrent customer users that AI supports (i.e. dozens rather than hundreds of concurrent users), in order to learn what works and what needs improvement in each use case, and to optimise processing performance by providing the right amount of processing capacity.

Over time, machine learning tends to require less processor power and running a relatively small scale AI implementation for a few months will provide a more informed view of what full-scale usage of AI will involve, meaning that the right amount (and cost) of processing power can be established.

If you're considering implementing AI, there are some questions that you should ask yourself first:

- Is there a specific pain point or issue within the operation that needs to be addressed? e.g. large numbers of simple calls about a small number of issues
- How does this affect CX, and how would the customer like this to be improved?
- Are there solutions available that have successfully addressed these issues already?
- How quickly can this be implemented, and what initial and ongoing resource will actually be required to make it run successfully?
- What upheaval would it create within the existing operation? What effect does it have on the customer experience?
- Are the improvements measurable? What are the cost impacts?
- Is there a sufficient volume of clean data in order to train an AI system effectively?
- Will infrastructure or existing platform need to be replaced?
- Is AI likely to be the most appropriate way of dealing with this issue?

It is likely that some senior decision-makers within the enterprise have an unrealistic expectation of how AI can help within the CX environment. It is important that the boundaries of the project are clearly understood, with relevant baseline metrics captured before the project, and clear and achievable outcomes signposted and agreed so that the eventual level of success of the project can be clearly understood.

Many contact centres may consider a limited, low-risk use case which can be implemented quickly and relatively cheaply in order to demonstrate a quick win and assert the viability of AI within a customer contact operation.

Having said this, it is important for contact centres not to sell AI projects to high-level management as being an opportunity to reduce headcount, as it is unlikely that this will be the outcome from any AI project, certainly in the short-to-medium term. It may be better for the target of an agent assistance project to be viewed as taking some of the pressure off phone queues by reducing handle time.

While it is important for the initial AI implementation to focus on achieving success within its own terms, it is also important that this is not seen as a tactical point solution with a single end in sight. As such, a roadmap of logically linked business cases can help to establish a long-term vision which can be shared with non-operational senior personnel to help them understand the strategic use of AI across the customer-facing parts of the business.

For example, a simple yet strategic rollout of AI may look similar to the following:

- Use a virtual assistant / chatbot to improve the take-up of knowledge held within the FAQ database, by improving the search mechanism and offering a two-way conversation interface in order to provide more accurate answers. Capture the phrases used by customers in existing human web chat sessions to understand the questions they will ask your chatbot
- Place this virtual assistant upon the agent desktop in order to provide them with more knowledgeable potential answers within the call
- Meet customer requests over voice and text through the use of natural language processing, in order to assess customer intent, and provide answers or optimal routing strategies
- Improve efficiency, consistency and effectiveness of back office processes connected with the contact centre through the use of robotic process automation
- Deploy analytical AI in order to discover patterns of data relevant to the business that would otherwise not be identified.

Once the process, objectives and outcome are clearly defined, the selection of a vendor and solution can then be approached.

At the request for proposal (RFP) stage, businesses may consider asking potential suppliers:

- What are the current capabilities of your AI solution and what does your product roadmap look like?
- What metrics do you propose using in order to judge the success of an AI implementation?
- What does the timeline of a successful implementation look like? Do you have a reference site?
- How do you propose to train the AI, and what will our training data need to look like?
- How do you propose to integrate AI with our existing systems, and how much customisation will be needed?

At the initial stage of the implementation process, datasets that the AI models will be learning from must be analysed, cleansed and curated to provide a solid basis for the AI solution to learn from. Vendors will have dedicated examples of neural networks that work for various business cases such as providing answers to queries or estimating the time taken for a process to be completed. These can be used as a starting point for training the AI model, and to enable it to start making predictions of its own.

While each vendor will have their own framework and architecture, they are likely to follow a similar path involving input, interpretation, action and improvement. Input is gathered by the system – often from a customer – and if necessary is then translated into a format which the system can understand (e.g. through speech-to-text or OCR).

Once the data are converted, the AI looks for the customer intent behind the input using NLP as well as other metadata such as location or customer history. Once the intent has been decided with a certain level of confidence, various solutions are considered and presented to the customer. Finally, the loop is closed through gathering feedback about the success or otherwise of the answer, which is then taken into account in future interactions, with the AI learning what works best.

