



Can efficiencies be customer-led?

A paper for CCA Industry Council

CCA INDUSTRY COUNCIL

CCA Industry Council drives the industry's research agenda by interacting to ensure research approach, debate and output provides the pathway for the future in terms of new thinking and strategies from across all sectors.

An initial meeting was held where 30 leading players from industry debated 'Changing the Rules'. From this debate it is clear a need has been established to create 'Beyond Operational Efficiency' – a new vision for how customer contact centres should be repositioned within organisation, placing the customer at the heart of the business.

Industry Council consists of an exclusive group of representatives from leading organisations who are committed to providing this input whilst themselves benefiting from a unique package of leading edge research, networking, government influencing opportunities and profile within industry as 'Leaders of the Future'.

Industry Council will have global impact and members of the group have been invited to join the CCA Standard Council who will oversee the launch of the new revised CCA Standard® to the international market during 2006-2007.

Expert academic and private sector facilitators will draw on leading edge debate and invite participation from other recognised research houses and agencies to engage with Industry Council to ensure the group deliver leading edge analysis.

As the independent professional body, CCA partner with leading organisations and groups to access relevant research and information for the development of the Industry Council. CCA's vision is for contact centres to be repositioned within organisations to reflect the increasing complexity and competitor challenges arising from the dominance of this channel.

CCA are indebted to the efforts of the Foundation Partner Group who have formed the backbone of activity in taking forward the development of the CCA Standard® and creating the vision for CCA Industry Council. These organisations across all sectors, both public and private, each have a significant impact on the contact centre market-place.

FOUNDATION PARTNERS



Foreword from Rob Pike, Chair of CCA Industry Council



In an age when there is a multitude of options available to customers on where and how they get the products/services they require at the right time in their life cycle, delivering a great customer experience becomes ever more challenging.

Customer dissatisfaction has wide implications. It creates a vicious circle of dissatisfaction, impacting the staff who engage with those customers, and the shareholders who invest in the business. Offering superb customer service grants an enormous competitive advantage to a company - but how do you do this efficiently and cost-effectively? Many organisations are driven by cost savings with the ultimate risk of losing customers - a position which no organisation can afford to find itself in today. Investing in the right processes, technologies and people and actually doing what customers want instead of what we think they want leads to satisfied customers, and ideally loyal and engaged customers who then become advocates.

This is the third in a series of research papers exploring the changing face of customer contact and examines how listening to customers and responding appropriately to their needs can result in operational efficiencies.

We are indebted to the work of CCA Foundation Partners who have been the catalyst of CCA's evolution to Customer Contact Association in 2006. Their dedication has helped create CCA's Industry Council, a unique think-tank which is challenged with finding solutions to ensure that the customer is placed at the heart of an organisation's operations.

We would like to extend our grateful thanks to CCA's Research Council for providing very insightful findings into this critical issue.

Rob Pike
Chair, CCA Industry Council

'Have your cake and eat it'

'Is it possible to use self-service speech recognition to improve customer experience, delight shareholders and at the same time keep your employees happy?'

Prepared by Boris Gustafsson, Larry Tampkins and Michael Anderson,
Capgemini

1. It is all about the customer...

To evaluate the opportunity to introduce Advanced Speech Recognition (ASR) in an organisation, managers must investigate a number of factors of which technology is one part. To succeed the initiative has to be led by a strong business and customer focus.

1.1 Starting with what you've got

Perhaps, the most simplistic way of approaching any speech recognition initiative is to re-evaluate the customer usage of their current touch tone IVR (Interactive Voice Response) system with the aim to make it more user friendly and increase uptake. This involves investigating any current limitations of the current IVR system. Speech Recognition (SR) enhances the number of input variables from the phone key pad to the range of an individual's vocabulary, so examining whether the current application is suffering from input limitations should be the first point of the evaluation. It is also important to understand whether the current system is not working well due to the complex and lengthy menu structures.

Reviewing and improving the use of the existing system can already provide significant benefits. Capgemini recently worked with a major UK Credit Card provider where customer contact data was analysed to identify behavioural and process trends within the IVR. Process analysis was then undertaken to understand trends in call reasons by customer type. For example:

- A small proportion of customers (<5%) drive almost a quarter of calls to the contact centre
- A third of customers comfortably self-serve within the current IVR and have similar attributes to those avoiding self-service
- Frequent callers to the contact centre are calling for regular - not one off - reasons (e.g. general account maintenance)
- As a result of this analysis it was made evident that differentiated IVR treatments were necessary to manage the needs and behaviours of different customer types.

Short and medium-term recommendations were made to address: self-serve avoider behaviour, suboptimal IVR scripting and structure, process suitability for self-service.

