LISTEN!
OPEN FOR INNOVATION
WITH INFORMATION
TECHNOLOGY

report by
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This is the report *Listen!*, the first in a series of three reports exploring how innovating with IT can transform organisations. Our research is based upon interviews with over thirty senior executives from a wide range of companies. A first round of 22 interviews identified a set of themes further explored in-depth through 12 second-round interviews with the following people:

Harry Barkema, LSE and Erasmus University
David Birch, Consult Hyperion
Geoff Carss, Imaginatik
Peter Cochrane, CA Global
Robin Greenlees, Phanero LLP
Marcus Hickman, Customer Services Association
Allen Huish, British Airways
Ted Johns, Customer Services Association
Gordon Penfold, British Airways
Lars Plougmann, Headshift
Mark Turrell, Imaginatik
David Wood, Symbian

To request copies of *Engage!* and *Be!*, the other two reports in this series, please contact innovation@paconsulting.com
“We are moving towards a society where somebody posting something about a product on Twitter expects this to be heard and reacted to. People become tired of waiting 20 minutes to speak to a customer representative and then for their conversation to be recorded in a giant database where they have no transparency as to what happens to the information they supplied. The behaviour is now changing to you posting on Twitter or on your blog in the expectation that within 24 hours, somebody from the company is going to come back to you.”

LARS PLOUGMAN,
SENIOR CONSULTANT AT HEADSHIFT,
THE ENTERPRISE SOCIAL COMPUTING CONSULTANCY
1. INTRODUCTION

This report explores how organisations need to reconsider how they listen to their customers, how being better at listening to customers requires reconsidering the role of information technology (IT), and how IT-enabled listening brings with it challenges and risks.

Companies must listen to their customers’ desires and needs in order to be able to compete. The volume of advertising to customers and citizens confirming that their voice matters suggests that organisations are serious about this issue. We are, however, probably not alone in arguing that there is an increasing discrepancy between these marketing messages and the perceived reality.\(^1\)

The gap is typified where customers actively seek to have their voices heard. A customer waiting at the end of a telephone line to speak to a contact centre representative will frequently have the accompanying music interrupted by a soothing voice reassuring them that their call is of the utmost importance to the organisation.
2. THE SERVICE SOCIETY – CHANGING CUSTOMER EXPECTATIONS

The evolution from the large manufacturing sector of the 20th Century, with standardised and automated mass-production of goods, towards the current situation in the 21st Century, with around three-quarters of those employed in developed economies working in the services sector, has been characterised since the 1960s by terms such as the knowledge-, service-, network-, post-industrial- and information-society.²

This shift has seen customers engage in more complex and individualised services relationships with organisations, creating a growing problem for many organisations that previously would not recognise customers as individuals, but rather as members of ever complex customer segments.³

For traditional product-orientated organisations, services have generally provided a means of maintaining growth in the core product rather than something they specialise in.⁴

3. VARIETY OF SERVICE TYPES – REMIX WITH IT!

What constitutes good service? This may of course depend on individual opinions and on different situations. However, Dr Ted Johns from the Customer Services Association suggests that companies known for world class customer service basically do things in similar ways:

“To be world class means that you are easy to do business with and that involves four things: You deliver the promise; you go the extra mile, you do it with a personal touch and you put things right if anything does go wrong. None of it is rocket science and that is what irritates me about some of the companies we deal with. They seem to make it so difficult.”

While opinions as to what constitutes good service may vary from person to person, individual customers generally do not compartmentalise expectations of good service within individual sectors they deal with. According to Ted Johns: “Customers of Ryanair will eventually end up making the same service demands as they do of other companies because if they have had experiences of superior customer service they translate those into other sectors even if the other sectors do not want then to do that.”
Superior customer service is most often associated with a combination of organisational and technological capabilities with discretionary personal touch. There is traditionally a strong and natural association between personal touch and human discretionary effort. The most extensive ability to adapt to customer needs and desires has traditionally relied on highly personalised services with high human effort, care, and discretion. Expensive hotels and restaurants have more staff per guest than cheaper ones in order to ensure a close human connection between the customer and the services. This is quite different from organisations providing production-line services, such as fast-food outlets, where there may be less need to listen to individual customers, or the application of customer self-service, such as internet banking where the customers are entirely in charge themselves, within the limits of features offered.

There is little doubt that customers increasingly expect good service. Professor Peter Cochrane of Cochrane Associates, argues that the big business challenges are knowledge management, business modelling, decision support and customer-relationship management (CRM): “...and I do not know any company that really does CRM well. So all of these things seem to me to be the Achilles heel of the future. Not having good knowledge management, business modelling, decision support, is going to kill you. Not being able to look after the customer adequately is also going to kill you.”

What is then the role of innovation with information technology in order for the organisation to better listen to the customer? Can high human effort be replaced to some extent with technology?

As demonstrated in areas such as internet banking, personal investment portfolio management, online shopping, and Internet travel booking, information technology can indeed play a key role in providing good service without intense use of human discretionary effort.

However, much more interestingly, we will argue that innovation with information technology provides opportunities for challenging established services models, such as; highly personalised services; production-line services; and customer self-service. This report argues that innovation with IT can mix and merge different types of listening to customers and that good quality service can be affordably delivered through IT support for listening.

IT can facilitate new ways of listening to customers by reducing costs and automating the interaction. The potential has been illustrated in quite optimistic accounts of the “market of one”, where each customer will obtain uniquely defined products and services. In some aspects, the market-of-one has, according to Ted Johns, already arrived: “The future will be more and more sophisticated segmentation of customers into smaller groups, which in fact the Internet enables the suppliers to do. At Amazon I am a segment of my own. I buy a particular book and they tell me about all the other books this guy has written and what other people have bought.”
4. FOOTPRINTS IN CYBERSPACE – CHEAP ONE-WAY DATA COLLECTION WITH IT

Marketing is the traditional home of an organisation’s efforts to understand customers. Marketing strategies can generally be characterised in terms of the four types of: transaction-, database-, interaction- and network marketing. The first two are based on a transactional- or encounter perspective, and the last two on a relational perspective.

