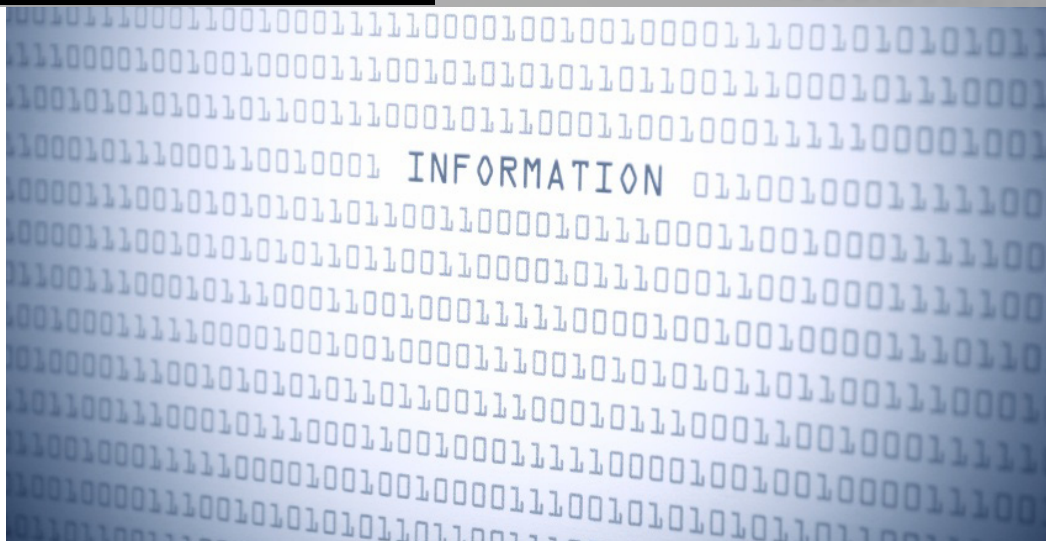




THE INNER CIRCLE GUIDE TO

SPEECH ANALYTICS



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ABOUT CALABRIO



Calabrio develops and markets Calabrio ONE, a comprehensive suite of contact center workforce optimization software that's easy to implement, use and maintain. Calabrio ONE features a truly integrated, totally unique dashboard that makes effective agent, team and performance management part of any contact center's daily routine.

Calabrio ONE includes call recording, quality assurance, workforce management and speech analytics. Built on a modern Web 2.0-based architecture, it allows any size contact center to integrate applications easily and at their own pace, as well as personalize and optimize the desktop toolset for each user - agents, supervisors, managers, knowledge workers, and executives.

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ABOUT CONTACTBABEL

If you have a question about how the contact center industry works, or where it's heading, we have the answer. Our major ongoing primary research projects match our experience analyzing the contact center industry. We understand how technology, people and process work together, and what their future holds.

We help solution providers develop their marketing strategies and talk to the right prospects. We've shown governments how the global contact center industry will change and affect their nation. We help contact centers understand how to improve, and what their customers think of them.

If you have a question about your company's future in the contact center industry, we can help you.

www.contactbabel.com



Effective action requires knowledge.

Discover what your customers are saying and how it impacts the business.

Pinpoint trends, take action and improve.

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There's no end to better.

Learn more at www.calabrio.com/products_analytics.asp

THE TECHNOLOGY OF SPEECH ANALYTICS

In the late 1990s, data warehousing was a big growth industry, especially in sectors such as retail, where the widespread usage of customer loyalty cards gave huge amounts of data about customers, their buying patterns and preferences. However, getting the data into storage was not the difficult bit: the greatest value came from being able to identify and analyze the relevant and insightful patterns within these data, through data mining. In many cases, the reality never lived up to the hype, as the analytical capabilities of data mining tools and businesses' ability to use them effectively did not match the ease with which the data warehouse was filled in the first place.

Speech analytics solutions are analogous with the data warehousing and mining applications in as far as they analyze huge quantities of data - here, call recordings - and identify important and insightful patterns in caller and agent activity. Hence, speech analytics also called audio mining. (It should be noted that some speech analytics solutions act in real-time, so the analogy is not quite exact). However, unlike the gap in functionality between data warehousing and data mining that we saw a decade ago, speech analytics solutions offer a proven and insightful option to release the customer value that is stored in these enormous quantities of information: insight about the customer, the agent, the business processes and the products and services that the business sells.

