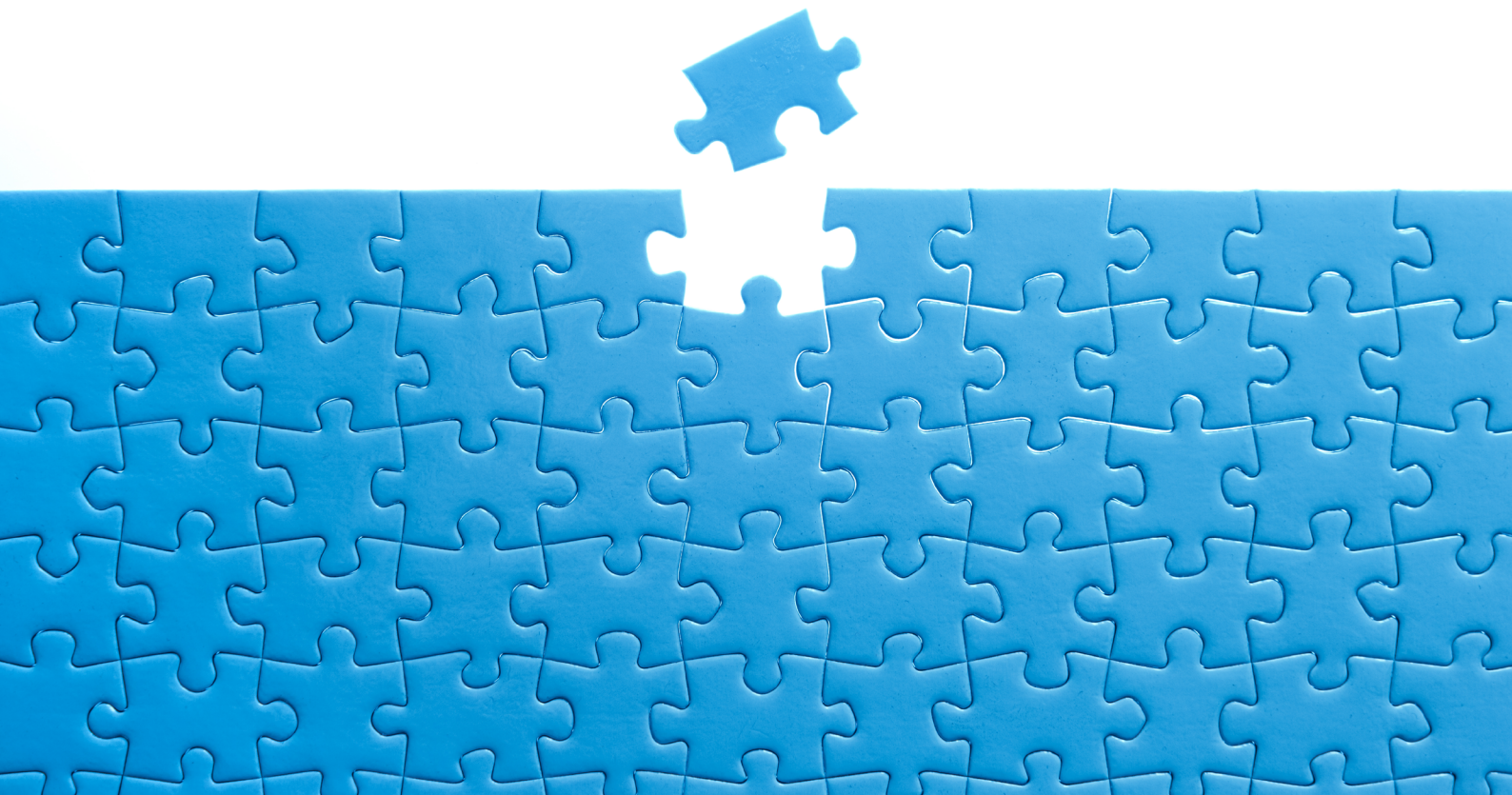




The Inner Circle Guide to Customer Interaction Analytics



Sponsored by



CALABRIO



NICE inContact

opentext™

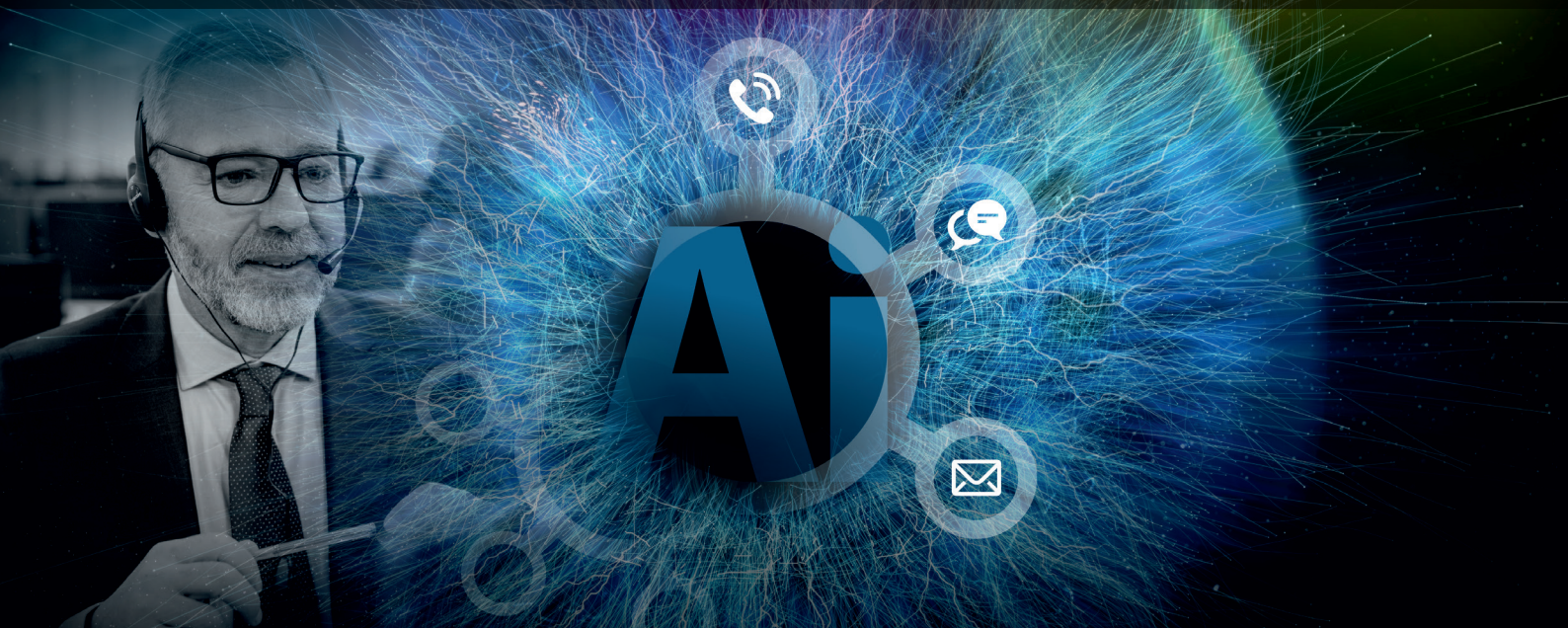


talkdesk

“The Inner Circle Guide to Customer Interaction Analytics” (4th edition) – UK edition

© ContactBabel 2019

Please note that all information is believed correct at the time of publication, but ContactBabel does not accept responsibility for any action arising from errors or omissions within the report, links to external websites or other third-party content.



INTERACTION ANALYTICS

Driving business optimization
in the contact center



INPUT

Omni-channel inputs:
Speech-to-text, Email,
Web forms, Messaging,
Chat bots



ANALYZE

Take unstructured inputs,
analyze through AI/NLP
and Neural Networks



GAIN INSIGHT

Uncover patterns, identify
topics, ensure adherence
and compliance



TAKE ACTION

Turn insights in to structured
and actionable information



DELIVER

Deliver results through C360
Dashboard or through APIs
to external BIS

GET IN TOUCH

LONDON

Contexta360
18 Soho Square
London, W1D 3QL
United Kingdom
+44 7418 3145 24

BERLIN

Contexta360
Alexanderplatz, 4th floor
Gontardstraße 11, Berlin
Germany
+40 21 202 30 30

AMSTERDAM

Contexta360
Herengracht 440,
1017bz Amsterdam
Netherlands
+31 970 1026 4621

FOLLOW US



CONTENTS

Contents	4
Table of Figures.....	6
Introduction: The Inner Circle Guides	8
Beyond Speech: The Growing Use of Omnichannel Analytics.....	10
Speech Analytics	14
Transcription, phonetics and other techniques	14
Historical / Post-call Speech Analytics.....	17
Real-Time Speech Analytics	18
End-User Question 1: Any tips on using real-time speech analytics? How can it be used to assist the agent rather than distract them or break the flow of conversation?	21
Accuracy, Language and Dialects	24
Sentiment Detection & Analytics	26
Text Analytics.....	28
Predictive Analytics & the Role of ai	30
End-User Question 2: How are AI and machine learning impacting analytics?	32
Desktop Analytics.....	35
Back-Office Analytics.....	36
Customer Journey Analytics.....	37
Voice of the Customer Analytics	41
The Use Cases of Analytics.....	44
End-User Question 3: What do most of your clients do with their analytics solutions? Has this changed from the past, and what do you see analytics being used for in the future?	47
Improve Customer Experience.....	51
Improve Efficiency and Decrease Cost	55
Increase Revenue.....	61
Reduce Risk.....	64
Improve Quality	67
Increase Insight	70
Inhibitors to Analytics	73
Analytics: Current and Planned Usage	75
Getting the Benefits of Analytics	78

Pre-Implementation.....	78
End-User Question 4: What applications of interaction analytics are the easiest to prove ROI for?	79
Initiators and the Project Champion	83
Cloud or Premise?.....	85
Implementing Analytics	88
Proof of Concept and Soft-Start Implementation	88
Timescales.....	89
End-User Question 5: What are the most common pitfalls to avoid in implementation, and when in full production?.....	92
Multi-Vendor Environments	96
Measuring ROI	97
Developing the Use of Analytics	101
Results of Using Analytics	104
Historical Analytics.....	104
Real-Time Analytics.....	106
Usefulness of Analytics for Improving CX.....	107
Focus of Analytics Improvements	108
Resourcing Analytics Applications.....	110
The Future of Analytics	112
End-User Question 6: In terms of both its use, and the type of technology coming, what does the future of analytics look like?	114
Supplier Directory	118
About ContactBabel	128

TABLE OF FIGURES

Figure 1: Customer journey projects: an assessment	38
Figure 2: Effectiveness of methods for gathering customer insight.....	43
Figure 3: Uses of customer contact analytics.....	44
Figure 4: Use of interaction analytics, by contact centre size	75
Figure 5: Use of interaction analytics, by vertical market	76
Figure 6: Use of various interaction analytics functionality (from only those respondents who use analytics).....	77
Figure 7: Usefulness of historical analytics	104
Figure 8: Usefulness of real-time analytics	106
Figure 9: Usefulness of analytics for improving customer experience	107
Figure 10: Focus on improvements in KPIs and activities using analytics	108
Figure 11: What effect does technology have on your customers' experience? by contact centre size (interaction analytics)	109



Win over
your customers
in any channel,
any time.

NICE inContact

Interact with your customers through any channel with NICE inContact—the cloud contact center leader.



If you're missing channels, you're losing customers.

From email and chat to 1-800 and SMS, NICE inContact makes it easy for you to interact with your customers through their channel of choice. With the industry's only SLA-supported Voice as a Service, we make sure your primary channel is always the highest quality possible.



Behind every customer experience is a business goal.

Exceptional customer experiences don't happen by accident—they have to be designed and crafted with the right tools and integrations to achieve your business goals. That's why we've built a complete cloud customer experience platform that intelligently routes all of your customer interactions, helps you schedule and improve your workforce, analyzes trends and voice quality, and also easily integrates with CRMs.



Moving to the cloud is a big decision—we make it an easy one.

Putting your mission-critical customer experiences in the hands of a cloud provider is all about trust. NICE inContact makes your migration seamless and simple, while providing piece of mind with a guaranteed 99.99% uptime and the only voice quality guarantee in the industry. Plus, there is a reason leading industry analysts from Gartner, IDC, Ovum, and Frost & Sullivan all named NICE inContact a cloud leader.

Ready to transform your customer
experience?

Visit
www.niceincontact.com

INTRODUCTION: THE INNER CIRCLE GUIDES

“The Inner Circle Guide to Customer Interaction Analytics” is the 16th in the Inner Circle series of ContactBabel reports, and is the 4rd edition of the report looking at this specific area.

Inner Circle Guides are also available for:

- AI, Chatbots & Machine Learning
- Cloud-based Contact Centre Solutions
- Omnichannel
- Outbound & Call Blending
- PCI DSS Compliance & Card Fraud Reduction
- Self-Service
- Workforce Optimisation.

They can be downloaded free of charge from [here](#).

“The Inner Circle Guides” are a series of analyst reports investigating key customer contact solutions. The Guides aim to give a detailed and definitive view of the reality of the implementing and using these technologies, and a view on what the future holds.

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 solution providers, and we have selected seven of the most popular to ask. These branded Q&A elements are distributed throughout the report and give interesting insight into real-life issues.

NB: statistics within this report refer to the UK industry, unless stated otherwise. There is a version of this report available for download from www.contactbabel.com with equivalent US statistics.

“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.

Dates of statistics refer to year-end.

opentext™ | Explore

AI-powered customer interaction analytics

Employees

Increase agent engagement

Customers

Elevate customer experience

Businesses

Gain improved VoC insights



Artificial intelligence



Customer surveys



Machine learning



Recorded calls



CRM notes



VoC analytics



Social media



Chatbots



Surveys

opentext.com/explore

BEYOND SPEECH: THE GROWING USE OF OMNICHANNEL ANALYTICS

On first glance, customer interaction analytics can be seen as providing similar information to management information and reporting systems - taking masses of data and making sense of what they mean to the contact centre's performance and perhaps even inside the wider business. However, the vital thing to understand about analytics is that it gives contact centres the answer to 'Why?', not just 'What?'. Why are average handle times so different across agents? Why are customers of this product upset? Why are people calling the contact centre?

Customer interaction analytics solutions offer huge opportunities to gain business insight, improve operational efficiency and develop agent performance. In fact, the list of potential applications for this technology is so high that businesses could be forgiven for being confused about how to target and quantify the potential business gains.

Depending on the type of business, the issues being faced and even the type of technology being implemented, drivers, inhibitors and return on investment can differ greatly. While an analytics solution may be implemented to look at one particular pressing issue, such as automating the QA process, it will further develop over time into looking at business intelligence and process optimisation.

Interaction analytics can be used in many different ways to address various business issues. This is an advantage - it is hugely flexible - but it can also make its message to the market more complicated. However, depending upon how interaction analytics is used, it can assist in:

- agent improvement and quality assurance
- business process optimisation
- avoidance of litigation and fines
- customer satisfaction and experience improvements
- increases in revenue and profitability
- improvements in contact centre operational performance, and cost reduction.

Like most contact centre applications, analytics can be used to cut costs, but its promise goes far beyond this. No other contact centre technology provides the business with this level of potential insight that goes far beyond the boundaries of the contact centre, and can offer genuine and quantifiable ways in which sub-optimal business processes can be improved.

This is not to say that the science of customer contact analytics is yet at its zenith. Significant improvements are still being made to the accuracy and speed of the speech engines, the sophistication of analytical capabilities, the integration of various data inputs and the usability of report. The integration of sophisticated AI and machine learning capabilities within the analytics solutions offers the chance to take analytics far beyond what was imagined a few years ago.

Some of the actionable findings from analytics may seem very simple - the recommendation to change a few words in a script, for example - but the overall potential impact upon the cost, revenue, agent capability and customer experience that is possible through analytics is perhaps unprecedented.

There are various elements to customer contact analytics solutions, including::

- **Speech engine:** a software program that recognizes speech and converts it into data (either phonemes - the sounds that go to make up words - or as a text transcription, although there are solutions which directly recognise entire spoken phrases and categorise calls based upon the occurrence of those phrases)
- **Indexing layer:** a software layer that improves and indexes the output from the speech engine in order to make it searchable
- **Query-and-search user interface:** the desktop application where users interact with the analytics software, defining their requirements and carrying out searches on the indexed data
- **Reporting applications:** the presentation layer of analytics, often in graphical format
- **Business applications:** provided by vendors, these pre-defined modules look at specific issues such as adherence to script, debt collections etc., and provide suggestions on what to look for
- **Text analytics:** this solution combines the transcription of customer calls with other forms of text interactions such as email, web chat and social media. It then uses natural language processing models along with statistical models to find patterns
- **Desktop data analytics:** a solution that gathers metadata from agent desktop and CRM applications – for example, account ID, product order history and order value – and tags them to call recordings or digital records, enabling deeper insight.

Like any technology, customer contact analytics has its own descriptive language, and some of the more common words or phrases someone researching this industry would find include:

- **Categorisation:** the activity of grouping conversations according to user-defined topics, such as complaints, billing issues, discussions of specific products, etc. Agent capability can be viewed by these categories, suggesting specific training needs as well as identifying any required changes to processes. Categorisation can be done by the business based on their own experiences and requirements, through using vendors' out-of-the-box categorisations for common analytics use cases, or by implementing AI and machine learning to find categories within the business's data
- **Discovery:** requiring a transcription-based solution, analytics will seek out phrases and words that are showing up in noteworthy patterns, showing how they fit together and how they relate to each other, discovering trends automatically
- **Metadata:** non-audio data, which may be taken from CRM, ACD or agent desktop applications, which is tied to audio recordings or other interactions, improving the ability to correlate, discover patterns and pinpoint specific types of interaction

- **Search:** if the analytics user knows what they want to find, the search function can return a list of calls with these words or phrases within them. Speech-to-text / transcription applications return the sentence or whole interaction so that the user can see the context as to how this has been used, offering the opportunity to run text analytics on top of this as well
- **Closed-loop analytics:** where also known as “closed-loop marketing”, this activity involves tracking the entire customer lifecycle (i.e. connecting the initial contact all the way to the sale, and into ongoing support and post-sale activity), in order to draw actionable insights about how elements of the customer lifecycle impact upon sales success and marketing effectiveness. From a perspective more closely focused upon the customer experience, “closed-loop” refers to the continued, iterative use of automated alerts, follow-up of issues (e.g. through call-back) to support root cause analysis, and the identification and resolution of suboptimal processes.

CALABRIO™

The Future of Contact Centre Analytics



HOW MACHINE LEARNING, ARTIFICIAL
INTELLIGENCE, AND PREDICTIVE ANALYTICS
ARE FUELING CUSTOMER ENGAGEMENT



READ THE REPORT

SPEECH ANALYTICS

TRANSCRIPTION, PHONETICS AND OTHER TECHNIQUES

Most customer contact analytics solutions use speech engines that are either phonetic or speech-to-text / LVCSR (Large Vocabulary Continuous Speech Recognition), also known as 'transcription-based' or 'speech-to-text'. Increasingly, solutions are using both methods to increase speed and effectiveness.

In **LVCSR**, the call is transcribed into text in order for analysis to take place, and depends upon a language model and dictionary to identify words correctly. Unlike phonetics-based solutions, LVCSR does not require predefinition of words to search for as the content of calls is available in the index. Transcription processing has been considerably slower than phonetic indexing (in the region of 4-20 x real-time for LVCSR, vs >1,000 x real time for some phonetics-based systems), although the actual search process is far quicker and storage requirements are far less than needed for phonetics. It is generally accepted that around 80-85% accuracy in word recognition is achievable, a figure which has risen from 65-70% a few years ago. This method allows companies to retain the entire content of calls, not just initially specified keywords and phrases, and is generally thought of as best for root cause analysis, and identifying clusters of terms that occur together, giving a starting point for deeper analysis.

LVCSR also has the advantage that it is easier to integrate with text-based channels: as the voice channel is converted to text, the same tools and principles can then be applied to every channel, allowing greater understanding and insight regardless of channel.

Phonetics-based applications - which look for defined sounds or strings of sounds - attempt to match these sounds to target words or phrases in a phonetic index file. The phonetic indexing process converts the audio into symbols that represent the audio and the identification of issues relies upon the predefinition of the terms to search for. The phonetic search process leverages an acoustic model tuned to the specific language, with the search terms converted into phonemes (the most basic building blocks of speech) and returns relevancy-ranked results. In circumstances where new phrases or words are frequently being used in conversations - for example, in retail, where new products may be emerging all the time - a phonetics approach means that analytics user can just type in the name and it can be searched upon. Using a transcription approach, the user has to add new words to the dictionary, and reprocess the audio, which can be time-consuming and may require professional services.

However, if the system accurately identifies a key word, there is no guarantee that it will be used in the correct context (for example, the word "website" may not just refer to a company's own site, but to a competitor's or something else entirely), or will be the right word (e.g. it may be a homophone - 'reed'/'read' - or homonym 'bank' (finance) / 'bank' (river)). Phrase recognition (such as 'the website doesn't work', or similar) is used to alleviate this and reduce false positives, putting the words into a context. The longer the phrase, the more accurate and unique the results will be. Searching on a single word will bring back many more results, which can risk lots of false positives unless the word is very distinctive, like a competitor's name, for example.

Solution providers that offer analytics based upon a phonetic speech engine emphasise its usefulness and speed where customers already know the type of words and phrases that they are looking for based on their business needs, and not having to identify the right words in advance to put into a language model means that unknown words and phrases can be found quickly, uncovering trends or events that are relevant to the business. However, a different query will require searching all the data again. Many vendors have significant experience with specific business sectors and call types, and can offer useful advice on how to maximize the volumes of data available for analysis along vertical market lines, also pre-packaging typical words and phrases that are used in specific instances, so that their customers can get off to a quick start in using the application.

There are also solutions where a phrase-driven direct speech recognition engine recognizes entire phrases within recorded or live calls without first converting the speech into text or phonemes. This approach combines speech and business concept recognition by directly recognizing the phrases spoken during the conversation and comparing them to the phrases that are often found in these types of call (sales, complaints, etc.), or those that have been defined by the client, for example in the case of compliance or scripting which will support a real-time response.

Increasingly, solution providers are offering dual phonetic and transcription-based systems, in order to give their customers the best of both worlds. Although these solutions may be referred to as hybrid, the reality is that they use both methods in order to benefit from phonetics' rapid identification of key words and phrases, while allowing in-depth discovery and root cause analysis by use of the transcription method. One possible way to use this is to analyse 100% of calls quickly with phonetic indexing, categorising and viewing trends, then transcribing the calls that are identified as being of particular interest in order to conduct root cause analysis, without having to transcribe 100% of calls (which can require many servers in a high call volume environment).

Businesses that search information many times a day as part of business intelligence or process improvement may prefer transcription as searching is quicker. If the business will be processing large amounts of audio but searching it infrequently, for example in the case of evidence production or proof of compliance, then phonetics may be a more appropriate choice, but as noted, many modern applications now use both methods.

The speed, accuracy and precision of customer contact analytics technology is continually improving. Even amongst vendors, on both sides there is broad agreement that transcription and phonetics both work, and that they will both be around for quite some time to come. System integrators and consultants that implement both types of solution state that accuracy levels and phrase-finding capabilities are similar for each type of technology, and that both are able to provide historical analysis and reporting. There is also consensus that the major issue is not which flavour of analytics solution to choose, but the organisation's ability to deliver business change based on the insights that come out of whatever customer contact analytics solution is chosen.



WORKFORCE OPTIMISATION SOLUTIONS

CONTACT CENTRE SOLUTIONS

Powering Enterprises.
Empowering Agents.

CONTACT US

+44 20 8018 8100 | Chat with Us | contact@aspect.com
For more information, visit www.aspect.com/uk.

HISTORICAL / POST-CALL SPEECH ANALYTICS

Historical implementations of speech analytics solutions were focused upon analysing large numbers of recorded calls, often a long time after the actual event. Many of the original users purchased these solutions to assist them with compliance and as part of a larger quality assurance system, and these benefits have not decreased over time. Being able to analyse 100% of calls automatically can provide high quality information for the QA process, giving a fair and accurate reflection of the agent's performance.

While there is real and growing interest in real-time analytics, historical speech analytics is still vital for business intelligence, performance improvement, QA and compliance. As the majority of contact centres have call recording in place, the raw material is already available. In fact, the amount of recorded voice data available to most businesses can be overwhelming, and historical speech analytics that analyse 100% of recorded calls is proving hugely valuable. The use of historical speech analytics for various business issues is investigated in-depth within the next major section, "Uses of Analytics".

It should be noted that many recording environments are still mono rather than stereo, meaning that there is no distinction between the caller and the agent except through context. This is a clear disadvantage for effective historical speech analytics, as in order to learn from customer feedback and experience, clearly a business needs to know whether it is the customer talking about products, processes or competitors, rather than the agent. More recording systems are moving to stereo, and this will further improve the accuracy and potential benefit of speech analytics, and some vendors have restructured their solution to offer software-based speaker separation for analytics.

REAL-TIME SPEECH ANALYTICS

Some solution providers suggest that ‘real-time analytics’ should perhaps be more accurately referred to as ‘real-time monitoring and action’. Analysis (“a detailed examination of the elements or structure of something¹”), refers to the discovery and understanding of patterns in data, and is currently something that by definition only happens post-call when all data are fully present. Real-time monitoring on the other hand, looks for and recognises predefined words, phrases and sometimes context, within a handful of seconds, giving the business the opportunity to act.

However, AI can be trained to understand intent and recognize patterns through immersion in vast quantities of historical data, so that when a call is taking place, it can draw upon this knowledge and provide advice or action that has proven successful previously, moving towards the actual provision of real-time analytics.

AI assists in real-time speech analytics through applying the results of machine learning that have been carried out on large quantities of previously recorded conversations, providing:

- agents with the understanding of where their conversational behaviour is falling outside of acceptable and previously successful norms (such as speaking to 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.

For some businesses, real-time analysis is an important and growing part of the armoury that they have to improve their efficiency and effectiveness. There is potentially a great deal of benefit to be gained from understanding automatically what is happening on the call, and in being able to act while improvements are still possible, rather than being made aware some time after the call of what has happened.

Real-time analysis can be used in many ways:

- monitoring calls for key words and phrases, which can either be acted upon within the conversation, or passed to another department (e.g. Marketing, if the customer indicates something relevant to other products or services sold by the company)
- alerting the agent or supervisor if pre-specified words or phrases occur
- offering guidance to the agent on the next best action for them to take, bringing in CRM data and knowledge bases to suggest answers to the question being asked, or advice on whether to change the tone or speed of the conversation
- escalating calls to a supervisor as appropriate

¹ <http://www.oxforddictionaries.com/definition/english/analysis>

- detecting negative sentiment through instances of talk-over, negative language, obscenities, increased speaking volume etc., that can be escalated to a supervisor
- triggering back-office processes and opening agent desktop screens depending on call events. For example, the statement of a product name or serial number within the conversation can open an agent assistant screen that is relevant to that product
- making sure that all required words and phrases have been used, e.g. in the case of compliance or forming a phone-based contract
- suggesting cross-selling or upselling opportunities.

Many solution providers have worked hard to bring to market new or improved solutions to assist with real-time monitoring and alerts, and recognition of key words, phrases, instances of talk-over, emotion and sentiment detection, pitch, tone, speed and audibility of language and many other important variables can be presented on the agent desktop within the call, triggering business-driven alerts and processes if required. Speaker separation and redacted audio output (e.g. stopping sensitive data being included in text transcriptions) further add to real-time analytics' capabilities.