Organisations traditionally engage with customers through transaction marketing efforts that seek to position the organisation in the customers’ consciousness. Marketing is therefore most often based on the understanding of customer segments. The extensive use of database technology to identify and target customer segments is frequently used as an addition to transaction marketing.

Most organisations will also offer customer service support for individual customers wishing to contact the organisation when they experience specific problems in relation to company products or services. More often than not, there is little or no integration between these marketing and customer service functions. Customer brand loyalty evidenced through regular repeat business will only register with the company as increased sales, and not as increased knowledge about the individuals themselves. The relationship is one entirely managed by the customer.

Investment in marketing the brand, and in ensuring operational excellence in logistics so that customers always have simple and straightforward means to engage with the brand and select products and services, are essential aspects of building a relationship between the customer and the organisation. Marketing is engaging in more and more fine-grained customer profiling to enhance the organisation’s understanding of its customers. The in-sourcing of customer profiling by Cadbury described in our earlier report is a pertinent example of the strategic importance for organisations in understanding customer preferences and deploying extensive database marketing.

As customers increasingly conduct a significant part of their lives online, or leave a record of their real-world transactions as ‘digital footprints in the snow’, it is also becoming easier to rely on various automated means for obtaining information about customer behaviour or preferences. Over the past decade, many retail chains have launched
customer loyalty cards as both a means of establishing brand loyalty, and as a mechanism for easily collecting information about how customers spend money.

Gradually the process of recording data about such customer encounters can be used to guide a more complex process of marketing. Google’s success is indeed a direct result of a convergence of individual customer web-search behaviour and marketing expenditure when organisations remunerate Google for exposing customers to their brand.

Lars Plougmann, senior consultant at the enterprise social computing consultancy Headshift argues that companies can employ social media as a means of listening to what the world is saying about them: “what we can call social media monitoring, which is ways of tapping into open conversations on the web and use the power of search engines to identify when something relevant is being said. (...) the tools are being built already that will facilitate that kind of listening. (...) If you are selling wonderful products, people will take to them and be passionate about them. They will photograph them and they will talk about them. It creates a stream you can tap into and a little slice of that stream will show you how people use your products in unanticipated and beautiful ways that you can take back and use in your innovation process.”
5. FORGING RELATIONSHIPS – TWO-WAY STREETS ARE MORE FUN!

There is more to life than a series of brief effective transactions through encounters between customers and organisation. This idea has been extensively explored in discussions about relationship marketing. Ongoing relationships are essential mechanisms to foster trust between parties. For example, having a family doctor or the same hairdresser for years implies engaging in a trusting relationship where the services provided can be tailored to individual needs and preferences.

Extending the brand relationship has taken new forms in the retail sector where some organisations actively seek to engage customers in an ongoing relationship through various mechanisms beyond simply recording spending behaviour through store loyalty cards.

Apple Stores are far more than simply traditional outlets for customers to purchase products in straightforward purchase encounters. The stores offer free Internet connections to all customers over open WiFi networks. All computers on display can be used for Internet browsing. A theatre constantly educates customers how to use Apple products and services. There is a place to get one-to-one tuition and a help desk where customers can get their technical problems solved.

Apple stores generally seem busy because people can use them as a free Internet cafés. They represent more than just a warehouse from which products can be obtained, but instead provide a physical hub from which a relationships with customers can be explored and cultivated.

Similarly, Starbucks does not encourage people to buy coffee and leave quickly but instead to stay longer by offering comfortable chairs and the opportunity to purchase WiFi Internet connections. This has created an atmosphere where people feel relaxed, and allowed Starbucks to build a brand where many people regard it as an unofficial corporate meeting room and a place to work and do business.
FIGURE 1: Shifting from brand-based encounters to performance-based relationships potentially introduces feedback, arguments, praise and mutual adjustments.

From Brands to performance?

**BRAND ENCOUNTERS**

- I know this market segment
- I trust this brand

**PERFORMANCE RELATIONSHIPS**

- I know this customer
- I trust this relationship

**TRANSACTIONS**

- PRODUCTS
- SERVICES
- MARKETING

**INTERACTION**

- FEEDBACK
- ARGUMENT
- PRAISE
Google has shown that it is possible to redefine the role of marketing and advertising through technology, and highlights the potential for IT to support ongoing adaptive relationships between the customer and the service provided by the organisation. IT, in the form of information services, can mediate an ongoing relationship where the service provided can be adapted to customer needs, desires and wants. What people may be missing is just how subtle and distributed the role of these information services might be.

Let us illustrate this concept with a very intimate example of such technology-mediated adaptive capability. SynchStep is one of the thousands of unofficial iPhone applications, which essentially makes the iPhone into an iPod music player with a twist. SynchStep uses the data generated from the iPhone accelerometer to pick songs from the user’s library matching the pace of walking or running. As the pace varies, the application picks the next song to match, and the user will no longer have to synchronise their running or walking rhythm to whatever song is playing. The application will listen and adapt to the user by choosing a song matching the user’s pace providing a more fluid soundtrack to everyday life.