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

This is not to say that speech analytics is at its zenith. Significant improvements can be made to the accuracy and speed of the speech engines, the sophistication of analytical capabilities and the usability of reports. Some of the actionable findings from speech analytics may seem very simple - the recommendation to change a few words in a script, for example - but the potential impact upon the cost, revenue, agent capability and customer experience that is possible through speech analytics is perhaps unprecedented.

Of course, it is not enough to plug in the technology and wait for results. The most important element to getting the most out of speech analytics is to use the application properly: ask the right questions, listen to the right calls, make the right decisions and get the right people to support and act upon findings.

The elements of speech analytics

There are various elements to speech 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).
- **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 speech analytics software, defining their requirements and carrying out searches on the indexed data
- **Reporting applications:** the presentation layer of speech 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.

Phonetic or Speech-to-Text (LVCSR)

Speech analytics solutions use speech engines that are either phonetic or speech-to-text / LVCSR (Large Vocabulary Continuous Speech Recognition). In LVCSR, the call is converted into text in order for analysis to take place, and depend upon a language model and dictionary to identify words correctly.

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 phonetics approach does not require a language model or predefinition of every word looked for, meaning indexing and searching is more rapid. However, LVCSR approaches can offer a greater understanding of what is in each call.

Vendors that use speech-to-text engines point out that even if a phonetic system accurately identifies a key word, that 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). Phrase recognition (such as 'the website doesn't work', or similar) can be used to alleviate this, although the number of true positive results using this method can be lower, as there are far more ways to say a similar thing.

Solution providers that offer analytics based upon a phonetic speech engine state its usefulness where customers already know the type of words and phrases that they are looking for, based on their business needs. Many vendors also 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.

Figure 1: Some advantages and disadvantages of LVCSR/speech-to-text and phonetic speech analytics solutions

| | LVCSR / speech-to-text | Phonetic |
|----------------------|--|--|
| Advantages | <p>A complete transcript of the call is available for detailed analysis and viewing</p> <p>Ability to carry out 'discovery', uncovering trends or events which an organization may not be aware of</p> <p>Fast text-based search</p> <p>Level of analysis possible tends to be deeper than phonetic-based solutions</p> | <p>Faster indexing time</p> <p>Quick and easy to maintain, once the customer knows what they are looking for</p> <p>Tends not to require a dedicated employee</p> <p>Initial deployment in days</p> <p>No requirement to define words and phrases upfront</p> <p>Not dependent on dictionary or language model</p> |
| Disadvantages | <p>Slower indexing time (25-30x real-time) than phonetic systems</p> <p>Low accuracy initially (most LVCSR systems also use some phonetic and/or phrase-based technology as well)</p> <p>Word recognition is dependent upon it being in the dictionary within the language model, which requires updates</p> <p>Longer time to implement and ongoing fine-tuning</p> | <p>No guarantee that an identified keyword will be used in the right context</p> <p>Slower searches than LVCSR-based systems</p> <p>Homophones and homonyms produce false positives</p> <p>Conversations not viewable by the end-user as text</p> |

Measurements of accuracy

Speech-to-text solutions are measured by the word-error rate: how many words are incorrectly identified? Yet identification of even less than 50% of words is often enough to provide a solid base of data upon which to perform analysis. 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.

Phonetic solutions' measurements are made up of precision (or accuracy) and recall (or detection). As an example, if there are 100 files searched for specific words, which occur in 60 of them, then if there are 30 'hits' returned - all of which contain the word or phrase - that is measured as 100% precision, and 50% recall. 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, detection or completeness rates.

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

Real-time analytics

There is some debate amongst vendors upon who can provide true real-time analysis, and potential customers for whom this is an issue would do well to investigate this area fully. Some vendors take a parallel feed, streamed live into their solution and can act upon this within the call, which is especially useful for compliance and for forming legally-binding contracts on the phone, where specific terms and phrases must be used and any deviation can be flagged to the agent's screen on the call. Getting these 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. Real-time offers a big step up from the traditional, manual call monitoring process, and offers real-time reporting on compliance as well. Finance, telecoms and utilities companies - and indeed, any business where telephone-based contracts are important - are particularly interested in this. Very high levels of accuracy are vital for this type of speech analytics.

Not all vendors are pursuing this aggressively, with some preferring to concentrate their R&D efforts on tighter integration with their WFO suite, expanding speech analytics into multichannel and offering deeper analytical insight on masses of call recordings. However, for businesses which need immediate feedback within the call, true real-time analysis is certainly available today, and R&D efforts are being stepped-up to link real-time analytics with the CRM systems already in place, in order to tailor offers to customers based on what is being said within the call.