The more data that the AI has to train on, the more likely it is to succeed. As machine learning works through pattern recognition, this can include metadata and context which may seem somewhat peripheral to the process, but there are likely to be patterns that have not been recognised by human users.

This allows the AI model to understand customer intent and also to be able to discern which customers need to be treated in a way outside of the ordinary (e.g. in an emergency situation, if the customer is likely to defect, or if they have contacted the business multiple times in a short timeframe). Analysing the use of existing data shows the ways in which customers want to express themselves.

As with any IT project, testing is key to success but with AI implementations this is even more important. Most IT systems work on an input-processing-output basis, where the point of the implementation is that the same thing happens every time, reliably and predictably.

As the processing element of AI involves elements of learning (and hopefully improvement), the output can change over time. This does not always end optimally: Microsoft's Tay³ is only one example where the AI displayed inappropriate and offensive responses after interacting with users. Businesses should be aware that AI solutions, especially in the early stages, may require very close supervision and possibly intervention although in the case of agent assistance, the risk is somewhat lower than with fully automated chatbots as the solution is internally facing.

Measuring the performance and success of an implementation is always vital, but never more so when it is for a highly anticipated and poorly understood solution such as AI. There is likely to be far greater interest in and pressure from the higher echelons of the business than is the case for most contact centre technology implementations, and thoroughly understanding the outcome of the initial implementation is vital.

³ [https://en.wikipedia.org/wiki/Tay_\(bot\)](https://en.wikipedia.org/wiki/Tay_(bot))

There is no baseline set of metrics that every AI implementation should be measured against, although in the widest sense, the impact upon customer experience, agent experience, cost and operational benchmarking should all be considered. Of course, it also depends on the area of the contact centre business processes that implementation is aimed at improving.

Some examples of metrics around AI-enabled agent assistance include:

- Reduction in call handling time: any improvement can be shown by having the solution only available to a certain proportion of agents in the initial phase, in order to attribute any changes to the solution rather than a general improvement in performance for other reasons. This should lead to lower queue times and increased CX
- An improvement in first-contact resolution, as information provided on the call is more accurate and the initiation of any subsequent business processes is correct
- Lower call transfer rates as more information is gathered pre-call through the AI understanding context and customer intent
- More emails and web chats handled by live agents, as the AI has pre-populated the response and the agent is checking and amending, rather than creating something from the beginning.

INITIAL ACTIONS IN AN AI PROJECT

While each AI project is different, businesses may wish to consider following these initial steps:

1. Review operations, categorise them and if possible, quantify the cost, complexity, value and volume of each type of interaction to determine which are most suitable for supporting agents with. Use topic modelling to consider the subjects most under discussion as well as their relative complexity. Agents are likely to have a good idea of the types of questions that they are frequently asked, and which ones are most difficult and time-consuming to handle, so they should be included in this phase. AI, RPA and analytics can also be used in the discovery phase of the project to identify topics, processes and bottlenecks which may be causing excessive cost and customer effort
2. Consider whether processes and queries can be handled by a simple 'if x then y' type of rule which can be programmed and always adheres to the workflow, or whether customer intent and requirement is likely to be more complex, and therefore more suitable for AI
3. Develop AI user cases for specific processes and interactions. Although starting small is often a good idea, have a roadmap that doesn't constrain you to follow any early decisions
4. Fully understand the necessary underlying workflows, systems, data and processes which support this function and which are supported by the action of the AI
5. Develop a clean pool of data for the AI to learn from, being closely supervised by human experts
6. Companies using voice data will need to implement speech recognition, as using text transcripts for analysis is far easier and more powerful than using audio data. This will allow a wide variety of applications, such as search, scoring of agent behaviour, monitoring and QA of agents, and predictive capabilities (e.g. predicted NPS or first-contact resolution) which are based on large quantities of calls rather than just a handful
7. Monitor, track and report on the success of the AI, and continually look for improvements. Having one team using AI while another does not will provide side-by-side comparisons and prove ROI, while reducing any risk associated with a big-bang rollout.

END-USER QUESTION #4: WHAT STEPS DO WE NEED TO TAKE TO GET AI ASSISTING OUR AGENTS?



To implement AI assisting our agents, we need to first assess our specific business needs and objectives – agent churn, agent training, average handling time, identify suitable AI technologies and solutions, invest in training and integration to ensure seamless adoption by agents, and continuously monitor and optimize performance to achieve desired outcomes.