Peter Cochrane sees significant advantages of this kind of distributed monitoring and adaptation: “BT and the like are planning to put all sorts of stuff in people’s homes monitoring. However my iPhone already has accelerometers so it can monitor my habits and if something changes, something could have happened to me. Every day as an old person, between 8:00 and 8:30 Peter gets up, switches on his phone and starts moving. He walks 16 paces to the kitchen makes a coffee, makes three more paces, picks up the letters, walks 8 more paces, sits down and reads the paper 15 minutes. He does that every day. When habitual activities deviate, the application activates a question: are you feeling OK? Do you need help? That immediately negates all the work of all these big companies that want to monitor you opening the fridge door. This starts to impact on insurance rates, your healthcare, everything.”

The reality of mediated relationships is of course much more complex. Engaging with customers in services relationships, as opposed to individual product encounters and transactions, imposes significant challenges. Service relationships are ongoing conversations where the end-result is continually shaped and influenced by these conversations. Recording, understanding and adapting to customer preferences is both an essential part of the relationship and will become very expensive if the majority of the business process relies on human effort. Figure 1 illustrates the shift from brand-based series of encounters to two-way relationships.
One of the key issues is therefore the mediation of these service relationships through information technology. For this to be successful, the organisation will need to engage in some form of codification and collection of customer data and preferences, which will be essential for supporting the engagement. Standard customer records, perhaps linked to more complex Customer Relationship Management (CRM) systems, is a traditional means of supporting the management of organisational listening.

However, for the organisation to more fundamentally be able to engage in an evolving and adaptive relationship with the customer, it needs to utilise information technology much more comprehensively to support uncertain and shifting requirements. This will require the re-arrangement and integration of organisational and technical capabilities.

Lars Plougmann argues that customer expectations are changing rapidly; “We are moving towards a society where somebody posting something about a product on Twitter expects this to be heard and reacted to. People become tired of waiting 20 minutes to speak to a customer representative and then for their conversation to be recorded in a giant database where they have no transparency as to what happens to the information they supplied. The behaviour is now changing to you posting on Twitter or on your blog in the expectation that within 24 hours, somebody from the company is going to come back to you.” To most people born before 1980 this may seem a distant and even strange notion, but for younger generations, who are “digital natives”, this is less far-fetched.

For the information technology industry itself, the shift away from being entirely based on product encounters has already proved quite profound. IBM has re-invented itself as a services firm, Nokia is in the process of doing the same, and Apple has with the iPod and the iTunes Music Store, demonstrated the power of an ecosystem of products and services jointly defining an attractive customer proposition. Google is defining a platform of services for a variety of purposes. As argued by Microsoft’s chief technologist, Ray Ozzie; “Just packaging software, collecting the money, and then producing a new version a few years later (whether people want it or not) is no longer a sustainable business plan. The relationship with customers must be constant and continuous”. This is indeed the case beyond the IT industry.
6. THE COMPLEXITY OF LISTENING – TO WHOM, WHY, AND FOR HOW LONG?

For many organisations, listening is not merely about the end-consumer. Listening is often an activity conducted at different levels and relating to a complex ecosystem of stakeholders, who each may require specific means of interaction.

Various versions of the Symbian operating systems have been shipped in a total of more than 250 million mobile phones the past decade, and for a development organisation, listening to all of their customers individually will require highly focused inquiries. According to its Executive Vice President for Research, David Wood, Symbian organises the way it listens to and engages with its customers, developer community, key partner executives, and handset manufacturers in different ways depending on the level and number of people involved. David argues that Symbian organises he way it listens to customers in terms of a pyramid structure; “We have seven customers in terms of companies who are shipping our software, and at the top-level we operate with a group of sixty key people who can make or break our business”. Below these sixty people is a group “ten times as large who are the project leaders and technical advisors.” This group meets regularly with Symbian managers and David emphasises that “we will pay great attention to their feedback to us”. At the next level is; “what we call the Symbian 10,000, which is all the developers involved in the device creation market.” This group is supported by an exclusive variant of the web-portal Symbian Development Network (SDN), called SDN++. The ordinary SDN is targeting interaction with the hundreds of thousands of developers who wish to write software for Symbian phones. As the basic platform for developing Symbian operating systems is open source licensed through the Symbian Foundation, there is a large and active community of volunteer developers, for example served through the Symbian Foundation blog as well as David Wood’s own blog. According to David, listening is a crucial activity for technology companies like Symbian, for example as; “We find out the parts where the bleeding edge is too bloody.” Dr Mark Turrell, CEO of the innovation management company Imaginatik, agrees and points out that; “You should listen
to your customers and don’t just manufacture what you can make. This is thirty or forty year old knowledge. We don’t seem to have got too far beyond that. So, clearly, the need has been there. We are just doing it badly.” He emphasises that “one of the critical problems for the world of the consumer is to actually have a dialogue with 15,000,000 consumers.”

Lars Plougmann, Headshift, argues that consumers are increasingly using information technology to force companies to listen to and reckon with them. The video-sharing web-service YouTube is frequently used by customers to vent their anger. Searching YouTube for videos on “customer complaints” yields a result of over 300 current videos.

There are many other examples of individuals gathering in web-communities under the banner of discontent with a particular company, and Lars highlights the emergence of web-based intermediaries supporting customers in making their voices heard, such as Fix My Street and Get Satisfaction, which enable citizens and consumers to get attention for a particular problem with or without the blessing of the organisation involved.

For organisations, there will be good reasons to participate in these on-line discussions and on Get Satisfaction the number of company employees registered a forum for that particular company will be listed. Lars argues that as an organisation, “you are judged not only by your products, but you are judged how you engage in the conversation, especially right now where it’s not the norm to engage in the conversation. The organisations that get it right are put on a pedestal. Those who do it wrong get spoken about in a more negative way. But the opportunity is fantastic, because it’s a much richer world.”