Accents and dialects

In businesses with multiple global operations, speech 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 centers 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 analyzed centrally within the same application.



There's no end to better.

Is Your Biggest Question about Speech Analytics “Where to Start?”

Speech analytics is a powerful tool to identify trends in your business, pinpoint customer service issues that would have gone unnoticed, and provide the business insight you need to improve performance. Though the benefits are clear, the path to success may seem daunting and the big question remains... how do I get started?

Calabrio can help.

Calabrio Speech Analytics lets you ease into the very real benefits of speech and content analytics at your own pace - without heroic learning curves or extensive investments. Our approach locates words or phrases within spoken audio, which is faster and less complex to deploy than alternative solutions. *Here's how it works:*

The first step - what am I looking for?

If you are just getting started, it's important to begin with practical use cases that will yield insight that has value to your business. Following are some recommended options:

Customer Service Issues - Look for insight into issues with your products, services, processes or the quality of your service. Triggers would be key words that indicate anger or frustration, or mention of a competitor, to name a few.

Competitive Threats - Identify competitive threats that might result from consistent product issues, service frustrations or a targeted campaign run by your competitor. Triggers would be the names of your top competitors or mention of a competitor.

First Call Resolution - Uncover gaps in knowledge or processes that lead to costly repetitive calls. Triggers would be the key words that indicate a caller is not getting the correct answer or has called repetitively.

Script Compliance - Failure to follow a precise script or process leads to issues with customer satisfaction and efficiency, and could put your business at risk if you are in a regulated industry. Simple key-word matching on required script elements helps pinpoint non-compliance.

Save time by targeting your analysis.

The first step is to pinpoint calls you might want to analyze from calls you don't – thus focusing the time and effort required to achieve an effective analytics program. Either on-demand or at a scheduled interval, you can index calls from Calabrio Quality Management based on data associated with a recording. Calls flagged for analytics are rapidly indexed during the first step of the analysis.

Search for key words that point to issues or trends

Next, identify the types of phrases you might be looking for and the many ways a caller might say it. The Calabrio engine will find all of the places where it is likely that the given words or phrases were spoken.

Analyze and take action.

Now it's time to listen. Managers or analysts can listen to as few or as many of the recorded calls as they find necessary to determine a pattern or root cause. Reports help zero in on business trends by showing the ratio of all analyzed calls to those that resulted in one or more hits on key words or phrases.

The Calabrio advantage is ease.

Calabrio's approach saves time, cost and practicality barriers for using speech and content analytics to achieve a true business result. Calabrio's pre-defined templates and professional services help ensure that your business can use the tools to pinpoint and analyze calls most effectively.

Calabrio – Speech Analytics on your terms, at your pace.

THE BUSINESS BENEFITS OF SPEECH ANALYTICS

Most contact center 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.

Speech analytics has a different appeal to contact centers, 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 speech analytics is claiming to solve every problem that a contact center could possibly have. However, depending upon how speech analytics is used, it can certainly assist in cost reduction, agent improvement, business process optimisation, avoidance of litigation and fines, customer satisfaction and loyalty improvements, and increases in revenue.

COMPLIANCE

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 centers 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.

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.


AGENT EVALUATION AND IMPROVEMENT

Improve the quality monitoring program

Speech analytics tries to take the guesswork out of improving customer experience, agent performance and customer insight. By moving from anecdotal or fact-based decisions, from qualitative to quantitative information, some order is put on the millions of interactions that many large contact centers have in their recording systems, improving the reliability of the intelligence provided to decision-makers. It doesn't remove the need to listen to calls, but it means that the calls listened to are far more likely to be the ones that should be listened to, whether for agent evaluation or business insight.

Customers using speech 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. This can take the same existing path, 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.

End-user question: "How does the addition of speech analytics impact staffing—does it require more people to capture and analyze results OR less because the quality process is more automated requiring less manual call evaluation?" (US outsourcer)

 Contact centers today are growing in complexity. The reality is, there's more to do – more locations, more skills, more channels and, if we're doing our jobs well, more customers, more calls, more contacts. And it all has to be done in order to keep pace and maintain a competitive advantage. If it seems impossible to scale people to keep up with this mounting complexity, the best answer is analytics. Analytics lets you listen to calls, monitor social media, track activity, look for trends...all automatically. The simple 80/20 rule applies. Rather than listening to calls randomly and hoping to catch issues and trends, analytics lets you do 80% of the monitoring automatically, so only 20% requires human analysis to identify where to take action. That frees 80% of the time to take action.

