

White Paper

Natural Language Interaction - Customer Service Evolved

Synopsis

In this paper we explore the business imperative of providing great customer service, the challenges to that and the opportunity that Natural Language Interaction (NLI) technologies offers us in terms of raising satisfaction levels, whilst efficiently utilizing the assets we already have.

Customers are now engaging with us across multiple channels and in the highly competitive market in which we all operate, customer retention can make or break a business. However the modern consumer, empowered by the social web, carries a big stick (as well as a big carrot). Yet while the problem is getting bigger and stakes are raised by the day, the current economy dictates that instead of investing more as the problem grows, organizations need to increase the return they get from their current customer service investment. [READ ON...](#)

Natural Language Interaction

Customer Service Evolved

Unfortunately many organizations find that their high value customer service asset – their people – is consumed with routine calls and enquiries. Machines have long been used to free up people from the mundane, and the dramatic developments with Natural Language Interaction (NLI) technology - software that enables machines to understand language - is no exception, enabling organizations to improve both their cost efficiency and customer satisfaction levels.

NLI helps customers to better help themselves by providing intelligent, human-like responses to questions and assisting customers with relevant answers, signposting to existing information, automated handling of standard enquiries and when a new problem arises - providing a triage diagnosis, ensuring that the inquiry is well directed and transitioned to the right person in customer service. These are all things that, as we explore in this paper, address the key concerns of consumers when they are surveyed about brand loyalty and customer service.

Customer Service - The New Business Imperative

There are a number of forces at work that mean that for today's organizations customer service is the new business imperative. Changes in the wider economy mean that customer retention is the watch word and the consumer, freshly empowered by the social media revolution, has more choice, more advice and is only too willing to share their experience, particularly if it is poor and damaging to a company.

The Social Web

The social web creates a challenge and an opportunity for organizations and customer service professionals, as great customer service can be rewarded with consumer advocacy. An advocate or a community of advocates that spread the news of your products and service can be a key differentiator in how you are viewed in the market.

The importance of having people talking positively about your brand, products or service is underlined by research by the Pew Research Center's Internet & American Life Project¹ that revealed that 58% of Americans performed online research concerning the products and services that they are considering purchasing. In Europe, according to a Mediascope Europe report, 41% of European internet users admitted to changing their mind about the brand when researching online². This is a growing and significant community.

¹ www.pewinternet.org/Reports/2010/Online-Product-Research.aspx

² European Interactive Advertisers Association Mediascope Report 2008 www.eiaa.net/Ftp/casestudiesppt/EIAA_Mediascope_Europe_2008_Pan-European_Executive_Summary.pdf

The flip side of this coin is that a customer service mistake can be equally disproportionately punished. There are numerous examples where a single instance of bad service has been punished by an international storm of negative publicity – stoked up on Twitter or Facebook and picked over by mainstream media. The bad news for brands is that studies show that consumers are more inclined to share bad experience than good. Of course this isn't limited to those brands that participate on the social web or transact online; every brand, product or service can come under the microscope of the crowd.

Across the channels

People view a brand as a single entity, often associating anthropomorphic terms to them, as if they were people – describing brands as smart, stupid, that they 'did this to me' or to describe their level of affection with a brand. So, like when they are dealing with people – we expect a certain consistency when we deal with an organization, regardless of the channel we happen to be using to converse with a brand, whether it be online, through a service center or in a store.

For instance, we expect organizations to remember us between conversations and we certainly expect our problem to be remembered during the course of trying to get it resolved. The challenge of customer service professionals is that this memory needs to persist between calls, during the transition from the website, to email to the call center and once again between service agents as a query is passed to the most relevant person to serve the customer.

Studies have shown that this point of transition, either as the customer needs to explain the problem again or (for example) has to move from finding information on a website to calling someone, is real point of risk for maintaining customer satisfaction. When surveyed about customer service, consumers again and again repeat that this has a huge impact on their perception of the brand, the products or services that an organization offers.