Harry Barkema, Professor of Innovation Management at both London School of Economics and Erasmus University, agrees that such intermediaries can be of great benefit to organisations; “It’s a way of testing new ideas with an audience or getting new ideas from an audience that includes people who buy cars from other companies as well.” Harry mentions Edmunds on-line community Car Space, “which has independently built a community in the car world with lots of car enthusiasts sharing their opinions. Edmund’s business model is to sell the knowledge of the community in aggregate forms to car producers.”
7. PRIVACY OR CONVENIENCE?
LISTENING IS A VERY TRICKY BUSINESS!

It would seem that the next logical step from simple mass-marketing to more complex customer profiling will be through robust two-way relationships enabling organisations to listen to the preferences, needs and opinions of customers so as to help shape the products and services provided to them. It is also clear that information technology can both support the automation of parts of the relationship, and enable extensive customer self-service in other aspects. An obvious question is therefore, why isn’t everyone doing this, and for the ones who are, why are they not doing it particularly well?
The main reason is that getting listening right is highly precarious. Put more simply, every attempt to listen can potentially further alienate your customers!

Listening to customers implies learning about them, and is essential for providing a better service, but this can be considered by the customer to be a breach of their right to privacy.

When a user registers online an Oystercard for travelling on the London transport system, the travel payment card can be linked to a customer payment card and the customer can instruct the system to automatically top-up the card when it contains less than £5 in credit. This saves time and mental energy by not having to queue at ticket offices and kiosks to put money on the card.

Registering the card, however, creates a direct link between the customer’s identity and the stream of location data generated when the card is used around London. For some people, this is a problem as they do not trust that this data being used for other purposes, for example, to associate a person with a particular place where a criminal act was conducted.

However there is a trade off – by accepting this invasion of privacy, the user can achieve a closer relationship with the organisation and hopefully achieve better and more convenient services.

This fundamental balance between privacy and convenience will always occur when the relationship is mediated by information technology. Since there are not yet any established trusted third-party organisations ensuring identity and semi-anonymity, it is not a problem that will be solved immediately.

David Birch argues: “The real identity of a counter party is probably the least interesting fact about them in a commercial transaction. In most transactions I actually don’t care who you are. What I care about is things about you, like, have you been to my shop before? What did you buy last time? – things like that.”

Many customers are already wary of organisations disturbing them with telephone calls. They may be even more suspicious about the consequences of handing over data trails of recorded behaviour and preferences. On the other hand, any mobile phone user with a contract already entrusts their operator with call logs and their phone’s locations, and any store loyalty card holder will for a small financial return have handed the store detailed information about their spending patterns.

Peter Cochrane: “It is funny that people worry about Google knowing what they email but not the bank knowing what all their transactions are. They have built a confidence in the banks but not yet in Google. I have been asking audiences when I give talks, and around 30% of business audiences use Google Desktop, which gives Google all the information about the company from top to bottom.”
8. INDIVIDUALISE OR AGGREGATE?

It has been argued that one way of alleviating this problem, although not solving it, is to ensure than all private data collected belongs solely to the individual, with just the aggregated and anonymised data belonging to the organisation aggregating it.\(^{28}\) This division would in most cases allow the individual to remain private while providing essential services for the benefit of everyone and at the same time keep individuals free of unwanted interruption.

However, this is in some senses the worst of both worlds. There are plenty of controversial examples of this scenario being considered highly problematic from a privacy point of view. Public outcry against the company Phorm collecting web-browsing habits of British Telecom and Virgin Broadband customers was mainly based on the fact that broadband users were completely unaware that this was being done, and the reassurance that observations were anonymised did not sway the public debate.\(^{29}\) North American researchers analysing behavioural data from 100,000 anonymised British mobile phone users without customer consent ended up both getting a mix of fairly positive as well as negative press coverage, with the negative comments based upon the lack of consent.\(^{30}\) Researchers from the UK-based CityWare project ended up getting negative press for using Bluetooth scanners to screen anonymised mobile phone user movements without explicit consent in order to aggregate the data and understand people’s movement in cities.\(^{31}\)
At the same time, it will not provide crucial level of adaptation to the individual who is willing to use such services. As David Birch states: “If there is going to be a richer interaction between me and the corporation, which is great, then you need to target me and you need to know who I am. If we just put to one side the million of man-years of effort going into “what do you mean by who you are?” at places like LSE and everywhere else and just take it at a broad level, then if there is not going to be a breakthrough in ‘who you are’ then I can’t see how we can go further in this customisation. {…} I want the corporations to target me right. I want the right junk mail.”

Ultimately, you cannot construct markets of one through the aggregation of anonymised data, even if there is significant scope for innovation in ways of associating personal information and anonymised identities. The website eBay, for example, supports individuals in building up extensive profiles based on user-ratings. Whereas eBay will have details about the credit card associated with an account, the user will not be required to reveal their identity to other customers. Such semi-anonymity can remove some of the concerns for privacy, but still requires significant trust bestowed both in eBay and in any other organisations who might wish to retrieve the data.

It can also be argued that not all data is equal. Semi-anonymous customer reviews of commercial transactions in Cyberspace are different than logs documenting patterns of physical movement of an identified person, or indeed those patterns linked to a fingerprint or a DNA profile.32

Distinguishing between generic- and individualised IT-based engagement with customers, as well as one-way encounters as opposed to two-way relationships, provides us with four distinct ways of engaging; One-way talking to groups or individuals or two-way relationships with either groups or individuals. This is illustrated and exemplified in Figure 2.
9. OPT-IN OR OPT-OUT?

Listening to people clearly has significant implications in terms of the privacy of individuals and explicit consent through opting-in is an essential element to success. While some may be very keen to get the convenience of individualised support, others are much more wary of data being collected about them. As it seems impossible to guess what category a particular person falls into in advance, the only safe bet is to inform people and offer them choice.