KNOWLEDGE MANAGEMENT

One of the most central and critical elements to a company's service capability is the knowledge base, which is vital to the accuracy and consistency of both the self-service and assisted service experiences across channels. An AI project cannot succeed unless the data it learns from is clean and deep.

For many organisations, a knowledge base started off as a list of useful documents and files, which quickly grew into a wider, less coherent collection of information sources, requiring increased levels of expert management, amendments, editing, and deletion.

However, the resources required to keep these knowledge bases up-to-date are very scarce, as the people within the business that have the right capabilities and expertise to do so also have their own jobs to do. Very quickly, what started off as a useful and highly tailored information resource mushroomed into an expensive, out-of-date and increasingly less useful collection of information of wildly varying quality. AI can assist in the management of knowledge bases by feeding back successful outcomes, and noting when the answers provided did not meet the requirement.

On an ongoing basis, feedback from agents and customers will identify gaps in the knowledge base which will need to be filled by product experts. Some knowledge bases will require full-time, dedicated resource to manage them, whereas others will rely on automated systems making dynamic changes depending on callers' and agents' requirements.

It is often the case that large businesses with many products and services to maintain will have numerous editors across many departments who can make suggestions, although it may only be a small handful of people who will verify and publish this information. Businesses may want to consider allowing experienced contact centre agents to create new entries based on their communications with the customer. Understanding which documents are being used the most allows the maintenance efforts be focused on the most important areas.

While some knowledge base solution providers state that 80% of questions can be answered by 20% of content, it is each business's decision to decide how the remaining 20% of queries will be handled (but of course, even these 20% of documents will change over time as customers' requirements and the businesses' products will not stay static). Some will consider that this is a reasonable proportion to be handled by more traditional means, such as the contact centre, whereas others will leverage expert internal resource, as well as customer communities and forums to fill these knowledge gaps.

It is not just the publishing of information that is vital: it is feedback on its accuracy and success from the wider user community and any automated systems which will help the business to fine-tune the knowledge base. Processes to gather this feedback should be put in place, and continually revisited to check their effectiveness, and it is possible to add successful answers to the knowledge base very quickly if a response from an agent (for example, via email or web chat) has been marked to be successful.

By their nature, knowledge bases only contain information that a company thinks is relevant to its customers, who may disagree or find the sheer volume of data to be unmanageable when searching through a company's website. AI can be used to understand what customers are doing on a website (including any web chat questions) and provide answers in context, either directly to the customer or through providing agents with the likely correct response.

One of the keys to successful knowledge management is the continual monitoring, updating and publishing of the most accurate and in-demand information. Businesses should consider setting internal service levels for the knowledge base, for example only returning documents and suggested answers that have over a specific score for relevancy, and no more than a small number of answers per enquiry.

AI cannot succeed or learn without clean, up-to-date and accurate information. It is tempting – and certainly the easiest route – to allow knowledge to stay only in the heads of the experienced agents and supervisors, who can share this with colleagues as and when needed. However, in a remote working environment this is sub-optimal, and even the most loyal agent will eventually leave the company, taking their knowledge with them. Although building procedures and allowing the time for these agents to update the knowledge base is an extra expense and complexity, it is vital for the success of AI-enabled agent assistance.

It is not just the publishing of information that is vital: crowd-sourcing of answers, and feedback on accuracy and success from the wider “super-user” community will help the business to fine-tune the knowledge base and train the AI.

Much of this may be unstructured data, which the AI is capable of handling and putting into a usable format. Processes to gather this feedback should be put in place, and continually revisited to check effectiveness, and it's possible to add successful answers to the knowledge base very quickly if a response from an agent (for example, via email or web chat) has been marked to be successful, and AI is an effective method of doing this regularly and consistently.

MAKING AI A SUCCESS AND AVOIDING PITFALLS

In any technology implementation there will be risks of failure: with AI covering a vast amount of territory and with the potential to be misunderstood by business owners, planning and expectations must be managed very carefully.