Identify agent training requirements

Apart from 100% monitoring of calls, speech analytics is used to flag cases of talk-over, as well as silence detection. The former can be a source of irritation to the customer 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 will identify which of these issues is really the problem.

Cut new-starter attrition rates

Additionally, speech 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 organization. Speech analytics can identify the types of behavior - 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 based on a feeling that they simply can't do the work to a high-enough quality.

CONTACT CENTER PERFORMANCE IMPROVEMENTS

On first glance, speech 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 center's performance and perhaps even inside the wider business. However, the vital thing to understand about speech analytics is that it gives contact centers 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 center? With high quality data inputs, mixing audio information with data such as call outcomes and revenues, analytics also identifies patterns which the business had no idea even existed, suggesting best practice and identifying areas for improvement at agent, contact center and process levels. There are numerous possibilities for how speech analytics can impact upon some of the key performance indicators of the contact center, whether sales- or service-focused, inbound or outbound.

Why are customers calling?

No other contact center solution can provide a solid understanding of why customers are calling. Categorizing types of calls, and then analyzing 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 analyzed 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 center, rather than the customer purchasing on the website.

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).

First-call resolution

A major metric for contact center and customer experience success, first-call resolution can be increased by identifying repeat callers and eliminating the root cause of repeat calls.

An example of this was an organization where they had identified repeat issues as being a problem. Analyzing 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.

Average handle time

Average call duration / average handle time has traditionally been one of the main measures of a contact center'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 center still tracks this as a 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 center 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.

Speech analytics allows businesses to categorize 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.

BUSINESS PROCESS IMPROVEMENTS

Everyone connected with the contact center industry has always known that there is huge insight and knowledge held within the operation and its agents, but which has never before had the ability to be quantified or acted upon by the wider business.

Speech analytics offers the ambitious business the greatest potential for improvements in business processes, but there is a great danger of underachievement with so many departments and divisions potentially involved.

In the course of researching this report, we have found that the marketing and website departments are the non-contact center areas most likely to be benefiting currently from insights about customers' views, but there are also examples of how delivery, provisioning, billing and even warehousing departments have learned from the analysis of customers' experiences in the contact center.

The quality of insight and its actionability is totally dependent on a swift reporting process, simple yet rich intelligence, the ownership of process improvement at senior level and before/after comparisons to prove success. Cross-department rivalries or poor communication are a real risk to this.

BUSINESS INTELLIGENCE

Customer Satisfaction Surveys

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, speech 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.

Customer Insight

As introduced above, one of the greatest advantages that speech analytics can provide is the ability to understand **why** things are happening, rather than just **what** is going on. With many solutions, it is not even necessary to know what you are looking for: automatic categorization of calls into their constituent types is a starting point, based on the types of words and phrases that typically get used within these types of calls (e.g. "complain", "not happy", "disappointed", "speak with a manager" etc, will often relate to customer complaints). Non-audio data, such as the activity of account closure, refunds etc can also be captured from the screen and linked with the call to provide richer data for analysis. 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, analyzed and passed to the marketing or pricing teams to provide them with real-life, rapid and accurate information upon which to base decisions.

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 it runs out of control, damaging brand or customer satisfaction.

Product and pricing feedback

Speech 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.

End-user comment: "It is too expensive to put numbers behind what you already know because your agents can tell you." (Head of Reservations in a UK travel company)



Just because an agent CAN tell you doesn't mean they WILL. Agents are taxed to handle calls efficiently and effectively, uphold customer sat and other performance metrics. There isn't always time to communicate customer issues and trends their supervisors. And even if there's time, there isn't always an easy or effective method to capture that. In addition, they may not choose to communicate the issue, because it may reflect poorly on their own performance. Speech analytics enables you to gather, analyze, organize and act upon all relevant data in an objective manner.

IMPROVING THE CUSTOMER EXPERIENCE

Factors that impact the customer experience - such as first-call resolution and shorter call and queue times - have been addressed already. This section looks at the handling of complaints, and how speech analytics can take into account the entire customer experience outside the contact center.

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.

Speech 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. 4% of UK calls and 8% of US calls received by contact centers are complaints, with respectively 87% and 80% of these being about problems elsewhere in the enterprise (rather than in the contact center). 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 may also be used to identify these customers.

The customer experience outside the contact center

There is an increasing requirement and interest in multichannel analytics, including considering 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 fulfill 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 9% of calls that go into an IVR system are 'zeroed-out' - rejected by the customer in favor of an operator - and in the US, a staggering 26% fail the self-service test.

