Digital Virtual Assistants
Text to the Rescue
As part of a multi-channel or omnichannel enterprise strategy, text-based virtual digital agents reach consumers on their preferred channels, serve rich content, and provide a more comprehensive customer care experience.

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Thumbs up for Texting

The evidence is right before our eyes – and under our thumbs. Anybody under the age of 34 lives in a world of text and emojis through communication platforms that span Web chat, SMS and messaging. Mobile users have made text their preferred mode of digital communications and commerce.

A TIME Mobility Poll in 2013 began documenting this trend. The study found Americans ages 18-29 send and receive an average of nearly 88 text messages per day, compared to 17 phone calls. While the numbers decline in each succeeding age category, even in the 65 and over group daily texting still edges calling 4.7 to 3.8. Additionally, the poll found 32% of all respondents said they’d rather communicate by text than phone, even with people they know very well.

This point was validated in mid-2015, a series of studies by the Pew Research Center in conjunction with the John S. and James L. Knight Foundation established that 97% of all smartphone owners had text on a regular basis, making it the most popular function of their phones.

Such data served as an early warning for brands and enterprises exhorting them to offer text-based communications, starting with Web-based chat, as part of their multichannel or omnichannel strategies.

Making the Case for Text-Based Virtual Assistants

The reasons why individuals prefer text compared to voice are easy to understand and enumerate, especially in the U.S. As “quiet media”, both texting and Web chat are “less disruptive” in public spaces. They are also regarded as “more private” because they do not require people to speak aloud when providing secret information such PINs, passwords or account numbers.

What’s more, even though “messaging” is traditionally associated with “text;” in practice it is a richer medium than simple voice. Starting with emojis and stickers, people have grown comfortable adding photos, animated GIFs, links to Web sites and video to their messages. What’s more, in this agile, API-rich environment, people can launch apps, initiate transactions or make payments while primarily during messaging. The implications for customer care and digital commerce is profound.

Pew’s recent findings also indicate that more than 50% of the total population prefer to use text for mobile communications. By contrast, research shared by Opus Research in February 2015 (“Sequencing the Omnichannel Customer Conversation,” showed only 3-5% of respondents considered text-based Web chat as their “first choice” for carrying out communications with brands and their customer care resources. The use of SMS-based texting to contact companies ranked even lower, per the Opus report.

These findings reflect a gap between a stated preference for text-based communications through smartphones and the availability of viable mobile offerings. It is still quite difficult to “text a company” using a published phone number. Because many firms offer live chat only during business hours, such services lack a feeling of currency or support for urgent issues. Even when agents are on duty, individuals find response times to be annoyingly slow. Live agents often seem distracted, which makes perfect sense, considering that it had been common practice for chat agents to be handling as many as four conversations simultaneously in order to meet productivity goals.
Virtual digital agents for both Web chat and messaging stand poised to overcome the challenge of long latencies. They’re available at all hours of the day and have shown the ability to provide rapid responses to customer queries and instructions even if dozens of people are texting or chatting simultaneously. These super-human capabilities will be well-appreciated as demand for text-based interaction inevitably grows.

Also, when compared to traditional phone-based support, chat has the added benefit to serve richer content (URLs, different media) to provide more comprehensive customer care.

Demand for chat is indeed growing. As cited in the “Sequencing the Omnichannel Customer Conversation” report, even though text and chat are in single digits as the “first choice” for communicating with companies, when you look across the entire “customer journey,” it is an entirely different story. Our research consistently shows that individuals use over four different digital channels in the course of carrying out digital commerce. They may start on the Web using their laptop or tablet, continue with a mobile app on their smartphone and, at some point, dial a number to talk directly with an IVR or agent. Web chat figures into 40% of those multichannel or omnichannel conversations.

The Thoroughly Modern Chat Experience

As a new generation of customers use their smartphones to take charge of their digital experience, they define how and when they want to contact other people as well as businesses. Their new rules of engagement can be condensed to a simple directive to customer experience professionals:

- **Text first**
- **Self-service when possible**
- **Human-assistance when necessary**

Note that this is a radical departure from the age of Get-to-Human when the watchwords were:

- **Voice first**
- **Answer before three rings**
- **Live agent preferably or IVR handled**

The Get-to-Human approach is the product of an outmoded era. It is a one-dimensional approach that loses relevance as individuals move into text-preferred, multichannel mode and find that they have a new set of first-order needs. Customers are looking for fast, personalized, accurate and consistent responses from the companies with which they communicate. The companies that support their efforts to communicate via text-based virtual agent are finding that automated handling of chat benefits both parties.

Text-based digital self-service provides a more pleasant and responsive experience for customers. At the same time, it is significantly less expensive for companies to offer, when compared to live chat. That makes offering digital virtual agents a “win/win” for both enterprises and their customers.

Digital Virtual Assistants Are the Answer

Today, Web-based chat is most often launched from a company’s website. It is offered as a speedy and convenient alternative to waiting for a phone-based conversation with an agent or scheduling a call-back. Visitors start chats
by making entries in a dialog box on a “Contact Us” page, or they may be prompted by a “pop-up” widget that can travel across the screen asking whether the visitor wants to initiate a chat. They may then be provided with the option of interacting with a virtual assistant or moving straight into a conversation with a live agent.