- Expectations of what the AI implementation can actually achieve must be closely managed. There may be the expectation from senior management that headcount will immediately begin to drop, but in the majority of instances this is not why AI is being implemented. Focusing on a tightly defined use case will reduce the risk of implementation delays and expecting too much, too soon from AI. However it is important not to see even a relatively modest implementation of AI as being a point solution, rather than a single strategic step.
- AI in the contact centre is relatively new, and with it being so popular, there is a shortage of skills, support and resource within the industry as a whole. In-house technology departments are less likely to have capability, expertise and experience, meaning that the risk of suboptimal deployment and the requirement for third-party assistance may be higher than with other more traditional IT implementations.
- Businesses data assets must be in place before implementation of AI, as this is a technology that relies upon having large, clean pools of data that it can be trained on and learn from. Without this in place, it will be virtually impossible for any AI implementation to get close to its potential.

The preparation of data will involve having an organised, non-siloed data architecture, a consistent data vocabulary, the means of accessing this data securely and quickly, and the ability to access other pieces of relevant information (e.g. customer-related metadata) in order to include greater context. Without this, it will be more difficult for a machine learning process to train itself effectively, or for an AI to be able to use all of the relevant data in order to reach a correct conclusion and guide the agent.

- In the AI world, knowledge management is not something that is a part-time job or that can be handled by amateurs. Consider developing more full-time, expert roles to support knowledge bases and to enable understanding of data models and flows across the entire enterprise. AI experts have to understand both data and also the real-life business / customer issues, and this resource can be difficult to find. Some businesses use 'superuser' teams of experienced agents who understand which requests are most suited to AI assistance, and the process steps that are required for successful outcomes.
- The business originally needs to identify the outcomes that are most important to them: reducing cost to serve by lowering handle times; improving CX; reducing call-backs about the same issue, etc., and the success or otherwise of these outcomes must be tracked closely to gauge ROI. Compare the service levels of agents using AI assistance and compare them to historical data, or even better, agents who are not using these solutions.

- Discovering why customers contact your organisation, and identifying requests that take a long time to handle is a good way to start. Soon, the business will have metrics on how many customers were successfully helped by AI, the cost avoided and any effect on customer satisfaction ratings, which can be shared with senior management and will help with future use cases.
- Explain to employees why you're implementing AI, how it will affect them, what it means for them in their role and how they can help. There may be concern that their jobs are going to be replaced by AI, so educating them about what the contact centre of the future will look like, training them thoroughly and getting their opinion and feedback will help to get them onboard.
- There have been a lot of media scare stories about AI and robots making people unemployed. It is important to emphasise to agents that any AI implementation is about making their jobs more interesting and effective by allowing AI to provide them with the correct information that they need to serve the customer more effectively.
- While agents are experts on answering customer queries, it may be too much to ask them to spend significant amounts of their time on contact curation as well. As such, businesses should consider how to incentivise power user experts (both inside and outside the enterprise) to help with knowledge management and problem resolution.

END-USER QUESTION #5: IS THERE ANYTHING THAT SUCCESSFUL AI AGENT ASSISTANCE IMPLEMENTATIONS / PROJECTS HAVE IN COMMON? ANY PITFALLS TO AVOID?



Successful AI agent assistance implementations often share characteristics such as clear objectives – what do we want to improve first? - and metrics for measuring success, comprehensive training and support for agents, ongoing monitoring and optimization based on feedback and data insights. Don't forget to think about integration with existing IT systems and workflows!

CURRENT AND FUTURE USAGE OF AI

Within a call, the agent is likely to have to use multiple knowledge sources, which will also take longer and run the risk (especially for new agents) of missing vital information that is available but perhaps hidden away. AI can gather knowledge sources and provide them to the agent in a unified manner, and any updates to this information can be shared automatically across applications and systems, providing an immediate, up-to-date and consistent source of information. It can also assist with agent tasks in the background, provided guided assistance at specific stages of the call, including dynamic scripting and compliance hints.

The following table shows the knowledge resources that agents have within a call. Finding, reading, assimilating and using information actually within a call as very difficult and is rarely done seamlessly. Applications such as case-based reasoning (which prompts the agent to ask specific questions, drilling down to find the right answer) and AI-enabled virtual assistants are very useful but only 25% of agents have access to case-based reasoning and 18% have access to an AI-enabled virtual assistant (a figure which has however grown substantially in recent years).

Most agents have to search around on a company website or FAQ page, or rely on a wide, unsupported search of knowledge bases or the wider Internet, hoping to be fortunate, and this is clearly sub-optimal for both agent and customer.