1.2 A part of the customer experience lifecycle

Taking the approach of enhancing existing IVR capabilities may bring some short-term benefits. The organisation needs to think about self-service beyond the contact centre by making use of customer intelligence and leverage its insights to manage all its customer interactions in a cohesive way so that it provides the optimal value to the customer and the organisation.

This customer centric approach is therefore much less about cost cutting by replacing live agents with an

automated service, but much more about providing a better end-to-end customer experience across all channels and about customer lifecycle profitability.

Therefore, as a starting point, managers must dig deeper and understand who their customers are, their needs, when they would use the service and what value they will get from it. Start by evaluating a number of variables, including:

Variable	Considerations
Environment	Where the caller is located: e.g. in a car, in a noisy environment, open office or at home in a quiet room.
Alternative or Complementary Channels	Can the customer make use of any alternative or complementary channels such as face-to-face, web or email?
Time of the Call	At what time during the day does the customer require our services: e.g. normal office hours, during peak demand or out of hours?
Customer Life Cycle	What level of automation is appropriate in each part of the customer lifecycle: e.g. product evaluation, sales, service, payments, renewal?
Frequency of use	How often will the caller use the service, daily, weekly, monthly, yearly?
Socio/Demographics	Which demographic segments are more likely to use the service? Do different socio/demographic segments require a differentiated service?
Customer Segments	Are there reasons to why we would not want to automate service for specific customer segments: e.g. to provide a premium service, for higher propensity to cross/up sell?

2. Self Service - not just about cutting costs

Many organisations have already invested in advanced contact management technologies, such as web/e-commerce, automatic call distribution, IVR and CRM which has added to the increased ability to effectively communicate and interact with customers. Unfortunately many initiatives have traditionally focused on automation to cut costs and process to capture, store and manage the availability of information rather than optimising customer experience and driving performance improvements.

The challenge is to find a way through cost pressures and 'data overload' and use technology to deliver increased customer experience and real performance improvement. Managers must ask how their self service technology can be used so their customers become better served, yet the organisation becomes more cost effective.

2.1 It has been around for a while - so why now?

One of the self service technologies recently being brought back to our attention involves the application of advanced speech recognition.

In the 90's we heard that SR would radically change the way we interact with customers. What made SR so attractive compared to the more traditional use of the telephone keypad (which in effect only has 12 buttons/input variables) is that it enables the user to navigate via their voice. The key benefit of this, being that the user can communicate in their own language where the limit is ultimately set only by the range and use of the individual's vocabulary.

An example of this is a scenario where a customer is calling and is asking for the price of a coach ticket going from London to Edinburgh: 'Can you tell me the price of coach ticket from London to Edinburgh'? Inputting the same information using the keypad is possible but would require long/complex menu options.

However while the promise of rapid technological progress and the revolution of speech recognition never materialised, progress continued - albeit it has been more evolutionary.

In particular we have seen improvements that have come with increased processing power, in combination with the use of enhanced approaches to speech analytics e.g. word spotting and the use of 'Boolean' rules to phoneme processing, and the enhanced use of conceptual analytics. The latter refers to a method to combine spoken words and analyse their combined meaning, rather than just words on their own. These enhancements in combination with improved text to speech quality, and development of modern IP technologies such as web services (which has simplified integration with back end systems), has made speech recognition a 'right now' viable reality.

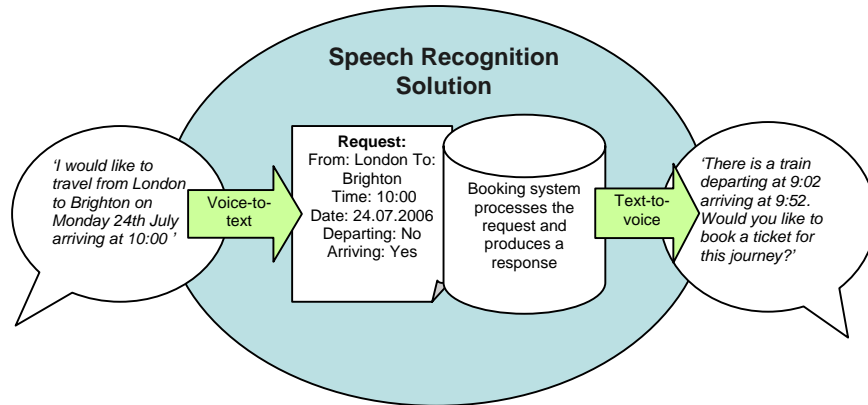
2.2 Things are now happening in the industry

A number of organisations have recently implemented these technologies and together with their customers they are now reaping the benefits of these new improvements.

