Conversational Engagement:

A Clear Path from IVRs to IVAs »

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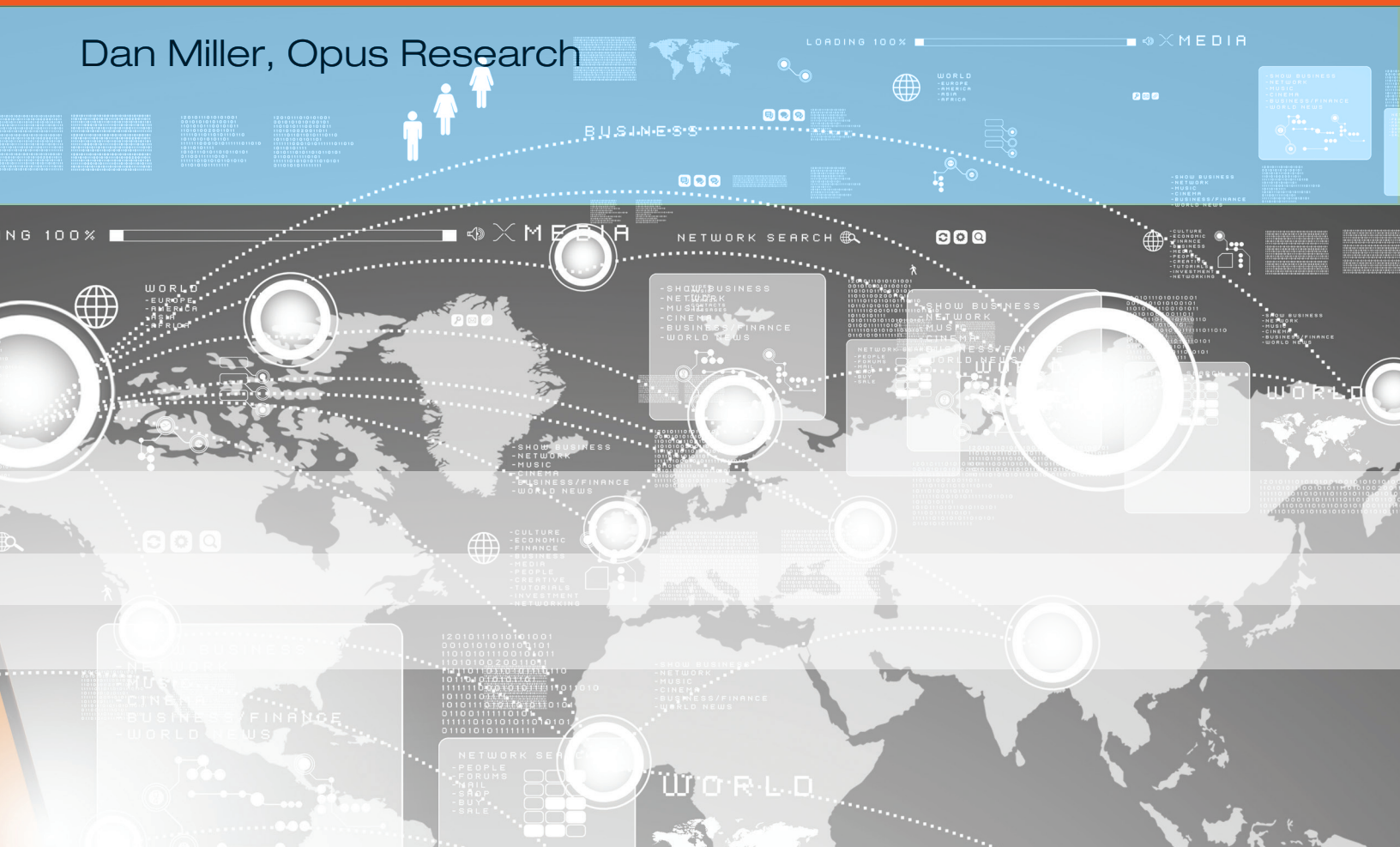

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The global pandemic accelerated IVRs' evolution from an off-putting electronic gatekeeper into more helpful intelligent virtual assistants. Successful IVA strategies offer individuals the ability to carry on asynchronous conversations, providing them with consistently correct responses over the device that is most convenient for them at that time. [24]7.ai's Engagement Cloud is making the path to a successful IVA possible.