Businesses using speech analytics to review these failed self-service sessions will be able to categorize 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.

INCREASING PROFITABILITY

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, and through the analysis of successful and unsuccessful calls, the chance to understand the type of agent language and behavior 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.

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.

Feedback on marketing campaigns

Tracking customer comments and outcomes after the advent of a marketing campaign can mean the difference between success and failure. Messages that are incorrectly understood can be identified and altered quickly before the contact center becomes swamped with calls about the issue.


Phone-based contracts

Real-time speech analytics mean 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-flagged 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.

BUILDING A BUSINESS CASE FOR SPEECH ANALYTICS

There is no generally-agreed job role that initially identifies a potential requirement for speech analytics. Some vendors state that it is the commercial side that starts a conversation, with IT people taking over. Others say that it is the contact center, the legal department or the QA/QM teams who show most interest. As speech analytics can be used to improve business intelligence, increase contact center efficiency, improve agent quality and performance, execute compliance and optimize business processes throughout the organization, it is little wonder that there is no well-worn path to the vendors' doors. However, all vendors agree that in their experience, having a senior and empowered contact within the business who knows what they want to achieve through speech analytics is vital to the success of the project. It should also be noted, that post-implementation, well-trained and empowered supervisors, trainers and coaches are key to getting and maintaining a positive outcome from the use of the solution.

End-user question: "Any tips for how best to engage the business, and inspire them to make changes?"
(various)

 Provide them with inspirational data. The contact center has a wealth of information – often overlooked - that is relevant to the success of the business, including customer satisfaction scores, competitive intelligence, product and service commentary, revenue trends and loyalty insight. Yet the contact center tends to product output in terms of efficiency metrics – calls handled, service level, abandons, etc. Those metrics alone don't readily inspire investment or change. But point to instances where customers are defecting due to product defects, or a competitive program is causing high turnover in the customer base, or a particular program or technique is increasing close rates. Data that speak to the success of the business will get their attention and should inspire action. Speech analytics is really the only technology that lets you deliver those insights without listening to every call.

ESTIMATING ROI

Return on investment for speech 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 speech 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 has 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.

End-user comment: "The biggest question I have is how to build a strong enough Return on Investment (ROI) to get corporate buy in to purchase speech analytics software." (Various)



Perhaps the most difficult role of the contact center executive is to ensure that executives beyond the contact center understand, embrace and support the contact center's role in enterprise success. You need to talk to finance, marketing and the corner office in the terms they understand - customer retention, product satisfaction, revenue, competitive metrics, and more. Speech analytics is an effective way to give you a window into these trends. Have your vendor help you to create an ROI to justify the project to the corporation in terms they understand. Start with a project that you are comfortable managing from a cost and resource perspective to ensure you can track and present an ROI. Once you've achieved those results, it will be easier to justify expanding the project into other areas.

Variables to be considered for ROI measurements include:

Cost reduction:

- Reduction in headcount from automation of call monitoring and compliance checking
- Avoidance of fines and damages for non-compliance
- Reduction in cost of unnecessary callbacks after improving first-call resolution rates
- Avoidance of live calls that can be handled by better IVR or website self-service
- Reduced cost of QA and QM

- 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

Revenue increase:

- Increase in sales conversion rates and values based on dissemination of best practice
- Increase in promise-to-pay ratios (debt collection)
- Optimized 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

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

Against these potential positives, costs to consider include:

- License fees or cost per call analyzed
- 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.

INHIBITORS TO SPEECH ANALYTICS

A major inhibitor to uptake is an awareness within the company that their environment is not yet ready for speech analytics, in that they may still not have a reliable recording environment or an optimized QM or QA process.

Security and regulation was also mentioned on several occasions as a potential issue.

Some businesses consider that their existing call recording and manual quality monitoring processes are sufficient, and fail to understand the potential business value of speech analytics.

THE IMPLEMENTATION AND USE OF SPEECH ANALYTICS

PRE-IMPLEMENTATION: SELECTING A SOLUTION

Initiators and the Project Champion

Lots of budget is held with marketing, website or customer experience teams, rather than at contact center level, and these teams are now seeing that the contact center is a big part of people's experience of dealing with a company.

To get the most from a speech analytics solution, especially the more complex systems, businesses need to identify and empower a senior project champion, overseeing a cross-functional team. The champion must have a strategic view of what analytics can provide, as well as being able to understand the operational and technical requirements of the contact center and IT teams.