The speed of real-time analysis is crucial to its success: long delays can mean missed, inappropriate or sub-optimal sales opportunities being presented; cancellation alerts can show up too late; compliance violations over parts of the script missed-out may occur as the call has already ended. However, it is important not to get carried away with real-time analysis, as there is a danger that businesses can get too enthusiastic and set alert thresholds far too low. This can result in agents being constantly bombarded with cross-selling and upselling offers and/or warnings about customer sentiment or their own communication style, so that it becomes a distraction rather than a help.

The effectiveness of real-time analysis may be boosted by post-call analytics taking place as well. For example, by assessing the outcomes of calls where specific cross-selling and upselling approaches were identified and presented to agents in real time, analysis can show the most successful approaches including the use of specific language, customer type, the order of presented offers and many other variables (including metadata from agent desktop applications) in order to fine-tune the approach in the future. Additionally, getting calls right first-time obviously impacts positively upon first-call resolution rates, and through picking up phrases such as "speak to your supervisor", can escalate calls automatically or flag them for further QA.

Real-time analysis offers a big step up from the traditional, manual call monitoring process, and is particularly useful for compliance, debt collection, and for forming legally-binding contracts on the phone, where specific terms and phrases **must** be used and any deviation or absence can be flagged to the agent's screen within the call. Finance, telecoms and utilities companies - and indeed, any business where telephone-based contracts are important - are particularly interested in this.



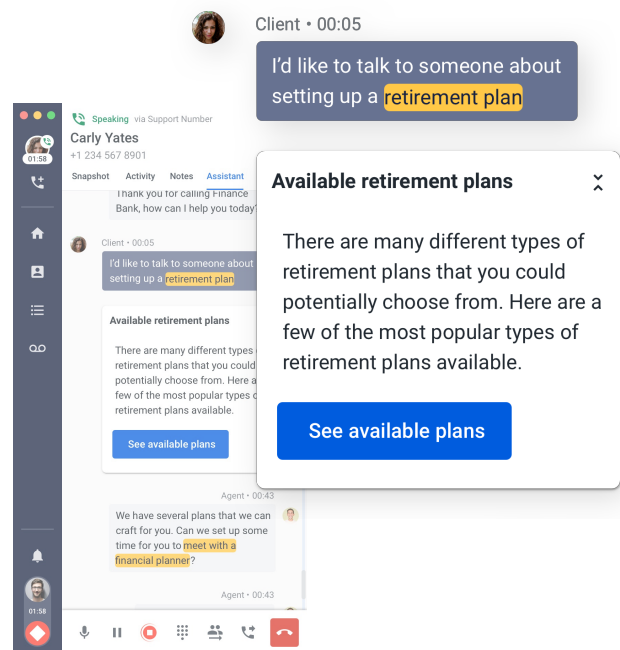
Talkdesk Agent Assist

Powered by 

Using AI technology, **Talkdesk Agent Assist** listens, learns and guides agents to deliver exceptional customer experiences.

It provides contextualised next-best actions inside every conversation to quickly resolve complex customer issues while minimising agent effort.

Schedule a demo today at:
talkdesk.com/agent-assist



“Talkdesk Agent Assist is a game-changer for achieving our goals of reducing agent and customer effort while driving customer satisfaction.”

– DALE STURGILL, VP CALL CENTER OPERATIONS, EMPLOYBRIDGE

END-USER QUESTION 1: ANY TIPS ON USING REAL-TIME SPEECH ANALYTICS? HOW CAN IT BE USED TO ASSIST THE AGENT RATHER THAN DISTRACT THEM OR BREAK THE FLOW OF CONVERSATION?



Real-time speech analytics can be a valuable agent tool, but the technology is in its infancy. If every new agent had an experienced super-agent whispering advice in his/her ear throughout a customer conversation, one would expect the performance of these new agents to improve significantly. However, the ability of real-time speech analytics to mimic a super-agent is quite limited. Most real-time speech analytics systems today spot words/phrases and then use simple business rules to pop recommended responses on the agent's screen. It's currently a simple process yielding only rudimentary answers.

In the coming years, the real-time speech analytics solutions will use NLU (natural language understanding) to extract the semantics of the conversation, access decision-relevant CRM, BI or other ancillary information, use AI to intelligently assess the best action for the agent based on available data and then present the best guidance to the agent on his/her screen. We have a long way to go before this technology adds dependably high value, but we will likely see regular use of real-time speech analytics increasing over the next few years.



As opposed to post-call analytics, whereby the real value is derived from understanding insights for business managers and quality supervisor after the facts, real-time speech analytics enables the agent to move through a call by providing key information either about the call or the caller. This helps the agent to steer the conversation and maximise the opportunity before it is lost.

Real-time analytics ensures that an agent adheres to brand and regulatory compliance statements as well as ensuring continuity in what the agents is saying 'sticking to the script', as well as being an effective delivery mechanism for coaching insights. This can either be a direct output from the analytics platform, or indeed combined with topic detection and an integrated knowledge management solution. In a 'sales' scenario this can be especially useful in objection handling, in order to maximise the opportunity, whilst for service calls, the ability to detect questions and provide the correct answers, helps reduce call times, while increasing first-call resolution metrics.

We are also seeing a significant 'Hybrid Real-Time' requirement. This is needed at the start of a call just before answering. An agent may typically have 5 seconds to quickly review the call details before answering (or being forced answered). The agent may have access to the 3 emails, 2 chat sessions and 3 previous voice recordings from conversations over the last week, month or year, but their ability to digest all of these conversations and the topics, sentiment and questions is low to zero. We have the ability to summarize prior communications across all channels and extract the summary of the interaction in a format that the agent can absorb in seconds.



Define a plan for what to alert on and who to alert. Categorization makes it easy to create alerts for issues of concern such as churn language. However, creating what amounts to “over-alerting” will cause agents and supervisors to simply not pay attention.

Once impactful alerts are defined, what do you do? It may be a defined response to an “alerted” customer behaviour, or a process such as supervisory intervention or transfer to another agent group. Requiring a specifically defined response to an alert can be challenging. However, outlining a process aligned with a speech analytics-generated alert is a great way to proactively address in-the-moment dynamic customer awareness.



Real-time agent guidance and alerting should be focused carefully on configurable events, custom-defined business cases, or escalation thresholds. Real-time guidance’s most successful use cases are sentiment detection and omitted or spoken words and phrases (i.e. regulatory compliance statements). Guidance can be presented to agents in context-driven callouts on the desktop, with repeated reminders and escalation if proper action is not detected. Distraction should be kept to a minimum with minimal callout activity such as a single window to report one or more detected or omitted words or phrases instead of separate screen “pops” for every detected issue.



Using real time voice analytics is of course the hot topic as the technology now exists to ‘listen’ into the call to detect key words and phrases. The challenge this brings is how much interruption can agents handle? For example, every time a customer mentions a product, do you pop a web page up for the agent with that products detail on, as this could cause 5, 10 or even 20 pages of products on a screen depending on what a customer say. Imagine the poor agent trying to manage that!

The key is a clear and tested use case, where ideas are tested with a control group and these ideas worked on proactively to ensure the agent is assisted and not overloaded. Other features that help include using pop-up notifications (where the agent can click a link if they want the information or ignore it if they don’t) and a box they can open with a list of links that the real-time engine has identified and they can pick the one they feel is needed. This leaves the agent in control but provides fast access to the information required.



Speech Analytics is typically used by supervisors to review every customer conversation automatically, to uncover trends and better train agents. It can also be used to help agents deliver a more personalized customer experience by capturing key information from previous interactions and making suggestions proactively. This would enhance the conversation versus disrupting the flow.



Real-time analytics opens the door for new ways to assist and expedite agent's work, improving agent's proficiency and accuracy, time to resolution and customer satisfaction.

But to do so effectively the technology must not be just “fire & forget” but a sophisticated, adaptive, and self-learning solution that learns to react only to relevant conversational triggers. Leveraging NLU/NLP and machine learning, smart systems can identify conversation intents and the right moment to provide contextualized next best actions — suggestions that can proactively guide agents to knowledge base articles or trigger automated processes.

For example, a virtual assistant can run in the background of every agent interaction, listening for keywords, learning the customer's intent based on keyword context, and then using that information to surface relevant shortcuts and recommendations to the agent in real time. If integrated with other systems, the virtual assistant could even screen pop another application (such as a reservation engine) and auto-fill relevant details (such as the customer's stated appointment date). This proactive help from the virtual assistant reduces manual agent effort spent on data entry, search and context-switching between applications. It also increases the likelihood that the customer's question receives an accurate response, and increases the consistency of responses among all your agents. In this way, speech analytics can go well beyond sentiment detection; by understanding and instantly equipping agents with the information they need, it becomes an essential tool to help agents resolve customer issues faster.

ACCURACY, LANGUAGE AND DIALECTS

Speech-to-text solutions are measured by the word-error rate: how many words are incorrectly identified? A speech-to-text transcript of a conversation can appear wildly inaccurate to the reader, yet will often provide enough accurate reference points and keywords upon which to perform complex and insightful analysis. Potential customers should be aware that there is far more to a successful speech analytics solution than getting close to 100% accuracy for word recognition. Published industry data seems to indicate that the typical current transcription accuracy rate is around 80-85%.

Key measurements to understand, relevant to both phonetic and LVCSR solutions, are made up of precision rate (or accuracy), and recall rate (or detection):

- Precision/accuracy: if a search returns 10 items, with 7 of these results matching the search term, the precision rate is 70%.
- Recall/detection: if there were 100 instances of the phrase or word, and 60 were returned, the recall rate would be 60%.

If a solution has a high recall rate, but low precision rate - so that it identifies all instances of a phrase or word, but also a great many incorrect results - it is described as having a high number of 'false positives', which can be a particular problem for real time monitoring, where messages to the agent's screen or process initiation can be triggered automatically by the solution.

Phonetic approaches will tend to have high recall rates, as there are many phoneme sequences they can be matched, but with correspondingly lower precision. Transcription will tend to have higher precision since searches are more likely to contain the actual words or phrases that were said, but may have lower recall rates due to word recognition errors.

The balance between precision and recall depends on what the analytics is being used for. If businesses want to find what is being said about a particular type of call, such as those mentioning the word "website", it does not matter too much if a few are not identified, meaning that lower recall rates can be traded for higher precision rates, thus reducing the need to filter out false positives.

If there was a case of fraud detection or evidence production, which required every instance of somebody's name to be identified, then recall rate would be dialled up to maximum so as to minimise the chance of missing any matches.

Solutions can be set at a certain confidence level (i.e. confidence that there will be no more than x% of results as false positives or negatives), depending on the business need, as some issues, such as compliance, require very high confidence levels to be maintained.

When considering which solution to implement, customers should ask not only about the accuracy of the solution, but also about the recall, precision or completeness rates.

The call recording environment also has a significant part to play in these results, as digitally-recorded, stereo/dual channel recordings, or software-enabled speaker separation will provide more opportunities for the speech and analytics engines to identify words and phrases correctly.

In businesses with multiple global operations, customer contact analytics solutions will of course require different searches and dictionaries for each language, but it is possible to unify reporting across languages if required.

If a business has multiple contact centres speaking the same language but with very different accents (for example UK English and US English), it is possible to use the same language model. However, for accents which are very different and has its own cadences and rhythms - for example, Indian English - a different language model may be required, although all the audio can be analysed centrally within the same application.

SENTIMENT DETECTION & ANALYTICS

Analytics' understanding of the nuances and deeper levels of human communication is still being expanded, and solutions go far beyond simply looking for relevant keywords or phrases, or other content-heavy words, taking into account all of the words being used as well as the structure, pacing, flow and tone of the conversation.

Agents, especially those with higher levels of empathy and experience, should be able to identify the emotions of the callers, so using technology for sentiment detection could seem to be an unnecessary elaboration. However, the use of analytics means that the sentiment and emotion of millions of calls can be assessed against their ultimate outcome in order to identify in real-time situations that have a higher likelihood of a negative outcome and to act before it is too late.

Emotion or sentiment displayed on calls can be extremely difficult to track accurately and meaningfully, as everyone has their own way of expressing themselves, words and feelings may not match up, or external irritations not related to the topic of conversation may intrude. Many vendors argue strongly that detecting emotion on each call is a useful tool - for example, by passing irate customers to a supervisor - and further developing their ability to detect voice-stress on a call in order to flag these to a supervisor, with some real time monitoring solutions measuring indicators such as speed of speech, volume, use of key word triggers, instances of talk-over or silence, etc.

There is another viewpoint, taken by those that offer solutions based on the analysis of masses of recordings, that says that the real value comes from looking at very large samples of data to identify those agents, processes and circumstances where emotion (often negative) runs highest, and taking into account the outcome of the call as well. While sentiment detection has had a relatively low profile for many solution providers in the past, recent years have seen many vendors add this to both their real time and historical analytics solutions.

Against this however, is the feeling that this is one thing that humans can do far better than machines: do agents really need to be advised on a call when somebody is being sarcastic, or is upset? It may be that sentiment detection is more suitable for large-scale historical analysis of calls, where emotional content can be correlated with the outcome of the call, and the spoken use of a word can be ambiguous when seen as text (for example, in the use of sarcasm).

Another viewpoint is that real-time sentiment analysis may be useful for offshore agents who have a different cultural and first-language background to that of the caller.

Some solution providers have recently noted that it is not only what we might consider the keywords within the conversation that indicate sentiment (e.g. "upset", "disappointed", "recommend"), but also the filler words (for example, if the inclusive "we" changes to "you", which may indicate estrangement from the brand).

Real-time sentiment analysis can identify stress, which may be an indicator that fraud is taking place, prompting the agent to take the caller through more detailed levels of security in order to prove their identity. This can be used in association with voice biometrics and/or phoneprinting, in order to identify the callers requiring stronger authentication.

CUSTOMER STORY



User Case

Service

Industry

Industrial Staffing and
Employment Services

Integration

Microsoft Dynamics, Loxyssoft,
in-house knowledge base

Key Metric

Reduce ASA by 24 sec through
AI-assisted interactions



Challenge

As the largest industrial staffing firm in the United States, EmployBridge needed an agile contact center solution that could support high interaction volume and complement its culture of rapid innovation. Lagging technology and poor support from its first-generation cloud contact center provider were getting in the way of accomplishing their goals.



Solution

EmployBridge chose Talkdesk for its continuous product innovation, deep integration to Microsoft Dynamics, and its unique flexibility to integrate with other key business applications—both now and in the future. Talkdesk also proved its commitment to best-in-class support and a close partnership with the EmployBridge team.



Results

EmployBridge is leveraging Talkdesk to help reduce human-assisted contacts by 20% while supporting a service level of at least 90%. For agent-driven interactions, Talkdesk Agent Assist will provide real-time information and suggested actions to drive higher CSAT, lower handle time and improve customer experience.

Putting innovation to work

The EmployBridge company mission is simple: find great jobs for great people. What started many years ago as a vision to connect job-seekers to the right employer for their skillset, has grown into a best-in-class staffing enterprise. EmployBridge matches more than 400,000 employees in over 12,000 companies annually. To do so, they rely on teams in three contact center locations to expertly handle over 5 million interactions each year.

“By selecting Talkdesk, we have realized significant cost savings while simultaneously delivering a much-needed injection of innovation. We fully expect the ROI from choosing Talkdesk to continue and increase as they introduce new capabilities to our contact center, at no additional cost. Talkdesk is laser-focused on bringing greater efficiency, productivity and innovation across the board to contact centers, and we’re excited to work with them on this journey,” says Dale Sturgill, VP Call Center Operations, Employbridge.

See more at talkdesk.com/customers/employ-bridge

TEXT ANALYTICS

As with speech analytics, text analytics can be applied historically or in real time. It can be applied to interactions between customers and agents (as in the case of email, web chat or social media contact), or by looking at customer feedback, whether on the business's own website or on third-party sites. Unlike speech analytics, text analytics does not require a speech recognition engine to identify the words being used, but the general principles and opportunities are similar. Much of the data analysed by text analysis is unstructured (i.e. is not found in traditional structured databases), such as emails, web chats, message boards, RSS feeds, social media etc. The collection and processing of this data may involve evaluating the text for emotion and sentiment, and categorises the key terms, concepts and patterns.

Historical text analysis is useful for business intelligence, whether about how the company and its products are perceived, or the effectiveness of the customer contact operation. It is important to note that many uses of historical text analysis work best when they are used shortly after the comment is made, rather than weeks or months afterward: an issue that is commented upon by many customers may need to be acted upon rapidly. For example, confusion about a marketing message, complaints about phone queues, or a case of system failure which prevents customers from buying on a website need to be identified and handled as quickly as possible. For longer-term issues, such as gathering suggestions on new functionality for a product release, such urgency is less important.

Most large companies will have formal customer satisfaction and feedback programmes, and also will monitor third-parties such as TripAdvisor or Yelp, which provide structured data in the form of scores, and efforts should be made to identify the most important data sources. Text analytics helps to dig deeper into the actual unstructured comments left by customers, which are otherwise very difficult and time-consuming to categorise and act upon, especially where there are many thousands of comments. Industry-specific vocabularies can be used to identify and understand more of the relevant comments, and place them into the correct context. Solutions should also be more sophisticated than simply to identify key words or phrases: the sentiment of the whole comment should be considered (for example, "loud music" in a shop may be exciting to one customer, but irritating to another). Many comments are mixed-sentiment, and may also mix a 5-star review with some more critical comments, which the analytics solution will have to take into account: the comments are where the real value is found, with both positive and negative insights available to be understood.

Perhaps the most obvious potential contact centre use of AI-enabled analytics is in handling digital enquiries, where web chats generally take far longer than phone calls (due to agent multitasking, and typing time) and some email response rates can still be measured in days. As the cost of web chat is broadly similar to other channels such as email, voice and social media, there is considerable room for increasing efficiencies and lowering costs.

Real-time text analytics can be used to assist agents when answering emails or handling web chats, or to identify customers at risk based on feedback comments they have left, initiating an action aimed at alleviating their problem immediately. Some solutions actively monitor feedback as it is being given, using logical branching based on the customer's responses in order to ask more relevant questions. For example, a customer mentioning a particular product may be asked where they first heard of it, or bought it from.

Using real-time text analytics for agents means that they can be provided with suggested responses which have been shown to provide high levels of contact resolution, or cross-selling success. It is particularly useful for less-experienced agents, and in cases where there is a rapidly-developing situation which agents may not be aware of: incoming requests from customers can be analysed to identify and predict issues that other agents (or managers) can be made aware of through real-time alerts.

Just as with speech analytics, text analytics solutions aim to categorise comments and interactions to provide actionable insight about a discrete part of the business (e.g. a specific product or store; the online sales experience; the politeness or otherwise of the contact centre staff, etc.). The analytics solution should be able to identify the many different ways that people refer to the same thing in order to categorise correctly and make sure that the actual importance of the issue is represented fairly and accurately. Categories can be created automatically by the analytics application, and/or through the input of business experts, and should be revisited regularly to make sure they are still addressing the reality of the business.

PREDICTIVE ANALYTICS & THE ROLE OF AI

Predictive analytics is a branch of analysis that looks at the nature and characteristics of past interactions, either with a specific customer or more widely, in order to identify indicators about the nature of a current interaction so as to make recommendations in real-time about how to handle the customer.

For example, a business can retrospectively analyse 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. After analysing this, and applying it to the customer base, a “propensity to defect” score may be placed against each customer, identifying those customers most at risk. Specific routing and scripting strategies may be put in place so that when the customer next calls, the chances of a high-quality customer experience using a top agent are greater and effective retention strategies are applied.

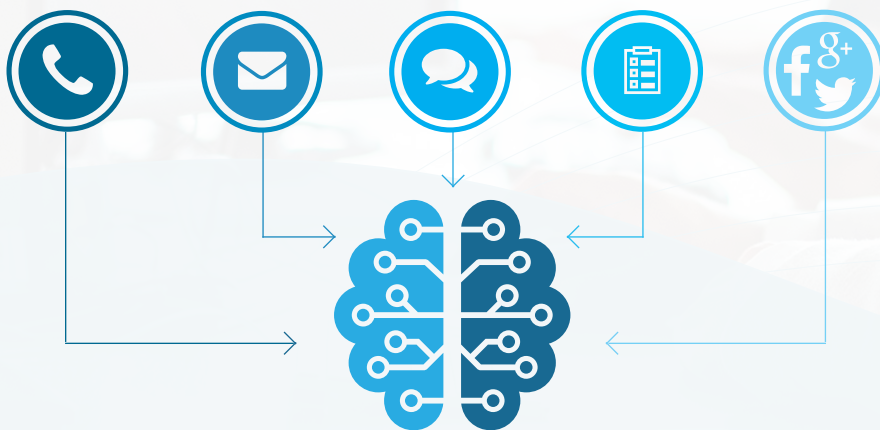
AI can be applied across the entire customer journey, including sales, marketing and service, helping organizations understand customer behaviour, intent and anticipating their next action. For example, an AI solution may find a pattern amongst previous customers that they are likely to search for specific information at a particular point in their presales journey, and proactively provide this information (or an incentive) to the customer before they have even asked for it. AI can also help with customer onboarding through predicting which customers are likely to require specific assistance.

Machine learning will allow AI to go beyond simply what they have been programmed to do, seeking out new opportunities and delivering service beyond what has simply been asked of them. Through understanding multiple historical customer journeys, AIs will be able to predict the next most-likely action of a customer in a particular situation, and proactively engage with them so as to avoid an unnecessary inbound interaction, providing a higher level of customer experience and reducing cost to serve.



CallMiner leverages AI and machine learning to reveal insight from all customer interactions.

In today's fast-paced world, optimising customer engagement could be a challenge. CallMiner customer engagement analytics makes it easy. Gain a 360 degree view into customer conversations, whether they are over the **phone, email, chat, survey** or **social media**.



Unlock insights, improve efficiencies and increase revenue while delivering a great customer experience.

- Enhance the customer experience with automated real-time feedback
- Maintain compliance through 100% monitoring
- Reduce costs by driving operational efficiencies
- Increase revenue through sales or collector effectiveness

Take a **FREE** CallMiner analytics test drive starting with your own phone calls!

Visit us at: <http://callminer.com/free-speech-analytics/>



MOST CUSTOMER AWARDS
FOR BEST USE OF
SPEECH ANALYTICS

END-USER QUESTION 2: HOW ARE AI AND MACHINE LEARNING IMPACTING ANALYTICS?



AI is impacting analytics when it is efficiently being applied to more quickly, accurately and predictively impact awareness and outcomes within the contact centre and beyond. The thing to remember is that AI comes in variety of forms. Organizations are using AI to handle more complex situations that used to require human intervention, to enable more customer self-service, and to extend this enhanced customer support across channels. AI is being layered with current interaction analytics solutions and emerging techniques encompassing machine learning (ML) and robotic process automation (RPA) to serve customers in new ways, raise customer satisfaction and give organizations more insight into their customer interactions.



AI and ML tools are enabling us to move into the next phase of analytics, from the world of “Descriptive Analytics” (describing what has happened in the past) into the world of Predictive Analytics (describing what will happen in the future) and Prescriptive Analytics (describing the solution to an issue that you may not even be aware of)!



In the past, many speech and text analytics companies relied on the building blocks of keyword and phrase counting to inform their analysis. AI and machine learning (ML) offer entirely new building blocks. More sophisticated cloud based natural language understanding (NLU) and natural language processing (NLP) engines allow for language disambiguation, named entity recognition, and semantic analysis that give analytic solutions the ability to perform new types of discovery and to understand context and meaning on a deeper level.

Machine learning brings a wealth of new discovery capabilities to the table, giving new insight into trends, hot spotting, clustering, topic discovery and anomaly detection. We can now more easily identify certain types of interactions without building complicated rule-based systems and queries; for example, a semi-supervised classifier, a type of ML that uses labelled and unlabelled data, could be used to evaluate all interactions to determine if they are resolved or unresolved, giving analysts incredibly valuable information for impacting first contact resolution.

opentext™

AI and machine learning is making a massive impact on interaction analytics: the data in the past was unstructured and in some cases unwieldy. Using AI, this can now have more structure and more meaning, allowing not only basic logic to be applied but complex AI algorithms that allow the data to make more sense to the human consumer. The interactions now have purpose and meaning and this does not end there, with sentiment, categories and entity extraction all now common place, what was once unstructured data is now real purpose. Adding in machine learning, this data is now being used to add further human context and understanding, making it an even more valuable asset to any business. This also makes the data ready for the big data world that craves structure and meaning, where the larger the data set, the better.

Serenova®

Machine Learning in analytics is allowing contact centres to make more accurate predictions and informed conclusions. AI is helping contact centres to better understand the nuances behind data by looking at emotions, moods, sentiments, etc. AI and Machine Learning present exciting opportunities for contact centres to increase first call resolution, quickly serve transactional/predictable interactions, and reduce human intervention.

talkdesk

The acceleration of AI adoption and more affordable high performance computing power is causing a fast evolution of analytics and the way data is used. With almost unlimited data crunching capabilities, contact centres became independent from sampling analysis and can now use machine learning models to continuously analyse patterns in all interactions, measure sentiment, emotional tone and satisfaction, extract topics and help agents, as well as managers, to perform better.

This new paradigm — where the analytics platforms are continually learning how changes impact the contact centre and suggest how to improve — reduces, in large scale, the effort that managers and supervisors put into repetitive data crossing and administrative tasks, ultimately accelerating decision-making and accuracy and freeing managers to focus on agent engagement. With recent cloud analytics capabilities and open source frameworks, analysts can now run fully automated pipelines using deep learning algorithms with way less effort than before.

All of these factors are key in a reality where analytics are the cornerstone for contact centres to achieve operational efficiency and customer service excellence.



Artificial Intelligence and machine learning are certainly driving improved speech recognition rates closer and closer to the capabilities of the human brain, by more accurately disambiguating words and phrases. With increasing frequency though, AI and deep learning techniques are being employed to improve ease-of-use and to surface deeper business insights available from customer interactions.

For example, [Aspect Engagement Analytics](#) uses AI to recognize recurring language patterns, thereby revealing findings without any analyst intervention. It automates the identification of important issues and trends that might otherwise go unrecognized. The self-learning capabilities inherent in AI are also helping to improve the accuracy of interaction classifications. AI can find patterns of words, phrases, tone, etc. that accurately predict the classification of interactions into categories such as proper greeting, missing compliance language, customer dissatisfaction, empathy for customer and many others. These categories are crucial building blocks for use cases such as improving sales closures, stricter compliance and better customer service.



Machine learning, Artificial Intelligence and Neuro-Linguistic Programming all come together to form cognitive technologies. These technologies extend the power of information technology to complex tasks that only humans could perform, albeit at a slower rate. Although computers cannot think, the ability to program them with complex algorithms enable computers to perform human-like perception and reasoning.

We deeply leverage AI and neural networking in the speech to text process, the tuning process (acoustic modelling for telecom codecs and custom lexicons so your industry phrases and brand names are detected with very high accuracy), but also in the analysis across channels and into other data sources such as CRM, ERP and the wider MIS. Machine learning is a branch of artificial intelligence where by data-driven algorithms enables software applications to become extremely accurate in predicting outcomes without any need for explicit programming. In turn, these algorithms can receive inputs and define statistical models as new data becomes available. This is hugely important for analytics solutions as there are tremendous amounts of data to be analysed, far more than can be done by humans in a short timeframe. Analytics requires predictive modelling and data mining, both of which require you to search through large amounts of data to identify patterns and adjust the programming parameters as need be.

DESKTOP ANALYTICS

Desktop analytics (also known as screen analytics) allow businesses to record an agent's desktop in order to assist with quality assessments at an agent level, and also to identify areas within systems and processes that cause delays within customer interactions.

Additionally, management can search for examples where agents skipped compulsory screens or ignored guidelines around how best to close the sale, in order to maximise future compliance with regulation and company procedure.

Average call duration is a metric that has been measured in contact centres since their very first inception. However, businesses have had to rely upon anecdotal information in order to decide whether excessively lengthy calls are a factor of agent inexperience or inability to answer the customer's question, or if there is a particular step within the procedure when delays are occurring in an otherwise competently-handled call (for example, from a lack of training about a particular area, or a badly designed screen layout).