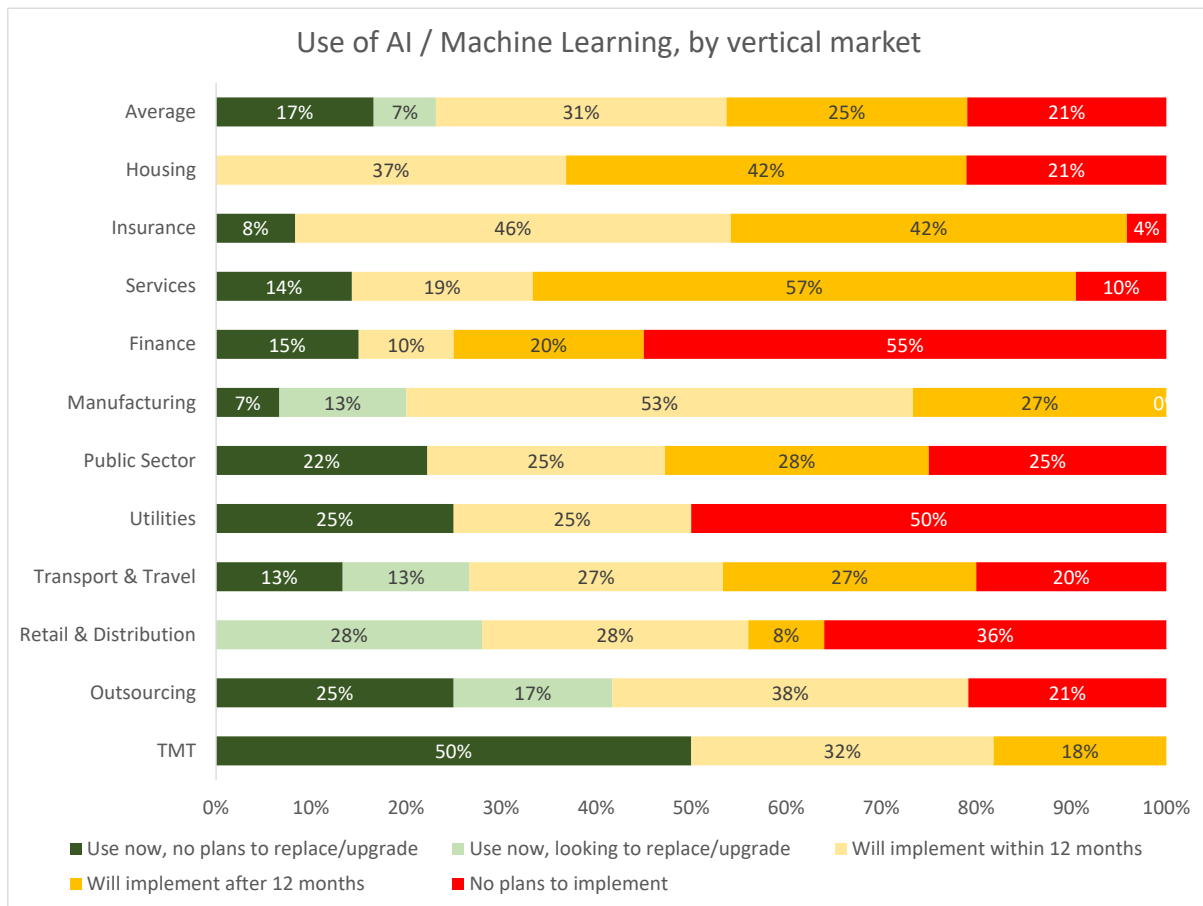
Figure 10: In-call access to knowledge sources for agents



Despite a fairly low current use of AI across industries (including AI-enabled chatbots / voicebots as well as in-call agent assistance solutions), there is widespread interest in implementing this solution, with 31% of respondents intending to implement AI within 12 months. While these figures are probably overly ambitious, it does show real interest from the contact centre industry.

The outsourcing, TMT (telecoms, media & technology) and retail respondents report the greatest current use of AI this year.

