



Automation and the Human Touch: Measuring and Implementing the Appropriate Approach

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'.

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



For many years it has been predicted that automation would lead to a rapid decline in voice traffic to the contact centre. Although later than expected there is now hard evidence that the reduction in agent or 'human' calls is not only taking place but gaining momentum. Trends from some large US banking organisations indicate that customers are extensively using IVR and natural voice as part of their customer contact offering, with the majority of transactions completed within the automated system.

Traditionally the pattern from US is followed by the UK, which would suggest that this trend may well be adopted by the UK customer sooner rather than later. However, much of the recent press in the UK has been focused again on customer dissatisfaction with contact centres, specifically in using automated services. If it's true, why does the customer feel frustrated using automation or are organisations not presenting the technology in the most appropriate way? Evidence from the US suggests that the use of natural voice has increased satisfaction for many.

These issues have considerable implications for how we take customer contact to the next level as automated services are used more frequently, and often demanded, by customers. Therefore they need to be effective and efficient from both the business and customer perspective. The role of customer contact centres is becoming increasingly about access and support, and the ability to deal effectively with more complex enquiries as the simpler transactions are completed in the automated route. The challenge for business today is to not only listen to the voice of the customer in terms of design but also to ensure the customer is educated and guided appropriately in all methods of contact to facilitate a positive outcome and enhance experience.

The fourth in a series of research papers exploring the changing face of customer contact this paper discusses how self-serve technology can be used effectively and the impact of its increased use on the role of the agent. The ultimate goal, of course is maintaining the 'human' element whilst implementing the appropriate response for your customer.

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 again providing very insightful findings into this critical issue.

Rob Pike
Chair, CCA Industry Council

Rob is Director of Operations, Ulster Bank Group and European Consumer Finance at the Royal Bank of Scotland

Introduction

The latest quarterly Research Council report looks at the future of voice calls and the impact that speech recognition technology, and other channels, is having on call numbers and customer satisfaction.

The impetus for the research from the CCA Industry Council was the news that two large American banking organisations are now extensively using IVR and speech recognition as part of their customer contact offering. The first receives 750m calls per annum of which 85% are completed within the IVR. The second organisation receives some 245m calls per year of which 80% are completed within IVR.

- What does that mean for the 'traditional' voice-led call centre?
- What response is required from the contact centre to meet the changing needs of the customer?

This quarter we have 5 excellent and well-researched papers from Cap Gemini, CM Insight, Gallup, Intersperience and Dimension Data, which make key points about the questions above:

- The definition of IVR is broadening beyond the well-established call routing, and applications of touch-tone and simple speech recognition, to include advanced speech recognition and natural language technologies such as used by TrainTracker (which can mitigate against the much disliked queuing of calls).
- Improvements in natural language recognition rates, design tools and standards are accelerating the adoption of speech recognition which has reached a breakthrough point in terms of usability.
- These traditional and particularly the newer applications of IVR can improve customer experience. However, the key criteria for the success of IVR is the customers' ability to accomplish goals rather than the technology per se.
- The pace of change can be expected to grow as the economic influence of younger consumers, or the M-Age, drives demand for self-service interfaces.
- The role of customer contact is increasingly about Access and Support. The former is about making it easier and faster for customers to contact organisations through multi channel and the latter is about helping customers with complex issues.
- The role of normal human voice will shift towards the difficult, emotional and detailed calls. This will mean fewer but longer calls. Focus on recruiting the best agents who engage with customers and regular feedback and coaching will sustain future voice call interactions.
- The major improvements in IVR technology through speech recognition and natural language techniques, is just one opportunity among a range of multi channel applications demanded on various occasions by customers.
- Education and guidance for consumers is vital to the successful adoption new self service technologies.

- Overall, there are significant opportunities to review customer contact management. Much of this is around driving down call numbers, lowering costs of interaction. But significantly, the chance to improve customer experience through shorter turnaround times, improved call outcomes and 'One & Done' programmes also exists.
- Lastly, the role of contact centres in determining the brand perceptions of organisations is set to grow. This means having a holistic approach to all customer contact, rather than simply 'bolting on' a new speech recognition capability. All channels need to be measured and linked to a central customer database to provide a joined up customer experience.