This is an improvement over exclusively voice-based approaches because it is faster and gives a modicum of control to customers by providing them with their choice of modalities. However, it is a long way from providing an integrated approach to self-service and human-assisted self-service. Customers aren’t visiting a website to carry out a lengthy chat with a live agent. They are, instead, very results-oriented and expect rapid recognition of who they are and what they are trying to accomplish.

The majority of live chat platforms fail to take advantage of what they already know about these visitors through intelligent authentication and integration of customer profile data. They may consider a chat session successful if the agent does an efficient job of conversing with a customer to figure out who they are and what they want. Yet customers find such conversations time-consuming and inconvenient.

To spare the costs associated with contact center operations, businesses have great incentive to provide these customers with a highly efficient self-service experience, turning to live agents only as needed, for example to complete a complex task or to respond to a vexing question.

Digital Virtual Assistants in Action for a Hotel Chain

Let’s march through the use case for a text-based digital commerce service that fulfills the “self-service when possible” approach to chat. In this case, a hotel customer contacts a virtual chat agent offered by Interactions LLC looking to confirm the booking of a hotel reservation.
Note that the conversation is brief and starts with the open-ended question of “How may I help you?”. Because the customer was authenticated on the website, information about his existing reservation could be immediately addressed in the course of the interaction. The solution is architected to support a hand-off to a live chat agent, if required, and that the agent will be provided with the full context of the interaction, including a transcript of this chat.

In another instance, the Virtual Assistant can help with a request to receive a transactional receipt from a recent hotel stay:

![Chat conversation showing a request for a transactional receipt]

This may be the simplest form of multichannel or omnichannel integration. It appears very much like an FAQ on steroids. Yet this simplicity masks the complex processes that are going on in the background. Once again, it starts with an open-ended greeting which allows the customer to describe what he wants in his own words. Then it makes a point of leveraging existing content while supporting 100% automated handling of the request.

**Efficient Digital Self-Service is No Accident**

The short-and-simple, self-service approach leverages five key features of the Virtual Assistant platform from Interactions LLC. These include:

- **Intent Determination:** Prompted by “How May I Help You?” which leverages core natural language understanding resources based on mature data modeling techniques that can be refined over time thanks to an adaptive training cycle.

- **Frequently Asked Questions:** Leveraging existing digital content and other assets to speed up the process of fulfilling customer requests by sending links or integrating with other knowledge-based solutions.
Intelligent Authentication: Integrating authentication resources, practices or procedures developed for the voice channel if required.

Integrated Live Chat: In addition to fulfilling user’s requests within an automated dialogue, the ability to transfer to live agents on chat platforms, if required, via standard APIs.

Cross-Channel Hand-Off: In addition to involving live chat agents, this approach can send conversation and relevant customer data or metadata to support intelligent transfer. It can also support use cases that involve high-volume chat installations with customized workflows and content, as well as an interface to SMS text or mobile chat interfaces.

Each of these capabilities is made possible by deep integration between text-based platforms and Interactions service, which provides seamless human-assisted self-service by involving intent analysis in the background to disambiguate unclear input. Conversations may be short, even terse, but they are informed by the same technologies, NLP, machine learning and human assisted understanding, that power the automated voice services offered by Interactions since its inception. These unifying technologies for voice and text channels also make it possible for a company to provide consistent responses to customers over the phone, through Web chat and via SMS/Text Messaging.

The advances in natural language processing technologies based on statistical modeling techniques offered by machine learning have enabled an unprecedented robustness towards understanding the user’s intent, independent of the channel – voice, chat, SMS. Technologies for understanding user’s intent have been further supplemented with rich linguistic representations including syntactic, semantic and contextual structures. With the seamless integration of human assisted understanding to cater to situations when technology is uncertain, customers are near-guaranteed that their intents will be understood across all contact media.

The Time is Now for Text-based Input

The term Conversational Commerce has been commandeered by a new generation of end users whose love of text has translated into use of chatbots, Web chat and messaging platforms. These are the same people who prefer automated self-service to lengthy conversations with live agents.

There are immediate benefits for companies who leverage investments that they have made in knowledge management, natural language processing, machine learning and analytics to render responses in text. They can create a situation that pleases and builds loyalty from these targeted customers while significantly decreasing the cost of customer care by reducing chat agent handle times. The approach also lays the foundation for more efficient chat operations by taking a proactive approach to identifying customer intent and promoting immediate engagement.

The seamless incorporation of live agents on an “as needed” basis is another aspect to this approach that benefits both company and customer. By the time an agent is involved in the conversation, the conversation is well underway and the intent is well-defined; thus matching customers to the right agent or resource is more likely.

The transition from voice-based to text-based conversations is accelerating. For the foreseeable future it will be necessary for enterprises to handle both channels and it is in their best interest to offer consistent responses across channels and provide rapid answers, especially when rendered as text. Next up will be building skills that support customer acquisition and sales, in addition to Q&A and customer care.
About Opus Research

Opus Research is a diversified advisory and analysis firm providing critical insight on software and services that support multimodal customer care. Opus Research is focused on “Conversational Commerce,” the merging of intelligent assistant technologies, contact center automation, intelligent authentication, enterprise collaboration and digital commerce. (www.opusresearch.net)

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