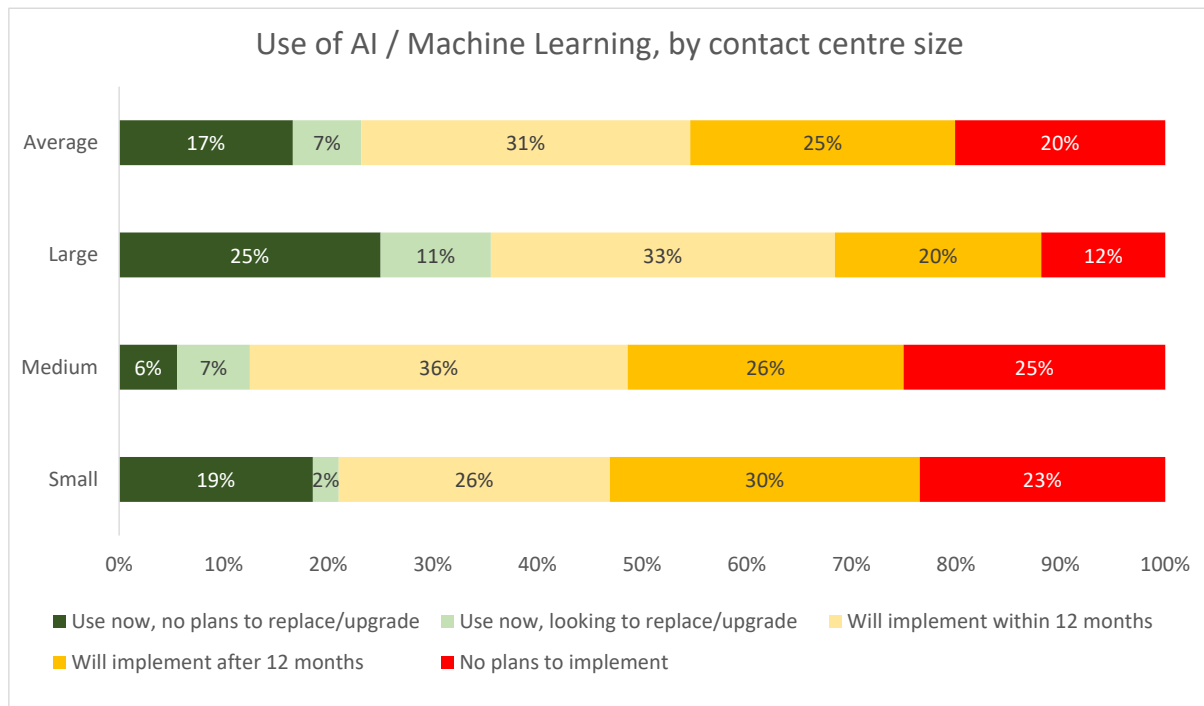
Figure 11: Use of AI / Machine Learning, by vertical market



In recent years, larger operations were much more likely than sub-50 seat contact centres to have implemented some form of AI, although there had been very significant interest even amongst smaller operations.

This year, many more survey respondents from small contact centres state that they are using AI – it is not to say that these solutions will be as powerful or sophisticated as those used in large contact centres, but there has definitely been a noticeable increase in usage.

Figure 12: Use of AI / Machine Learning, by contact centre size



EXPECTED OUTCOMES

For an AI-enabled agent assistance implementation, what would success look like when considering the four business issues identified earlier in the report? What KPIs could be impacted, and what benefits seen?

Excessive call lengths affect cost and customer experience

This is perhaps the most obvious business issue that AI-enabled agent assistance can help with, and the opportunities for reducing call handling times cannot be over-estimated.

Much of the contact centre industry has lost its tight hold on the KPIs that customers really value, especially queue times. Reducing call handling time through having the right information available at the right time, and helping agents with their post-call duties can save the industry many billions of pounds each year, while providing a better service to customers.

KPIs impacted include: average call handling time; queue time; call abandonment rates; cost per call; CSAT/NPS; first-contact resolution.

Too many repeat calls

Building and maintaining a knowledge base which is clean, consistent and up-to-date is key to the use of AI, regardless of whether it is providing help to agents, running chatbots or looking for better business intelligence. AI can assist the agent to access this information easily and at the right time in the call, and make sure that all elements of the task have been completed correctly.

KPIs impacted include: first-contact resolution (which impacts on call queues as there are fewer repeat calls); CSAT / NPS

QA and coaching is ineffective and expensive

Basing QA and coaching decisions after analysing 100% of calls rather than a small sample means outcomes are far more accurate and fair. AI can make QA professionals aware of any outliers – either very good or very bad customer communications – providing great opportunities for the propagation of best practice or identifying urgent training needs.

KPIs impacted include: call quality; cost and time of coaching; compliance rates.