Some milestones for selecting a vendor include:

- Identify interested cross-functional parties in the organization and get a senior project champion
- Choose a specific area of improvement and benchmark it (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 (e.g. propensity to host vs CPE) and 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 speech analytics vendors. Reference sites using same combination of vendors recommended if possible
- Deployment either as trial or full roll-out.

THE IMPLEMENTATION PROCESS

In most cases, speech analytics is implemented well after an existing call recording environment, although some vendors report that a significant number of their speech analytics implementations are occurring as part of a wider workforce optimisation suite implementation.

Additional hardware in form of servers will be required for audio processing and analysis, the number of which is dependent on the volumes 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 near-real-time analysis, whereas a smaller and less-reactive environment might only require a single server.

Proof of concept and soft-start implementation

Many speech analytics vendors recognize the needs of the business to prove the value of an investment and most of them provide a range of options for interested parties.

Many vendors' offerings include running a proof-of-concept implementation, where a specific issue is targeted, analyzed 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, speech analytics vendors are in general an active bunch when it comes to engaging potential customers with a real business issue, as a definite and measureable improvement after a trial period makes a fuller implementation so much easier to sell internally.

The initial business case will tend to be either around cost-reduction or revenue-enhancement, depending on the type of business, and larger contact centers 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.

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.

Multiple-vendor environments

A potentially thorny issue occurs when a new speech analytics solution is to be implemented in a different vendor's recording environment.

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 analytic 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 and that this has caused delays in some cases, 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.

End-user question: "What should we do about rival software developers who may be current providers of one of the platforms (e.g. call recording) being in competition with our analytics provider? Getting call recordings in the format required to feed to the analytics platform suddenly becomes an almost impossible feat, that costs money." (Global retailer)



Be persistent. Getting call recordings in the format required is not a technical limitation, it's a business limitation. Bottom line, if your recording vendor won't cooperate with you to meet your business goals in a cost-effective way, maybe it's time to look for a new recording vendor. Taking your customer to the next level with analytics is likely to justify the entire project.

Timescales

The roll-out of the speech analytics phase tends 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 6-8 weeks to carry out the initial implementation and fine-tuning. Both types of solution will 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 where the incumbent recording vendor is open-handed with providing access to the recordings, if they themselves are not the incumbent.

Key activities for an implementation may include:

1. 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
2. Operational assessment, where the processes of the contact center are observed, and system definition to assess the existing technical environment
3. Preliminary targets and ROI estimates created based on baseline metrics
4. Call categorizations, main dictionaries and reports are set up
5. Out-of-dictionary additions and root-cause analysis, review of initial results
6. Ongoing training of key staff in use of solution
7. Review of key business, operational and commercial aims set at the beginning of the project
8. Hand-over to business and full solution activation if not done so already
9. Post-implementation support - opportunity to quantify cost savings or other metrics, including review of trends.

POST-IMPLEMENTATION: USING SPEECH ANALYTICS

Once the speech 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 speech analytics can be fully explored.

Outputs, processes and measurements of success

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-action will quantify the cost savings or alteration to other key metric.

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.

'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, 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 - where the system can differentiate the customer from the agent - means a greater accuracy of results.

Discovery

'Discovery' is a term often used within the speech 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.

Some solutions already offer automated discovery, and other vendors state they will offer it in their next release. However, this is an area that will always be improving and becoming more subtle and effective, and which has huge potential benefits for businesses.

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.

Ongoing Resources

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 speech 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.

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.

THE MARKET LANDSCAPE OF SPEECH ANALYTICS

There are reckoned to be around 2,600 implementations of speech analytics worldwide (source: DMG Consulting LLC, November 2010), of which the majority are in North America. ContactBabel estimates there are around 125,000 contact centers globally, so while speech analytics could not said to be 'bleeding-edge', the market is certainly a long way from maturity.

BUSINESS DRIVERS

Solution providers comment that cost reduction is often the initial driver for investigating speech analytics, as contact centers realize that there is an alternative to making decisions based on minimal data, and monitoring quality manually and patchily.

The US is a potentially-litigious market, and companies there are very aware of the risk of ruinous lawsuits, so a solution that goes some way to guaranteeing compliance gets a good audience. For example, debt collection firms have to read a 'mini-Miranda' statement on each call, warning 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.

While solution providers in the US confirm that this territory is very aware of speech analytics' potential for improving compliance, there is also revenue-driven pressure to improve sales and collections, and vendors may offer a pre-configured version of their solutions (for example, a phonetics-based vendor may offer a version focusing on specific words and terms for sales, or identifying unhappy customers).