An example is 'The Trainline' (Virgin Trains information and booking service). Together, Capgemini and Cable & Wireless developed the UK's first network-hosted Speech Recognition and voice-data integration solution. This is how it works:

1. Calls are answered by an automated system that requests details of a planned journey (from/to, date, time etc). The customer responds naturally, as if speaking to a friend.
2. Speech recognition software records the detail provided by the customer and feeds it into data format within the IT system.
3. The 'demand' data then triggers automatic and virtually instant retrieval of all 'supply side' information (e.g. train times, seat availability, and ticket prices) from rail industry databases.
4. The data is sent to the screen of the appropriate sales agent and within a few seconds the customer call is patched through to that same agent, using Intelligent Call Manager platform. The sale is confirmed person-to-person, payment details are taken and the transaction is completed. In the future, the payment could be completed by the same system.

 How it works



The Trainline confirm that they have won several vital benefits as a result of the project. These include:

- Cost reduction of 20% through more efficient utilisation of agents and reduction in agent handling time
- Service standards improved by over 10% through automatic load balancing above the level previously achieved through ratio planning
- Improved conversion rates (ratio of ticket sales to enquiries) by freeing agents to focus on selling.
- Very high, measured levels of customer satisfaction with the service delivered by the contact centres, including both perceived efficiency and ease of use. Higher efficiency has been gained without sacrificing the quality of the customer experience
- The achievement of 'virtual contact centre capability', delivering all the benefits of a single call centre despite operating two physically separated centres, including the benefits of lower operating costs and easier scalability
- A single point of management for all contact centres, with excellent cost and efficiency implications
- Accurate real time consolidated management information, giving managers the power to respond faster and better to any kind of change.

A number of complexities had to be factored into the final solution. This included the need to effectively distribute calls between contact centres, and a requirement to 'fast-track' any special customer needs - for ferry, sleeper or Eurostar tickets e.g. straight through to an operator.

Another example is holiday firm 'First Choice' who recently joined the growing number of UK businesses to introduce a speech

recognition system. The system, at the company's customer contact centre in Manchester, handles 600 calls a day, dealing with the most common enquiries about balances owed on holidays, making payments and checking on ticket status.

The 'HMRC' (merged Inland Revenue and HM Customs organisations) have piloted and successfully proven that the complicated and complex yearly tax return process can be automated using SR. The award-winning pilot insisted on 100% task completion. Where customers struggled at particular points in the form completion, it was possible to 'whisper' back to an agent, who would help and coach, and where appropriate, place the caller back into the technology to complete the tax return. Learnings were taken from these sessions to self-heal the process to ensure the critical success factors were met.

These examples demonstrate the steady moving trend towards the use of SR, with other organisations such as Powergen, Royal Mail, British Airways, Lloyds TSB, Barclays, Sutton & East Surrey Water and Odeon, all adopting similar systems. These are some of many examples of how some companies in the UK are effectively implementing these technologies to focus on optimizing performance and improving the customer experience.

Looking further afield, a well known fixed-line operator has taken the technology to new levels to the extent that 'it' receives fan mail! This organisation has created a personality and extended it across other channels such as the web. The outcome being that customers feel they are talking to and interacting with something that is very real and personal. This persona was achieved by identifying the attributes and values that needed to be seen by the customer as authentic. This organisation therefore took the long term view; it wasn't going to be just about cost reduction; it was also going to be about creating value and developing a solution that epitomized the way they wanted customers to feel about the brand.

2.3 How to balance customer experience with risk

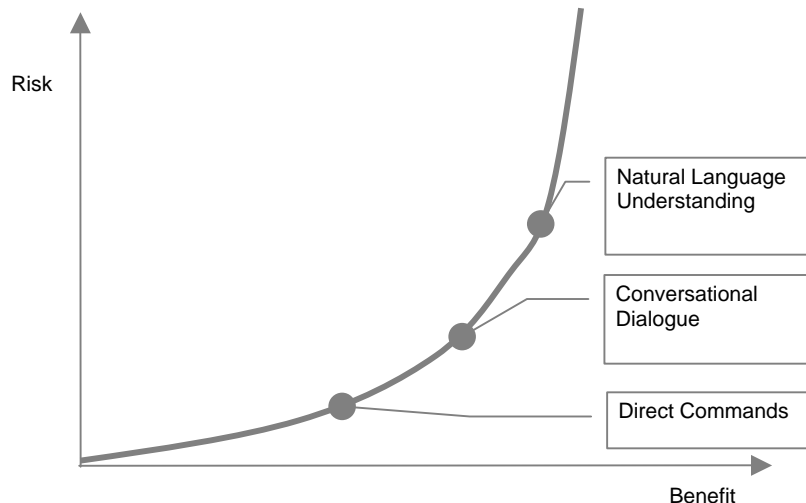
Think about talking to your customers to find out what the gaps are in your current IVR functionality. Talk to your agents to identify what customers are saying to them. We know the general customer perception towards automated response is fairly poor at present, but this in general has been caused by poor implementation and a short term view as to the benefits and impacts.