'Head In the Sand or One Eye on the Horizon'

'Have we finally reached the tipping point for customer take-up of self-serve channels?'

Prepared by Michael Anderson, Capgemini

1. Executive Summary

When the film Toy Story was launched by Disney, Tom Hanks famously decreed it was the start of the end for actors as they knew it. Whilst that may or may not happen, it certainly created a new art form that has almost killed the cartoon industry. The technology used in other computer generated films has meant that this media is pushing the boundaries of possibility all the time.

The same can be said of self-serve automation and in general, organisations are ignoring the advantages technologies can bring to the overall customer experience, or where they have tried to deploy it, many have taken the wrong approach and implemented poor solutions resulting in a poor customer experience.

There are many success stories of where organisations have done it well and where they have, customers have truly embraced it, some have even created fan clubs of the product; surely no greater testimony of customers falling in love with your brand. The difference in the application of these technologies is that they have put the customer at the centre of the design, rather than seeing it as just a way to save costs in the traditional voice channel.

Our findings across a range of industries and geographic boundaries indicate

- Uptake of IVR is being driven by customers' demand for convenience and accessibility to services and businesses' need to reduce costs
- Speech-enabled IVR adds value over touch-tone technology through enhanced customer experience and the support of more complex transactions, which benefits both the business and consumers
- Uptake of IVR is more advanced in the US where 48% of enterprises use touch-tone and speech-enabled IVR compared to 38% in Europe
 - Speech-enabled self-service is expected to grow faster than touch-tone, but touch-tone functionality is well suited to particular purposes, and a hybrid environment is thus expected for several years
- Touch-tone IVR is commonly used in the financial services sector, while speech-enabled IVR is most common in Business Services
 - As companies seek to reduce their costs they may choose to automate internal functions, and speech-enabled IVR applications will thus play an increasingly important role in business service functions.
- Touch-tone IVR is well suited to low-complexity interactions, while speech-enabled can be used for complex transactions
 - Particularly complex transactions currently still require an agent, but with improvements in speech-enabled technology this may result in agents only being required as a fall back option
- Speech-enabled IVR technology is impacting traditional contact centres resulting in increased customer satisfaction, channel usage and decreased costs
- Though IVR is significantly less expensive than other channels, the web is seen by companies as a more important self-service channel

- End users' satisfaction correlates strongly with the ability to accomplish goals when using IVR technology, which may be impacted by design flaws and inappropriate implementation of the technology
- Speech-enabled IVR is expected to reach mainstream adoption within two years, yet virtual contact centres may have a greater impact on the industry
- Improvements in recognition rates, design tools and standards, combined with lower cost of implementation, are accelerating the adoption of speech recognition technologies
- Two large financial institutions in the USA, Wachovia and Bank of America have successfully implemented speech-enabled IVR automating significant volumes of traditional agent handled enquiries. Implementation of speech-enabled IVR has enabled both companies to provide additional value-add services to their customers and enabled cost reduction.

2. Trends & Issues

2.1 Drivers & Benefits

Uptake of IVR is being driven by customers demand for convenience and accessibility to services and the need for businesses to reduce costs.

- Provide convenience and accessibility for growing mobile population
- Demand for faster response times than assisted services
- Need to extend hours of operation
- Increasing call volumes requiring additional capacity
- Reduce costs in terms of costs-per-interaction versus other channels

There are two main types of IVR touch-tone interactive voice response and Speech enabled voice interactive systems. For touch-tone the technology is used to interact with a database typically to acquire information using voice guidance and callers navigate system menus by pressing their touchtone phone:

- Fully automated self-service capability allows end-users to access data and services without interacting with an agent
- Touch-tone IVR is cheaper than speech-enabled IVR and other channels such as live agents and email response
- Increased efficiency as there is a greater capacity to handle large call volumes which may peak sporadically