The majority of EMEA implementations are driven by overtly-commercial requirements, rather than compliance, such as understanding why people are calling, and identifying broken processes. This may seem rather strange at first glance, as European companies tend to be seen as having rather more regulatory processes than US companies. Higher-end implementations (i.e. those that will be more expensive) are often driven by the desire for process improvement - both inside and outside the contact center - with a significant interest in improving agent performance management, especially collections and sales.

End-user question: "What real-life, successful business decisions have your customers made on the back of the output from speech analytics?" (various)



The solution can carry out evaluations of specific types of call - for example, dissatisfied customers - analyze these, and pass high-quality data back into the existing quality assurance process, minimizing the time it takes to find calls of interest and increasing the likelihood that you will find them.

KEY VERTICALS AND ACTIVITIES

There has been definite requirements for speech analytics solutions to support and prove compliance to industry regulations, which has been particularly noticeable in the US. Industries such as finance, insurance and healthcare have been amongst the earliest adopters in the US, as well as the debt collection sub-sector.

In EMEA, financial services have been amongst the first to take-up speech analytics, with telecoms and utilities also showing interest. Retailers, especially larger ones, have also shown interest. Outsourcing companies with service level agreements related to compliance, efficiency, retention and sales are also adopting speech analytics based solutions.

Many solution providers indicate that there is a minimum size below which the benefits tend not to outweigh the costs. Most put this at around the 100 seat mark - speech analytics works best when there is large amounts of data to analyze and draw conclusions from - but some vendors have a cheaper entry-level option for sub-100 seat operations as well. A 50-seat contact center, typically working 6 days a week and open for 12 hours a day can easily produce 9,000 hours or more of audio per month, a volume which cannot be adequately monitored manually, and which is large enough to begin drawing some analytical conclusions from, in order to propagate findings through the wider business. However, speech analytics vendors state that smaller contact centers interested in speech analytics will tend to be sales-focused, as improvements in sales conversions can make a much bigger difference to profitability than any cost-savings in a smaller operation.

Apart from a 'soft-floor' of around 75-100 seats in the customer service environment, several solution providers have stated that there is not a typical speech analytics customer in terms of size or vertical market. Many of the early adopters of speech analytics are ambitious to get ahead of their competitors and are keen to differentiate themselves in a tough market.

End-user question: "Is there any benefit to speech analytics for a smaller operation, e.g. one taking 70-80k calls per month? Is it affordable for us?" (UK Public Sector)



There are certainly cost effective options for speech analytics to deliver an ROI in smaller operations. The most important factor will be determining what business objective(s) you want to accomplish with the technology before initiating an implementation, which will keep the project focused, keep the cost of experimental implementation at a minimum, and deliver a more immediate return. Make sure you consider what you will do with the results before you invest. What do you want to know, who needs to know it, and what will happen with the results? Factor in resources within your organization to be responsible for acting on the results. Depending on your business case, you may not need a dedicated analyst but you do need an analyst who is responsible for viewing and communicating results and dedicated to the initiative.

PRICING

Most vendors price licenses on a concurrent per-seat basis, although one or two look at the volume of audio. Pricing information is highly-confidential and subject to discount depending on the number of licenses and whether speech analytics is taken as part of a wider WFO solution. It tends to range from the mid-hundreds of dollars/pounds per seat into the low thousands of dollars/pounds.

COMPANY PROFILE

The Calabrio Solution:

Established in 2007, Calabrio provides an integrated suite of workforce optimization software called Calabrio ONE, including call recording, quality management, performance management, workforce management and speech analytics. Calabrio Speech Analytics is built upon a phonetic speech engine, and has been available to the market since mid-2010.

Although Calabrio feels that its phonetic approach means it is easier and quicker to find particular call instances when the business knows what it is looking for, if a potential customer of its WFO suite particularly wants to use a speech-to-text analytics solution from another vendor, then Calabrio Recording Export - a software add-on to Calabrio Quality Management product - enables users to pinpoint and export recordings of interest based on business rules for analysis by a third-party.

Customers and implementations:

As a relative newcomer to speech analytics, most Calabrio Speech Analytics deployments are in an early stage and tend to be around the 75-100 seat mark. The initial deployment takes only days, with a period of fine-tuning a month or so afterwards. Calabrio is particularly keen to emphasize the simplicity and speed to deployment of its solution.

Calabrio has a number of business cases based around the effect of speech analytics on first-call resolution, compliance and call escalation, from which it can help potential users build a business case. Return on investment is reckoned by Calabrio to be around 6 months.