Once you've established a framework for how the Speech Recognition service will be used as part of an overall customer experience strategy, the next step is to determine what approach is appropriate for the type of service being introduced: *Direct Commands*, *Conversational Dialogue* or *Natural Language Understanding*.

	Direct Commands (Basic)	Conversational Dialogue (Moderate)	Natural Language Understanding (Advanced)
Key Attribute	The system directs or controls the call flow explicitly and the system asks for and only accepts single pieces of information at a time in a similar way many traditional touch tone systems are set up.	The system asks more open questions and will accept a wider variety of responses. To compensate for the increased error rate, some level of Direct Commands is often used to get the interaction back on track.	Offers an almost natural experience to the caller. The system asks fully open questions such as "What would you like to do" and uses statistical probabilities rather than grammars to recognise the users input.
Pros	Is often used as a starting point in a speech-recognition initiative and can effectively be used for customer segments that are unused to the technology or for caller scenarios when an explicit set of information is required to successfully complete a transaction.	Offers a higher level of conversational dialogue. Allows both the system and the user to control the flow through the interaction.	Currently represents the highest levels of service for speech systems as it is almost fully conversational and can ultimately provide the best customer experience. Experienced users can benefit significantly
Cons	Shares some of the drawbacks of traditional touch tone systems in that the user experience can feel stilted, procedural and can be time consuming.	Can lead to that the error rate goes up, will therefore require more experience from the user so that he can foresee what the system typically will understand and where it will struggle. Adds complexity and will therefore provide longer development and testing cycles.	Inexperienced users are least comfortable with this approach. With a much wider range of possible input variables, it will typically provide lower success rate. Can be highly complex and costly to implement.

The following diagram illustrates how the benefits increase with the use of sophisticated technology. The current level of technological maturity can make an initiative using Natural Language Understanding risky. Organisations are therefore wise to limit its usage to very specific services and where appropriate leverage risk/reward arrangements with technology vendors.

Speech Recognition Risk/Benefits Diagram



3. Benefiting your staff

Many self serve automation initiatives focus on reducing 'cost to serve' through reducing headcount, however, it can also bring other positive benefits.

Services and transactions that are high volume or, simple and repetitive, can often be perceived as monotonous and disengaging to agents. Automating such services means that agents become more involved in value adding activities, which can have the effect of boosting moral and in return contribute to overall higher service levels and lower employee turnover. It is no secret that happy agents are more productive and better at serving customers.

Speech Recognition technology can transform the role of the traditional agent where he/she becoming much more of a 'knowledge worker'; providing a more personalised, value adding service becomes more important than 'shaving' of average call handling time. This will benefit the employee as the job will feel more meaningful.

Still, many customers are unused to self-service applications and will require help (and sometimes even incentives) to adopt the new system. The agent will play an important role here by promoting the use of the self service by actively recommending it. To support this change, agents should be measured on their ability to direct customers to self-service channels rather than on call-completion rates.

Taking this to the next level involves coaching the caller how to use it. One of the leading Irish retail banks is successfully using this approach. When a caller selects to speak to an agent, but the same service the can be provided by the self service application, the agent sets up a 3 way call where he/she then takes the caller through every step of how to use it. In this way, the customer can try the application in a way where he/she is comfortable and ask any questions back to the agent if necessary.

4. In Summary

Organisations, which strive to have a deep understanding of its customers and how the self-service initiative will bring value as an integral part in the customer experience life cycle, are in a very good position to reap the benefits of a speech recognition initiative.

Managers are recommended to start the process by using proven technology which can be used by a wide customer base, then slowly progress with specific customer segments with more advanced approaches as technology improves and the organisation and its customers learn and become ready for it.

Don't be 'short-termist' in your design solution. If you view speech recognition as a way to reduce cost, you've only got one part of the story correct. You must also consider the impact on the brand and on your employees.

From a brand perspective, the customer experience can and should be very positive; believe it or not there are self-serve junkies out there today, and if you get it right, they become advocates of your brand, not terrorists.

From an employee perspective, utilize their knowledge and desire to serve. Being an agent is very challenging anyway and enabling them to increase their value both to the organisation and to the customer is a real opportunity.

Implementing Speech Recognition is 50% science and 90% art, but combined they make for a 140% customer experience. The good news therefore is that, if implemented in the right way, self-service speech recognition can benefit Customers, Shareholders and Employees. Have your cake and eat it!

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