Desktop analytics can provide information about exactly how long each step with an interaction takes, providing management with the insight as to which processes could potentially be automated, and how much time (and thus, cost) would be saved. Businesses would also gain insight into how agents actually research issues that they cannot immediately answer (for example, do they research the company website, a knowledge base or the wider Internet - and if so, which method is the most successful?).

BACK-OFFICE ANALYTICS

The back office is the part of the organisation that processes activities supporting the rest of the business, such as order processing and fulfilment, payment and billing, and account creation and maintenance. Much of what the back office does is driven by interactions in the contact centre which trigger the relevant processes, which the back office then have to deliver upon. ContactBabel research has found that around 4 in 5 complaints are actually about failures occurring within back-office processes rather than within the contact centre itself, so analysing and improving the back office is in the interests of the customer-facing departments as well.

WFO solution providers are developing applications that can be used in the back offices and branches of large organisations as well as their contact centres. Far more employees work in these spaces than in the contact centre, although many back offices lack the same focus upon efficiency and the tools to improve it. With the increased focus on the entire customer journey, back office processes are starting to fall within the remit of customer experience professionals, who have the remit to alter and optimise any area of the organisation that impact upon the customer experience, no longer being restricted to the physical environment of the contact centre. The industry is likely to see back office and contact centre workforce management systems being closely integrated, or even working as a single centralised function that can track and analyse the effect of different departments and processes on others throughout the customer journey.

The back office has somewhat different requirements to the contact centre, and will require different functionality, including:

- supporting different metrics and deadlines to those of the contact centre
- presence management, needed where there are multiple steps within a process that must be carried out by different individuals
- deferred workload and backlog management
- workload allocation based on large batches of work arriving at once, rather than be distributed throughout the day such as is found within the contact centre
- forecasts built on contact centre events and volumes
- different service levels and resource requirement calculations: many back office processes take considerably longer than a contact centre interaction
- adherence to schedule without data from an ACD and capacity modelling (which includes employee skills and resource availability)
- the identification of bottleneck processes.

The use of desktop analytics and screen recording in the back office means that even non-customer-facing employees to have their performance measured and optimised in the same way as their front office colleagues.

CUSTOMER JOURNEY ANALYTICS

Driven by the need to get beyond the siloed nature of multichannel interactions, customer journey analytics aims to gather together the various data sources, triggered processes, and customer touch points involved the customer interaction, in order to optimise the overall customer journey. By fully understanding the customer experience, businesses can identify and rectify inefficiencies, helping to break down the boundaries between channels and between the front office and the back office.

Customer journey analytics goes beyond the measurement of individual interactions and touchpoints. Sophisticated analytics solutions use data inputs from multiple sources, both structured and unstructured, in association with journey maps, which are produced by employees in multiple roles within the organisation who document how various processes currently work and how they could be optimised.

In the past few years, a widespread realisation amongst businesses that the complexity of the customer journey has increased in line with the number of new devices and channels available to customers to communicate with the business has led to the initiation of customer journey projects, backed by new management positions coming under the wider 'Customer Experience' banner.

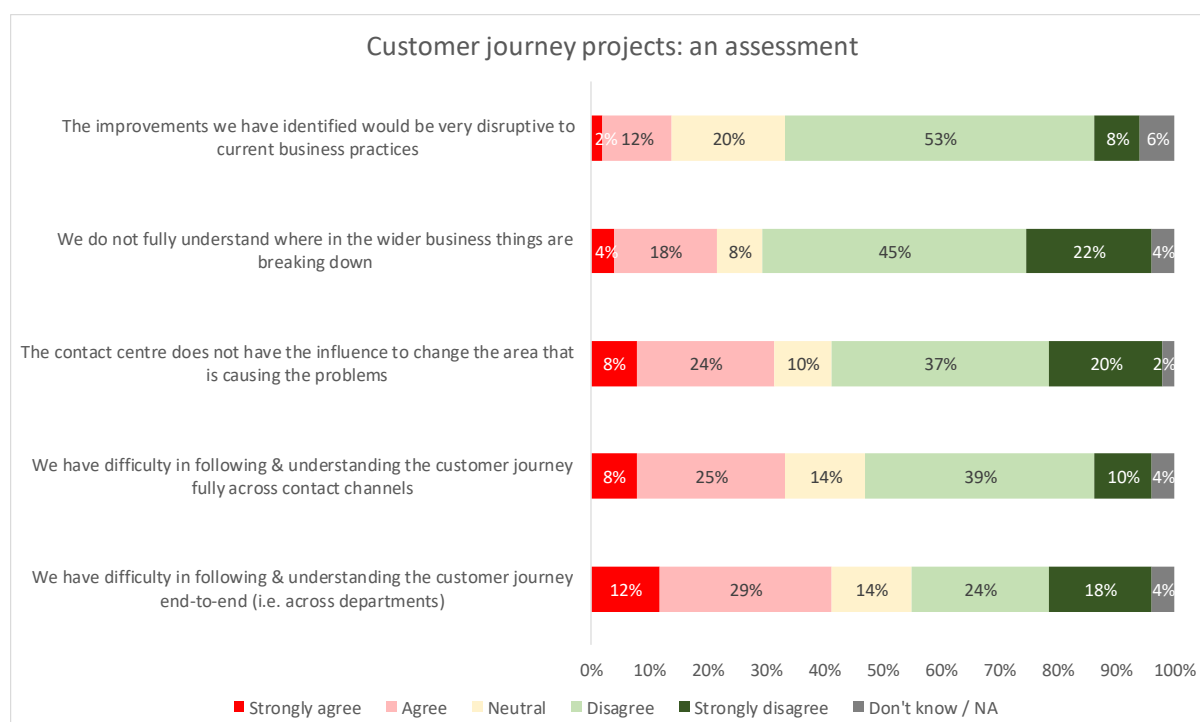
This is particularly the case in larger contact centre operations, where businesses are increasingly looking at the effectiveness of back office processes that can impact upon whether the customer has to contact the business multiple times.

Customer effort and engagement is very dependent upon effectiveness by which channels work together, as well as the level of first-time contact resolution. Proactively engaging the customer at the appropriate time within the customer journey has an opportunity to reduce the effort required for the customer to fulfil their interaction completely. As part of a wider omnichannel engagement, businesses must seek to understand how and why customers prefer to engage with them, optimising the flow of information throughout any connected processes and channels so that the organisation becomes easy to do business with.

Respondents using a customer journey project reported generally positive outcomes. 57% either disagreed or strongly disagreed that the contact centre does not have the influence to change the area that is causing the problems.

Although only 22% of respondents state that they do not fully understand where in the wider business things are breaking down, 41% find that they have difficulty in following and understanding the customer journey across departments, with 33% struggling to follow it across channels.

Figure 1: Customer journey projects: an assessment



There is an increasing requirement for, and interest in multichannel analytics, including email, text chat, IVR and web browsing sessions, to get the full picture of the customer's real journey in a single interaction, in order to identify and improve any channels that failed to fulfil their requirements. Improving self-service optimization is often a quick win that can provide immediate economic benefit to businesses: in the UK, a mean average of 10% of calls that go into an IVR system are 'zeroed-out' - rejected by the customer in favour of an operator - and in the US, 17% fail the self-service test.

Businesses using customer interaction analytics to review these failed self-service sessions will be able to categorise many of them in order to improve the processes at a macro-level. Common findings from the analysis of these calls is that the IVR system was poorly worded, menu choices were not intuitive, or did not match current service choices. Other failures occur through mistakes in IVR routing, and there may also be problems with a lack of customer awareness that various activities can be carried out by self-service.

Integrating desktop data analytics into speech analytics allows businesses to tag valuable data automatically - such as account ID, product name and order value - from CRM, helpdesk and other servicing applications to recorded interactions. This additional desktop data can be used to enhance automated classification, which allows more targeted and efficient analysis centred on key business issues, such as customer churn, differences in call handling patterns between employees, frequency of holds/transfers associated with order cancellations and upselling and cross-selling success rates.

The use of desktop data analytics also allows the business to see what the agent is doing on the desktop (for example, are they spending too much time in particular applications, are they navigating the screens in the most efficient way, etc.), and for them to understand how much time is being spent in each section of the call.

The next step is to get rid of the silos between channels, allowing the customer to be identified at the beginning of their 'journey', and for the business to be able to analyse the efficiency and effectiveness at each stage, whether mobile app, website, self-service application or live call. The end goal is for businesses to understand where customers make their choice, where they drop out, and where the profit is within the multiple processes along the customer journey.

Many solution providers refer to 'the customer journey' as one of the major places where analytics will surely go in the longer term, once businesses have used analytics to handle shorter-term, more operational issues. Longer-term, future customer contact is likely to become along polarised lines: for everyday, mundane tasks, the customer will choose the website or mobile app for self-service, leaving the contact centre to deal with those interactions which are complex or emotive for the customer (as well as there being demographics for whom the contact centre will continue to be primary). With the website becoming the first port-of-call for many customers, the analysis and understanding of the success (or otherwise) of pre-call web activity is a valuable source of knowledge about how effective the main portal to the business is being, as well as being able to give businesses greater insight into why people are calling.

Manually analysing thousands of web sessions and linking them with specific customers and their phone calls is impossible, so there is a great potential for multichannel analysis. Adding in relatively minor channels such as social media, web chat, SMS and email will make the mix more complex, and more potentially suitable for analysis. It is also certainly worth mentioning that some solutions also analyse the customer's pre-call use of self-service via IVR, providing the agent with a background on the caller's recent experience and offering the chance to improve self-service process failures.

Including social media, email and text chat into the analytics equation is increasingly important, and while many vendors have multichannel/omnichannel analytics within their overall customer contact analytics solution, this functionality is not yet used to anywhere near the same extent as speech analytics. This lack of uptake in multichannel analytics may have many reasons:

- the social media channel is often the responsibility of the marketing function within a business, whereas customer contact analytics - being focused on speech at the moment - is usually under the remit of the customer contact operation, meaning that harmonious, integrated analysis across channels is that much more difficult
- for most businesses, interaction volumes for email, chat, social media and other non-voice channels are far lower than for speech, so consequently there has been less urgency in analysing these
- there may not be a single unified view of the customers' interactions across channels, as is the case in a siloed operation
- it can be more difficult to identify customer in non-voice channels such as text chat or casual web browsing, so the depth of insight available may be that much less.

Having said that, most solution providers seem quite definite that multichannel/omnichannel analytics will grow in importance. While being able to optimise customer contact within each siloed channel, or being able to monitor the quality of an email or chat agent in the same way that businesses are now using analytics to improve the performance of a phone-based agent is useful, the real key is to include all of the stages along the customer journey. For example, understanding where potential customers drop out; the overall effort that the customer has to put in; the point at which buying decisions are made; bottlenecks in processes; the suboptimal points where customers get confused and have to place a call into the business - these are the promises that customer journey analysis makes.

There will come a time when all data generated within a business will be able to be cross-correlated to provide insights not only to the customer contact department but also to parties such as marketing, operations and finance, so they have greater insight about issues such as price elasticity and revenue maximisation. The ability to prove to senior management that the actions and insight held within the contact centre has a distinct and measurable impact on the entire company – and as such is not simply a cost centre - is likely to improve its visibility and credibility which should help to create a long-term holistic view and assist further investment.

The 'tell-me-why' and discovery modes of customer contact analytics will improve over time as better accuracy and more powerful processing provides richer and more joined-up data for analysis, and the inclusion of non-voice channels show the full picture of customer contact and its intent. There will also be major efforts to link analytics to proving profitability, including identifying “moments of truth” (points at which buying decisions are made, and long-term loyalty can be won or lost), and being able to predict and manage customer churn.

VOICE OF THE CUSTOMER ANALYTICS

Customer surveys have been an integral part of most businesses since time immemorial. Recently, there has been a great increase in the number of organisations implementing “Voice of the Customer” (VoC) programs, increasingly based around large-scale analysis of call recordings, as well as using formal surveys of customer experience to offer the customer a chance to feed-back, and the business to learn.

VoC programmes strive to capture customer feedback across multiple channels of engagement (IVR, live agent, email, etc.), while enabling closed-loop strategies to support customer retention, employee development and omnichannel experience optimisation. VoC programs typically trigger alerts with role-based delivery via the use of text and speech analytics, offer statistical modelling services to pinpoint root causes, and digitally track progress and results with case management.

The definition of what a VoC program includes runs the gamut across vendors from simply sending alerts based on key words derived from a survey, to more complete solutions that directly contribute to contact centre optimisation and overall CX improvement. Examples of more complete VoC programme features include:

Closed Loop

- **Automated Alerts:** as surveys are completed, real-time alerting capabilities will immediately identify and inform teams of customers in need, while assigning ownership for follow-up
- **Callback Manager:** an interactive system that enables callback teams to conduct detailed case reviews and disposition follow-up activities for eventual root-cause analysis
- **Case Management:** root-cause exploration tools enable back-end analysis of the customer’s initial concern, enabling operational support teams to proactively uncover, track and mitigate systemic problems.

Coaching

- **In-The-Moment Coaching Tools:** as surveys are completed, real-time alerting capabilities will identify when a frontline employee is in need of immediate coaching intervention
- **Performance Ranker:** the performance ranker helps managers develop weekly and monthly coaching plans by outlining strengths and weaknesses for each employee, while identifying opportunities for peer-based knowledge sharing
- **Behaviour Playbooks:** playbooks with scorecards help managers coach to specific behaviours by outlining how to best demonstrate each behaviour, showcasing best-practice examples and suggesting sample role-plays.

Reporting

- Real-time Insight – text analytics zeros in on key issues from multichannel survey feedback
- Role-based Reporting – define type and frequency of report delivery based on responsibility, title, geography and more
- Call Recording – drill-down detail can include IVR and live agent call recording for additional insight.

VoC programs are frequently ongoing engagements with result measured by internal CSAT scores, NPS benchmarks and efficiency improvements.

VoC surveys discover what the company is doing wrong (and right), where improvements can take place, how the company is perceived against its competition and how it can improve. It is important to view the survey from the customers' perspective, rather than checking boxes that just relate to internal company metrics, which is self-serving. Surveys should also be ongoing, to check whether real improvements are being made after the issues have been identified.

It is vitally important before beginning to survey customers, that a business:

- Clearly determines the purpose and aims of the survey
- Considers adopting a variety of question types. Scored questions enable a business to produce statistically significant and representative data. Free comments allow the gain of real insight into customers' perception of service
- Selects an experienced company to set up and host the survey. Businesses will benefit from their expertise and knowledge and avoid potentially costly errors
- Ensures that the survey can be carried out throughout the day, including peak times and through different channels, to gain a truer picture of the customer experience
- Makes sure that the results of the survey can be collated and analysed in a wide variety of ways. It is pointless to amass information if it cannot be evaluated and the results disseminated usefully
- Has procedures in place to act upon the information that it finds. The survey may have uncovered some broken processes in the service which need attention. It will also inevitably throw up disgruntled customers whose specific concerns need addressing. In this instance, the survey platform should provide some mechanism for alerting and following-up to ensure that dissatisfied customers are escalated to the appropriate staff
- Adopts a unified approach across the business to assessing and monitoring customer satisfaction. If a business continues to reward agents based on traditional call performance metrics, it is merely paying lip service to good service. If agents are rewarded based on customer satisfaction ratings, it will increase agent engagement and retention at the same time as improving the service it offers to customers.

Alongside these direct customer surveys, VoC analytics solutions can also gather insight from recorded digital and voice channels. Aggregation of customer surveys and analytical results can identify the root cause of any issues identified, and provide actionable insight for changing processes and/or agent handling techniques. VoC should be seen as a continuous process, rather than a one-off project, and ongoing analysis allows the business to operate a closed-loop system, whereby identified issues can be actioned and continuously checked to make sure that the problem does not reoccur.

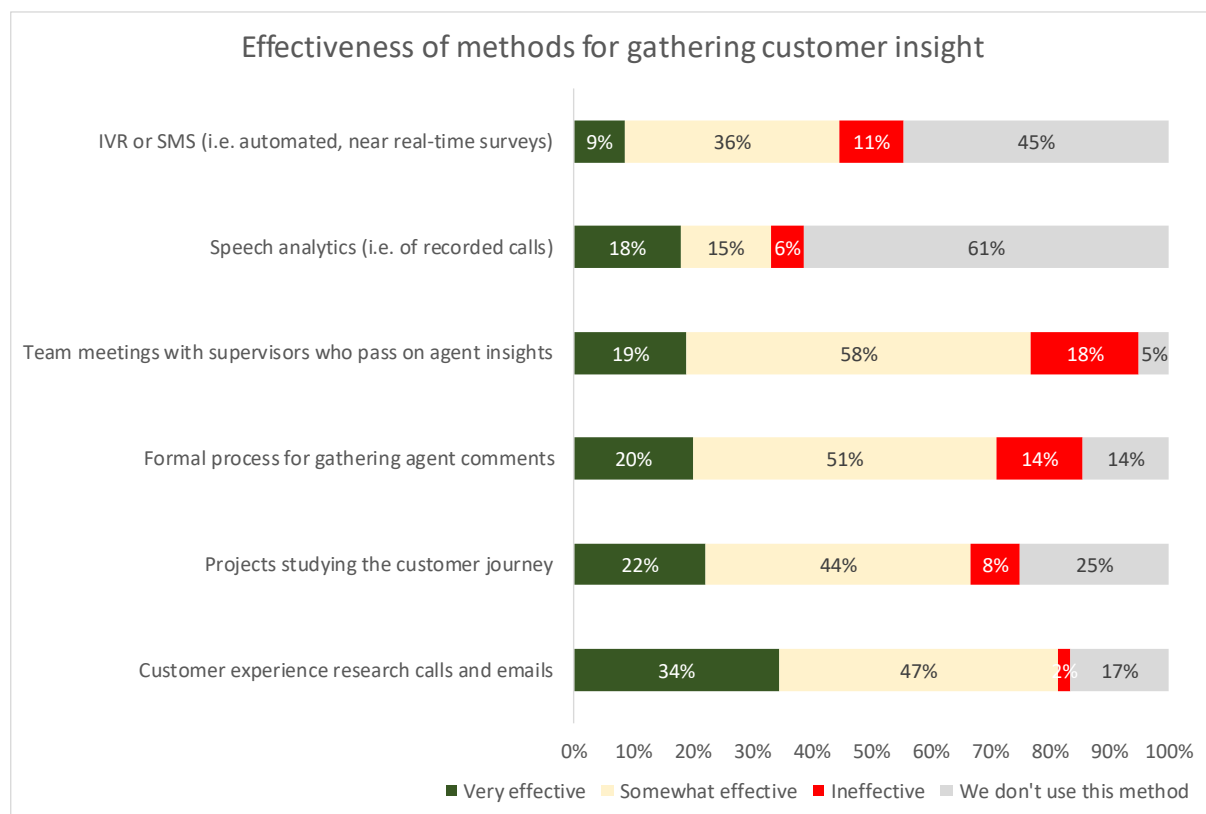
The chart below takes into account the respondents' opinions of the effectiveness of each method of gathering customer insight.

Respondents tend to rate customer experience research calls and emails most highly, with 34% finding these very effective and only 2% ineffective.

Call analytics - which in this case also includes supervisors analysing call recordings as well as the use of automated speech analytics solutions – also gets considerable approval (with 46% of those using this method stating it to be very effective). IVR/SMS surveys are seen as somewhat less useful.

Despite the higher incidence of their use, neither the informal nor formal gathering of insight directly from agents are judged as especially useful, with fairly similar proportions stating that they are ineffective as do that they are very effective, although formal meetings are seen more positively than in past years' research.

Figure 2: Effectiveness of methods for gathering customer insight



THE USE CASES OF ANALYTICS

Most contact centre solutions have a specific, easily-communicated reason for purchase, usually around cost savings. The most popular and widespread solutions, such as IVR, workforce management, CTI and outbound dialling, have all had a clear and quantifiable route to cost savings and improved efficiency.

Customer interaction analytics has a different appeal to contact centres, and can be used in many different ways to address various business issues. This is an advantage - it is hugely flexible - but it can also make its message to the market more complicated, and to the cynical, it can seem as though analytics is claiming to solve every problem that a contact centre could possibly have.

While many businesses initially implement customer interaction analytics to solve a specific problem, successful usage of analytics solutions often encourage a more strategic approach to the technology later on. One way to segment the use cases for analytics is to look at those that are around solving a specific known problem, and those which are of a more strategic, long-term nature, although there is some crossover between the two groups.

Figure 3: Uses of customer contact analytics

Problem-solving/issue resolution	Strategic/long-term
Compliance with regulations	Gathering competitive intelligence
Verbal contracts/repudiation	Feedback on campaign effectiveness and pricing information
Redaction of card information for PCI purposes	Understanding the customer journey
Adherence to script	Understanding why customers are calling
Identifying agent training requirements	Improving contact centre performance metrics
Reducing the cost of QA	Optimising multichannel/inter-department communication
Identifying and handling problem calls	Deepening the power and functionality of the workforce optimisation suite
Estimating customer satisfaction and first call resolution rates	Identification and dissemination of best practice
Predictive routing	Identification and handling of dissatisfied customers, and those at high risk of churn
Real-time monitoring and in-call feedback	Maximising profitability by managing customer incentives
One-off discovery/analysis via managed service	'Tell-me-why'/root cause analysis

Another method of segmenting analytics use cases is to look at the wider business or operational issue that analytics looking to solve:

- Improve customer experience
- Improve efficiency / decrease cost
- Increase revenue
- Reduce risk
- Improve quality
- Increase insight.



Organisations each day continually gather massive amounts of data from myriad sources. This is particularly true in contact centres. CEOs recognise data is critical to supporting efforts to maintain business success and stay ahead of competitors. IT leaders and engineering are in the hot seat, managing the expense, time and manpower required to develop intelligent business solutions for the organisation.

OpenText Explore™ is a technology solution that allows executives, CMO's and call centre professionals to view cross-channel interactions allowing them to perform AI driven analytics to gain a complete and comprehensive picture of customer behaviours and relationships. Explore is a powerful customer interaction analytics tool that uses Artificial Intelligence (AI) to obtain valuable insights from the analysis of customer call recordings and chat sessions in combination with customer behavioural data drawn from social media, worldwide blogs, web forums and emails. Customer behaviour insights are made available in near real time to professionals in contact centres and across business units throughout an enterprise. This information makes it possible to more effectively resolve customer issues and ultimately help organisations improve sales across every channel.

By integrating voice and multi-channel analytics with AI solutions, OpenText provides a fast way to see across 100 percent of customer touchpoints and interactions, gain rapid return on investment and benefit from a business-ready solution to drive change.

OpenText Magellan™ is a flexible, **AI-powered analytics** platform that combines:

- Open-source machine learning with advanced analytics and AI.
- Enterprise-grade business intelligence that acquires, merges, manages and analyses big data.
- Extracts intelligence from content from the contact centre.

Magellan delivers machine-assisted decision making, automation, and business optimisation.

Business analysts Forrester Research say **70 percent of enterprises expect to implement artificial intelligence (AI) over the next 12 months**. Don't get left behind! ¹

www.opentext.com/Explore

www.opentext.com/Magellan

¹ [Forrester Research- Predictions 2018: The Honeymoon for AI Is Over](#)

END-USER QUESTION 3: WHAT DO MOST OF YOUR CLIENTS DO WITH THEIR ANALYTICS SOLUTIONS? HAS THIS CHANGED FROM THE PAST, AND WHAT DO YOU SEE ANALYTICS BEING USED FOR IN THE FUTURE?

NICE inContact

QA and compliance are still strong use cases, but we are seeing increased interest in opening analytics to business users across the organization, who each have a different area of focus and concern. Analytics is no longer solely the realm of the business analyst, quality manager or compliance officer. As analytics and machine learning capabilities become more user friendly and intuitive, the use of analytics throughout the organization is becoming more and more widespread.

We see a strong increase in use of [analytic insights](#) to improve contact centre processes, drive business efficiencies, increase contact deflection, and improve self-service offerings in areas such as:

- Identifying best practices by studying behaviours of winning agents.
- Gain insight into customer churn, and to perform customer rescue.
- [Voice of the Customer analytics](#) to reveal satisfaction with service received, how customers feel about products or services, to uncover product complaints and suggestions, and get insight into what drives customers away and what keeps them happy.
- Issue discovery, identifying problems before they become widespread.
- Revenue generation opportunities, i.e. potential sales, new service or product opportunities.

Analytic intelligence is no longer siloed into single applications or single users such as business analysts. Analytics is increasingly being used to inform functions throughout the contact centre such as routing, QM, workforce management (WFM), coaching, gamification, marketing, and customer and agent experience. For example, an Interaction Analytics Pro customer running a technology platform uses analytics to identify contacts where a customer called in reporting fraud. Another customer runs a dating platform and uses Interaction Analytics Pro to find cases where a customer has indicated they've been assaulted or otherwise harmed.

Companies can now take advantage of out-of-the-box predictive and prescriptive analytic capabilities to identify opportunities to reduce customer churn, decrease call volume, and impact agent attrition.

Analytics for digital channels is a major area of focus, with opportunities for routing, prioritising, automatically answering, monitoring and supervising digital interactions. As more and more companies move to AI based solutions (chatbot, voicebot, conversational IVR, etc.), real time analytics will be used to ensure customers continue to have great experiences by monitoring and supervising these interactions. Companies will begin to demand that every component of their contact centre solution is enhanced with analytic intelligence.

opentext™

Commonly, analytics solutions have been used to improve and drive agent performance and engagement. Whilst these are still very relevant and key, we are now seeing customer experience and marketing taking the opportunity to understand the customer perspective in relation to customer communications, web site usage and product feedback. Having the ability to analyse all interactions in a single solution and find patterns and trends across all interactions has provided a new 'voice of the customer' and moved away from silos of data about the customer journey. What was once a point solution that provided a view into the agents day and conversations, we now see a huge data set that can now be tapped and used to drive as well as measure marketing campaigns and adjust customer communications making them more relevant and personal giving the true cause for contact that is being driven from any contact channel.

Serenova®

Most of our clients use analytics to measure KPIs against company objectives. This has not changed much over time; however, I believe we will start seeing customers use analytics solutions for more actionable, automated decision-making. As machine learning becomes more commonplace, predicting trends and future behaviour patterns will enhance both agent and customer experience.

talkdesk

Traditionally, analytics solutions were primarily used to inspect contact centre operational efficiency and businesses relied on static, scheduled reports. But this fixed and after-the-fact data had two major shortcomings:

- 1) the reporting was inflexible, making it difficult for businesses to dissect and visualize the data, and
- 2) the information didn't provide a view into how the contact centre is performing "right now," making it impossible for businesses to see and adapt to real-time conditions.

Businesses today expect flexibility in both historical and real-time analytics. That means reports and dashboards have drill-down capabilities and numerous filters to get to subsets of data, and supervisors can easily customize to create virtually limitless data visualizations. It's important that contact centre data can be easily extracted so it can potentially be pulled into Business Intelligence tools or other systems, bridging datasets together. Increasingly, analytics solutions are making the most of the vast amounts of data they contain by weaving in AI to 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 like "how many agents do I need on a Monday morning" can be better (and faster) answered by automatically identifying patterns in large datasets.



Historically, interaction analytics has been used to automate aspects of the quality assurance process. Rather than requiring supervisors and mentors to manually monitor and evaluate just a small fraction of contact centre calls, interaction analytics can rapidly cull through 100% of interactions, finding phrases and/or acoustics indicative of customer dissatisfaction, missing compliance language, improper greetings or other characteristics that an evaluator would look for during a traditional QM process.

In today's world, interaction analytics is being used much more expansively – for innovation, product/service design, engineering, marketing, sales and other key functional areas of the business. Customer dialogue is full of valuable insights about how to improve the customer experience and products/services, delivered directly from customers themselves during service calls.