The iPhone will ask the user several times to confirm that its Google Maps application can determine the physical location of the handset. In the case of an experimental system combining Bluetooth scanning with RFID technology at Copenhagen Airport, advanced features tracking passengers have been implemented – not as anonymous aggregation but a dedicated individual service. The service allows Bluetooth and RFID tracking of children and elderly passengers travelling on their own so their family members outside the airport can see whereabouts in the airport they are. The service operates exclusively on an opt-in basis.\(^3\) The cultural aspects of how such services will be received can not be disregarded and will most likely play a significant role.\(^4\)

Whilst ensuring opt-in is an essential criterion for success, it does not automatically imply leaving everyone with a free choice. A significant uptake can result in choices being available in theory, but not in practice.\(^5\) The choices may be associated with price differences, such as the significant difference in cost of a paper-ticket for London Underground compared with the Oystercard price. Also, whilst people can freely decide whether they wish to carry a mobile phone or not, the pressure of others’ expectations combined with the rapid decline of public telephone boxes can make this into a Hobson’s Choice.\(^6\)
10. SERVICE-PUSH OR CUSTOMER-PULL?

Even if the services offered through listening to customers are exclusively opt-in, there are still plenty of challenges in getting it right. The use of technology to listen to customers and subsequently adapt to their expressed (or unexpressed) needs and desires is a complicated affair. Douglas Adams expressed this well in The Hitchhiker’s Guide to the Galaxy where the main character Arthur Dent discovered a tea-making machine providing a liquid “almost, but not quite, entirely unlike tea” when trying to second-guess exactly what kind of tea the customer wanted based on examining their taste buds, metabolism and brain. Properly understanding the customer through semi-automatically making sense of the information provided about them is very difficult at the best of times. Creating meaning out of patterns of observations through classification is inherently associated with uncertainty.
For example, a bank ascertains if a person other than the owner is using a credit card in an unauthorised manner by studying the stream of data on the financial transactions. If the categorisation of valid and problematic transactions is too relaxed the bank risks losing money. As this is not desirable, the bank is more likely to be cautious and wrongly assuming that there is a problem. Such false positives will often lead to the customer’s credit card being disabled temporarily until the transactions have been confirmed as valid.

In the automatic or semi-automatic classification of customer behaviour and any associated inference drawn from the categories, it is essential to draw the line between services or actions requested by the customer and those initiated by the organisation. The first kind can be characterised in terms of customer-pull and the second as service-push.

This distinction is similar to the push-pull line from manufacturing where products are either pushed by the manufacturer or demanded (pulled) by customers. In the credit card example above, banks will frequently engage in a service-push unilaterally blocking the card until the customer explains him or herself.

When a customer notices a transaction, which looks strange, they can call the bank, and hereby engage in customer-pull. Obviously, banks guard this classification process with secrecy to safeguard against unwanted re-engineering allowing extended illegal use of stolen cards. However, two of the strong triggers seem to be using the card for Internet transactions or when travelling – two of the primary reasons for obtaining a credit card in the first place. One obvious improvement is to help minimise false positives could be the addition of a simple control panel on the customer’s Internet banking page allowing the indication of impending erratic, but authorised, behaviour. Such customer-pull could greatly inform the automatic algorithm in its attempts to make sense of the stream of transactions.

Generally, it can be assumed that service-push for classification and inference may be effective for the organisation as technologically embedded business rules here actively can enforce the organisations’ interests.

However, for the customers unilateral service-push by the organisations they deal with is not necessarily deemed suitable. Indeed, the credit card example above illustrates this problem well. At the instance of the service being evoked by the bank, there is a micro-conflict of interest between the bank and the bank customer. The bank seeks to minimise loss, which from a more high-level perspective is in the interest of the bank, the customer and shareholders. The individual customer will, however, experience immediate loss of convenience.

To summarise, too much reliance on service-push can aggravate and unnecessarily disturb the customer. Too much customer-pull may, however, result in financial loss for the organisation or reduced quality of service for the customer – e.g. most insurance customers will probably wish to know if their insurance is up for renewal.

It is therefore essential for the organisation to carefully design the push-pull service interface with the customer.

Innovating listening to customers through IT also implies establishing new channels for customer interaction and partly automating the processing of the information gathered about the customer. Getting this balance right relates critically to the organisation’s operational excellence and its ability to understand customer needs. If customers are subjected to service-push, which they deem inappropriate or wrong, they will lose confidence in the organisation’s ability to deliver services.

If an organisation has a good grasp of how to support the process of understanding its customers and delivers operational excellence then customers are more likely to accept a given push-pull arrangement. Figure 3 illustrates with examples how organisations can choose to position specific customer interactions in terms of the push-pull line between organisational service-push and customer-pull.
11. SYMMETRY OR ASYMMETRY? OPERATIONAL EXCELLENCE IN LISTENING!

It can be argued that much of the listening organisations traditionally engage in is conducted from the perspective of internal efficiency of the organisation. Whilst customers would prefer to be immediately connected to contact centre agents, they frequently end up listening to low-fidelity renditions of easy listening classics, and messages encouraging them to hang up and visit the company website, instead. Often they are asked to enter various kinds of information on the keypad or into interactive voice response (IVR) systems.
Organisations have naturally sought to reduce costs by automating and improving efficiency of operations through information technology innovation. There is in principle nothing wrong with this as market forces pushes innovation with information technology to reduce costs in order for these to be passed on to customers.