Lack of personalisation means opportunities are missed

Understanding customer history, context and intent will allow agents to personalise interactions based on individual customers as well as the customer segment to which they belong.

KPIs impacted include: cross-sell / upsell success rates; CSAT / NPS.

THE FUTURE OF AI-ENABLED AGENT ASSISTANCE

There seems little doubt that the eventual overall roadmap of the contact centre industry will lead to significant levels of AI involvement in all areas of customer contact. In the foreseeable future, AI is likely to be used to improve self-service and to assist agents, rather than having seismic effects on headcount. An AI implementation whose success is to be measured mainly by the reduction in HR resource is unlikely to be a success from a customer's perspective.

Businesses' interactions with customers will continue to become a highly polarised mixture of the automated and the personal touch. Moving a large proportion of interactions onto self-service reduces business costs, and is increasingly popular with a customer base that is becoming more sophisticated and demanding in what it expects from self-service. AI takes this a step beyond, and through assisting agents, it can provide an even higher level of quality, accuracy and intelligence in a channel which is consistently seen by customers as being the gold standard of customer service.

Looking further ahead, we can expect to see personal technology applications seeking out the best deals on offer or actually interacting with a business without involving the customer at all. This leads to the conclusion that many customer-agent interactions will be exceptional, such as a complaint, an urgent or complex issue or a technical query that an FAQ or customer community couldn't solve.

It is still likely that customers of all types will be handled directly by live agents where reassurance and complexity demand it, and AI-enabling the agent desktop will make these calls quicker and much less effort for both agent and customer.

Looking further into the future, many scenarios suggest a world in which customers speak directly to 'intelligent' systems, but an "e2e" world is becoming real, where systems talk directly to other systems without a human being involved at all. The customer will delegate many of their business interactions to an intelligent device, which will store information such as personal preferences, financial details and individuals' physical profiles. Customers will instruct the device to research the best deals for products and services, and to come back to the device's owner with the best selection. The personal AI would 'call' the relevant contact centre (which could in fact be either a AI or possibly a live agent in some cases) and even purchase the best deal without having to involve the owner in any way.

The same principle applies to customer service: using the 'Internet of things' means that, for example, utilities meters can send their own readings to suppliers on request, and a manufacturer can detect when a part on an appliance is about to fail, and organise a replacement part and engineer visit with the customer's permission.

At this early stage, most businesses might decide that implementing AI in a small scale on a clearly defined user case is the most appropriate action to take, building up their in-house knowledge and expertise while following a strategic implementation roadmap.

The sheer opportunity provided by reducing call handling times on a consistent basis while improving CX means that AI-enabled agent assistance is of great interest to businesses, particularly as it is internally facing and does not expose the business to the same level of risk as customer-facing AI could potentially do.

In the case of such a heavily hyped solution as AI, expectations should be managed and care taken in identifying and forecasting the improvements that the initial implementation can bring, with the success of the project being clearly based around specific, easily understood metrics.

In the longer-term, there's no doubt that AI will be used as a key part of handling customer interactions in most businesses, but the question is: how? The use of AI should be focused on use cases where the AI does a better job than a human, whether that's being quicker, more accurate, available 24/7 or able to see patterns in data that no person could see.

It's our view that customers call live agents not necessarily because they want to hear a friendly voice, or that they're Luddites who won't countenance automation, but because they've found through personal experience that this is the most effective way of making sure their issue is resolved, even if there is significant effort involved.

So while AI-enabled automation will handle much of the simple work, customers will still seek out a live channel for complex or emotional interactions: probably voice, but perhaps digital or video too, as customer confidence in these channels builds up.

Yet even here, AI will be playing a part, identifying the customer's intent, gauging their sentiment, and understanding through past experience what the appropriate actions for the agent will be. Over a long period of time, AI will become thoroughly enmeshed in every element of customer interactions, but we are confident that the human element to customer interactions will remain vital in the times when it is most needed.

ABOUT CONTACTBABEL

ContactBabel is the contact centre industry expert. If you have a question about how the industry works, or where it's heading, the chances are we have the answer.

We help US and UK contact centres compare themselves to their closest competitors so they can understand what they are doing well, what needs to improve and how they can do this.

The coverage provided by our massive and ongoing primary research projects is matched by our experience analysing the contact centre industry. We understand how technology, people and process best fit together, and how they will work collectively in the future.

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