In fact, one of Aspect's manufacturing customers is already enjoying a radical change in company culture with the availability of customer information from interaction analytics. They are seeing much better cross-functional collaboration, reduced costs, improved customer experience and increased employee engagement. We expect this trend to continue into the future, with interaction analytics being used as an accurate gauge of customer opinion and behaviour across the board.



Today, we typically see three focus areas, namely:

- Compliance (Legislative and non-legislative)
- Business Insights
- Sales, Service and CX optimization

Our customers are controlling legislative compliance risk and brand / script compliance to great effect. They are uncovering insights from within their business in real-time or post-call. They are trying to unearth the 'needle in the haystack', so that they can transform business operations and improve on areas such as customer experience and satisfaction, whilst enhancing performance and revenue, and they are spotting sales / revenue or FCR service opportunities that fundamentally transform CX.

The contact centre has always been a market that has demonstrated the need and understanding of this type of value proposition, generally for compliance, brand and governance, as well as agent performance. Historically, business dealt with interactions such as enquiries and complaints within their own offices. There was very little to join up these interactions from branch-to-branch. The contact centre consolidated these communications, first by voice and then by other channels, such as messaging, email, web forms and chat. This enables the information to be digitised.

As we move through the interaction analytics journey, companies will be increasingly interested in enriching their analytics solutions with the latest in speech analytics, omnichannel analytics (chat, email, surveys, social media, etc.), and desktop analytics, both in real-time and post-call. Integrating an in-depth analysis of agent activity and metadata, and customer interactions, will increase the value of each will provide insights that were previously inaccessible.



Customer experience optimization is a “hot button” for many organizations today and an ideal application for speech analytics due to:

- Unsolicited & Unstructured - Turbo-charge CX optimization with qualitative insight from contact centre conversational intelligence. Automated scoring makes the big data of every one of your contact centre conversations actionable with focus and scope.
- Persistent Pulse - Realize a constant stream of CX insight without having to worry about survey sample management, response rates, question bias, or agents gaming the system to “give me a 10”.
- Accountability & Action - Speech analytics analysts can become CX heroes with the emotional impact of audio evidence with interaction data. This experientially influenced proof uniquely compels action across organizational silos and for teams characterized by CX indifference.

Product and service enhancement is another rapidly growing application for speech analysis. The ability to categorize meaning with machine learning assistance reveals new product and service ideas with data-driven evidence.

Our first clients focused on a combination of agent effectiveness on calls based in sales, collections, and customer service. Compliance always being a key solution as well. By eliminating random call sampling, clients have redirected the focus of QA teams through transcription and agent performance automation.

We’ve also seen speech analytics from an automated call transcription tool to a sophisticated software that considers all aspects of the conversation—from the rate of speech and stress in a caller’s voice, to monitoring employee compliance and knowledge—allowing businesses to directly pinpoint areas of improvement and allowing these employees to focus on the value-add tasks that will improve the bottom line.



The first thing that most clients do with analytics is to classify and categorize contacts into buckets. This is usually table-stakes for any analytics platform and where most people start even today.

In the last 2-3 years more organizations than ever before are harnessing the power of text and desktop analytics to get a more holistic picture of how their agents are performing and how clients are responding to their service.

IMPROVE CUSTOMER EXPERIENCE

While many of the initial implementations of analytics were aimed at improving quality assurance or guaranteeing compliance, most solution providers note that the improvement of customer experience has grown rapidly in popularity and is probably the key reason for analytics implementations today.

First-contact resolution

Perhaps the major driver of contact centre and customer experience success, first-contact resolution (FCR) can be increased by identifying repeat callers and eliminating the root cause of repeat calls.

First-contact resolution rates are not simple to understand, but have to be viewed in context. An improving business may well see its FCR rate actually decline after it implements process improvements, which is counter-intuitive, but if the business had been handling live calls that were more suited to self-service or avoidable through better marketing communications, getting rid of these 'easy' calls entirely will make the FCR rate decline. If many calls are about the same issue, and are answered quickly and accurately, it improves FCR rates, but of course piles up cost and impacts negatively upon other performance metrics, such as queue length and call abandonment rate.

Businesses should consider the reasons for these unnecessary calls, rather than just focusing upon a single metric, as high first-contact resolution rates may actually be masking underlying problems:

- The contact centre is handling simple and repetitive calls that could be moved to self-service, or which could be addressed on a website and through better marketing communications
- Callers are dropping out of self-service to speak with agents because the self-service application is failing in its task and should be re-engineered
- Unclear marketing communications are causing customers to call
- Calls are being received that are actually driven by mistakes from elsewhere in the enterprise.

When businesses begin stopping unnecessary calls at the source, those left are usually of a more complex nature. This will lower first-call resolution rates initially, allowing a clearer picture of what is really happening in the contact centre to emerge, which can then be addressed more fully.

An example of this was an organisation where they had identified repeat issues as being a problem. Analysing the calls categorized as such, it was found that agents were saying "we'll call you back within 3 hours". As the callers were very keen to get the issue resolved, they were prone to overestimate the time passing, so analysis found that many called back before the three hours were up. By changing the script to e.g. "It's now 11.45am, we'll call you back by 2.45pm", customer expectations were set and call-backs dropped immediately. A few weeks later, call-backs went back up, and it was found that many agents had gone back to the 'old ways', and had forgotten to give the exact time.

Cxengage

Cloud Contact Centre

Enhance customer experience.
Reduce cost.
Boost efficiency.

We were born in the cloud. It's in our DNA. When technology didn't exist that could deliver immediate, consistent, and exceptional service, we filled the gap by creating a true cloud contact centre solution that could.

Serenova's CxEngage is a highly-secure, scalable cloud contact centre that was built with the everyday challenges that contact centres face in mind:

- **Reduce complexity** and frustration associated with multiple legacy tools
- **Gain better insight** into data and performance
- **Instantly scale** up across your enterprise or out geographically without sacrificing performance, reliability, or security

Learn how Serenova can help your contact centre deliver the critical elements needed to power seamless customer experiences.

Visit us at www.serenova.com

Serenova[®]



Customer Satisfaction Analytics

There has been a great increase in customer satisfaction surveys in recent years, with the widespread uptake of Net Promoter® being a good example of companies' desire to learn what their customers actually think about them. However, research has shown that a 'satisfied' customer isn't necessarily a profitable or loyal one, and the results of customer surveys, particularly the written or telephone-based variety (the latter of which, despite its limitations and expense, is still seen as the best method), are carried out at a time when any feelings about the original interaction may have changed or dissipated, are prone to inaccuracy, delay and lack of detail.

With all of the methods of customer surveys, the questions are fixed in advance, and if the right questions aren't asked, the level of actionable insight is low. In many cases, a business might know that x% of its customers are satisfied, and y% dissatisfied, but it still has no real idea why this is, or even how it will impact upon their profitability. As an alternative to customer satisfaction surveys, customer contact analytics allows a business to gather customers' views within the interaction itself - guaranteeing immediacy and accuracy - and can be applied across 100% of calls, rather than focusing on the outlying 'very dissatisfied' or 'delighted' customers. Furthermore, through widespread and detailed analysis of what the call is about, the type of language or messages used in the call, how the customer was handled, and the eventual outcome, businesses will be able to learn how to improve their customer retention and satisfaction in real-life, by-passing the standard metric (e.g. "83% of customers are satisfied") and getting to the root causes of satisfaction or dissatisfaction and sharing the results with the rest of the operation.

Some solutions use historical analysis of call characteristics, agent behaviours and interaction outcomes to estimate customer satisfaction or *Net Promoter*® scores on every call, and can also predict the attrition of customers based on what they have said and what has happened within the call, allowing the business to act swiftly. Other solution providers use this type of analysis to help online educators predict which students will pass the course, and which will drop out, meaning they are able to target assistance as required.

Complaints handling

Complaints are a potentially rich environment for businesses to understand where they are going wrong, and which issues are in danger of turning a customer into an ex-customer. For many businesses, each complaint is dealt with on a case-by-case basis, with little in the way of categorization or structure being put in place formally, and little chance of communicating findings in an actionable way to the relevant department.

Customer contact analytics gives businesses a chance to quantify the reasons that customers complain, identifying the most important factors, assessing trends and spikes, and providing hard recommendations based on every call taken. 9% of UK calls and 14% of US calls received by contact centres were complaints, with around 80-85% of each of these figures being about problems elsewhere in the enterprise (rather than in the contact centre). Understanding and acting upon what is driving these complaints will clearly make a huge difference to cost and customer satisfaction.

On an individual-call basis, real-time analytics allow businesses to track words and phrases related to complaints (such as 'supervisor', 'manager', 'complain', 'unhappy' etc.), allowing escalation to a supervisor, or screen-pop to the agent to provide them with a revised script or suggestions of how to handle the call. Emotion detection and sentiment analysis may also be used to identify unhappy or wavering customers within the call, updating supervisors who can then break into the conversation or advise the agent accordingly, or popping suggestions onto the agent's screen automatically.

Predictive behavioural routing

A sub-branch of predictive analytics, predictive behavioural routing uses insights gathered from historical calls and the analysis of customer communication types in order to choose the agent whose skills and characteristics are most likely to achieve a positive response from the next caller in the queue.

Predictive behavioural routing uses millions of algorithms to decode the language used by agents and customers, in order to understand their state of mind, personality, communication style, engagement levels, empathy and transactional attributes (such as ability to overcome objections, willingness to sell, success rates, the number of times supervisor assistance is required, etc.). Through analysing historical interactions, each customer can be matched against a specific personality style. When this customer calls again, they are identified through the IVR or the dialling number, and the call is then routed through to an agent whose performance when interacting with this specific personality type has been seen to be positive. This increase in empathy and the matching of communication styles has seen these matched agent-customer pairings get significantly higher sales closure rates and better customer satisfaction scores.

Predictive behavioural routing has its roots in communication-based psychological models for assessing personality type and identifying behavioural characteristics. One vendor's solution, for instance, is based upon a personality model developed in the 1970's to assist NASA with astronaut selection; the premise of this model is that individual personality type can be derived from a person's use of language. By understanding the type of customer, calls can be routed to agents who are best at handling the caller. Agents who are skilled at handling many types of callers' personality styles can be saved for callers whose character type is unknown, perhaps as this is the first time that they have called.

By tracking agent performance across various personality types, information can be fed into the performance management process to help that agent improve, and agent capabilities are regularly reassessed to promote optimal routing.

IMPROVE EFFICIENCY AND DECREASE COST

Average handle time

Average call duration / average handle time has traditionally been one of the main measures of a contact centre's success, at least when judged by those outside the operation whose focus has often been on cost reduction. In recent years, an increasing focus on the customer experience and first-call resolution has meant that AHT is viewed as less important than previously. However, almost every contact centre still tracks this familiar metric, as it is closely linked with cost and performance.

Long call durations may be linked with poor agent abilities, lack of knowledge, navigation between systems or very complicated calls, and of course, impact on cost, queue times and the customer experience. Short AHTs can be as bad, if not worse, as they can indicate lack of agent capabilities (so agents pass the call to a colleague, or even deliberately lose the connection); that the contact centre is handling too many simple calls that might be better handled by self-service; or that there is a quick and easily-resolved common issue, the solution to which could be propagated in the IVR announcement, on the website or via email/SMS. The problem for businesses is that they often don't know with any level of confidence why call durations differ.

Analytics allows businesses to categorise each type of call, and through root-cause analysis, determine what a reasonable length for each type of call is, and investigate the outlying anomalies, either on an agent level, or more widely, by comparing the amount of time taken on each category of call now compared to the past. The identification of calls resolved successfully in a reasonable amount of time will also provide the training department with examples of best practice. Analytics solutions also look for examples of calls with long silences which may indicate agent unfamiliarity with the subject or excessive searching through multiple desktop applications, both of which increase call length and costs, and decrease customer satisfaction.

It is also the case that solving issues is much easier when the situation is understood and evidence presented, especially if this issue is associated with an area outside the contact centre's control, and interdepartmental politics have to be considered. Agents may give some indication if they see something happening in recent calls, but that does not provide enough information to act upon. Businesses will find it difficult to justify changing a whole campaign because an agent said that he had two customers struggling to understand it. Analytics helps to find out whether these issues are taking place across the entire call volume, and allows businesses to quantify and prioritise issues.



With CallMiner, Use Your Speech Recordings and Artificial Intelligence for Next Generation Speech Analytics Success

Organisations can gain tremendous value by applying Speech Analytics with AI to their insights and data sources, like metadata and dark data from customer engagements. Larger data sets also contribute toward making categorisation for speech analytics more accurate, adding predictive confidence to manage outcomes and improve customer experience. But where do you get the data? From your speech recordings!

The proof is in the data!

Here is a sampling of how combining artificial intelligence with speech analytics can benefit contact centre operations.

Improve first call resolution (FCR) – As a live call or online chat progresses, speech analytics can predict the direction the interaction will take, including accurately forecasting whether the customer will make a future contact. Based on the forecast recommendations could be made to guide the agent and prevent the need for follow-up contact.

Increase customer satisfaction – Speech Analytics AI can predict whether a contact will be satisfied or dissatisfied with a specific action an agent could take, thereby helping agents take approaches that satisfy customers. Speech Analytics has been used to accurately predict a customer's Net Promoter Score (NPS), Customer Satisfaction (C-SAT), or Customer Effort Score (CES).

Prevent customer churn – Increasing customer satisfaction helps reduce churn. Speech Analytics is also being used specifically to prevent churn by analysing historical data to identify at-risk customers so companies can proactively take action to engage customers and get the chance to improve customer satisfaction.

Identify upsell opportunities – Speech Analytics can help organisations upsell in several ways. It can rate how likely a customer would be to respond to an upsell request and work in concert with the interaction analytics system to prompt agents to try to upsell the best prospects and avoid spending time on low-likelihood customers and potentially agitating them.

Using data to train chatbots – Chatbots are trending in channel popularity be it fully automated, agent manned or a hybrid. But what will need in order to set up and train an automated bot are real conversations. As we stated, the speech transcriptions from your call center are a data goldmine to train chatbot interactions. Customer service agents see the value of such capabilities – 64 percent believe AI-powered chatbots will enable them to provide a more personalised experience to customers.

Prevent fraud – An early and well-established use case for artificial intelligence was to detect financial fraud. That use case is now being adopted in contact centre operations to prevent false claims and other scams. Speech Analytics can detect fraudulent activity based on when, how often and by which channels an individual contacts a company, the questions he or she asks, the requests he or she makes and the specific words, phrases and persuasive techniques used. Axxess Financial reduced its phishing-related fraud by 99% after applying Speech Analytics with AI to its contact centre analytics to detect and prevent phishing attempts.

"CallMiner has the most advanced, enterprise-ready speech analytics functionality."

– The Forrester New Wave™: AI-Fueled Speech Analytics Solutions, Q2 2018

To read and watch more about CallMiner [click to visit our Learning Center](#)

¹ Forrester Research **"Predictions 2019: Customer Service And Sales Invest In Humans In 2019, As Chatbot Backlash Will Emerge"**

November 8, 2018. Daniel Hong, Tom Kaneshige, Ian Jacobs, Kate Leggett, and Art Schoeller

"CallMiner", "Eureka!", "Eureka!", "Eureka Analyze", "Eureka Coach", "Eureka Alert", "Eureka Redact", "Eureka API", "MyEureka", "MyEureka", "EurekaLive", the "CallMiner Eureka" logo, the "CallMiner MyEureka" logo, the "CallMiner EurekaLive" logo, "Listen to your customers. Improve your business.", "Feedback Is A Gift", "Listen", "Engagement Optimization", the "Engagement Optimization" logo, and "EO" are trademarks or registered trademarks of CallMiner, Inc. in the United States and foreign jurisdictions. Other product names mentioned herein may be the trademarks of their respective owners.



©2019 by CallMiner. All rights reserved.

+44 (0)115 906 1142
sales@callminer.com

www.callminer.com
facebook

twitter.com/callminer
linkedin.com/company/callminer
www.engagementoptimization.com

Improved operational efficiency and reducing cost to serve

Solution providers note that some of the most sophisticated users of analytics have evolved to optimising handle time, rather than simply reducing it. That is to say, they investigate the causes of longer calls – often using desktop analytics as well as speech analytics - weighing up the profitability or any other positive element within each segment of the call, and aim to minimise the time spent on any part of the call which does not add value.

Understanding root causes offers businesses huge opportunities to improve their efficiency and effectiveness, such as:

- understanding any failures in cost containment processes, e.g. why doesn't self-service work as we want it to?
- improving first call resolution rates, and reducing unnecessary callbacks
- microcategorisation of elements within the call, which, when linked with desktop analytics and metadata, can identify those parts of the call which are most profitable and crucial to success
- identify the reasons that customers are calling, and see if some of these calls can be avoided without damaging profitability or the customer experience.

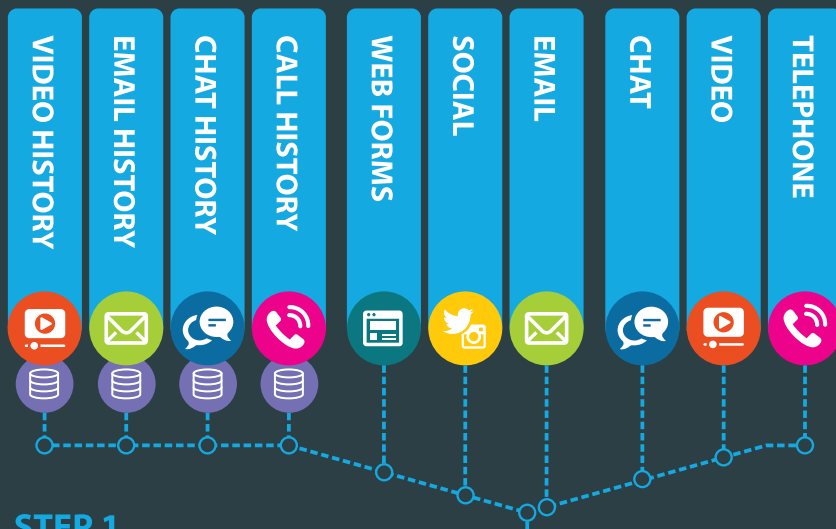
Some solution providers note that while the voice of the customer/customer journey analytics is starting to become more widely used, many current analytics implementations are as yet based around activities where ROI measurement is more immediate and easily understood, particularly agent and contact centre performance KPIs.

Providing assistance through conversational AI

Within the contact centre, AI involves technologies such as machine learning, speech-to-text, deep learning, analytics, chatbots 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
- Use of multiple questions in a conversational format to improve understanding
- 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 improve future outcomes without constant human input or monitoring.



STEP 1

Capture the conversation
Leverage legacy systems

Contexta360™
ANALYZE

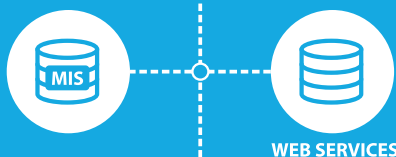
STEP 2

Analyze the conversation
Develop understanding from meta-data across all communication channels

Contexta360™
INSIGHT

STEP 3

Link the conversation
ERP, CRM, BSM, knowledge-base and external feeds



Contexta360™
DELIVER

STEP 4

Insights and actions
Real-time, post conversation analysis and predictive analytics



Contexta360™ CONVERSATIONAL AI



INPUT

Input channels such as speech-to-text, email and chat are necessary for omni-channel interaction analytics and companies from the call-control, recording or telco sectors have focused on these channels. These vendors are now trying to transform their businesses to focus on the true value proposition of going beyond inputs and instead delivering actionable insights to businesses. Many have embarked on this journey through the acquisition of third-party companies. Contexta360, built from the ground up, are able to capture these inputs and in fact have a highly accurate speech-to-text engine, and are 100 percent focussed on the value proposition rather than how the data has been acquired.



ANALYZE

We believe that the true value of interaction analytics is taking any unstructured data and turning it into something that gives companies the insight needed to optimize their business. If a contact center has no insight into the processes that are happening at the back end, and if there is not a unified approach that has the capability to capture the important data hidden in the unstructured forms of communication (emails, web forms and chat and so on) this can result in poor business optimization and customer service.



TAKE ACTION

Interaction analytics and conversational AI will not replace human workers. It allows self-service and automation to deal with complex computational tasks as analysing the immense amount of unstructured data that is accumulated throughout a business is where AI shines. Thanks to AI, the human workforce is not only better informed about their customers' sentiment, but is also given greater insight into how to improve their own performance and has more time to perform tasks where it can shine.



DELIVER

Many solution providers believe that they should have all the pieces of the puzzle and want to completely own the customer. Their solutions are closed and do not lend themselves to being part of a bigger solution. Companies do not want to replace everything in order to add new valuable functionality. Contexta360 can provide all or parts of the inputs, analysis, insights and actions. It will deliver them via its own application framework or be a component of a customer's existing solution.

The more sophisticated chatbots or virtual agents encourage the visitor to engage with them using natural language, rather than keywords. The virtual agent will parse, analyse and search for the answer which is deemed to be most suitable, returning this to the customer instantly. Many virtual agent applications will allow customers to give all sorts of information in any order, and either work with what it has been given, or ask the user for more detail about what they actually meant. Having been unconsciously trained over the years to provide their queries in a way which standard search functionality is more likely to be able to handle (for example, a couple of quite specific keywords), customers must be encouraged and educated to use natural language queries in order for virtual agents to be able to deliver to their full potential.

Sophisticated AI applications attempt to look for the actual intent behind the customer's question, trying to deliver a single correct answer (or at least a relatively small number of possible answers), rather than a list of dozens of potential answers contained in documents which may happen to contain some of the keywords that the customer has used. The virtual agent application may also try to exceed its brief by providing a list of related questions and answers to the original question, as it is well known that one question can lead to another.

When the virtual agent application has low confidence that it has returned the correct result, it is able to escalate the customer's query seamlessly to a live chat agent, who then has access to the self-service session history, enabling a greater chance of a successful resolution without repetition. (It is generally considered best practice that escalations to real agents are not hidden from customers). The eventual correct response can be fed back to the automated virtual agent (and the knowledge base underlying it), which will make it more likely that future similar requests can be handled successfully through automated agents.

Crisis management and reaction

A solution with automated root-cause analysis capabilities - constantly looking for anomalies and new patterns - can identify spikes in unusual activity shortly after it happens, alerting specific users to the key issues so as to handle them before they run out of control, damaging brand or customer satisfaction.

Call transfers

Rather than making an agent use a call disposition code when they pass a call to another agent (which they may forget to do, or code inaccurately), speech analytics can identify the reasons for passing calls to other agents and putting customers on hold (whether lack of training, broken processes or lack of access to the right systems). Customer interaction analytics can also uncover patterns of customer requests for a transfer that were not acted upon by an agent, indicating at-risk customers or agents with knowledge gaps.

Cost reduction through automating QA

Solution providers comment that cost reduction is often the initial driver for investigating customer contact analytics, particularly when looking at automating the QA process, as contact centres look for an alternative to making decisions based on minimal data, and monitoring quality manually and patchily.

By monitoring and categorising 100% of calls, only the most relevant can be passed through to the supervisor, greatly reducing the amount of time, and in some cases headcount, required to carry out QA. The resulting insights into individual agent's performance, and business processes in general, are of a far higher standard than is possible through manual QA processes. Automated QA that focuses on specific call categories can also speed up the improvement cycle by automatically selecting personalised eLearning assignments for agents.

Some solution providers report that automating the QA/QM process has enabled large contact centres to decrease headcount of these teams by as much as 75%, making very significant cost savings.

Self-service optimisation

Customer journey analytics looks at how analysing the various channels in a holistic manner can identify the bottlenecks and sticking points within the customer contact process, and the reasons why people jump between channels.

As we would expect, there is an increasing interest in omnichannel analytics, including considering email, web chat, IVR and web browsing sessions to get the full picture of the customer's real journey in a single interaction, in order to identify and improve any channels that failed to fulfil their requirements. Improving self-service optimisation is often a quick win that can provide immediate economic benefit to businesses: around 1 in 5 calls that go into an IVR system are 'zeroed-out' - rejected by the customer in favour of an operator.

Businesses using interaction analytics to review these failed self-service sessions will be able to categorise many of them in order to improve the processes at a macro-level. Common findings from the analysis of these calls is that the IVR system was poorly worded or menu choices are not intuitive or match current service choices. Other failures occur through mistakes in IVR routing, and there may also be problems with a lack of customer awareness that various activities can be carried out by self-service.

Analytics can identify the information that customers are most likely to search for in a self-service application, and provide them with this earlier within the engagement, reducing customer effort and frustration. IVR menu structures can be optimised with options rearranged, removed and/or introduced to reflect customer demand.

INCREASE REVENUE

Managing customers at risk of churn

Using real-time analytics, linked with a company's own CRM systems, agents can be provided with up-to-the-second advice on how to handle customers identified as being at risk of churn, including linking what the customer is saying on the call back to the transactional model in order to update the best offer available for that customer. Some businesses use customer contact analytics to identify phrases or behaviours that have been shown to indicate likely cancellations, but protect their profit margins by making sure that agents are only offering incentives such as money-off coupons at appropriate points within the conversation, to those customers that are at risk of churning.

Integrating speech analytics with desktop analytics allows CRM information such as the value of the customer to be added to the decisioning engine, providing extra accuracy and confidence that any offer made will be the right one.

Improved profitability

Customer contact analytics has a provable ROI even for smaller businesses that carry out a lot of outbound, revenue-focused work, such as sales or debt collection. Quite apart from any regulatory need for script compliance, analysis of the sales techniques and terminology used by those identified as the most successful agents can be shared amongst the agent population, with either real-time monitoring or post-call analysis ensuring ongoing compliance.

Analytics can also be used to identify those customers who are most at risk from churn or contract cancellation, based on historical analysis of calls with similar customers, linked with metadata including customer segmentation. It is also possible to discover the reasons for the different sales conversion rates between agents, by analysing many more calls than would be possible in a purely manual process. As was shown earlier, sales conversion may be as much a matter of correctly identifying a sales opportunity, as it is about being an effective and persuasive sales person, and analysis of 100% of calls allows managers to understand where their agents' strengths and weaknesses are, and to deliver the correct training or feedback.

Quantification of the opportunity – carried out through large-scale analysis of all relevant data, rather than relying on anecdotes or partial data – means that senior management can be persuaded that analytics provides a real and measurable opportunity to impact profitability.



CALABRIO™

Five Ways Contact Centre Analytics Can Improve the Customer Experience

The happier customers are, the more likely they are to remain loyal to an organisation—which is why many organisations rank customer retention as a top priority. The first area we see companies using analytics—including analytics that leverages artificial intelligence (AI)-driven machine learning—is to discover ways to make a customer's journey smoother by alleviating contact centre pain points and anticipating a customer's future needs.

Contact centre analytics easily alleviates these pain points, and in turn, increases customer engagement by:

1. Helping contact centre managers increase first call resolution (FCR)

FCR is consistently prioritised as the contact centre's number one metric for good reason: studies have shown that customer satisfaction drops by 15% each time a customer has to call back to have their issue resolved. Analytics allow managers to not only track their repeat call volume but also—critically—gets them to the root causes so they can quickly improve their FCR and keep their customers happy.

2. Ensuring contact centre evaluators perform truly targeted quality management

Machine learning can be used to generate predictive evaluation scores for 100% of interactions, which makes it possible for evaluators to focus their time on the right calls and use those quality insights to provide impactful coaching to the agents who need it most.

3. Identifying agents who consistently get high evaluations from customers

Machine learning can also be used to identify agents who consistently deliver quality customer experiences. This helps managers and trainers discover tactics that they can use to train other agents, as well as making it possible to recognise top agents for their performance.