The mass-deployment of telephone-based contact centre staff can be seen as a 20th Century knee-jerk solution to the 21st Century problem of customers demanding unprecedented levels of access to organisations to spend their money, ask questions, complain about the services received, and generally have their voices heard. As Marcus Hickman, Executive Research Director at the Customer Contact Association says: “A chief executive of a large bank was saying that if I look at where I get my customer complaints, it is not really about the branch it is not about products. It is not about the Internet site. It is really about the call-centre. That’s where I get the complaints.”

Customer contact centres are very expensive to run and yet often generate highly negative customer experiences as well as high turnover of staff. Furthermore, according to Marcus Hickman, “a call-centre agent will often have to toggle between up to 15 screens to find information, which is often a very slow process, and frequently the customer knows more about the product than the agent.” It is indeed possible for an organisation to spend an excessive amount of money ensuring that it listens to customers!

Many organisations will not only be hiding behind guarded fences to ensure the health and safety of their neighbours, it is also necessary to ensure undisturbed operations. Any organisation will spend considerable time and effort carefully cultivating its boundaries to the outside world.

However, new technologies, new business models, emphasis on good service delivery, and a general push for organisations to be more transparent impose challenges to existing perceptions of organisational boundaries. Innovating how the organisation engages with its surroundings whilst ensuring operational efficiency relates directly to the contemporary challenge for organisations to balance concerns for improvement and innovation. Organisational ambidexterity is essential for organisations balancing radical innovation and continuous improvement. This involves
both adapting to changing conditions through innovation and ensuring short-term operational alignment. An essential way of understanding operational efficiency can be defined as designing cost-effective mechanisms for listening to and interacting with customers.

Innovating with information technology to enable the organisation to better listen to customers implies redefining existing organisational boundaries both in terms of organisational procedures, and the roles involved, as well as the supporting technologies themselves. Traditionally, organisational borders are governed by the principle of asymmetry so while the organisation may reach its customers directly, purposefully designed or emerging barriers hinder customers reaching the organisation.

Carefully crafted organisational procedures supported by information technology help manage the organisational effort invested in listening to customers. The mobile phone operator can reach customers directly with an SMS to ensure they stay on the operator’s network when roaming, or indeed change if the mobile phone has decided that another operator offers better coverage.

Organisations can deploy “do-not-reply” emails ensuring perfect asymmetry of one-way personalised interaction.

Tesco grocery delivery drivers exemplify carefully crafted organisational asymmetry. The customer who is keen to get hold of the driver will, however, have to go through the process of calling the general Tesco customer services number where an agent can take the query further to the store from which the driver is managed. A manager at this store can then in turn contact the driver and pass the message back up the chain of command again. There is a whole list of obvious reasons for maintaining this asymmetry, for example, operational efficiency, shielding the driver from excessive customer calls, removing reliance on inter-personal relationships in delivering services and to maintain organisational control over driver performance.

Customers will generally associate good service with some form of symmetry in the relationship. Indeed, good customer service can even be explained in terms of the asymmetry turning the other way around. Internet self-service banking can be seen as the bank offering IT-based symmetry in customer access to basic banking services. We have yet to discover the full potential of IT transforming rigid organisational asymmetry in interaction with customers into affordable symmetry. Figure 4 illustrates the portfolio of design-choices available in the design of Information Services at the organisational boundary. We consider these in terms of interaction symmetry and asymmetry, and whether services offer instant encounters as opposed to mediating ongoing relationships with memory of previous interactions. The four distinct mechanisms of connections, filters, mediators and coordinators each display specific characteristics in terms of cultivating organisational interaction barriers.
12. FLEXIBILITY OR LOCK-IN – TWO-WAY LISTENING CHANGES RISKS

Innovating the ability to engage in relationships with customers, and establishing two-way relationships with them through IT and organisational measures both critically depend on and facilitate trust. Loyalty cards and other relationships that build and maintain customer profiles can also serve the purpose of ensuring a higher barrier for the customer to choose products or services from another organisation, thereby increasing ‘stickiness’ and reducing churn.

For example, once the customer has spent time and effort building up a weekly grocery shopping list on Tesco.com they are more likely to continue shopping with that organisation.49 The customers’ investment of time and effort in refining their profile and inference rules result in greater loyalty, or customer lock-in. As the switching cost increases the longer and stronger the relationship grows.50

Services that aggregate services from other organisations and thereby providing additional ease of use for individual customers can strengthen such lock-in. The Egg MoneyManager is an example of such an aggregation as it affords a simple interface for the customer to all his or her accounts with both Egg and other banks. This provides the customer with an instant overview of the balance of all accounts with one single login and thereby ties the customer closer to Egg as leaving the bank would result in a step back to multiple logins and lack of instant overview.

The customers can also be engaged in a collective lock-in. The mutual recommendation offered by Amazon does not directly tie customers together the same way as other services such as social networking sites, e.g., Facebook, Myspace, LinkedIn and Bebo.

When a social network of profiles, shared activities and preferences has been carefully knitted over time, this investment will represent a barrier for people leaving. Social networking sites will generally seek to reinforce this barrier by making it difficult for people to move their network along to another service provider. The technology blogger Robert Scoble was, for example, temporarily banned from Facebook when he attempted to run a computer programme exporting his list of friends. Subsequently Facebook has launched its Connect service allowing profile data to be integrated into a number of approved sites.51
FIGURE 5: Virtuous circles of interactions between organisations and customers demand new behaviours based around shared principles and for both parties to fulfil their part of the contract.
13. VIRTUOUS CIRCLES OF INTERACTION WITH INFORMATION TECHNOLOGY

How can organisations engage in creating relationships of virtuous circles of interaction and communication between the organisation and its customers? Below we summarise the essential aspects of a virtuous circle of interaction where IT supports the organisation in listening to customers:

**Trustworthiness is critical**

In the 21st century hyper-connected world, gaining customers trust is a necessary requirement. The organisation must also ensure that it is trustworthy, as listening requires recording and processing customer information in order to support an ongoing relationship with the customer. Traditionally brands have been an important mechanism in gaining trust, and there are no reasons to believe this will undergo radical change. Transparent performance measures may be just as essential. However, we agree with David Birch who sees brands as a poor substitute for a good effective underlying trust-management infrastructure. In an interconnected business world of services, trust and trustworthiness is not only relying on the individual organisations but also who it associates itself with. Getting a trust management infrastructure in place is an essential precondition for innovating the way an organisation listen to customers.