The software includes several Quick Start templates that users can use as-is or customize easily, as well as a bundled professional services offering that provides implementation support and training designed for early success. Calabrio says that in their experience, companies do not have to dedicate an analyst exclusively to speech analytics, and that it reduces the risks associated with random sampling of calls that a typical QA process undergoes.

Opinion on market:

The greatest level of current interest in speech analytics is around compliance to script - for example, in debt collection or in a sales environment, where the use of specific terms and phrases is strictly controlled - although areas such as call escalation and unhappy customers have also been of interest. As a provider of full-suite WFO solutions, Calabrio is committed to its speech analytics solution increasing the level of functionality available to other products, such as feeding the evaluation of chosen calls (e.g. dissatisfied customers) into the quality assurance and management process.



Looking forward, Calabrio's vision is to integrate its Speech Analytics solution ever more-tightly to its wider Calabrio ONE WFO suite. By the end of 2011, there will be a tight and automated linking of calls with the QM product, with a view of improving reporting by reducing customization and increasing the depth of trending and analytical reports. Longer-term, Calabrio sees that the integration of multichannel, desktop and speech analytics will unlock greater business value.

FUTURE DIRECTIONS FOR SPEECH ANALYTICS

From discussions with speech analytics vendors, we have identified the areas which most research and development cost is going into. In some cases, functionality is available today, and it is the capability and sophistication of the solution which will change. However, it is worth pointing out that the immaturity of the speech analytics market means that for most companies, even using what is available today would be a big step forward.

Multichannel

Already we see that speech analytics can go beyond simple audio, taking data feeds from databases and the desktop, and integrating with CRM systems to provide in-call advice and activity (such as routing to a supervisor). Many vendors have talked about bringing social media, email and text chat into the analytics equation and even in mid-2011, many vendors offer a multichannel flavor to their speech analytics solutions - albeit very new to market in most cases - and this is consistently stated to be one of the key areas of research and development.

Future customer contact is likely to become along polarized lines: for everyday, mundane tasks, the customer will choose the website for self-service, leaving the contact center to deal with those interactions which are complex or emotive for the customer (as well as there being demographics for whom the contact center 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 analyzing 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 minor channels such as social media, text chat, SMS and email makes the mix more complex, and more potentially suitable for analysis. It is also certainly worth mentioning that some solutions analyze 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.

Proving profitability

A deeper integration of analytics to the CRM or ERP system is also expected which can relate specific behaviors or activities back to a measurement of productivity and profitability, which should finally prove to senior management that the contact center has a distinct and measureable impact on the entire company that goes beyond simply being a cost center. The opportunity to use linked metadata from other systems, as well as from contact center systems, is seen as being a major opportunity for future developments, leading to a deeper and richer understanding of customers and business processes.

Quicker and deeper analysis

The ability to reach quickly to events in the contact center is a theme that many solution providers pursue, and various improvements to short-term operational information through alerts are planned, to give the operations team a minute-by-minute account of what's being talked about by customers, with anomaly spikes being identified straightaway, as well as short-term trending reports, showing how actions taken have affected these anomalies.

The 'tell-me-why' and discovery modes of speech analytics will improve over time as the better accuracy of the speech engines provides richer and more joined-up data for analysis, and the non-voice channels such as web or email show the full picture of customer contact and its intent.

Stereo recording

Most recording environments today are mono rather than stereo, in that there is no distinction between the caller and the agent except through context. This is a clear disadvantage for effective speech analytics, as in order to learn from customer feedback and experience, clearly a business needs to know whether it is the customer taking 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.

Closer integration with workforce optimisation

Vendors of full-suite WFO solutions recognize that speech analytics is of great potential value to a business in terms of discovery, compliance and business process optimisation, but they are also very keen to point out the improvements that the outputs from speech analytics can offer to other elements of the WFO suite, such as agent performance and training, as scorecards based on 100% of calls rather than a small sample are much more accurate, and support better training and eLearning techniques.

Emotion detection

Emotion displayed on calls can be extremely difficult 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. Some vendors argue strongly that detecting emotion on each call is a useful tool - for example, by passing irate customers to a supervisor - and are looking at further developing their ability to detect voice-stress on a call in order to flag these to a supervisor.

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. The jury is divided on whether emotion detection is currently sufficiently well-developed to be a useful tool for contact centers, or whether it is sufficient to identify the words and phrases most likely to be identified with 'high emotion' and analyze data and patterns based on that.