4. Helping contact centre managers improve proactive outreach

By using machine learning to generate predictive Net Promoter Scores (NPS) for every customer interaction—regardless of whether the customer completed a survey—managers can see 100% of their promoters, detractors, and passives and target them with the appropriate efforts.

5. Allowing the organisation to quickly detect customers at risk of attrition—and respond

When a customer is frustrated, they frequently use words that can be classified by an analytics solution as having a negative sentiment. Call centre data can be used to identify those customers and take actions to retain them, driving up the overall lifetime value (LTV) for customers.

Learn more about how Calabrio Analytics can help improve customer experience at:
calabrio.com/demo-analytics.

Debt collection and improving cross-selling & up-selling

Although many debt collection firms have detailed scripts for their agents - often driven by the need to comply with regulations - the results, such as the promise-to-pay ratio - can differ widely by agent. Speech analytics provides two benefits for debt collectors: the ability to prove compliance (which is usually the initial reason for purchase), and through the analysis of successful and unsuccessful calls, the chance to understand the type of agent language and behaviour that yields the best results, and share these with underperforming agents.

The same principle of matching successful outcomes with particular call traits can be used for improving cross-selling and up-selling rates in sales environments.

REDUCE RISK

Compliance with legal regulations

Many businesses, especially those in finance, insurance, public sector and debt collection, have become encumbered with regulations which they must follow strictly, with potentially expensive penalties for failure, including heavy fines and criminal prosecution. Contact centres have tried to reduce their risk through scripting, call monitoring and call recording, but these do not offer any guarantees or proof of compliance. Speech analytics means that 100% of calls can be verified as compliant - and be proven to be so - preventing disputes or escalation of enquiries by monitoring the exact language used within each call.

This is true for both inbound and outbound operations: purchasing insurance, for example, may require a long script to be read by the agent and agreed to by the customer; whereas outbound debt collection agencies may have to identify themselves and the purpose of the call clearly or else be found to be in breach of regulations. In such cases, using analytics to check and be able to prove that 100% of calls are compliant is a popular option.

Return on investment comes from the avoidance of litigation and fines, and the use of speech analytics for compliance is very prevalent, especially in North America.

Fine avoidance

In a potentially litigious market, companies are very aware of the risk of ruinous lawsuits, so a solution that goes some way to guaranteeing compliance has enjoyed a good audience. For example, US debt collection firms have to read a 'mini-Miranda' statement on each call, identifying that they are a debt collector and that information gathered in the call will be used for collecting the debt. Failure to do so can easily incur significant fines, and both post-call historical analysis and real-time monitoring may be used to ensure compliance.

Real-time compliance and adherence to script

Real-time call monitoring means that phone-based contracts can be seen to be completed first-time, with all relevant information provided to the customer on the call, and red-flags on the agent's screen if they have missed saying anything vital, or made an error. This reduces the need to call a customer back and avoids any dispute over whether a legitimate contract has been made.

While analytics solutions have certainly been successfully used for regulatory compliance, there is an increasing interest and use of the solution for internal compliance purposes: adherence and compliance to script. For example, a business that has identified the most successful terms, characteristics and behaviours for increasing sales conversions or debt collections can use real-time monitoring to check the agent is using the right terminology on the call.

While some compliance solutions use historical analysis to check that regulations have been adhered to, other solution providers take the view that compliance should be enforced within the conversation itself, and trigger alerts to the agent desktop to make sure that all of the relevant script and customer responses have been included.



Avoiding the Mounting Contact Centre Compliance Squeeze

Recent analyst research has proven that the job of staying compliant is only getting more difficult for contact centres. With demands ever-increasing, compliance managers and officers are growing more concerned with [continuing ensuring contact centre compliance](#) while coping with limited budget and resources. Luckily, [call centre analytics software can](#) help alleviate much of these compliance headaches.

Many organizations still rely on compliance managers to manually review a sample of call centre interactions each day to identify compliance issues and problems. They ***might*** catch a few calls a day where the agent forgot to give a Mini Miranda, did not verify they were speaking to the right party, or forgot to inform the customer they were being recorded – but the nature of sampling means they are going to miss reviewing most interactions.

Each of those missed interactions represents a potential fine or lawsuit. By implementing an [Interaction Analytics solution](#), contact centres can review and analyse 100% of interactions, quickly detecting any potential risk or compliance issues. An Artificial Intelligence powered speech and text analytics tool can automatically tag interactions that contain violations and bring them to the forefront. The best analytics software provides the ability to create custom rules that look for non-compliant speech, like threatening to imprison a person if they do not pay their debt, as well as rules that identify interactions WITHOUT necessary disclosures, like failing to identify themselves as a debt collector to the customer.

The ability to quickly identify agents with repeat violations provides opportunities for more efficient [training and coaching](#). It also recognizes which teams are most adherent and which teams are struggling, providing insight into where managers and coaches themselves need more training. In the case of compliance, coaching and training is not just about improving performance, it is about avoiding costly fines.

Contact centre analytics software also identifies customers who pose potential risk to the organization by automatically identifying interactions where the customer is making threats, such as threatening to sue, threatening to report to BBB, etc., or where the customer uses language that indicates they may pose a legal hazard. You can also identify trending product and consumer issues that may represent a hazard to the company, for example a trend indicating a battery is catching on fire.

With [contact centre analytics](#), help is on the way. See what it can do for you.

Redaction and blocking of card information from recordings for PCI compliance

PCI guidelines prohibit the storage of sensitive authentication and payment card data (such as the 3- or 4-digit code found on payment cards). If the contact centre does not use pause and resume recording, or similar functionality within the original call, some speech analytics solutions offer an option to be run retrospectively against recordings in order to identify payment card information and any other sensitive data that should not be stored, redacting it (rubbing it out) from the recordings. It is also possible to remove this information from transcriptions as well.

Other analytics solutions look for predetermined phrases within the conversation as it occurs, blocking the voice within the call recording, or will pause the transcription once an agent goes to a specific data field in their desktop application.

IMPROVE QUALITY

Improve the quality monitoring program

Interaction analytics tries to take the guesswork out of improving customer experience, agent performance and customer insight. By moving from anecdote-based decisions, from qualitative to quantitative information, 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.

Organisations using customer contact 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.

Being able to monitor 100% of calls with 100% of agents means that it is possible to make sure that agents comply with all business rules as well as regulations. Linking this information with metadata such as call outcomes, sales success rates and other business metrics means that the most successful behaviours and characteristics can be identified and shared across agent groups.

Customer interaction analytics is of great potential value to a business in terms of discovery, compliance and business process optimisation, but the improvements that the outputs from analytics can offer to other elements of the WFO suite, such as agent performance and training should not be overlooked. 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 manually QAing calls. Analysing 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, respectively.

By monitoring and scoring 100% of calls, the opportunity exists to connect analytics, quality assurance and performance management, collecting information about, for example, first-contact resolution rates, right down to the individual agent level. Automatic evaluation of all calls means that businesses will no longer rely on anecdotal evidence, and will be able to 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. Solution providers also believe that embedding analytics more closely into WFO is relatively culturally unchallenging (for the QA team at least), in that the operation is automating and improving something that they've done for many years.

Identification of training needs

Apart from 100% monitoring of calls, speech analytics can be used to flag cases of talk-over, as well as silence detection. The former can be a source of irritation to the customer, or an indicator of stress, and long silences can indicate lack of agent knowledge, although long system navigation times or delays in system response times can also cause this. The analysis of these types of call alongside desktop/screen analytics will identify which of these issues is really the problem, with the opportunity to reduce handling times as well as improving customer experience.

Additionally, customer interaction analytics will also make the training and coaching received by new agents in particular far more effective and targeted. This is especially important for this class of agent, as many operations report that half of their overall staff turnover occurs in the first 90 days of the job, when agents are obviously less-skilled or confident about their role or the organisation. Analytics can identify the types of behaviour - good and bad - that lead to successful call resolution or otherwise, and these can be presented in a targeted way to the new agent to fast-track them to a level of competency that should reduce attrition and improve quality. ContactBabel surveys show that 63% of analytics users state that interaction analytics is 'very useful' for identifying training requirements at an individual agent level, with 37% stating that it was 'somewhat useful', making this the highest-ranking use of analytics.

There is also increased interest in agent self-assessment of calls, where they can view automated quality scoring results, and request relevant training.

Improve the workforce optimisation suite

One of the strongest messages to come out from the research carried out for this report was the long-term view that solution providers have of the integral role of customer contact analytics as an enabler and optimiser for other solutions. Many analytics vendors have a complete workforce optimisation suite, and are constantly working to automate and integrate findings and actions from the analytics solution into their overall WFO suite.



Speech Analytics Best Practices



Most businesses benefit from speech analytics because it helps them perform better, retain customers and drive growth. But some companies simply don't understand the full value it delivers and how to maximise its potential once they invest in a solution.

Here are the **top ten best practices** to make the most of your speech analytics solution.

1. Identify Goals
2. Get Leadership on Board
3. Determine KPIs
4. Staff Appropriately
5. Choose the Right Vendor
6. Appoint an Action Committee
7. Create a Process (and Stick to It!)
8. Educate the Team
9. Report Findings and Actions
10. Expand Gradually

Speech analytics saves companies time and delivers value with greater customer loyalty, increased revenue, and lower expenses. That being said, launching new speech analytics software doesn't perform miracles overnight. It takes time. Begin with a plan before pitching it to management, know your facts, pick the right solution and show the value to your employees. When you do, you'll reap the benefits.

Get our eBook, "**10 Reasons to Invest in Speech Analytics for Your Contact Centre**" to learn how to spot opportunities in your organisation where customer sentiment analysis can surface valuable and actionable insights. [Download it HERE](#)

CONTACT US

+44 20 8018 8100 | Chat with Us | contact@aspect.com
For more information, visit www.aspect.com/uk.

INCREASE INSIGHT

Business Intelligence

Analytics allows businesses to seek out key words and phrases, such as competitors' names or any instances of pricing, or to gather feedback after a marketing campaign goes out. Some businesses are actively using speech analytics to uncover competitive intelligence as well. For example, one wholesaler uses analytics to identify when competitors' pricing information is mentioned on a call, and passes this back to the commercial team to revisit their own pricing structure.

Some businesses carry out detailed and sophisticated analytics looking at a combination of variables, in order to seek out correlations. For example, a business may discover that a combination of two issues mentioned by the customer on a call, as well as the mention of a competitor's name is correlated with an extremely high churn rate. In these cases, businesses may choose to use real-time monitoring to trigger a customer offer to be made if these factors are identified within the call, or may use post-call historical analytics in order to trigger a post-call event, such as an email, phone call or text message offering incentives to remain loyal to the company.

Customer Intent

No other contact centre solution apart from customer interaction analytics can provide a solid understanding of **why** customers are calling. Categorising types of calls, and then analysing them for the occurrence of similar types of words and phrases can give an insight into the reasons for customers' calls. For example, a category such as 'sales' might be analysed for patterns, and it is discovered that the words 'delivery' and 'website' are mentioned in a disproportionate number of them. Listening to some of these conversations, it may be found that the website does not highlight delivery times effectively enough, leading to unnecessary calls to the contact centre, rather than the customer purchasing on the website.

The automatic categorisation of calls, based on the types of words and phrases that typically get used within these types of calls, is a starting point. Analytics solutions can then add non-audio data, such as desktop activity or account status, and the tracking of word usage compared with its historical use (e.g. a 300% rise in the use of the phrase "can't log-on" after a software upgrade) can quickly indicate and identify issues that can be handed to the relevant department much more quickly than typical inter-department channels could usually manage. Regular references to competitors and their products can be captured, analysed and passed to the marketing or pricing teams to provide them with real-life, rapid and accurate information upon which to base decisions. This categorisation gives a starting point for analysis, meaning that businesses can listen to the right calls rather than getting them randomly or employing large numbers of people to get insight from customers' calls.

Customer journey analytics

There is a great deal of enthusiasm and belief among solution providers that the long-term usage of customer contact analytics will be to improve the customer journey, one of many business process improvements enabled by the complete understanding of what is happening each step of the way, whether within the customer interaction cycle, or through one of the many processes kicked off elsewhere within the organisation.

Businesses that understand the reasons that customers are contacting them are able to staff and train agents appropriately, provide feedback on company products and services to relevant departments, and identify suitable self-service opportunities. They are also able to understand the various levels of customer effort required at each stage within the interaction process.

While it is impossible to quantify ROI upfront, there is a strong argument that “you don’t know what you don’t know”. An agent may not notice a trend that something new is happening until they receive several calls about it, but even if they are proactive, they may not receive that type of call again for several hours or even days. Analytics identifies trends across the entire operation, as they happen, instead of waiting on agents to realise something out of the ordinary is happening.

However, there is no guarantee what will be found, and few businesses will initially implement analytics in the hope that optimising the customer journey and hopefully gaining insight will save costs and increase revenue. Many solution providers comment that early adopters of analytics - who often started with compliance and agent quality assurance - are now looking at how they understand sales effectiveness, marketing campaigns and process improvements. Longer term, understanding and optimising each part of the customer journey will be a key use of analytics.

Identifying actionable insight

Solution providers are at pains to point out that knowledge and data gained from analytics in itself means nothing. The key word is “actionable”.

Being able to change the flow and nature of a conversation - improving the chances of first call resolution, better customer satisfaction or, probably most interesting to businesses, improved sales revenue - is one of the most potentially appealing uses of customer contact analytics.

Being able to use metadata - such as call outcomes, the product being discussed, the nature of the customer, etc. - as well as analysing the call itself, can reveal patterns that would otherwise be very difficult to identify. Optimal agent behaviour and training can be identified and replicated, using insights that would otherwise be unavailable.

Analytics can also help organisations to identify which KPIs are actually most important to their business by correlating various performance and operational benchmarks against required business outcomes, such as understanding which operational KPIs and/or agent behaviours are linked with high levels of contract renewals or NPS scores.

Improving the effectiveness of calls is one of the areas focused upon by providers of real-time analytics and monitoring solutions, many of which search for keywords or phrases occurring within the conversation, which can trigger an event such as a pop-up on the agent's screen prompting them to sell a relevant product, or - for example in cases where raised voices, talk over or obscene language is detected - an escalation to a supervisor is triggered. Some solutions offer an agent dashboard, showing in-call performance such as speed of speech, instances of talk-over, volume and stress.

Real-time monitoring can require significant processing power, so customers would do well to check what additional IT resource is required, apart from user licenses. However, the ability to affect the outcome of the call, rather than wait till afterwards to analyse what should have been done, is something which is of growing interest to many businesses, and many vendors have recently started offering this to the market.

INHIBITORS TO ANALYTICS

As not all customer interaction analytics projects are the same - using different types of technology to address specific business issues - it is not the case that there are one or two easily identified inhibitors to implementation. However, most come into one or more of the categories: cost; complexity; business value; and change management.

Cost

There is a widespread belief that customer interaction analytics is an expensive option. There is more detail in the following section on return on investment that shows the type of expenses that businesses should be prepared for, and would do well to bear in mind the total cost of ownership, as certain projects may do better with ongoing professional services being included. Certainly, the cost of analytics is not just about software licenses.

There is little consistent message from the vendor community as to what ongoing costs might be expected. Some aim for customers to become self-sufficient as soon as possible; others offer ongoing support and upgrades as part of a monthly subscription fee; some state that some projects may be extremely complex, and will require a considerable amount of expertise - whether in-house or through a cloud-based approach - in order to maximise return on investment. Quite simply, there is no 'typical price' for customer interaction analytics: it depends on what you want to do with it.

As such, solution providers offer various options of pilots and proofs of concept based around delivering tightly defined results in a specific area, at a fixed cost, as well as various real-life ROI calculators. Most note that proving cost savings through QA/QM improvement is easier than through business intelligence, although the improvements in profitability for the latter are potentially much higher.

Complexity

A major inhibitor to uptake is a belief within the company that their environment is not yet ready for analytics, in that they may still not have a reliable recording environment or an optimized QM or QA process. Some potential customers want to improve their recording environment, including having stereo recording and full metadata, and if the telephony system is at end-of-life, this can also delay a decision. As analytics is usually not a simple plug-and-play application, there can be frustration with understanding where to start. With other, potentially more urgent projects taking up IT resource, it is easy to let initial enthusiasm and vision drift to one side.

Solution providers are becoming better at hiding the complexity of analytics, improving the presentation layer (using 'wizards' or simple text entry options to write queries, for example), without losing the power and functionality, and this democratisation of customer contact analytics is likely to encourage greater uptake and usage. In recent years, the graphical user interfaces of analytical tools have improved hugely, encouraging non-technical staff and management to understand and share insights.

In an omnichannel environment, businesses gain most understanding not only from the insights which each channel can provide, but also what the overall picture looks like, thus understanding the customer journey. In a multivendor environment, it can take longer to get all of the pieces fitted together, which can be a problem for smaller and under-resourced technology departments.

Concerns over business value

Some businesses consider that their existing call recording and manual quality monitoring processes are sufficient, and fail to understand the potential business value of customer contact analytics. In such cases, it is possible to demonstrate how automating existing processes can improve quality and performance, while reducing the time and cost necessary to carry out QA/QM processes, and in fact this is one of the major initial purposes that analytics solutions are used for.

However, for an organisation to make an investment in customer contact analytics where the end goal is improving business processes and finding out what is sub-optimal in the customer journey, proving business value to everyone's satisfaction can be extremely difficult: trying to quantify the unknown is by its very nature impossible, and requires something of a leap of faith.

Change management and business culture

Solution providers and successful users of analytics solutions point out over and over again that analytics is not a self-contained solution: it identifies the areas in which businesses can improve their agent's capabilities, their business processes, their customer's experience and their contact centre performance.

Customer interaction analytics is a change enabler. Whether a business has the will or capability to act upon the insight that analytics can give them is not a matter for software companies, but something for the business to address itself. This is particularly the case with wider business insights, which are likely to cross over several departments and 'fiefdoms', and for large organisations where inertia and resistance to cultural change can be enormously important. Analytics can open a can of worms, and businesses need to consider whether they actually have the will to act upon what is discovered. Perhaps the greatest challenge for organisations is to be able to manage the change that analytics can demand: does it have the right people and attitude; is it willing to act; is there a person with the responsibility and enthusiasm to do what needs to be done, regardless of where it takes them?

The choice of whether to implement customer interaction analytics should not be left to the IT department, or even the business users, except perhaps in clearly defined cases of QA automation or compliance monitoring. Solution providers are beginning to offer executive-level consulting programmes that help companies to structure their processes and strategies to take advantage of the findings of analytics, and before any implementation takes place, businesses should try to anticipate possible insights and outcomes in order to prepare for change.

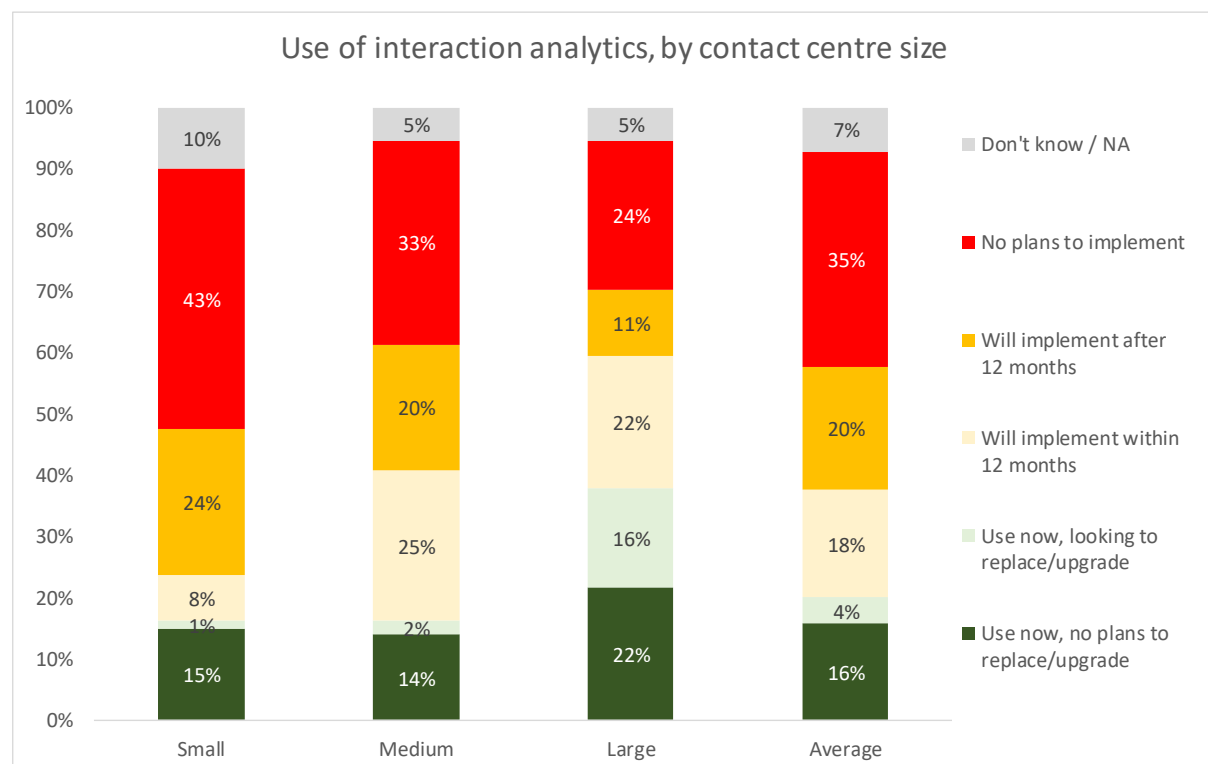
ANALYTICS: CURRENT AND PLANNED USAGE

Compared to recording-based functionality which has penetration rates of over 90% in most sectors, interaction analytics (especially of the omnichannel variety) is still to reach its full maturity, although the general long-term increase in penetration rates and the enthusiasm shown by contact centres to learn more about the subject is very positive.

The positive correlation between size and penetration rate is very noticeable for interaction analytics, which may require significant investments. As importantly, having huge volumes of recorded interactions and a large customer base to learn from means that business patterns can be identified more accurately, and any improvements reap correspondingly higher rewards.

Large operations are also more likely to have the budget and resource to use analytics to its potential, although there is also a significant level of long-term interest in implementing analytics in the small and especially the medium contact centre sectors.

Figure 4: Use of interaction analytics, by contact centre size

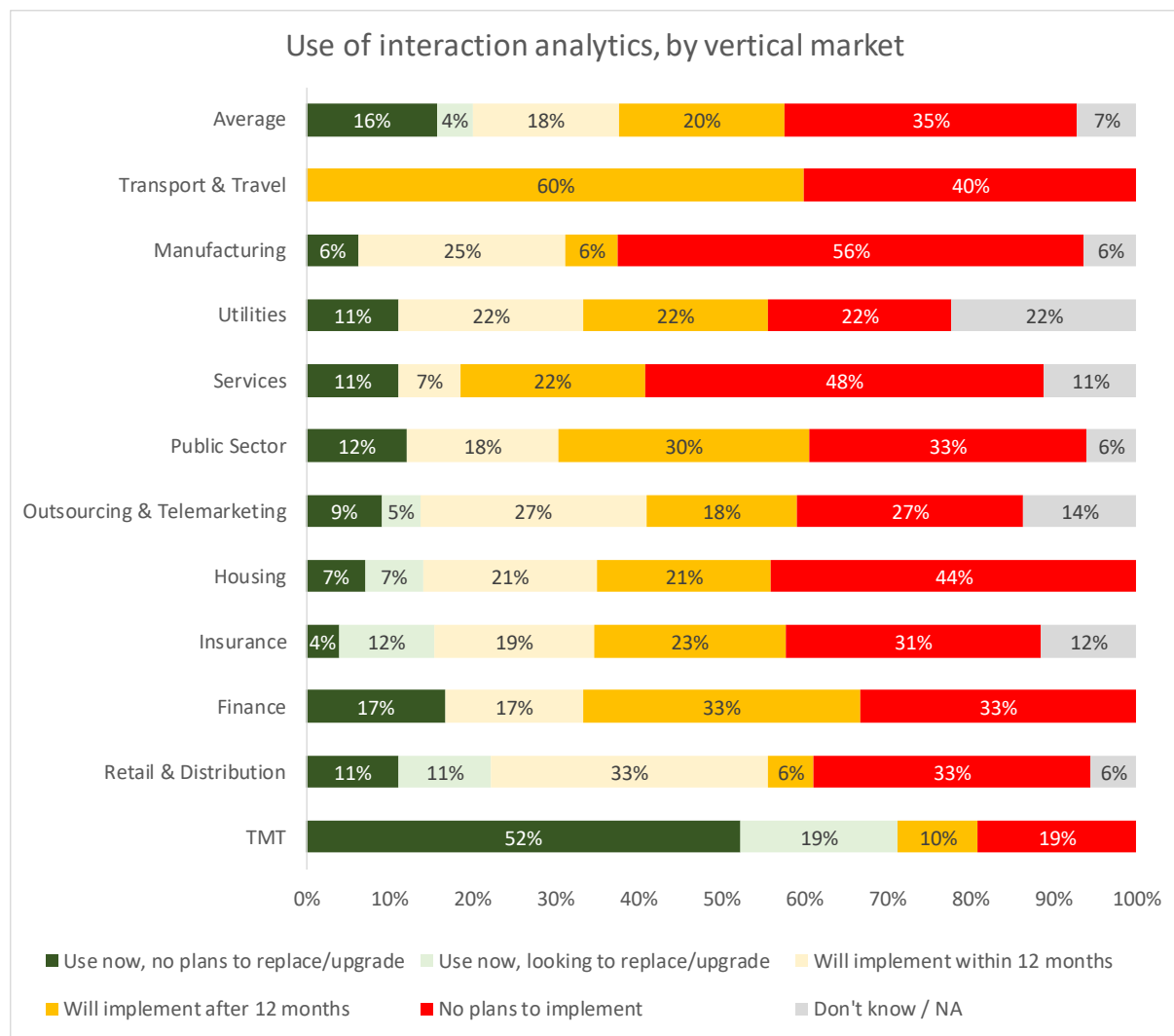


Against a virtual ubiquity of call recording, the penetration rates of interaction analytics are much lower: 20% of this year's respondents use it now, with 38% stating that they have plans for implementation at some point.

Respondents from the TMT (technology, media & telecoms), retail & distribution and finance sectors report the greatest use of analytics this year, with those in manufacturing and transport & travel least likely to be doing so once again.

It is probable that the use of interaction analytics is driven more by contact centre size in call volumes than through the requirements of specific types of business: manufacturing and transport & travel contact centres are smaller than average, whereas those in finance and TMT are amongst the highest.

Figure 5: Use of interaction analytics, by vertical market



As we might expect, the use of historical speech analytics - the bulk analysis of call recordings - is the most widely used type of interaction analytics functionality. 50% of analytics users have also implemented functionality which can analyse the agent desktop activity which is linked to these calls.

Real-time (or near real-time, i.e. within the call) speech analytics is used by 60% of interaction analytics users, with the same proportion stating that they use multichannel analytics. The rise in non-voice interaction volumes has meant that there is an increased requirement to understand and analyse the customer journey.

Figure 6: Use of various interaction analytics functionality (from only those respondents who use analytics)

Interaction analytics type	% respondents using this functionality
Historical speech analytics	80%
Real-time speech analytics	60%
Multichannel analytics (i.e. email, web chat, social media, etc.)	60%
Desktop analytics	50%
Customer journey analytics	35%
Back office analytics	20%

By the end of 2022, we expect 50% of large (200+ seats) contact centres to be using interaction analytics, with 25% of medium-sized operations (50-200) and 22% of sub-50 seat operations also doing so.

GETTING THE BENEFITS OF ANALYTICS

Customer interaction analytics offers huge opportunity to gain business insight, improve operational efficiency and develop agent performance. In fact, the list of potential applications for this technology is so high that businesses could be forgiven for being confused about how to target and quantify the potential business gains.