**Operational excellence**

Innovating the ability to listen to customers more effectively through IT requires operational excellence. This involves the ability to automate parts of the process of collecting, managing and processing customer data as well as carefully orchestrating the inference drawn from that data.

Operational excellence also relies on the ability to integrate all elements in the customer experience. For example, those in the organisation who are in direct customer contact should have all the necessary information to engage with the customer integrated in a usable manner. The knowledge generated through customer contact should be communicated to the rest of the organisation.

Operational excellence also implies the ability to provide automated discretion in a variety of forms. The propensity of false positives when banks attempt to second-guess unauthorised use of credit cards demonstrates that there are plenty of challenges yet.
Across sectors, operational excellence will also eventually have to involve the establishment of new institutions delivering an infrastructure for managing trust. Such trusted third parties can support customer semi-anonymity and thereby increasing trustworthiness.

**Good understanding of customers needs and desires**

Listening to the customer is risk-free if the organisation is trustworthy and it ensures that it does so with the customer’s blessing. While store loyalty cards may be Marmite-innovations strictly dividing the population into two camps of those for and those against, the direct customer-relationship is relatively weak and the data collected mainly supports increased internal efficiency.

Listening to customers with IT must also have a more comprehensive purpose of not only ensuring internal efficiency needs, but also be able to understand and serve customers better. This will in turn require critical decisions regarding when to take action, engaging service-push, and when to hold back and rely on customer-pull.

Egg, for example, many years ago asked customers to fill in a small 10-minute web-survey to find out how each individual customer wanted to be contacted by the bank. Defining the characteristics of the push-pull relationship requires a good understanding of the customer. False positives blocking credit cards because the customer shopped on the Internet or used the card before and after having flown on an aeroplane is not the hallmark of customer understanding.

**Responsiveness in relationship**

The organisation must be responsive in the interaction with customers. This will enable the organisation to better understand the customer, and improves the customer’s experience. Here IT can increase both the responsiveness and the demand for responsiveness. If the organisation, for example, wishes to shift customer contact from telephone to web or email contact, then the convenience of shifting to the asynchronous channel of email must still be responsive. The customer may not expect immediate answers, but they will most likely expect answers quicker than the two weeks response time that can often be the norm. If the customer’s expectation of response time is met, both parties have benefited. The organisation can gain efficiency by semi-automatic responses to the emailed requests, where the customer did the work of recording it. The customer can benefit from the convenience of not having to wait at the end of a phone. Also, for this kind of interaction, the recording and tracking of progress can not only be highly automated, it can also be a visible to the customer.

The ultimate responsiveness can be achieved if the organisation allows the customer to engage in a high degree of self-service. For example, most retail outlets now have web-presence and for most it is relatively easy to locate the address and opening hours for a particular branch. For one struggling chain of clothes shops, this has only recently been implemented. If a customer cannot look up the information on the website, it is highly likely they will call and ask for information. A call that is very easy to avoid.

**Managing expectations in the relationship**

Much innovation with IT has traditionally served the purpose of optimising internal operations and improving the organisation’s ability to compete. If customer-engagement is mainly carried out in discrete encounters – exchanging money and goods – then it is reasonably straightforward to manage customer expectations through carefully specifying the characteristics of the product. If the milk bottle stipulates the sell by date of the milk, there is relatively little to discuss if it turns sour before that date.
However, engaging in ongoing relationships is a process of give and take. If services are produced and consumed through a stream of ongoing “moments of truth”, then a key aim will be to carefully manage the customer’s expectations. The insurance industry has a long tradition of classifying circumstances and events into those that are covered by insurance and those that are not. However, for many service relationships it may not be appropriate or even possible to do so in advance.

An ongoing process can continuously change the relationship. For example, the relationship between a professional and a client is a highly adaptive one where at any stage in the process the psychologist, solicitor, medical doctor, or management consultant will adapt their decisions to the given situation through the application of discretion. There is a tendency for people to equate excellent customer service directly with extensive access to such human discretion, which of course is reasonable.

However, if the goal is to innovate the organisation’s ability to offer individualised services and support through IT, then the aim must be to deploy costly human discretion highly sparingly. To the extent that some aspects of human discretion can be subjected to partial automation, the organisation will be able to make symmetry in the relationship with customers more affordable through a combination of self-service and automation.

Despite best organisational intentions and strong customer wishes, the organisation will not be able to offer individualised support simply through broad application of human discretion. The road to affordable personalised services is paved with the same principles as that leading to cheap consumer goods, namely automation and standardisation.

The trick is to deploy innovative IT to square the circle of offering individualisation in ongoing relationships through standardisation and automation. The wholesale application of 20th Century mechanisms for dealing with customer contact through contact centres does not seem to be a sustainable solution. The 21st Century organisation must rely on highly selective use of human discretion.