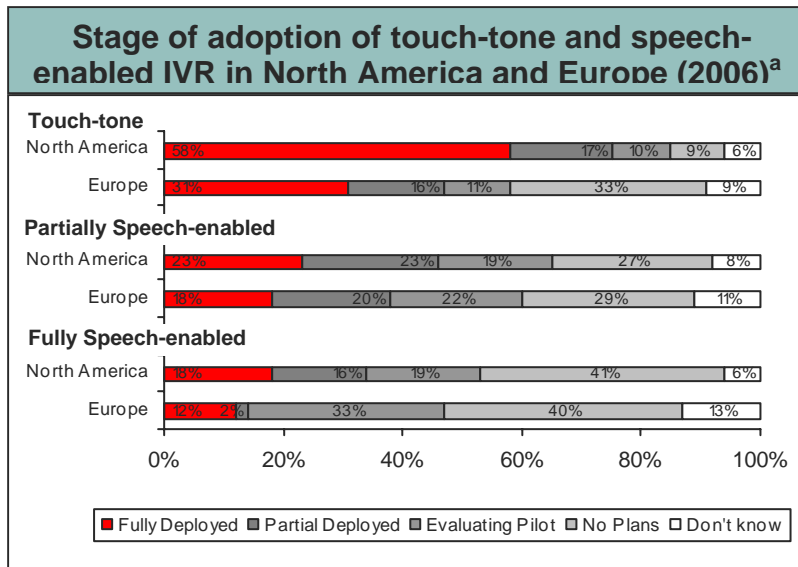
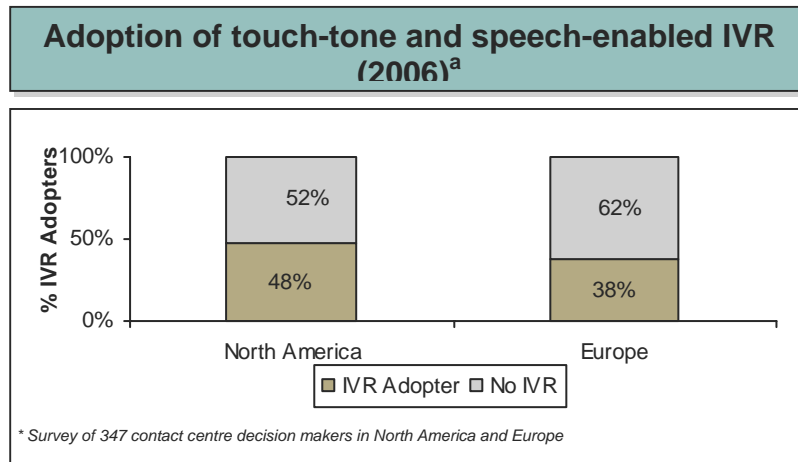
Speech recognition technology is used for contact centre applications such as call routing, commands for navigation, data entry and transactional self-service functions. The system has directed dialogue, whereby the system steps the caller through a series of questions, is the most commonly used and proven approach.

A growing number of applications now support natural language phrase recognition whereby users can respond freely to an open-ended question and the system routes the call accordingly. Major benefits of speech recognition are that it

- Supports more complex, self-service transactions as they not need to navigate complex menus
- Allows companies to offer new services that previously required assisted services
- Better customer experience leads to increased call completion and to lower opt-out rates to speak to a CSR than touch-tone IVR
- Supports multiple languages and dialects and therefore enterprises do need to invest in a large multi-lingual staff base
- Intuitive to use as callers simply say what they require and do not have to navigate rigid menus

2.2 Uptake

Speech-enabled self-service is expected to grow faster than touch-tone, but touch-tone functionality is well suited to particular purposes, and a hybrid environment is thus expected for several years.



Survey of 153 contact centre decision-makers at North American and European enterprises that use IVR/speech platform technology.

If we are to believe the old adage that whatever happens in the US will ultimately find its way across the Atlantic, then we should understand what is happening there today.

Adoption rates of touch-tone and speech-enabled IVR is higher in North America than Europe where in North America, 48% of companies has some form of IVR compared to 38% in Europe.

In 2006, 44% of companies in North America and Europe used IVR technology in their contact centres, with 50% of these using touch-tone systems.

North American enterprises are ahead of European enterprises in full deployment and initial roll-outs of touch-tone (75% vs. 47%) and the spend on traditional touch-tone IVR licenses in North America and EMEA is predicted to decline by 35% between 2005-09, from \$277mn to \$179mn.

Partially speech-enabled and fully speech enabled systems have been deployed by 44% and 28% of enterprises respectively and adoption rates of speech-enabled IVR systems are expected to increase.

Only 2% of North American and European enterprises currently use speech-enabled technology for all voice response applications and interestingly more than 50% of all enterprises that have fully developed speech-enabled systems expect to have all IVR applications using speech technology within five years.