Depending on the type of business, the issues being faced and even the type of technology being implemented, drivers, inhibitors and return on investment can differ greatly. There is also the very realistic possibility that while an analytics solution will be implemented to look at one particular pressing issue, such as compliance or automating the QA process, it will further develop over time into looking at business intelligence, process optimisation, customer experience improvements and revenue increase.

PRE-IMPLEMENTATION

With so many possible use cases, the business should have a clear idea of what they want the analytics implementation to achieve and the KPIs that they will gauge success by. At this stage, discussions with prospective solution providers can begin, and will look at the solutions' capabilities, proving ROI, costs, IT resources, deployment models and the practicalities of how analytics will change operations.

It is vitally important even at this early stage to have a plan in place to deal with any insights and recommendations that the analytics process may create. Solution providers and consultants are in full agreement of the necessity to have a 'project champion': someone of sufficient cross-departmental seniority, vision and gravitas to carry out necessary change. Such a person is probably already in high demand, yet businesses that want to gain the most from analytics need to find a way to get that person involved.

Unlike some other technology implementations, analytics requires more face-to-face time with solution providers, and although some implementation times might be a matter of weeks, the reality is that the most successful projects will require considerable amounts of planning effort on both sides in order to understand what is achievable, and measure its success.

As analytics is becoming an increasingly important and integrated part of the overall workforce management optimisation suite, a considerable proportion of businesses find that they are taking analytics as part of a wider WFO solution.

While the general consensus is that it is wise to take one step at a time with analytics, businesses should also stretch their imaginations to consider how the solution might be used in the future. The scalability of the solution is certainly something to consider: currently, many businesses will keep calls for 90 days or so but there are indications from the market that there is a desire to carry out longer-term analysis. For example, data analysis over a 13 month period allows year-on-year comparisons of contracts and annual events to be made.

END-USER QUESTION 4: WHAT APPLICATIONS OF INTERACTION ANALYTICS ARE THE EASIEST TO PROVE ROI FOR?

Serenova® It depends. The value of the channel (e.g. chat, voice, SMS, email) determines where an organization would focus the ROI because the ROI will vary by channel. For example, an online retailer places more value in chat and email than voice.

Furthermore, chat, SMS, and email are easier to prove ROI. Voice adds in another step for transcription and analytics.

talkdesk Interaction analytics provide contact centres with a holistic view of the customer journey as well as the efficiency of the contact centre. With the capacity to identify pitfalls and trends, contact centres can use analytics to drive ROI by increasing revenue, improving operational efficiency and customer experience.

There are various paths to drive positive ROI. Some of the most visible include:

Improving Agent Performance — By combining speech-to-text capabilities with AI, a contact centre system can proactively identify conversation topics, teams and individuals that may need extra training, provide those agents with contextual support, and notify supervisors of coaching opportunities. This automation streamlines processes, reducing manual efforts and making it possible to scale a quality management programme.

Effortless Customer Journey — Analytics can deliver insight on why customers are contacting, how interactions are routed and what specific outcomes are achieved. Making a correlation between these three can help craft the ideal journey for the customer. This can be achieved with a system that applies machine learning to suggest routing or IVR changes that produce optimized outcomes.

Predicting Trends — Analysing historical data to produce accurate forecasts helps businesses foresee staffing needs and maintain an efficient and effective contact centre. AI can run this data in a multitude of forecasting models and produce a highly accurate forecast in minutes, speeding workforce optimization and eliminating guesswork.



Interaction analytics can quickly show ROI in the contact centre through applications such as re-allocation of QA staff, reduction in AHT, compliance/risk mitigation, agent effectiveness and “speed to intelligence” surrounding agent and customer behaviour.

We have found that two of the clearest sources of value for this technology are Silence Reduction and First Call Resolution. Until speech analytics and text analytics came into use, Silence Reduction was almost impossible to measure. Agent speech patterns vary widely, and some agents need training to rid themselves of poor speaking habits. Interaction analytics can quickly zero in on opportunities for improvement using acoustic data (% silence) while also taking into account agent characteristics, call topics and other metadata. Interaction analytics can quickly improve First Call Resolution in two ways: By allowing users to identify repeat calls; and by capturing the reasons for the repeat calls in the customer’s narrative. After implementing interaction analytics, one major provider of early out and bad debt services for healthcare organizations enjoyed a 12% decrease in average silence time and a 23% improvement in FCR.



Interaction analytics case studies have demonstrated the immense value in areas such as improved customer service and experience, as well as in internal processes such as supply chain or business optimisation. We break down the ROI categories into the following areas:

- Identify Cost Saving,
- Identify Revenue Opportunity,
- Identify Service Improvement opportunity,
- Identify process improvement opportunity.

For example, we have seen customers that leveraged interaction analytics to improve their customer satisfaction and agent quality metrics by significant percentages, which in turn increased sales performance, which enabled them to achieve an ROI in as little as 12 months. This has enabled customers to transform their operations into profit centres. Other areas whereby ROI can be demonstrated rapidly is by utilising interaction analytics to identify training issues, through silence and sentiment, whilst identifying next best actions. Quality Management is clearly a big area where we have clients who historically employed large teams to manually review calls. These teams have been dramatically reduced and redeployed to higher value activities.

Finally, we are seeing a rapid trend and need for ‘real-time’ conversational analytics, particularly in the voice channels where we are prompting best next action or knowledge base integrations which is showing a very high ROI.



Automating agent quality management with speech analytics is an application that delivers remarkable ROI for many organisations. The reason is that manual quality monitoring efforts suddenly leap from infrequent call review to automated scored focus for EVERY interaction. Managers thus re-appportion so much more of their time on coaching vs. looking for the right calls to coach on. As a result, agent quality optimisation becomes much more of a persistent mentoring culture for far more effective results.

Customer experience is another application where a return on investment can be exceptionally rapid. The ability for speech analytics to identify what matters most for CX from what callers and agents say and how they say for EVERY call with scored focus delivers root cause evidence that encourages accountability and action in and beyond the contact centre. Resulting ROI benefits are realized by moving CX KPI metrics with unsolicited feedback that is scored for focus and scoped by volume and degree of impact.

CALABRIO

The easiest applications of analytics to provide ROI for are obviously those that are tied directly to sales: upselling opportunities and customer churn are the two most obvious examples. We can also apply ROI analysis to applications that are tied to customer satisfaction by applying statistical models that show, for example, 20% of customers who experience an issue with First Contact Resolution will not purchase again from that organization.

NICE inContact

We see customers having great success proving out ROI when using interaction analytics for compliance, [Quality Management](#) (QM) and coaching, and first contact resolution.

- The benefits of using analytics for compliance are fairly obvious and measurable. Companies can quickly identify and track violations occurring in customer interactions. This information can then be used for coaching and training, allowing agents to become more mindful and compliant, decreasing risk to the company.
- For quality management, analytics can automatically evaluate 100% of agent interactions. Evaluators can set criteria for the interactions they'd like to further assess including those with specific behaviours, emotions, agent engagement, and topics. This ensures the time evaluators spend reviewing interactions is more focused and valuable.
- Identifying processes and issues negatively impacting first contact resolution (FCR) rates is critical for every contact centre. NICE inContact [interaction analytics](#) uses machine learning classifiers to identify issues impacting resolution including understanding which teams or agents are struggling to resolve issues, what process issues might be impacting successful resolution, what system or policy issues might be having an impact. You can see your success with the ability to monitor FCR across teams, agents and companies.

opentext™

Today the easiest ROI to prove relates to automating traditional QA scoring. Some analytics-enabled solutions on the market have been advertised as a complete replacement to a traditional QA model, and examples have been made of contact centre organisations that have abandoned their manual QA process in favour of an automated solution. Conversely, contact centres could view the emergence of automatic scoring technology as an opportunity to augment and improve upon their current measurement process, this presents an easy to calculate and measure ROI as Team Leader or QA evaluator time is precious and measurable.

Analytics-driven quality monitoring: for measurement purposes, the number of interactions typically observed as part of a traditional QA model do not represent a statistically valid sample set. Simply put, most contact centres score a sample of interactions, and this study is 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. But just a few interactions out of hundreds is not really a fair and valid measure, especially when such a small sample is used to affect an employee performance review and/or compensation or when the sample is being used to make critical and costly business decisions.

Before:

- Three times a month a coach will:
- Evaluate random examples, longer than 60 seconds to ensure fairness.
- Assess the most recent calls so the topic is fresh on the employee's mind.
- Avoid calls that might make the employee feel pressured.
- Spend time finding the 'right' call.
- Not spend time coaching but searching.

After:

- Twice a month a coach will:
- Evaluate interactions received in queue that have been tailored to the coaching plan.
- Receive calls with problematic workflows or topics.
- Get scorecard data based on 100% of the interactions in order to spot trends.
- Check a completed for and start to coach, not assess.

INITIATORS AND THE PROJECT CHAMPION

There is no generally-agreed job role that initially identifies the potential requirement for customer contact analytics, as any deployment depends upon the nature of the business issue being addressed. Lots of budget is held with marketing, website or customer experience teams, rather than at contact centre level, and these teams are now seeing that the contact centre is a big part of people's experience of dealing with a company.

Some of the relevant job titles for each implementation type include:

Compliance:

- Legal
- Head of Compliance

Agent performance and QA improvement:

- Contact centre manager/director
- QA team
- Training team

Contact centre operational improvement:

- Head of Contact Centre / Customer Service
- Operations Director

Business intelligence and Voice of the Customer:

- Marketing
- Head of Insight /Transformation
- Head of Customer Service
- Customer Experience Director
- C-level

Revenue increase:

- Sales Director

Small businesses:

- CEO/COO.

In all cases, although the IT department tends not to be a key initiator, solution providers are vehement that their buy-in is needed at all stages of the process.

All solution providers agree that having a senior and empowered contact within the business who knows what they want to achieve through customer contact analytics is vital to the success of the project. The champion must have a strategic view of what analytics can provide, as well as understanding the operational and technical requirements of the contact centre and IT teams, and be able to deliver cross-functional business change.

It should also be noted, that post-implementation, well-trained and empowered supervisors, trainers and coaches are also key to getting and maintaining a positive outcome from the use of the solution.

Recent years have seen a new role emerge - Customer Experience Director or VP Customer Care - and it is this type of job role that has the responsibility, knowledge and credibility within the organisation to drive both the use of analytics, and more importantly, any cross-departmental changes identified as necessary by the analytical process.

Once the project champion and any cross-departmental working groups have been identified, along with a clear and realistic understanding what any implementation of analytics might be expected to do, businesses will then talk to vendors to understand if and how they can help, and to get further assistance with developing their business case, including return on investment.

Some milestones in the project include:

- Identify interested cross-functional parties in the organisation and get a senior project champion
- Choose a specific area of improvement and benchmark the relevant KPIs (baseline analysis). This may be something to consider in trial mode - as it is manageable, quick to identify, not reliant on other elements or affecting them, so a fair before & after measurement is possible.
- Input from relevant departments into deliverables, explaining and agreeing what they have to put into this themselves
- Create a vendor longlist and have informal discussions with them
- Consider technical constraints and internal cultural preferences; build vendor shortlist / request for proposal
- Selection, including their ability to build an ROI model / proof-of-concept trial for you, plus referenceable sites if required. Check interoperability and willingness to work between incumbent recording vendors and new customer contact analytics vendors. Reference sites using same combination of vendors recommended if possible
- Deployment either as trial or full roll-out.

After gathering the data and running the analysis, organisations can still fall at the final hurdle by not actually doing anything with these insights. In many cases, it is the business culture at senior levels that is the sticking point: disagreements about priorities, squabbles about empire building and boundaries, and a short-term mentality can mean that businesses understand why they have problems, but are reluctant to actually do anything about it.

CLOUD OR PREMISE?

Recent ContactBabel surveys found that 43% of customer contact analytics implementations in the US were reported to be cloud-based, with the figure for the UK being 25%², so it seems fair to state with some confidence that most are currently in-house. However, some solution providers comment that multiple-site organisations are more likely to use a cloud solution, and several state that a significant majority of their new implementations are cloud-based.

Looking to the future, 60% of UK contact centres that currently use analytics report that they will move from on-premise solutions to the cloud within 2 years (i.e. by mid-2021 in this case), with the US equivalent figure being 37%.

While most solution providers state that the functionality available in the cloud-based solution is similar to that in a CPE environment, there are some issues to consider:

- businesses in the finance and insurance industries have been particularly reticent about letting their data offsite, as are larger, high profile organisations, although the latter at least is changing. Regulations around where data is physically allowed to be stored must also be considered
- most CPE implementations have a significant element of upfront capital expenditure along with ongoing maintenance costs. Cloud-based deployments are likely to offer a reduced implementation cost, although some vendors offer SaaS-based pricing options even for CPE implementations
- cloud is usually quicker to deploy and applications and insights are accessible to everyone at any time on any device, with management of the solution requiring far less internal time and resource
- 'Big Data' initiatives, which customer interaction analytics can be a part, draw data from many internal and external sources, and holding it in a single place within the cloud avoids the cost of purchasing and maintaining expensive on-premise infrastructure, allowing the merging and cleaning of data sources in a single place
- the scalability of cloud allows smaller businesses to access the processing power that they need, with the opportunity to expand as the business grows or scale back if required
- upgrades of functionality are handled automatically without the need to affect business continuity
- transmission of call recordings into the cloud is likely to require a large amount of bandwidth, unless calls are being recorded there in any case
- cloud-based deployment allows insights to be shared globally without the requirement for manual consolidation and sharing.

² ContactBabel, "The US & UK Contact Centre Decision-Makers' Guides, 2018-19"

Contact Centres: The Moment of Truth for Your Brand

Reports that businesses are not delivering on their promise of an exceptional—or even a good—customer experience is not new. What is new is that customer demands and expectations have changed amid today’s digital transformation. With the ubiquity of social media—when sharing a bad experience has never been easier—getting customer experience right is more important than ever. This means failure to effectively support customers, especially using the channels of their choice, may wreak havoc on brand reputations.

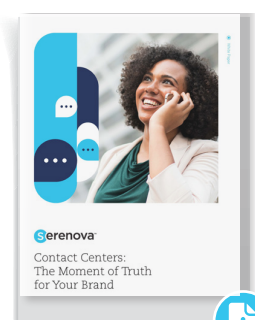
Exceptional Customer Experience Is The New Business Imperative

A recent customer experience survey by independent researcher Vanson Bourne, commissioned by Serenova, revealed data that should be reason for concern for brands. Of the 3,000 consumers interviewed across the United States and United Kingdom, 96% of respondents said they would take action if they have a bad customer experience. This can mean anything from not purchasing again from a particular brand or sharing the negative experience with friends and family on social media. In addition, 77% of those surveyed also stated that they had a bad customer experience in the last year. The report’s data show organisations face a serious uphill battle to keep the customers they have and acquire new ones if they offer less-than-stellar customer experiences.

The report is evidence that the biggest challenge contact centres face today is delivering consistent customer experiences across channels. It finds that 80% of respondents interact with brands via different channels—from a traditional phone call or email to today’s more progressive methods like social media or web chat.

Of the respondents interviewed, 39% report varying levels of service depending on the channel. It is also important to note that two in three of the respondents also consider it bad customer service when staff lacks knowledge or are perceived as unhelpful. Simply put, organisations must provide their contact centre agents the right tools and data to solve customer issues quickly and smartly.

For details on the report’s findings, download the summary [infographic](#) or the full report [here](#).



Many solution providers will offer a managed service approach to analytics deployment. This will usually consist of a dedicated analyst or team that will run analysis of a client's call recordings, and report back on insights and actions required. It will also provide any necessary updates to functionality, checking the health of the solution and the effectiveness of the analysis, and making any changes to topics, reports and general solution tuning.

A managed service approach can be particularly useful for certain businesses or circumstances, with costs around £2 per processing hour being quoted by suppliers:

- medium-size organisations may not have the necessary analyst or IT resource to use or maintain the solution
- in case of budget restraint or other internal inhibition, managed services can be a toe in the water to prove the concept and support a business case
- managed services may be used as one-off projects for root cause analysis, which will often lead to a full deployment. Some businesses, especially those in financial services, may use this for fraud investigation purposes and evidence production
- a managed service solution can include ongoing consultancy, which will keep the business at a cutting-edge, rather than allowing alternative business and IT issues to take their eye off the ball
- solution providers emphasise strongly that analytics takes energy and commitment, and it is vital to keep the momentum by reviewing and mapping out new projects and priorities, keeping queries live and relevant to maintain accuracy and build on what has been done before
- a managed service approach can wed the supplier to the customer, keeping the solution provider on their toes and making sure that they earn their money, making sure that the implementation is a mutual success.

Depending on the contract agreed, a managed services solution can include a regular process of automatic subject discovery, caller intent, root cause analysis and improved categorisation.

IMPLEMENTING ANALYTICS

In many cases, customer contact analytics is integrated into an existing call recording environment, although some vendors report that a significant number of their implementations are occurring as part of a wider workforce optimisation suite implementation. With 14% of UK contact centres, and 17% of US operations that use call recording stating that they are looking to replace it, there are significant proportion of implementations whereby analytics is included within a new recording environment.

For on-site implementations, additional hardware in form of servers will be required for audio processing and analysis, the number of which is dependent on the volume of calls and the speed which customers require the analysis to be completed by - a stack of servers might be required for multi-thousand agents and real-time monitoring, whereas a smaller and less process-heavy environment might only require a single server. Cloud-based deployments may require large-scale bandwidth to be made available to copy call recordings to the cloud, if cloud-based recording is not being used already.

PROOF OF CONCEPT AND SOFT-START IMPLEMENTATION

Most analytics vendors recognize the need of the business to prove the value of an investment and will provide a range of options for interested parties.

Many offerings include running a proof-of-concept implementation, where a specific issue or KPI is targeted, analysed and the results acted upon, providing proof of the solution's ability to deliver ROI, and engaging the business more closely with the solution. Rather than rely on spreadsheets to demonstrate ROI, customer interaction analytics vendors are active in engaging potential customers with a real business issue, as a definite and measurable improvement after a trial period makes a fuller implementation so much easier to sell internally. Such projects tend to last between two and eight weeks. They may be carried out at the customer's site, or the vendor can take a significant chunk of call recordings, analyse them and present the results and recommendations, thus proving the level of actionable insight that such solutions can provide.

The initial, well-defined business case will tend to be either around cost-reduction or revenue-enhancement, depending on the type of business, and larger contact centres will often be focused upon the former due to potential for economies of scale. For example, an operation with a large and inconsistent spread of call handling times might wish to understand why this is happening, with a view to improving it. The proof of concept could involve identifying that longer calls are far more likely to have the word 'charges' in them, which gives the business a point at which to aim. At this stage, vendors will carry out deeper analysis of these types of call - some will process the calls on the customer's site, others at their own facility - and will perhaps find out that customers are confused by the literature about charges being sent out to them, or that information about charges is not easily available on the website, either of which can be acted upon. Such a proof of concept shows that real results can be achieved, and trains the customer how to use the solution at the same time.

In order to prove the success of the initial project, it is necessary to benchmark before and after implementation, agree on the specific KPI or business issue, and calculate any benefit definitely accruing through the implementation. The pilot project is also an excellent place to identify and train people within the organisation on how to use the solution and influence change management. Some solution providers also offer 'Quick Start' templates based around the needs of specific vertical markets or business issues (e.g. customer complaints, QA), that can be used as-is or be easily customised.

If for some technical reason, a CPE implementation is not suitable at first, some vendors offer a managed service solution, and although the levels of integration with the user's systems may not be what the more complex solutions would thrive upon, it serves as a base to introduce the benefits of speech analytics, and to train users in how to get the best from it.

TIMESCALES

The roll-out of the customer interaction analytics phase is said to be swift: for phonetics-based solutions, a 1 or 2 week technical implementation is then followed by period of 4-6 weeks after initial roll-out spent in fine-tuning the base model. Larger and more complex implementations, including those using both the phonetic and speech-to-text elements, may take longer, with 2 weeks to set up the servers, and perhaps 6-12 weeks to carry out the initial implementation, and carry out category and topic creation as well as reports and dashboards. Some vendors provide pre-built categories as a part of their baseline solution, which speeds up the implementation and ROI.

Analytics implementations benefit from further review and tweaking further down the line. Of course, these vendor estimates assume an existing technical environment that does not require any hardware or software upgrades, and the incumbent recording vendor is open-handed with providing access to the recordings, if they themselves are not the incumbent. In the case of situations where analytics is being put in as part of a wider workforce optimisation suite, implementation times will of course be longer. There are estimates of 6 to 8 weeks to make sure that the recording element can feed analytics, and to implement the wider workforce optimisation package, before the analytics element can be addressed. Some businesses may also implement desktop data analytics beforehand, which will take 1 to 2 weeks to tag data to recorded interactions.

Interestingly, consultancies and system integrators are likely to estimate longer timescales for full implementation, compared to software solution providers, as they are likely to be providing professional services long after the software has been implemented, and point out that it can take many months of familiarisation and fine-tuning before the full benefits are reaped.

Key activities for an implementation may include:

- Initial assessment - a non-technical, business-focused discussion with business champions around the existing processes and the goals that the business would like to achieve, matched with the capabilities of the speech analytics solution
- Operational assessment, where the processes of the contact centre are observed, and system definition to assess the existing technical environment
- Preliminary targets and ROI estimates created based on baseline metrics
- Call categorisations, main dictionaries and reports are set up
- Out-of-dictionary additions and root-cause analysis, review of initial results
- Ongoing training of key staff in use of solution
- Review of key business, operational and commercial aims set at the beginning of the project
- Hand over to business and full solution activation if not done so already
- Post-implementation support - opportunity to quantify cost savings or other metrics, including review of trends.

As analytics is an ongoing, learning process, businesses should also bear in mind that there will need to be a period of training both for IT and business users, which will probably need to be repeated and revisited over time as the focus of the analytics solution changes.

Once the analytics solution is in place, what then? Businesses will have run through a proof-of-concept trial aimed at understanding and improving one discrete process or element, but after this, the flexibility and power of analytics can be fully explored.

Common pitfalls that businesses make with analytics implementations include:

- failing to engage all relevant stakeholders
- not having a project champion with the vision or capability to carry out cross-departmental change or carry out internal PR to raise awareness and enthusiasm
- failing to define the scope of the project, or benchmark the changes in relevant processes before and after implementation. Businesses should start slowly, and look for the quick wins so that they can familiarise themselves with the solution, and point to a track record of success using the solution when having internal debates
- choosing success criteria which are not measurable
- choosing projects that do not deliver significant business change
- treating this as an IT project rather than getting business analysts to define the objectives and follow through on project delivery. Analytics is not just about having people who can create queries and produce reports: they need to be able to make recommendations for changes within the business as well

- failing to put change management processes in place that are appropriate in size and scope to the insights emerging from the analytics solution
- not having the in-house expertise available to take the solution beyond basic functionality. The use of managed services could alleviate this
- setting unrealistic expectations and over-committing to a 'Big Bang' deployment, before having had some measurable and definite success in a smaller and well-defined area, which would also have the benefit of introducing the business to the potential benefits, as well as teaching users how to get the most out of the product in a low-risk environment
- not understanding and communicating internally that analytics can be a disruptive process, the end result of which may well be to change the *status quo*
- choosing the wrong solution for the business process that is being solved. Complexity, functionality and ease of use should be matched to the issue in hand. For example, using a desktop data analysis module may be a more appropriate and cheaper option than speech analytics in some cases
- once the initial projects and goals have been achieved, it is important that momentum is not lost. Analytics requires dynamism and a continual revisiting and tuning of the solution, as the business environment is changing all the time.

Some solution providers have noted the one of the most common pitfalls to implementation is not having recordings of the required quality (e.g. excessive background noise, mono recordings so that the speaker cannot easily be identified, storage format or problems with coding/decoding). It may be necessary to upgrade recording solutions, or to improve the quality of the existing recordings.

It is important to reiterate that without having realistic, defined and measurable objectives set at the start of the project, and the will and capability to carry out any changes identified, any analytics project is unlikely to succeed.

END-USER QUESTION 5: WHAT ARE THE MOST COMMON PITFALLS TO AVOID IN IMPLEMENTATION, AND WHEN IN FULL PRODUCTION?



Interaction analytics relies on having the full story available. This means that you need to have data, either post-call or real-time. It is easy to think that customers will be able to provide you with all of the channels of data required for analysis. Obtaining emails, call recordings and other inputs, can be a difficult and complex task. There are often other solution providers in the mix, and often they protect and do not share their data. Navigating the security and network teams is also challenging, as again protecting their data is of paramount importance as this data can have a huge impact on privacy and legislation such as GDPR. It is therefore important to address all of these matters prior to any pilot or proof of concept, and identify the key stakeholders for security, privacy, network and business analyst and assign champions.



Implementing a new software solution will never work without the right team. Having an executive champion in addition to a dedicated analyst, or partner that offers packaged solutions to jumpstart results along with customer success assistance is key. It's also important that you introduce the objective nature of speech analytics as a benefit to the organisation and to the agents that will be using it every day. Engage agent input from the start. Make sure your staff understands how speech analytics will benefit them as well as the company.

For deployment, it's best to focus in one area of your company. Most businesses usually launch speech analytics to gain a better understanding of how their contact centre is performing against specific KPIs. Identifying your goals is the best place to begin your speech analytics journey:

- What do you want to happen as a result of using speech analytics?
- Is it to know what customers like and dislike about you so that you can improve the customer experience?
- How well your agents are performing to maximize revenue? Improve regulatory compliance to mitigate risk?
- Or is to create better products and solutions?

If you're unsure, start by conducting a company audit. Ask your agents which type of conversations they struggle with or the main reason they think customers get frustrated with your business. Identifying your real reasons for investing in speech analytics makes it easier to create a plan.

CALABRIO The most common pitfall during implementation would be organizations that don't deploy a full analytics suite from the start. For example, an organization may decide not to implement text analytics because they don't currently have text-based communication with their clients. This leads to additional time and effort spent later implementing that solution after they move into a multi-channel world. When in production the most common issue for organizations is the lack of an action plan after completing an analytics project. If you are not ready to enact an action plan based on the information uncovered by analytics then the solution is not providing the value to your organization that it could be.

NICE inContact The most common pitfalls that impact success fall squarely on the planning and understanding aspects associated with ensuing value to the company for your investment. When we see a company starting without a clear goal for what they want to accomplish with analytics – for example: do they hope to improve customer service, or do they want to know how customers feel (sentiment) about their products or services?

Or, another pitfall is not having realistic expectations for what analytics can do. Analytics cannot, for example, be the saving grace to fix everything – it cannot automatically create action, there are procedures and actions required to ensure action on insights.

And lastly, not understanding the product. Analytics is different than reporting, for example – reporting is critical for ensuring day to day KPIs. Analytics is give to get. It requires a good initial setup with clear goals for the data, and ongoing updates as business needs change in order to get the most value out of your data analysis. Having a clear understanding of what insights you are looking for, and setting up Analytics to analyse, categorize, and display the data in the ways you need to view it will create a successful path to ongoing valuable data analysis. Updating your criteria as business needs expand or change ensures that analytics will keep working to provide the most value for your organization.

opentext™

One common pitfall we see is not having a team that are either dedicated or at least responsible for interaction analytics. Whilst it may in some organisations not be a full time role, it does take a team from a number of areas to make this work.