The pressure for efficiency

So far we've established that good customer service must be an imperative for every organization. But in the current economy, there is an even greater challenge that presents itself as 'a double edged sword.'

In short, the requirement to differentiate businesses through exceptional customer service has never been more important whilst at the same time every customer service professional is under intense pressure to meet this business imperative but in a more cost efficient manner.

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Computers are useless. They can only give you answers.

Pablo Picasso

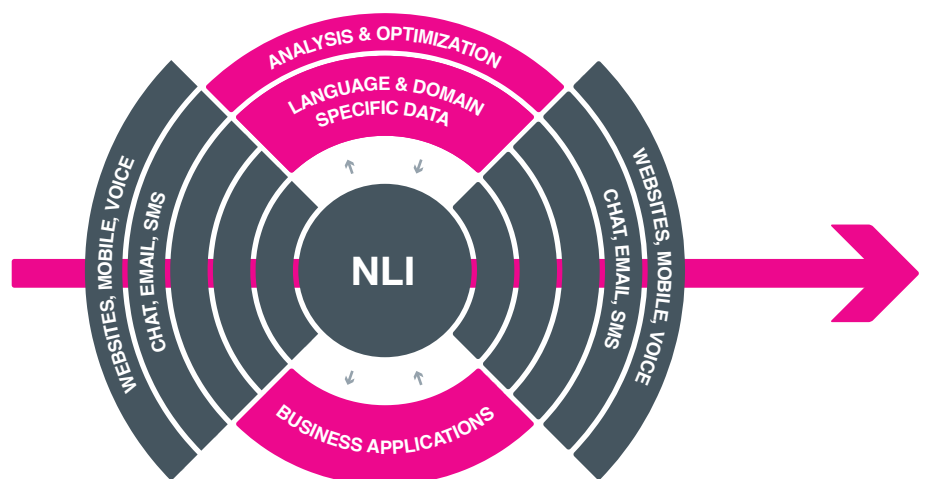
Of course, delivering excellent customer service requires the efficient use of customer service assets but more and more organizations are finding that their greatest asset – their good people – are not efficiently utilized, primed and trained to add value to a customer interaction. Instead they are consumed with routine calls.

About Natural Language Interaction

What is Natural Language Interaction?

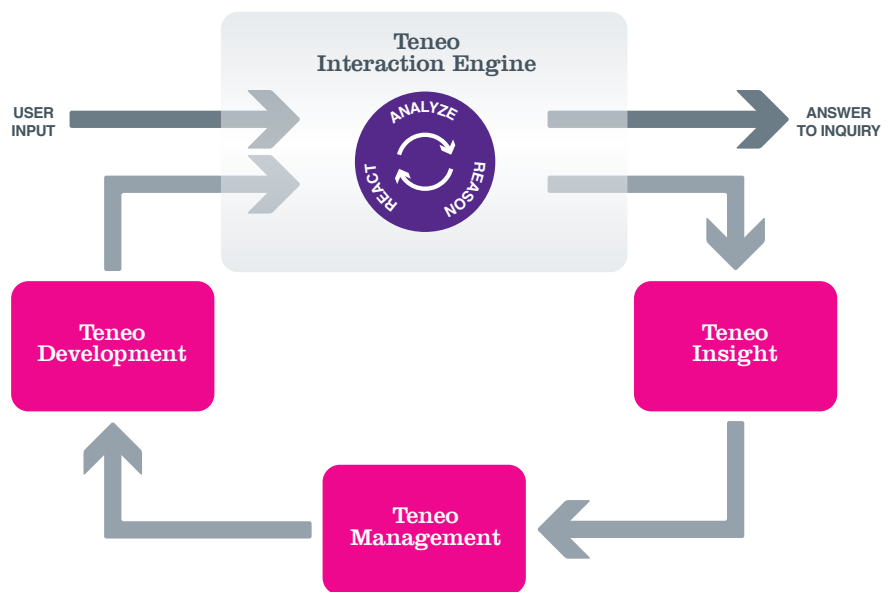
Natural Language Interaction is the ability to enable computers to understand language, to interpret what has been said and to respond coherently, intelligently and in a human-like manner that understands context and relationships.