Cultivate good behaviour internally and externally

Sustaining happy relationships is not the sole responsibility of the organisation. Relationships are by their very nature a two way street, and achieving success will require the customer to play a part. For any organisation, the customers comprising its market will be a diverse bunch with their own differing expectations so it will be necessary for the company to make clear exactly what it expects from its customers in order to sustain the relationship. Organisations may wish to consider publishing some sort of ‘Customer Behaviour Charter’ which sets out clearly the behaviour that is expected from the customer, i.e. “If you want this relationship to work and you want to benefit from it, here is the deal....”

Establish experimentation and dialogue

The challenges of innovating the ways the organisation engages IT in listening to customers are immense and identifying good solutions will require experimentation and dialogue with the customers. The possibilities for getting it wrong are substantial but at the same time, establishing a technical and organisational platform for two-way customer interaction can provide great opportunities for ongoing innovation.

The trick is to take careful and small steps once the foundation for IT-based listening has been established. The innovation is in tweaking your service and then listening to what happens.
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2. Discussions of the knowledge society (Machlup, 1973; David and Foray, 2003), which began in the 1960s, the service society debate from the 1970s (Halmos, 1970; Gersuny and Rosengren, 1973; Browning and Singelmann, 1975), the post-industrial society (Bell, 1976) subsequently has during the 1990s been formulated in terms of network society (Castells, 1996) and broadly characterised in terms of the information society. Williams (2007) provides a good overview of the discussion. Most industrialised countries have around 75% of the workforce employed in the service sector according to the statistics in (The Economist, 2007).

3. Zuboff & Maxmin (2002) characterise this as the individuation of consumption.

4. (Sawhney et al., 2004; Rai and Sambamurthy, 2006)

5. (Rai, 2004)

6. (Foley, 1997; Gilmore and Pine II, 2000)

7. (Brodie et al., 1997; Coviello and Brodie, 2001)

8. This came out clearly in several interviews and although there may be good reasons in individual organisations, it clearly represents a problem in terms of delivering an integrated process of listening.

9. (Sørensen and Gear, 2007, page 21)

10. (Sørensen et al., 2000; Höök et al., 2003)

11. http://www.headshift.com

12. See http://en.wikipedia.org/wiki/Relationship_marketing, but also (Brodie et al., 1997; Coviello and Brodie, 2001)

13. For a comprehensive discussion of the distinction between encounters and relationships, read (Gutek, 1995; Coviello and Brodie, 2001; Sørensen and Gear, 2007; Mathiassen and Sørensen, 2008).


16. (Rasmus and Salkowitz, 2009)

17. Palfrey & Gasser (2008) coined the terms "digital natives" in their book about young generations' and technology. Tapscott (2009) also explores this issue. Both books are written for a general audience, but there is also social science research on the relationships between younger generations and new media, for example work by Livingstone and Haddon (Livingstone, 2002), http://www.euclidsonline.net/.

18. (Levy, 2008, p.174)

19. This includes, according to David Wood; "people that contribute software that gets assembled into devices, middleware providers, multi media companies and semi conductive manufacturers who ship software."


21. For the Symbian Foundation Blog visit http://blog.symbian.org/, for David Wood’s personal blog go to http://www.dw2-0.com/


25. http://www.carspace.com is established by the automotive industry publisher Edmunds http://www.edmunds.com
26. (Memon, 2008; Yang, 2008)
27. For more information about state-of-the-art in research on the future of identity management, see http://www.fidis.net/
28. This is, for example discussed by Pentland (2008a; 2008b)
29. (Williams, 2008)
30. The group was led by the author of the book Networking, Barabási (2002) and was the same day offered both fairly positive cover, e.g., (Fildes, 2008), as well as a negative response (Associated Press, 2008)
31. Read more about the interesting CityWare project on www.cityware.org.uk and sample the press coverage in (Lewis, 2008)
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34. As an example, there is general significant resistance in the UK to a National Identity Card scheme, whereas there is less broad resistance to CCTV. In Denmark it is almost the other way around. Here there has for decades been a fully functioning (cardless) identity number scheme permeating all aspects of public and commercial life, whereas there in the past at least has been quite vigorous resistance to CCTV installations.
35. For an academic and comprehensive discussion of how structural order emerge from information, see (Kallinikos, 2006)
37. (Adams, 1979, page 94)
38. There are several good books on this subject, for example, Bowker & Star (1999) discussing the fundamental issues of maintaining distributed classification infrastructures; Weinberger (2008) discussing the challenges of organising information; Ayres (2007) who is highly optimistic regarding the possibilities for automation; and Kallinikos (2006) critically examining the nature of information in organisational contexts.
39. Profiling of transactions is one of the key-sources to tracking and investigating suspicions of both credit card fraud and money laundering (Demetis, 2008).
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42. (Sørensen and Gear, 2007)
43. The discussion of productivity gains with information technology was famously coined by Robert Solow's quote; “You can see the computer age everywhere but in the productivity statistics.” However, comprehensive studies have subsequently established that information technology has led to increased productivity and that this mostly is passed onto the consumers. For an good overview of this discussion, read (Saunders and Brynjolfsson, 2007)
44. For a discussion of how organisations increasingly need to be transparent, see (Thompson, 2007)
45. For discussions on organisational ambidexterity, see (Birkinshaw and Gibson, 2004) and (Gibson and Birkinshaw, 2004). For a discussion of the improvement and innovation survival patterns, see (Holmberg and Mathiassen, 2001)
46. For a discussion of individual and organisational asymmetry, please read (Sørensen, 2008)
47. What of course, from the customers point of view, is needed is the ability to have the phone automatically change network according to call-rates
48. Boateng (Forthcoming) studies the balance of organisational control and service delivery in a similar organisation
49. (Shankara et al., 2003)
50. Shapiro and Varian (1998, page 103ff) offers a good discussion of both the theoretical and practical aspects of lock-ins and switching costs seen from both the customer and vendor perspectives.
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