Below is a guide on the team approach recommended:

Assembling a successful speech analytics team

1. Create subject matter experts: Implementing speech analytics requires a team effort. Large contact centres can find a core user who will be able to manage the application and leverage their business acumen to find trends and help other users. The quality monitoring team should also be equipped to handle the set-up of evaluation plans to send interactions to the coaches. Bringing in speech analytics as a benefit to the organisation should be based on feedback from supervisors, agents and QM staff.
2. Establish a steering committee to monitor success: A speech analytics steering committee should evaluate the use cases presented in this document along with other uses to make the most of a speech analytics investment. Managers should seek input from across the organisation and appoint committee members who can monitor progress. This process should include agents, as employee engagement and employee effort are an integral part of the program's success. Employees will trust their peers and will be more accepting of process changes down the path.
3. Evangelise the program and communicate success: After a steering committee has been formed, champions should evangelise success. Once speech analytics is shown to a broad audience, hands will raise from across the organisation to search for trends. The subject matter expert should be a great speaker and be able to present findings, even to an executive level.
4. Stay current with technology: As speech analytics is an ever-changing technology, organisations should ensure the vendors they choose is ready for the 'journey' not just installing the product, staying up to date with this fast moving technology is key. This may also include adding new channels in the future, improving accuracy and capturing the most from voice interactions, emails, chat, social media and CRM notes.

Serenova®

The most common pitfalls to avoid are failing to pull data from all sources and not running comparisons against the data. For example, if an organization has 4 different databases in 5 sites and the data is not consolidated and filtered correctly, then that customer will end up with unreliable analytics – they won't be able to see the full picture. It's incredibly important to continuously tune your data systems when in full production.

talkdesk Implementing analytics tools is one of the most important stages to guarantee that companies take advantage of the full spectrum of accessible insights. The first step is to define objectives aligned with the company's mission and vision. Setting up measurable KPIs that will contribute to the overall objectives of the organization will help to identify what and how analytics platforms should be leveraged. The objectives set should be taken in incremental waves according to their priority, as should analytics capabilities, so that contact centre stakeholders can focus on what matters the most.

Another important factor that needs to be taken into account is having the right expertise and communication channels to train and inform stakeholders on the defined objectives and KPIs and how to use the new analytics tools to generate insights.

After implementing, it's important to keep fine-tuning. By understanding each stakeholder's needs, organizations will be able to keep adapting their analytics and the way they make decisions.



One issue we are seeing with interaction analytics implementations is that not all companies commit dedicated resources to the project. Instead of hiring a new resource for the implementation, most organisations require the role to be shared by several people who can't necessarily give it the attention it deserves.

Additionally, when the system is in full production, many businesses view speech analytics capabilities too narrowly. Although QA improvements might have been used to justify the purchase, many other areas of the organisation could benefit, especially departments concerned about the customer experience. This [white paper](#) gives some examples outside the QA domain.

MULTI-VENDOR ENVIRONMENTS

Businesses may be concerned about what happens when a new analytics solution is to be implemented in a different vendor's recording environment, particularly if recordings are encrypted.

Some recording vendors will provide data extraction tools which will export the audio data from the live production environment without endangering it (a risk that is viewed as being at various levels of importance within the speech analytics vendor community, depending on who is speaking), but this comes at an additional cost per seat and should be considered in any study of total cost of ownership.

Both solution providers and end-users have commented that getting the incumbent recording vendor to provide unencrypted audio data to the speech analytics vendor (which is often a competitor) can be a struggle in some cases and that this can cause delay, although there is usually a solution found in the end. In reality, there is little motivation for an incumbent call recording vendor to make things easy. Potential customers would be advised to talk frankly to both potential speech analytics vendors and incumbent recording vendors before decisions are made, and to gain firm assurances about such matters.

In some cases, the incoming analytics provider will also implement their own recording solution, which is used only for analysis of calls. Running two recording environments side-by-side negates the need to touch the recording production environment at all. In some cases, analytics is simply a part of a larger workforce optimisation suite implementation, which would include recording, performance and quality management, workforce management and text analysis, as well as speech analysis.

MEASURING ROI

As part of the research for this report, thousands of contact centre professionals were asked for their views on interaction analytics, particularly about what would hold them back from implementing it. By far the most important issue raised was how to build a strong enough return-on-investment (ROI) case to get the required corporate buy-in.

Return on investment for customer interaction analytics can come from numerous sources, depending upon how the solution is used. Generally, it will come from the avoidance of a specific cost, (including the reduction of a risk in the case of compliance), or the increase in revenue.

The return on investment of customer interaction analytics used for compliance can at first glance be difficult to prove, but it is the avoidance or reduction in litigation and regulatory fines which can be placed against the cost of the solution. Large banks will have funds put away running into the tens of millions of pounds each year against the possibility of paying out, and any significant reduction in fines would pay for a speech analytics solution very quickly. In the UK, the banking industry had put aside several billion pounds to pay compensation for the mis-selling of PPI (payment protection insurance), and having the ability to prove that no regulations had been broken would have been of great use.

Most vendors have tools which can be used to estimate return on investment, often based on what they have seen in similar operations elsewhere, and they are keen to share them with potential customers. Vendors' own estimates of the time taken for the solution to pay for itself vary between 6 and 18 months.

Variables to be considered for ROI measurements include:

Cost reduction:

- Reduction in headcount from automation of call monitoring and compliance checking
- Understanding and minimising the parts of the call which do not add value
- Avoidance of fines and damages for non-compliance
- Reduction in cost of unnecessary callbacks after improving first-call resolution rates through root cause analysis
- Avoidance of live calls that can be handled by better IVR or website self-service
- Reduced cost of QA and QM
- Understand customer intent. For example, an insurance company received a lot of calls after customers had bought policies from their website. Analysis was able to show that customers were ringing for reassurance that the policy had been started, meaning the company could immediately send an email to new customers with their policy details on it, avoiding the majority of these calls
- Lower cost per call through shortened handle times and fewer transfers
- Lower new staff attrition rates and recruitment costs through early identification of specific training requirements
- Identifying non-optimised business processes (e.g. a confusing website or a high number of callers ringing about delivery) and fix these, avoiding calls and improving revenue.

Revenue increase:

- Increase in sales conversion rates and values based on dissemination of best practice across agents, monitored by script compliance
- Increase in promise-to-pay ratios (debt collection)
- Optimised marketing messages through instant customer evaluation
- Reduced customer churn through dynamic screen-pop and real-time analytics
- Quicker response to new competitor and pricing information
- Increase sales revenue by automating manual, non-revenue generating activity by identifying and improving self-service options
- Route specific customer types to the best available agents to optimise empathy by matching communication styles
- Some businesses assign a revenue value to an improvement in customer satisfaction ratings or Net Promoter Score®
- Understand and correlate call outcomes, using metadata and call analysis to see what works and what doesn't.

Also, the improved quality of agents, better complaints handling and improved business processes outside the contact centre should be considered.

It is important for the CFO to see the customer data and brand loyalty as assets, and to consider the effect that complaints and general dissatisfaction have upon those assets. Analytics helps businesses to understand why these assets (i.e. the customer base) may be shrinking over time, and to put actions in place to turn that around. In order to get sign off on an analytics project, these benefits must be monetised.

Against these potential positives, costs to consider include:

- Licence fees or cost per call analysed
- IT costs to implement (internal and external)
- Upgrade to call recording environment if required
- Bandwidth if hosted offsite: the recording of calls is usually done on a customer's site, so if the speech analytics solution is to be hosted, it will involve a lot of bandwidth, which will be an additional cost, especially when considering any redundancy
- Maintenance and support agreements, which may be 15-20% annually of the original licencing cost
- Additional users - headcount cost - decide who will own and use it, do you need a speech analyst, etc.
- Extra hardware e.g. servers
- Ongoing and additional training costs if not included
- Extra work generated by findings
- May need extra software to extract data from the call recording production environment.

Any business case needs to be built with support from the potential end-users, understanding the specific key performance indicators that are important to them, rather than focusing on IT specific issues. Whatever the variables and factors that businesses choose to build the ROI and business case, it is important to gather benchmark data before the solution is deployed, so as to be able to quantify any change accurately. If possible, use a 'control and experiment' approach - for example, one sales team carries on as they were, while the other may have their scripts changed or receive tailored training based on analytical insights. It is also important to get business users involved early in the process, giving them a key part in defining the right business case and the desired ROI.

- ✓ Data-driven
- ✓ Independent
- ✓ Trusted by 2000 users internationally

ABOUT
MATCH



TECHNOLOGY



OUTSOURCING



DATA



DIGITAL



TRAINING



RECRUITING



CONSULTING



OTHER

Find suppliers the smart way

AboutMatch.co.uk is the world's only matching platform for the contact centre industry. And it's free to use! Enter your needs in our powerful matching engine, and in no time get connected with a shortlist of suppliers across hundreds of contact centre products and services.



[linkedin.com/company/aboutmatch/](https://www.linkedin.com/company/aboutmatch/)



[@AboutMatchUK](https://twitter.com/AboutMatchUK)

P. 0330 828 0955

E. info@aboutmatch.co.uk

DEVELOPING THE USE OF ANALYTICS

Once the implementation has been made, businesses then need to make sure the solution delivers what was promised, and hopefully this initial success will provide a platform for the analytics solution to be directed elsewhere.

Vendors strongly recommend that businesses put baseline measurements in place before any implementation takes place, such as how many calls are tagged with a particular issue. The vendor and customer implementation team monitor and suggest changes to processes and approaches based on findings of the initial analysis, and measurement post-implementation will quantify the cost savings or alteration to other key metrics.

If the initial use of analytics is successful, the business can seize the opportunity to use this enthusiasm and positivity to roll analytics into other areas. Analytics can deliver insight which is of use to other parts of the business as well as the contact centre, and is an opportunity to demonstrate to the rest of the business that there is a wealth of information that can be mined to support the decisions that other departments have to make. Pointing to examples where customers are changing supplier due to superior products from a competitor, or where another business's marketing campaign is creating a high turnover in your customer base will grab the attention of senior decision-makers elsewhere in the enterprise.

To be successful, analytics must be integrated into the existing systems, processes and structure. Embedding it within the overall culture of the wider business is perhaps the surest way of ensuring success. At a contact centre level, connecting analytics output with the quality management process means that the operation can find a place for analytics within their world, which will encourage them to consider it for business intelligence purposes later on. Businesses may also wish to consider solutions where analytics output is shown automatically across the organisation, sharing dynamic reports and graphics on a regular or exceptional basis to business owners elsewhere in the enterprise.

Although every user's requirements from analytics will be different in some way, it may be useful to consider looking for some of the following key words and phrases:

- names of competitors
- obscenity or profanity
- names of your specific products or services
- references to management (e.g. "supervisor" or "manager") as this may indicate the customer is dissatisfied with the agent
- active opinion (e.g. "it would be good if", "I would like", "I want")
- key commercial words (e.g. "buy", "purchase", "interested in")
- phrases which indicate compliance, such as those found in the terms and conditions
- customer dissatisfaction (e.g. "I'm not happy", "I want to close my account")
- references to the agent's performance (e.g. "you've been really helpful", "rude").

Two examples of the more interesting, value-add opportunities that analytics provides are root cause analysis, and discovery.

'Tell-me-why' or root-cause analysis

Tell-me-why is a starting point for analysis. A business which knows it has a problem with its web self-service function can find out more about the problem through automated analysis of calls, rather than through asking agents directly or listening to recordings. Inputting 'website', 'web' or similar, searches the index of words or phrases and returns likely calls. Speech-to-text-based systems can search for other words in the conversation that occur frequently (without the need for users to predefine these searches in advance), and group them together into categories, rated by relevance, importance of words etc. (e.g. if 'website' and 'password' occur together far more frequently the usual, this is probably an area to explore further). The use of speaker separation - whether through having dual channels or using software-based algorithms - means that the system can differentiate the customer from the agent, giving a greater accuracy of results.

Discovery

'Discovery' is a term often used within the customer contact analytics industry, and refers to a deep, automated analysis of trends, patterns and results which are identified by the speech analytics solution rather than the knowledge or insight of the human operators. Discovery will help users to find calls that are similar to each other, perhaps through similar groupings of words or phrases, and explore these links to discover the issues driving them.

The ability to see trends - to know that the instances of the words 'website' and 'password' have increased by 2,000% this week compared to the norms of the past 6 months - quickly identify likely pain points for the customer and potential broken processes. The continual tracking and analysis of similar information or categories over time also allows a business to see whether the remedial action that they put into place has actually worked.

Many solutions offer automated discovery and this is an area that will always be improving and becoming more subtle and effective, having huge potential benefits for businesses.

Of course, any analysis where the direct beneficiary is not the contact centre must be properly aligned to the organisation's objectives and strategy, encouraging changes to be made to areas that have already been earmarked as needing improvement. Otherwise, if the focus is not aligned with strategic goals, information merely becomes 'nice to know', rather than actionable.

Customer interaction analytics has the ability to tear down the virtual wall between the contact centre and other areas of the business, meaning that the business intelligence extracted can be shared and valued by parts of the organisation that otherwise have little to do with the contact centre. With the historical and ongoing difficulty in getting the business to value the customer contact operation fully, this can only be a good thing politically.

Some real-life examples of where analytics has delivered improvements include:

- an insurer improved first call resolution by over 6 percentage points by understanding and correcting how agents respond to specific types of denied claims issues
- Identifying the types of low-to-medium complexity calls that could be handled less expensively but still effectively via self-service channels. The result can be either reduced headcount or extended service hours
- improved sales conversions by 41% and collections revenue by 20% by identifying the skills that differentiated top performing agents from bottom performing agents, and then focusing training and coaching programmes on those key skills
- analysing and fixing back office processes that were generating unnecessary repeat calls and driving poor customer satisfaction
- highlighting the five key customer queries and developing FAQs for agents, which significantly reduced average handle time on these calls
- reducing call volume by 2% by identifying and fixing issues with the password reset process
- identifying opportunities in verbatim customer feedback to address specific customer segment needs, increasing sales by 30% the following year
- categorising all customer calls by reason for the call and any subtopics, measuring agent performance (handle time, customer satisfaction rating, and issue resolution) by call type. Identified the type of calls that had excessively high handle time due to sub optimal customer identity verification, and improved coaching and training decreased handle time by an average of 36 seconds, saving \$5 million per year
- determining that 57% of calls could be handled through a self-service web portal, but the customers were not aware that they could do this online
- quality program was transformed by providing targeted data on the major reasons for customer dissatisfaction
- discovering that only 2% of calls taken at night were critical, reducing headcount on the night shift
- reducing QA headcount from 40 agents to fewer than 10 by implementing automated scoring on 100% of calls.

RESULTS OF USING ANALYTICS

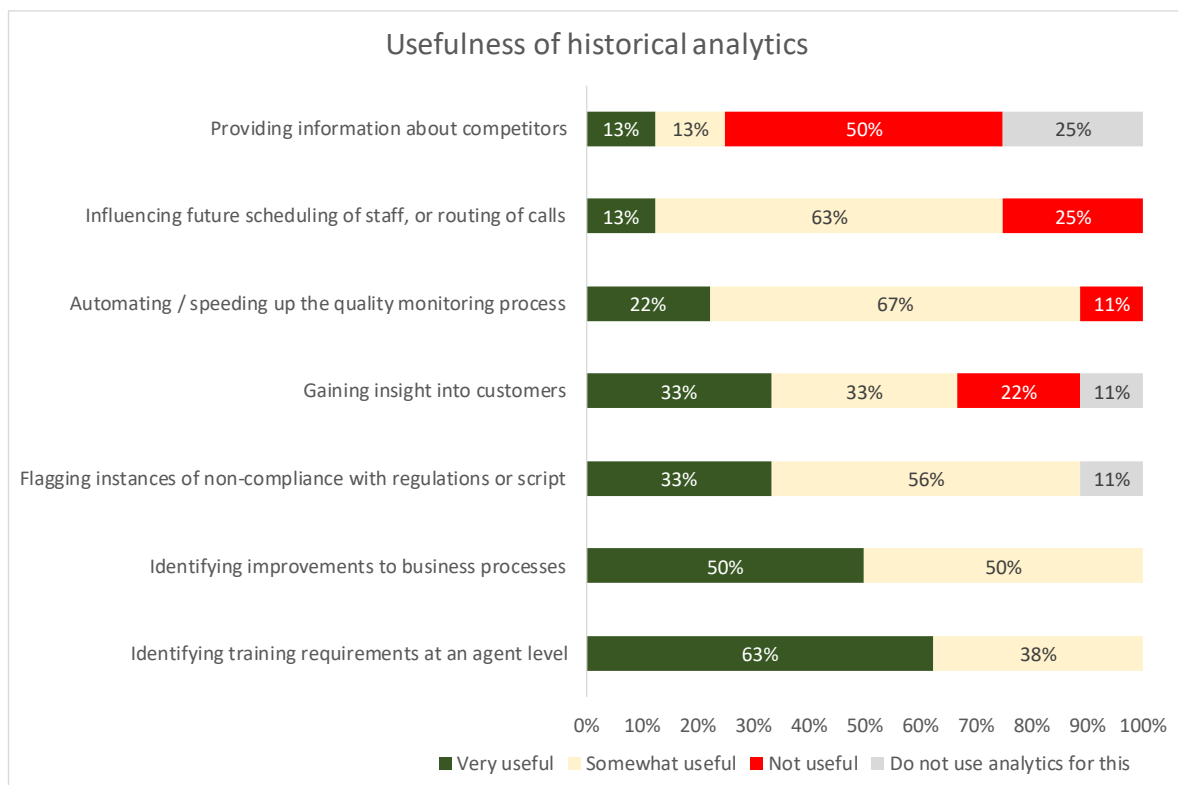
HISTORICAL ANALYTICS

Initial implementations of speech analytics were focused upon analysing large numbers of recorded calls, often long after the actual event. Many of the original users purchased these solutions to assist them with compliance and as part of a larger quality assurance system, and these benefits have not decreased over time. Being able to analyse 100% of calls automatically can provide high quality information for the QA process, giving a fair and accurate reflection of the agent's performance.

While there is real and growing interest in real-time analytics, historical speech analytics is still vital for business intelligence, performance improvement, QA and compliance. As the majority of contact centres have call recording in place, the raw material is already available. In fact, the amount of recorded voice data available to most businesses can be overwhelming, and historical speech analytics that analyse 100% of recorded calls is proving hugely valuable.

It should be noted that some recording environments are still mono rather than stereo, meaning that there is no distinction between the caller and the agent except through context. This is a clear disadvantage for effective historical speech analytics, as in order to learn from customer feedback and experience, clearly a business needs to know whether it is the customer talking about products, processes or competitors, rather than the agent. More recording systems are moving to stereo, and this will further improve the accuracy and potential benefit of speech analytics, and some vendors have restructured their solution to offer software-based speaker separation for analytics.

Figure 7: Usefulness of historical analytics



The automated quantification of agent performance and capabilities, feeding into the training and skills upgrades required should be one of the most important outputs for interaction analytics, and 63% of respondents state that analytics is very useful for this purpose. However, only 22% indicate that analytics is very useful for speeding up the overall quality monitoring process as well through automation.

50% of analytics users state that it is very useful identifying improvements to business processes. Optimising processes and gaining actionable insight that can be applied to the customer journey will become one of the most important uses of analytics, as users' sophistication increases and solutions' capabilities are explored more fully.

There is little real enthusiasm around the use of analytics for providing information about their competitors. This is a very underused area of analytical usage at the moment, and one which we would again expect to see growing significantly in future years.

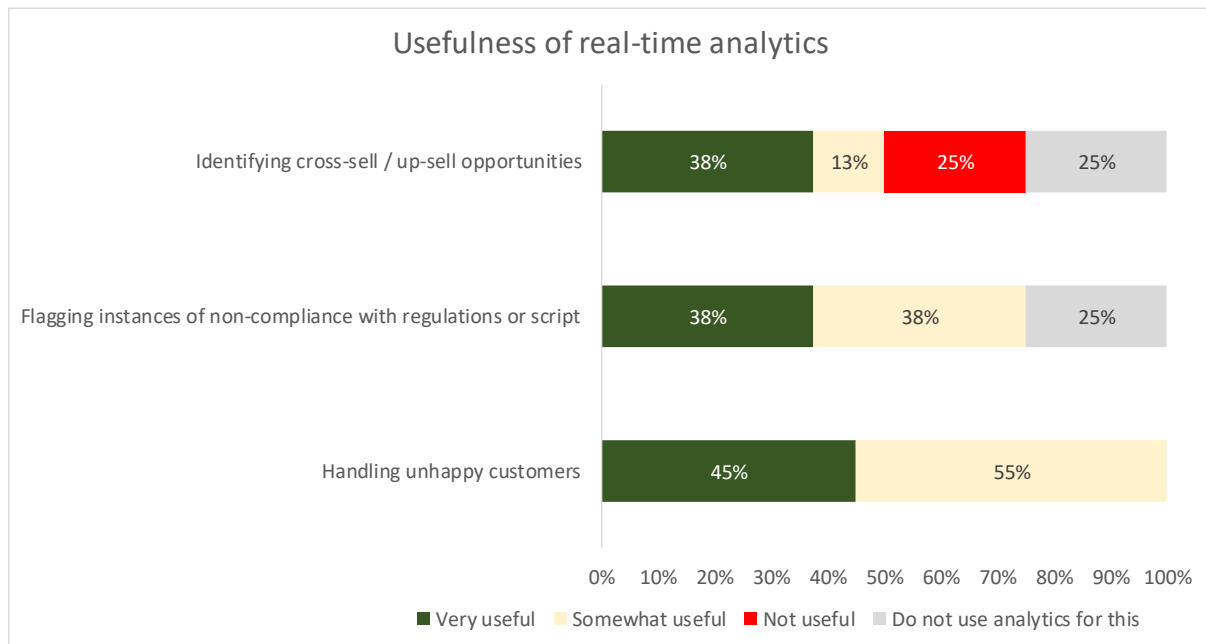
Few respondents have found that analytics particularly helps influence scheduling or routing strategies, but as more tightly-integrated WFO suites are used, we would expect this to change for the better.

The chart above does not provide an exhaustive list of the purposes of interaction analytics: specific business requirements and original considerations about customer contact can provide numerous ways in which greater insight can be extracted from the mass of interactions stored, for example, understanding fully why customers have called, rather than relying on agent call disposition codes.

REAL-TIME ANALYTICS

Real-time analysis offers a big step up from the traditional, manual call monitoring process, and is particularly useful for compliance, debt collection, and for forming legally-binding contracts on the phone, where specific terms and phrases must be used and any deviation or absence can be flagged to the agent's screen within the call. Finance, telecoms and utilities companies - and indeed, any business where telephone-based contracts are important - are particularly interested in this.

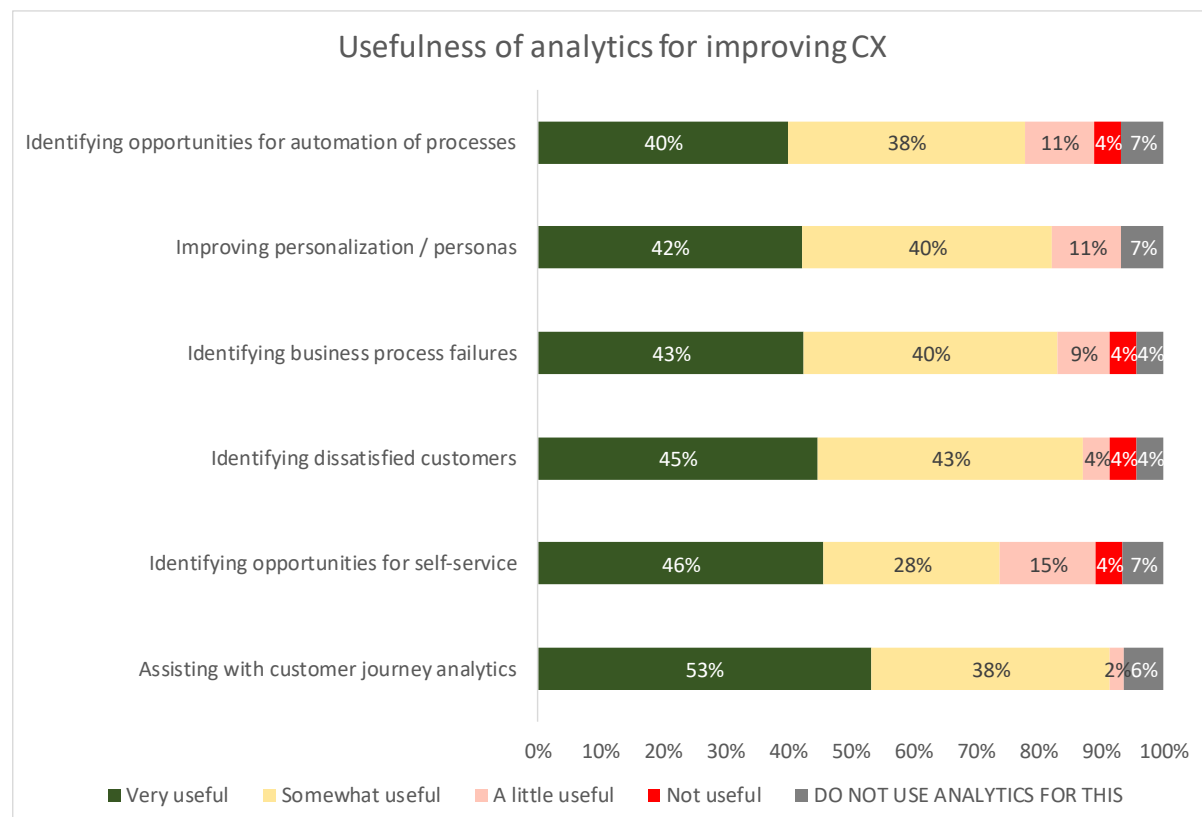
Figure 8: Usefulness of real-time analytics



USEFULNESS OF ANALYTICS FOR IMPROVING CX

Organisations using analytics were asked how useful the solution was for improving various aspects of the customer experience, either directly, or through improving internal processes which then had a impact upon the overall customer experience. The overall conclusions were surprisingly consistent: in most analytics use cases, slightly under a half of respondents stated that it was ‘very useful’ with a slightly smaller percentage saying that it was ‘somewhat useful’. Its assistance with customer journey analytics gained the greatest proportion of very positive responses.

Figure 9: Usefulness of analytics for improving customer experience

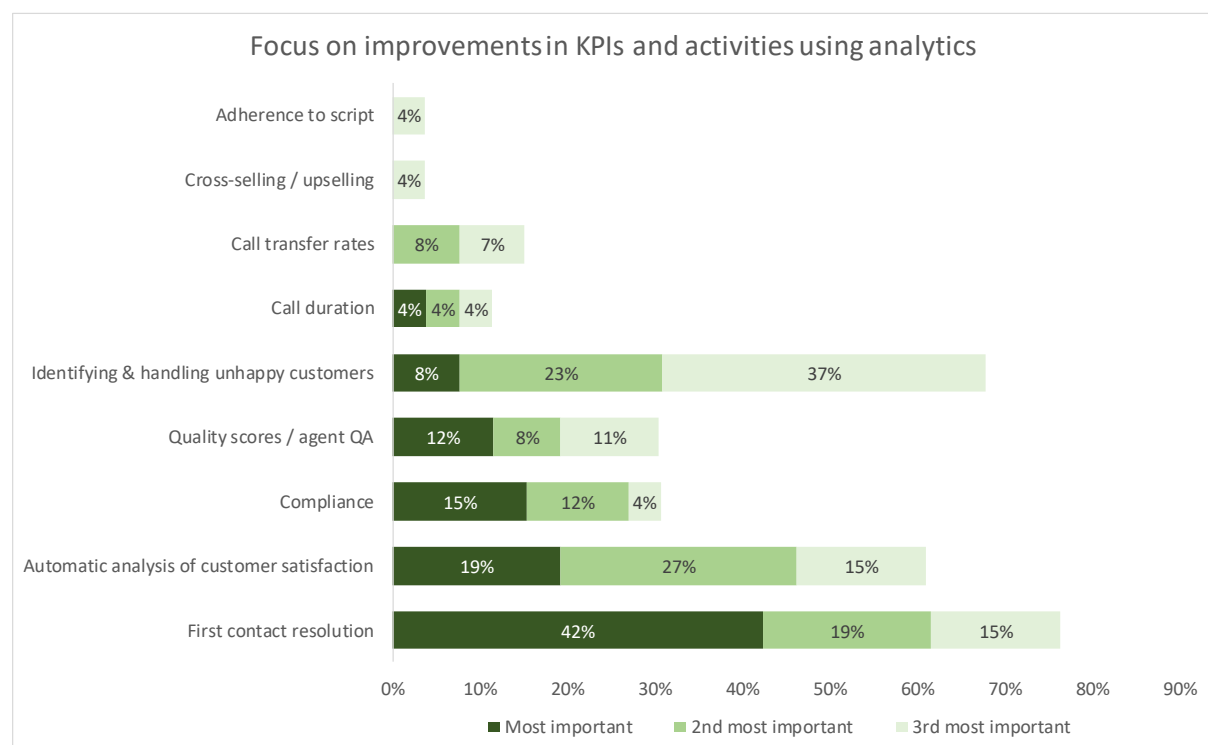


FOCUS OF ANALYTICS IMPROVEMENTS

Throughout ContactBabel research, most respondents state that one of their main business focuses is to improve the customer experience, and while this is laudable, the real question is perhaps “How can analytics achieve this aim?”.