NLI is applied to customer service by enabling a person to have a conversation with an application, interacting with customers, and for it to respond to questions about products and services – or to intelligently gather information to redirect or escalate the query most efficiently to the correct customer service specialist, through a number of channels including the phone, instant messaging, email, social media and on the website.



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Applying Natural Language Interaction

Natural Language Interaction orchestrates automated customer service inquiries, sitting at the center, interacting across multiple channels, passing the requests to our back office systems and providing insight, analysis and reporting back to the business. This central engine needs to be able to learn, to remember, to adapt and to be given industry context to give it the cognitive functions needed to drive direct, dynamic customer interactions.

This can then be integrated into and applied to a number of customer service channels to deal automatically with standard enquiries or to gather more information to make the transition to a real customer service representative more seamless.

Your website

On the website, **Virtual Assistants** are probably the most obvious implementation of NLI – where an organization deploys a virtual assistant on their website to answer questions or help direct the visitor to answers on other parts of the site. A more subtle implementation uses **web chat** that deals with the site visitor's inquiry in the first instance, before seamlessly handing to a human operator when required.

Also on the web – an organization’s websites can also be enhanced by NLI through the implementation of **intelligent forms** that can take the visitor’s input and deal with first level enquiries by dynamically displaying answers to queries. If the inquiry still needs to be handled by customer services the visitor can be asked relevant follow up questions that make the handling of the query more efficient.

Your call center

Next generation automation of call centers has moved on a long way from ‘press 1 for accounts’ and NLI can be implemented with speech engines to speak to the caller, recognize and understand the response, ask further questions and either direct them to a resolution or hand over to a specialist.

Social media

Social media presents customer service professionals with one of the larger headaches simply through the sheer volume of social media based conversations that can be generated for larger brands. NLI allows organizations to automatically sift through the enormous volumes of online conversations that are taking place, interpreting the sentiment behind each conversation and using the power of the linguistics engine to automatically highlighting potential issues hidden in the mass of conversations and helping the human customer service professionals to focus on the mentions that most impact brand sentiment and customer satisfaction.

Email

By deploying Natural Language Interaction technology as we’ve described above, organizations have found that the number of inbound emails drops significantly (by up to 30% in some cases) as enquiries are dealt with instantly and automatically.

To drive further efficiencies NLI can be applied to the e-mail that does come in by understanding the inquiry, responding if possible or redirecting to a specialist.

Mobile

Mobile offers an extra dimension to the web virtual assistant concept – that of location. For example, folks are increasingly doing their product research on mobiles, online, even while they are in-store and the additional context of location can really change that experience. If an organization knows they have someone in store, the transition to a human assistant could be seamless. By linking location to knowledge, organizations can become ever more relevant, for example providing local weather automatically, without having to specifically ask where the person is, or by providing suggestions and information about the user’s immediate vicinity.

What's the business case for NLI?

In this paper we've so far discussed some of the challenges for the people in our organizations that are concerned about customer engagement and satisfaction, and we've given a brief overview of the areas that Natural Language Interaction technology can be applied to.

Clearly the application of a new technology requires tangible business benefits and in this section we aim to lay out a few of those:

Improve the web engagement experience

By applying intelligent Natural Language Interaction to a website, through virtual assistants or intelligent forms, digital marketers and communicators can significantly improve the experience of a web visitor.

People come to your website to achieve something and as we've already discussed, research shows that switching between customer service channels significantly affects customer satisfaction and loyalty. So, this consumer has demonstrated a preference to be served over the web – aside from being their preference, it could be that they are in a busy office, short of time or it's midnight – and you can understand where this dissatisfaction comes from if they have to call.