65% of North American companies and 60% of European companies indicate that they are planning for or are acquiring speech enabled solutions and the spend on speech-enabled IVR licenses in North America and EMEA is predicted to grow from \$166mn to \$332mn between 2005-09.

Datamonitor estimates spending on the technology in the US will leap from \$480mn in 2005 to \$1.2bn by 2008.

Source: (a) Forrester Research, "Enterprise IVR/Speech Platforms in 2006", 09/06/06; (b) Forrester Research, "Contact Centre and IVR spending: Cross-channel platforms offer growth potential", 15/08/06 (c) M2 Presswire, "Survival of the fittest: Traditional IVR to become extinct with the emergence of open-standards IVR", 13/05/05 (d) All Africa, "Call Centres Can Now Say Hello to the World", 10/02/05 (e) All Africa, "Call Centres Can Now Say Hello to the World", 10/02/05 (f) Forrester research, "The Forrester Wave: Speech self service platforms, 2006", 31/04/06

2.3 Industry Sectors

As companies seek to reduce their costs they may choose to automate internal functions, and speech-enabled IVR applications will thus play an increasingly important role in business service functions.

The finance and insurance industry vertical is the number one adopter of both touch-tone and partially speech-enabled IVR technology and the average time for banks implementing speech-recognition technology to break even on their initial investment is 6-12 months.

The average cost savings by banks is \$1mn in the first-year.

- **Canadian Imperial Bank of Commerce (CIBC)** in Canada, used an IVR system to set up on-line bill payments, which through an account representative cost between \$5-\$10 per account, but through the IVR reduced costs by nearly 90% to \$0.50- \$1
- In contrast to other industry verticals, the least popular channel for finding out bank balances is speaking with a agent with 20% stating they would prefer consumers to call the bank's IVR system

The business services vertical is the second highest adopter of touch-tone and partially speech-enabled applications and they have the highest deployment rate of fully speech-enabled solutions, at 32%

Source: (a) "Enterprise IVR/Speech Platforms in 2006", Forrester, 09/06/06 (b) Bank Technology News, "Speech Recognition: Technology Moving Full Steam Ahead", 07/06/03 (c) Call Centre, "Financial Services - The Top Currency in Financial Services", 01/02/03

2.4 Impacts

Speech enabled IVR is impacting traditional contact centres resulting in increased customer satisfaction, channel usage and decreased costs. Organisations have been associated with perceived poor customer service due to long waiting times, slow problem resolution and poor agent communication skills. Increased customer satisfaction is achieved by allowing customer to quickly and easily complete the transaction

- Speech enabled IVR has been shown to lower call abandonment rates by 24%, redirection rates improve by 20% and improve customer service by 25% over touch-tone IVR

IVR technology is enabling organisations to focus their agents on a greater degree of high-value activities such as sales opportunities and complex transactions.

- Bell Canada replaced its touch-tone IVR with speech-enabled IVR, which boosted customer's use of self-service applications by 7% and cut misdirected calls by 45%, contributing to \$6.6mn savings in 2003

The cost of implementing custom applications for speech enabled IVR range from £75,000-£150,000 and given the relatively low entry costs Datamonitor and Gartner estimate that a company can cut the cost of agent customer interactions by 60-80% through implementation of speech technology

Source: (a) "Self-service initiatives for Contact Centres", Forrester Research, 24/04/06; (b) "Speech recognition centres reduce call time by 35%", Audiotex Update, 01/03/04; (c) "Benchmark for success, the what, the why and how of benchmarking voice automation solutions", Apex Research, 07/04; (d) Forrester Research, "Best practices: speech helps boost phone self-service", 30/0905

Though IVR is significantly cheaper than other channels, the web is still seen by companies as a more important self-serve channel. Perhaps it's due to the fact that end users satisfaction correlates strongly with the ability to accomplish goals when using IVR technology, which undoubtedly is impacted by design flaws and inappropriate implementation of the technology.

- Speech-enabled and touch-tone IVR have low costs per interaction of \$0.5 and \$0.3 respectively, channels such as agent (\$6+) and email response (\$5)
- Web self-service has the lowest cost per customer interaction of less than \$0.25

Research indicates that 65% of companies planned to shift more customers to web online services, while 36% planned to increase phone self service. Additionally customers are increasingly turning to web self-service due to increased accessibility to broadband connections. By 2010, analysts predict that 45% of customer contacts will be made through web self-service.