Our research has consistently shown that first contact resolution (FCR) is seen as being key to customer satisfaction. Interaction analytics can assist with this goal through automatically grouping and assessing the nature of the enquiries that required multiple customer callbacks, and through identifying whether the call should be classed as a callback in the first place (e.g. by searching for relevant words or phrases, such as “I’ve called about this before”, or “this is the second time I’ve called”), which would further assist in the notoriously difficult process of accurately calculating first contact resolution rates. As FCR and customer satisfaction ratings are closely linked - being consistently stated to be the no.1 method of achieving high customer satisfaction ratings - the use of analytics to identify FCR accuracy and improvements is a very positive finding.

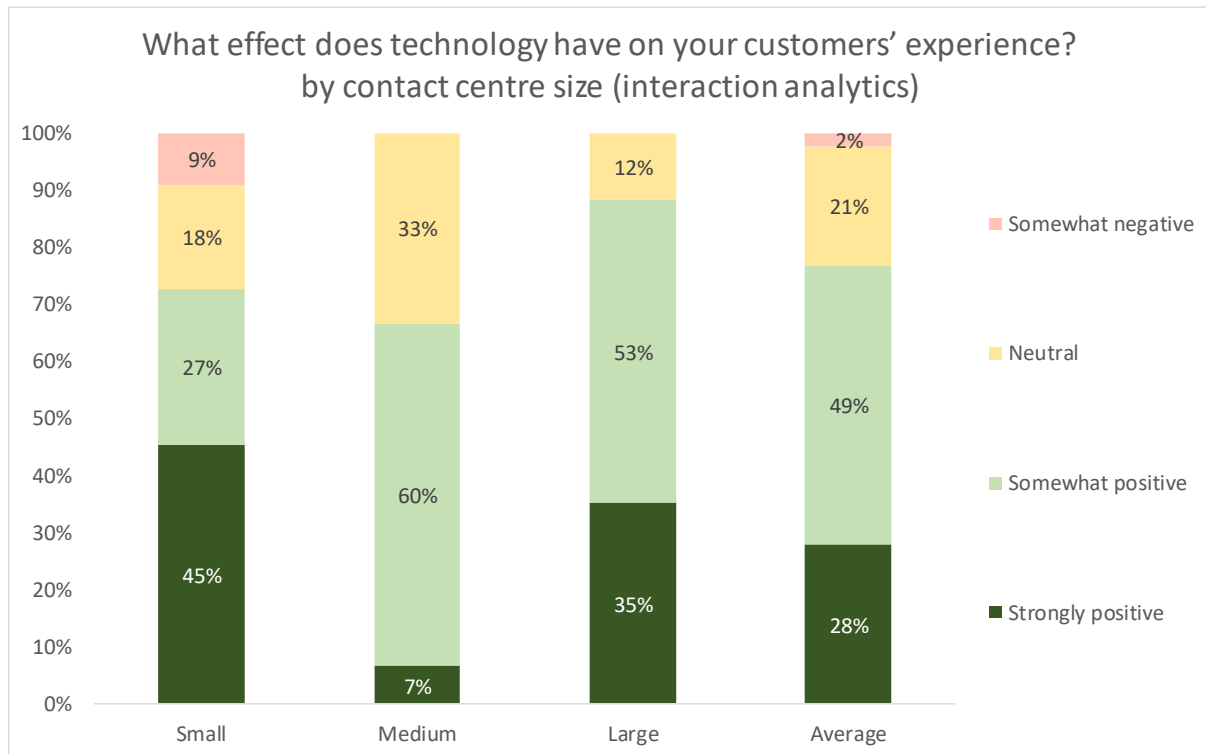
Figure 10: Focus on improvements in KPIs and activities using analytics



It is positive to find that the second and third greatest focuses on improving KPIs (automatic customer satisfaction analysis, and the identification and handling of unhappy customers) are also related to customer satisfaction.

Amongst the businesses which use interaction analytics, there is a general feeling that it impacts directly and positively upon the customer experience, although perhaps not yet to the same extent as customer-facing technology such as web chat. As a large amount of interaction analytics is done historically, the immediate benefits to the customer may not be as apparent.

Figure 11: What effect does technology have on your customers' experience? by contact centre size (interaction analytics)



RESOURCING ANALYTICS APPLICATIONS

Initial training

Solution providers offer courses for both technical and operational staff, targeted at specific user roles and responsibilities, including end-user, reporting, performance management, administration, and maintenance. There is often a choice of on-site or remote training. Ongoing support after implementation is standard for the industry.

Some solution providers recommend that there are always at least two or three people who are trained initially, due to job shifts and attrition. It may be the case that customers do not have anybody appropriate on-site to understand how to work with the output, so managed services is a good stopgap solution in this case.

Some solution providers offer packages that include pre-selected phrases relevant to that particular type of business, which means the initial discovery and implementation time is reduced somewhat.

Vendors offering a complete workforce optimisation solution may have developed a new quality framework to assist customers to change and optimise their business processes in such a way that will get the most out of their WFO solution, with the analytics solution being one of several key elements. Analytics - including speech, text, desktop and customer journey - promise to deliver actionable insights at the organisational and individual level. Closer integration of the WFO modules means that a virtuous circle of positive feedback can be established: quality management discovers broken processes and agent training needs; workforce management and predictive analytics will feed into the recruitment and training programs; gamification impacts upon performance; customer journey analytics not only considers the contact centre, but also the back office.

Ongoing resource

Vendors' opinions on the requirement for a full-time, dedicated speech analyst differ widely. Some of those offering solutions based on a phonetic speech engine state that an existing business analyst or member of a quality assurance team will be able to handle analytics as well, yet others state that the more a customer can put into the solution (e.g. a full-time speech analyst), the more they will get out of it.

The complexity and sophistication of the solution is only one element to this: of more importance is what the business wishes to get from customer contact analytics - managing compliance and improving the QA/QM process is likely to require less full-time support than an ambitious cross-department project to investigate and optimize business processes.

Vendors comment that centres with under 250 seats may see analytics handled by the existing QA team, those with up to 1,000 seats will often have analyst resource in-house already, and super large operations, possibly dotted across several sites, will almost always use at least one dedicated speech analyst.

Requirements for end-user resource depend to some extent on the delivery method: a managed service, by its nature will not require any resources apart from a business-focused liaison contact; a cloud model requires a business owner to specify needs and be able to gain insight from the system; a full CPE deployment is more likely to require two points of contact, one technical and the other business-orientated.

If businesses decide to have dedicated analyst resource, they may come from a specific business unit that is using analysis (for example, collections), the quality management team or an existing analyst function. It has been noted that people with a journalistic, enquiring nature may be best suited for this role, as understanding business transformation is key, rather than being technically skilled. It is recommended that they have a certain seniority within the company so that their insights carry authority.

Having said that, for some solutions, a technical resource may also be required to write queries and create reports although most solution providers have worked hard to make the presentation layer easier to use for business users and have delivered major improvements in recent years.

Customer contact analysts will write queries, listen to calls, carry out qualitative analysis and communicate and influence departments and business areas. By far the largest amount of time is spent analysing data and communicating findings elsewhere, with only around 15 to 20% of an analyst's time said to be spent listening to calls. Of course, the purpose of the implementation makes a great difference to this as well.

Solution providers have tried to simplify and improve the usability of the analytical interface, aiming to get actionable performance-based information out of systems with less effort and training required. Along with new user interfaces, there are widespread efforts to help business users build queries, make changes to the system, write their own bespoke reports and interpret the output, trying to move away from the need to have a technical person sitting between the end-user and the solution. Some solution providers have developed their own templates or playbooks from their experience of helping other businesses achieve specific goals, which businesses can use to get quick wins within their own initial implementation.

Making the use of customer interaction analytics easier for non-technical people will make it more likely that the solution is used by other departments to address some of their own issues, such as hiring and candidate screening, determining which students are likely to drop out of a course, and detecting fraud (whether internal or external), as well as general commercial issues.

THE FUTURE OF ANALYTICS

Although analytics has become mainstream, especially in large-scale contact centre operations, the ability to gain actionable insight from multiple streams of data connected with the customer and the organisation still has a very long way to go. Improvements in integrating data sources, as well as the application of artificial intelligence and machine learning mean that interaction analytics can still be thought of as still in its infancy. While speech recognition accuracy will certainly improve, and the user interface become simpler to use (allowing business users to gain greater benefit), the improvements in functionality will not stop there.

Artificial Intelligence

Artificial intelligence (AI) does not require structured data in order to make sense of work, and can also self-learn, improving its performance over time. The capabilities of AI allow solutions to read unstructured information, such as email, understand the sense of what is being said, and route the work appropriately. As the AI has access to the entire customer contact solution, it is capable of noticing in real-time whether other customers have the same issues, which is something that even the best contact centre agent is unable to determine.

AI can also act as support to an agent while on a call, providing them with relevant information about the customer and their case, and advising them upon different routes the conversation can take. Although there is some discussion about AI identifying and acting upon emotional prompts from the customer, the reality is that agents will still be required to handle complex and high-emotion interactions.

From self-service perspective, AI avatars/chatbots/virtual agents can attempt to answer customer questions, escalating to a live agent if the required confidence levels are not met. It can then learn from the human agents responses, making it more likely that it will be able to provide the right answer next time.

Using AI for analytics will allow the business to provide customers with service before they even require it. The AI will be able to predict what the customer is likely to meet next, based upon analysis of other customers with similar circumstances in the past. This move to proactive customer service is a step further than what is currently widely-used - automated emails or SMS providing an update about delivery times, for example - anticipating sources of frustration or the need for assistance before the customer has even realised it, on a personalised basis. Machine learning - which will be able to identify patterns within data automatically, without requiring an analyst to direct it - will give analytics even greater scope and power.

Holistic Analytics

The Internet of Things (IoT) could give businesses enormous amounts of data from customer devices, which only automated analytics would be able to draw insight from. Online devices that report faults or events that would require action from a company could be linked with business systems (e.g. finance, distribution, sales, etc.) in order to identify and rectify problems without the customer even having to become directly involved themselves. Analysis of the customer's history and any issues relevant to the product or service mean that proactive service could be provided based upon knowledge of the most effective resolutions that had occurred in similar cases in the past.

Customer Journey and Omnichannel Analytics

The earlier sections on customer journey and omnichannel analytics indicate that these functional areas expect strong growth as the importance of digital channels continues to increase. The siloed nature of contact centre operations is slowly but inexorably breaking down, allowing businesses to take a customer's eye view of the actual experiences that take place. The use of analytics will spread from the voice-centric contact centre world into the back office, as well as digital channels. Business processes outside the contact centre will be analysed, especially where they impact directly upon the customer's overall experience, giving companies an opportunity to identify bottlenecks and broken processes that would otherwise be hidden from the contact centre itself.

Many solution providers state that they are actively increasing the power and range of the analytics solutions not just within live contact channels such as chat and voice, but also within automated IVR environments as well. This can be used to adapt and personalise the IVR experience in real-time to suit the customer's behaviour and preferences, and also to detect and manage fraud.

The Democratisation of Analytics

The use of interaction analytics in small operations is currently limited: the solution provides most effective insight when it has vast quantities of data to analyse, and cost pressures on smaller operations are generally more severe. Some solution providers are tailoring their offerings to provide entry-level analytics functionality, particularly around the areas of QA, with the longer term view of developing these businesses' use of analytics to address business intelligence as well.

END-USER QUESTION 6: IN TERMS OF BOTH ITS USE, AND THE TYPE OF TECHNOLOGY COMING, WHAT DOES THE FUTURE OF ANALYTICS LOOK LIKE?

CALABRIO AI and ML tools will become much more critical to the success of analytics solutions in the future. As the amount of data that we have about our customers and our agents continues to grow, the ability for any one person to understand it all becomes nearly impossible. With AI and ML tools we can process data at a rate unheard of in the past which enables us to glean insights from our data that we would certainly miss without those tools.

NICE inContact Analytics has and will continue to permeate throughout every facet of every organization, and the use of machine learning (ML) and artificial intelligence (AI) will become more widespread. The need for data scientists and business analysts will continue to grow, while their mystique will become better understood as more job descriptions in the organization are enabled to run analyses without requiring the level of expertise analysts bring today.

Analytics programs will expand in breadth and depth, with the ability to predict and act in real-time using methods only just becoming available today. Meanwhile, as organizations become more automated, job responsibilities will change to a greater focus on business goals with many fewer repetitive actions needed, helping to improve overall performance.

opentext™ In simple terms the future is bright and arriving very quickly. Whilst today very few companies are using interaction analytics on all interactions, this soon will be standard practice. By bringing every interaction from all channels will become common place and the true 'voice of the customer' will finally be heard and acted upon.

Having real time access to this information will be the norm and companies will be launching marketing campaigns or releasing new statement formats and will get real time feedback on what customers think, allowing adjustments to be made. When you have a conversation with a supplier they will finally 'hear' what you say and change from personalised communications, i.e. your name on the top of the communications to personal communications where they send you information about what you want to know about. No more adverts for products you already have or stated you did not want, but information about what you did ask about all enabled by real time analytics on what you want, not what your demographic might want.



The future of analytics looks BIGGER. There will be more data sources to analyse, requiring more machine learning algorithms and artificial intelligence to make accurate predictions. Software will tune itself better than a human can tune it. In the future, analytics solutions will be able to tell a contact centre exactly how many calls will come in on a given day and anticipate the reasons for those calls.



Today, technology and the way customers are connecting to organizations is changing like never before. These forces will shape the future of analytics — both the methods by which insights are generated and the manner in which they are delivered.

The expansion of cross-channel communication along with the capacity to analyse large data repositories, unifying structured and unstructured data from different data sources, will become a key competitive edge to businesses. Connecting these data sources will provide far richer insights, helping businesses gain a holistic view of how certain events impact others, and providing predictive models with a high degree of accuracy. This connected view will give businesses the power to diffuse situations before they even happen.

We envision predictive analytics strengthening as AI better understands and learns human behaviour, leading to smarter and more targeted methods for hiring, coaching, administering bonuses and optimising business outcomes.

At the same time, the ability for organizations to effectively adopt and implement AI/ML solutions will expand. Soon, smart data processing and advanced analytics, insights, predictions and recommendations will flow into any business user with little-to-no effort, allowing them to focus on building a better brand, improving processes, advising or taking better informed decisions.



Since only about 25% of contact centres are currently using speech analytics, we will certainly see more pervasive use of this technology as the business case becomes increasingly inescapable. Interaction analytics is a significant step toward automation on many fronts in the contact centre. We expect to see continued use of the technology to automate the QM function, supplanting much of the work currently performed manually by supervisors and mentors, and eliminating the subjectivity inherent in human judgement of call quality.

As mentioned above, interaction analytics will stimulate a cultural shift in many organisations as the technology becomes an authoritative source for customer recommendations and preferences. The contact centre will become a much more important resource for internal decision-making across many parts of the organization, and interaction analytics will continue to become better at extracting valuable insights from unstructured customer conversations. With predictive analytics and AI guiding chatbot responses and next best agent action in real-time, we believe organisations will be able to reach their goals more effectively by steering conversations in ways that have been proven to be successful.



Understanding the performance or lack thereof in a business has always been a challenge. Data scientists and business analysts spend hours trying to take unstructured data in order to make it more meaningful and actionable. The technology that is emerging, enables these complex calculations to be performed in a fraction of the time historically spent on equipment as simple as a laptop.

It's not just analysts that will be able to understand the statistics, any employee can now have easy to understand information about how the business is performing and what process optimisations are required. Predictive analytics data can show you what is most likely to happen based on descriptive and diagnostic analytics. This can help your team forecast how sales will do in different regions, demographics and segmented audiences. With predictive analytics, you're able to see how campaigns could play out before you even launch them.

Prescriptive analytics is the value proposition as to how you are going to remedy your problem. How will address the 'business problem' based on the data that has been collected and analysed for example, about your sales cycle? This is where machine learning and augmented analytics comes into play in terms of helping to map out your next move. The future of analytics will be augmented analytics. This will bring about new ways to assess, analyse, review and interpret data with the help of artificial intelligence and machine learning to provide business owners with actionable steps they can use to enhance their business.



Applying analytics as a "source of truth" for a rapidly expanding horizon of use cases is what we are already seeing. Product development, marketing and even legal teams are reaching out for analytics evidence to build confidence for their initial reviews and for next step guidance.

The ability to benchmark and consequently impact customer experience based on conversational behaviours fundamentally changes CX management. Speech analytics makes the "big data" of unsolicited and unstructured data from the contact centre suddenly useable and actionable. Even more compelling is the fact that behavioural analytics makes CX awareness and action pervasive far beyond the contact centre.

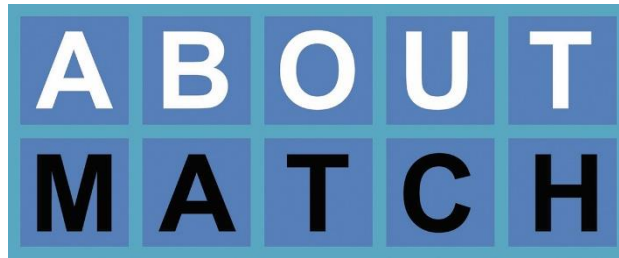
From a technology perspective, AI makes analytics even more applicable. The use of machine learning to present a deep understanding of conversational behaviours means analytics will drive more improvements that customers will enjoy while at the same time increasing operational efficiencies.

Future customer interaction analytics applications promise the opportunity to discover deeper actionable insights, as better accuracy and more powerful processing provides richer and more joined-up data for analysis, and the inclusion of non-voice channels show the full picture of customer contact and its intent. There will also be major efforts to link analytics to proving profitability, including identifying “moments of truth” (points at which buying decisions are made, and long-term loyalty can be won or lost), and being able to predict and manage customer churn.

We would expect AI to bring a greater sophistication and depth of functionality to predictive analytics, which will lead to a growth in proactive automated service – helping the customer before they even realise they need help – which will lead to increased customer experience and significant levels of contact avoidance and cost reduction.

In summary, customer interaction analytics is really still in its infancy, not so much in terms of penetration rate, but as the sophistication, functionality and level of insight that it currently offers to the business as a whole will grow strongly. There is little doubt that analytics offers the key to unlocking actionable insight, and it will certainly become an even greater area of interest for any organisation keen to give itself a competitive advantage by learning more about itself, its customers and its employees.

SUPPLIER DIRECTORY



[AboutMatch](#) is the business world's answer to online dating, matching the market for hundreds of the products and services which help UK businesses acquire and service customers.

AboutMatch is the smart way to find suppliers to meet your Contact Centre needs. Simply enter your requirements for a product or service in our free-to-use website and get matched with the best-fit supplier(s).

From the best outsourced contact centre suppliers to customer feedback platforms, from service design consultants to virtual agent solutions...gone are the days of wading through search engine results and spending weeks on research to locate who's who in the market.

The company is an independent division of Matchboard Pty Ltd, a prestigious and rapidly-growing Australian company which has been awarded "2018 Business of the Year" and was named as one of the country's "200 Businesses of Tomorrow".

If your business is looking for the perfect solution – technology, services, consultancy, data or outsourcing – we can help.

Contact:

w: www.aboutmatch.co.uk

e: smorrell@aboutmatch.co.uk

t: 0330 828 0955

[LinkedIn](#) | [Twitter](#)



Aspect

Contact Centre Solutions

Workforce Optimisation Solutions

Powering Enterprises.

Empowering Agents.

Aspect is on a mission to simplify and improve customer engagement. Our enterprise software is used by millions of agents every year and supports billions of consumer interactions around the world. Our best-of-breed contact centre and workforce optimisation applications help companies keep agents engaged while providing exceptional customer service experiences. Our flexible, highly scalable solutions for self-service and live interaction management and workforce optimisation are available on-premises or in any hosted, private or public cloud environment.

For more information, visit <https://www.aspect.com/uk>

Read our blogs at <https://blogs.aspect.com/uk>

Follow Aspect on Twitter: [@Aspect_Europe](https://twitter.com/Aspect_Europe)

#GOODCALL

Contact:

+44 (0)20 8018 8100 | [CHAT WITH US](#) | contact@aspect.com

European HQ

The Record Store, 15 Pressing Lane, Hayes, Middlesex UB3 1EP

CALABRIO

Calabrio is the customer experience intelligence company that empowers organizations to enrich human interactions.

Through AI-driven analytics, Calabrio uncovers customer behaviour and sentiment, and derives compelling insights from the contact centre.

Organizations choose Calabrio for its ability to understand customer needs and the overall experience it provides, from implementation to ongoing support.

Contact:

Corporate Headquarters:

a: 400 1st Ave N, Suite 300, Minneapolis, MN 55401

t: 855.784.2807

Calabrio EMEA

a: 12 Melcombe Place Marylebone, London NW1 6JJ

t: +44 0203 367 2122

e: info@calabrio.com

w: <http://calabrio.com>



CallMiner helps businesses and organizations improve customer experience and contact centre performance through key business intelligence by automating their ability to listen to every customer interaction. CallMiner's platform, Eureka, is a market leading cloud-based speech and customer engagement analytics solution automatically analyses contacts across all communication channels: calls, chat, email, and social.

[CallMiner Eureka](#) offers both real-time monitoring and post-call analytics, delivering actionable insights to contact centre staff, business analysts, and executives. The results include improved agent performance, sales, operational efficiency, customer experience, and regulatory compliance.

With over 2 billion hours of conversations analysed, CallMiner serves some of the world's largest call centres, delivering highly effective, usable, and scalable customer engagement analytics solutions.

Highlighted by multiple customer achievement awards, including six Speech Technology implementation awards in the past four years, CallMiner has consistently ranked number one in customer satisfaction, including surveys conducted by DMG Consulting and Ovum.

Learn more about our customer engagement and speech analytics solutions to help your business:

Web: [CallMiner.com](https://callminer.com)

Social Media: [LinkedIn](#), [Twitter](#), [Facebook](#), [YouTube](#), [Blog](#)

User Community: [EngagementOptimization.com](https://engagementoptimization.com)

Email: marketing@callminer.com



Contexta360™ was founded in 2017 and we have a simple mission: to harness the power of conversational intelligence to improve customer acquisition, service, retention, and experience for the digital economy.

We are an AI company that solves two business challenges, namely; we help your teams perform at an exponentially higher level and, we transform business outcomes, whether your focus or need is revenue expansion, CX, compliance or service improvements.

Our mission is to provide our customers real-time, historical and predictive intelligence and understanding so that they in turn can serve your customers better. We do this by analysing conversations across all channels and relating this to internal and external data such as external news feeds, financial feeds, CRM, ERP, Knowledge management or Service Management applications and provide meaningful insights.

Our AI-driven platform is designed for organisations seeking to know their customers better and who are looking to grow these relationships at scale.

Every single conversation, every phone call, we analyse the data and mine for key insights to help customer facing teams enhance customer relationships, loyalty and more.

Unlike many of the other vendors, we were formed from the ground up as an AI, NLP, Neural Networking company. We are agnostic of the platform, call control, recording or messaging platform. Available both on-premise or in a cloud deployment, our clients range from Telco's to Investment banks, from Insurance to Pensions companies, from Utility to Government agencies.

Contact:

e: Andrew.white@contexta360.com

Andrew White, CEO

w: www.contexta360.com



NICE inContact is the cloud contact centre software leader, empowering organizations to provide exceptional customer experiences with the world's #1 cloud customer experience platform.

NICE inContact CXone™ combines best-in-class Omnichannel Routing, Workforce Optimization, Analytics, Automation and Artificial Intelligence on an Open Cloud Foundation to help companies act smarter and respond faster to consumer expectations.

NICE inContact, a NICE company, is recognized as a market leader by Gartner, Forrester, Frost & Sullivan, Ovum and DMG, and serves customers in more than 100 countries including over 85 of the Fortune 100 companies.

Contact:

t: +44 (0)800 404 9727

a: 160 Queen Victoria Street, 2nd floor, London, EC4V 4BF

w: www.niceincontact.com



OpenText, The Information Company™, a market leader in Enterprise Information Management software and solutions, enables intelligent and connected enterprises by managing, leveraging, securing and gaining insight into enterprise information, on-premises or in the cloud.

For more information about OpenText (NASDAQ/TSX: OTEX)

Contact:

a: OpenText Ltd, 420 Thames Valley Park Drive, Reading, Berkshire, RG6 1PT

t (EMEA): +44 118 984 8080

t (US): +1 519-888-7111

e: paulm@opentext.com

Visit our [Website](#), [LinkedIn](#) or [Twitter](#) for more information



Serenova has transformed the customer experience. Over a decade ago, we realized technology didn't exist that could deliver immediate, consistent, and exceptional service. So, we created a true cloud contact centre solution that could.

The result is the ability to unify everything from customer engagement and quality management to analytics. This single source of truth provides brands insights about customer information and experiences as they pivot between channels such as SMS, voice, or Facebook messenger.

Whether it's technology, healthcare, or retail— brands from all industries come to Serenova for our global coverage and deep integrations into the business systems they every day. Why is this important? It creates the opportunity to keep pace with customers by quickly scaling up across the enterprise or out geographically.

Recognized by leading analysts, we are committed to building on our 18-year legacy leading the way in cloud-based contact centre innovations. To learn more, visit www.serenova.com.

Contact:

Headquarters

a: 7300 Ranch Road 222, Bldg. III, Ste. 200

Austin, TX 78730

t: +1 (800) 411-4700

Serenova UK

a: Abbey House, 1650 Arlington Business Park

Theale, Reading RG7 4SA

t: +44 (020) 3006 8280

w: www.serenova.com

Twitter: <http://twitter.com/serenovashine>

LinkedIn: <https://www.linkedin.com/company/serenova>

Headquartered in Austin, Texas, Serenova also has operations in Canada, the United Kingdom and Australia.



Talkdesk Enterprise Cloud Contact Centre empowers companies to make customer experience their competitive advantage.

With enterprise-class performance and consumer-like ease of use, Talkdesk easily adapts to the evolving needs of sales and support teams and their end-customers, resulting in increased customer satisfaction, productivity and cost savings.

Over 1,400 innovative enterprises around the world, including Discovery Education and Peloton, rely on Talkdesk to power their customer interactions.

Learn more and request a demo at www.talkdesk.com.

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.

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.

We help the biggest and most successful vendors develop their contact centre strategies and talk to the right prospects. We have shown the UK government how the global contact centre industry will develop and change. We help contact centres compare themselves to their closest competitors so they can understand what they are doing well and what needs to improve.

If you have a question about your company's place in the contact centre industry, perhaps we can help you.

Email: info@contactbabel.com

Website: www.contactbabel.com

Telephone: +44 (0)191 271 5269