NLI gives websites an additional opportunity to surprise and delight the customer, by satisfying that midnight request that enables the visitor to make that purchase decision, or find that critical piece of information.

Aside from improving customer satisfaction through an incredibly cost effective channel there are tangible and proven cost benefits to reducing email and calls, by satisfying queries effectively through the website.

Customer advocacy

Within today's social media-empowered consumer, digital marketing is not just about the customer land grab – to sell more stuff to new consumers, it is about creating repeat customers and brand advocates. The essential element that influences people to advocate a service or brand on the web is the level of service they received.

The flip side is the unhappy consumer, shouting into the big social media megaphone. These voices are heard, sometimes picked up by the mainstream media – but more often picked up in Google search results when someone is researching your product, service or brand.



Among US online consumers, 57% report that they are very likely to abandon an online purchase if they cannot find quick answers to questions.

Diane Clarkson, Forrester

The negative business value of this is variable between brands, but an increasing number of search results are these user-generated comments, reviews and blog posts. A statistic we referred to earlier from Mediascope Europe reported that 41% of European internet users admitted to changing their mind about the brand when research online suggested the level of influence user-generated content has.

By providing relevant, useful information at the point of request, in the channel it was asked for, organizations give consumers a reason to be loyal, and a genuine value over others who would make the customer “work” for their answer. Intangible service value like this is often one of the few remaining opportunities for companies to really differentiate themselves.

Increase Sales

Increasing the amount you sell online is the tail-end of a number of preceding stages – your visitors need to find your site, then be able to find what they want, and then be able to buy it. As simple as that sounds, many organizations fail miserably, either by using arcane or nonsensical website layouts or product categorization; or by making it unnecessarily difficult to find out simple purchasing information; or simply by not being available when the prospect wants to ask a question. Any one of these factors can be enough to send your prospective customer directly into the arms of the competition.

Employing an intelligent Virtual Assistant can help you overcome all of these issues. They could be the ‘face’ of your marketing campaign, establishing an instant familiarity for the customer on click-through, and differentiating your brand. Once customers are on your site, your Virtual Assistant can answer questions, or help them find what they are looking for instantly, however well you have (inadvertently) managed to hide it away! A good Virtual Assistant can also help cross- and up-sell related or complementary products and services, adding value to the customer and income to your bottom line – all in an unobtrusive, yet genuinely helpful way which is appreciated by the customer and reduces the likelihood of drop-off or abandoned baskets. And all of this at any time of the day or night, any day of the year – a Virtual Assistant never “clocks off”!

Gain Audience Insight

If there is one thing that machines do really well, it is to remember, and by interacting with customers using Natural Language Interaction you can capture and analyze the conversation and gain a real, raw and immediate insight into things like the language people use to describe your products and services, their sentiment and information that your other customer service channels (like your website) might be missing.

About Artificial Solutions

Artificial Solutions builds the world's most humanlike, intelligent and capable virtual assistants, available on any platform, in any language, anywhere. By delivering advanced intelligent features, the customer experience is improved and significant cost savings can be achieved as complex issues are resolved without the need to revert to a live agent.

With Artificial Solutions' Virtual Assistants customers save time and effort; and organizations save money by streamlining their customer service operation. We achieve this using Teneo, our award-winning, natural language interaction technology that enables people and computers to engage in intelligent conversation, over any digital channel and in numerous languages.

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About Artificial Solutions

Artificial Solutions develops and implements software-as-a-service based virtual assistants that allow intelligent conversations between people and computers to be held in 23 different languages across multiple channels including the web, mobile (smart phone), SMS, email, social networks and live-chat. Utilizing its natural language interaction technology, Artificial Solutions helps organizations improve customer experience and reduce the cost of online queries. With its development centre in Stockholm, its employees represent 30 nationalities in offices in Sweden, Spain, UK, Italy, France, Slovenia, Germany, Denmark, Japan and the Netherlands. For more information, visit www.artificial-solutions.com