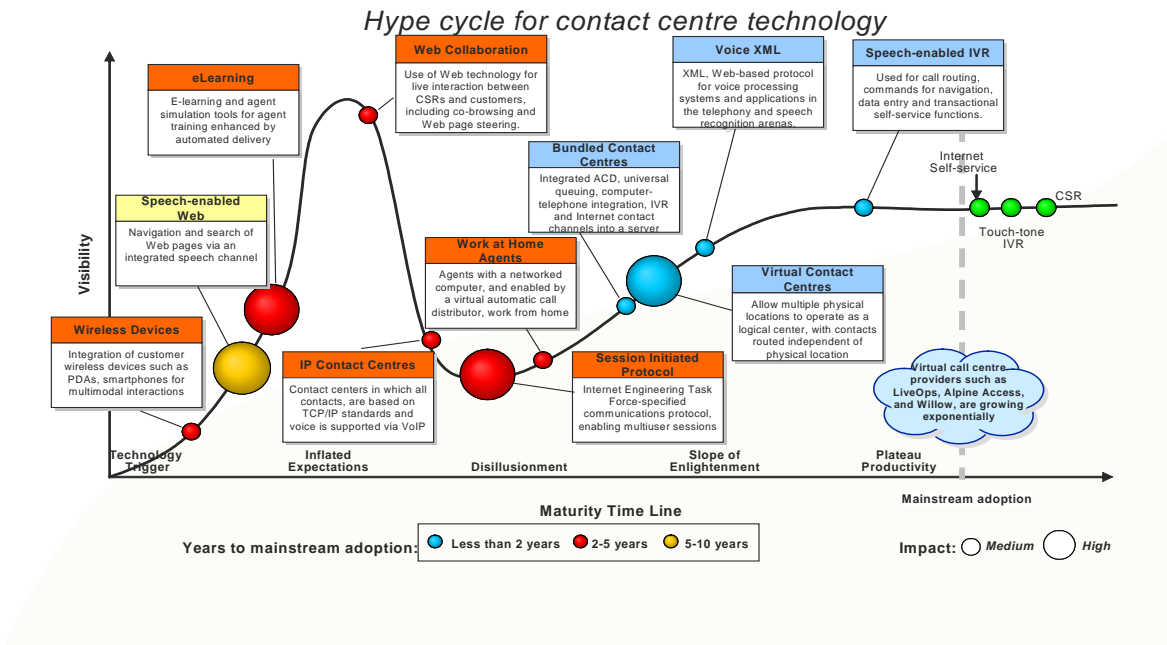
The telephone is still the preferred channel of choice with almost half of all customer interactions started on the phone with another study suggesting that more than 80% of the 20bn customer contacts made worldwide are via the telephone.

Consumers rank IVR as least preferred channel compared to web, agent in person and email, when it comes to supporting customer goals and companies still believe their phone self-service falls short compared to other channels with 34% of companies believing that IVR systems occasionally or almost never meet their customers needs.

2.5 Emerging Technology

Improvements in recognition rates, design tools and standards, combined with lower cost of implementation, are accelerating the adoption of speech recognition technologies.

As such speech-enabled IVR is expected to reach mainstream adoption within two years; yet virtual contact centres may have a greater impact on the industry.



3.0 Summary

There are many surveys that extol the virtues of the technology and there are many providing a counter argument stating that a live human agent is preferable.

- 1 What is clear from everything we see is that, in an age of decreasing available time, consumers want information quickly and they want it through their preferred channel of choice.
- 2 What is clear from organisations is that they want to reduce the cost to serve whilst creating a positive and enriching customer experience.

Therein lies the conundrum and unless organisations begin to seriously look at the options available, that in turn will compliment their overall desired customer experience strategy, the insatiable appetite of consumers for information/service and their lack of loyalty for those that fail them, can only result in an increasing cost to serve and/or an increasingly transitional customer base.

Customers both consumer and business want '*service and product at the speed of life*' - blending the latest self-serve technology into a multi-channel capability will ensure you are part of the new and emerging Toy Story.

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