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January 2021

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Enabling the Modern IVR... with Style

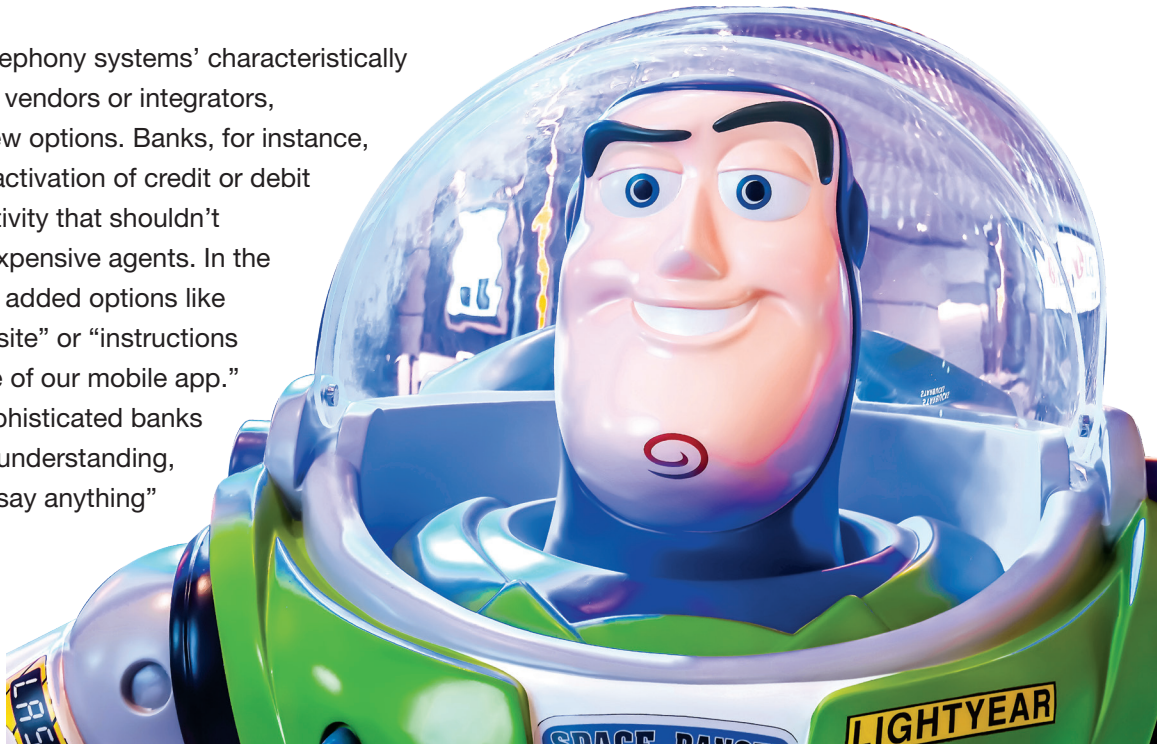
Avid aficionados of animated films will recall the scene from Pixar's first "Toy Story" movie in which Woody, the cowboy doll, challenges astronaut Buzz Lightyear to prove that he is capable of flying around their owner's bedroom. As a plastic action figure, of course, Buzz was incapable of flight. Yet, when pressed to the brink, he scales the bed post and swan dives toward the floor. He then bounces off an inflated ball, caroms onto a steep chute in a Hot Wheels track that propels him into the air where he becomes snagged in the wire, guiding a battery-powered airplane which spins faster and faster until he reaches escape velocity and nails a perfect landing back on the bed to the applause and adulation of his fellow toys.

That's when Woody coins the famous phrase, "That's not flying! That's just falling… with style".

For almost two decades, Interactive Voice Response (IVR) systems were saddled with similar levels of skepticism, coupled with a shared belief that they are on a slow glide path to irrelevance. Their long-standing roles are well-defined. They answer phone calls and serve audio prompts to ascertain the caller's intent. When first introduced, the "interactive" part of IVR involved pressing numbers on the telephone keypad. They offered callers a familiar set of choices starting with "If you know your party's extension, enter it now…" and then marching through the list of no-more-than-five high-level options. For banks, these included, "Press 1 to learn your current balances, Press 2 for assistance with your checking or savings account, Press 3 to find the nearest branch, Press 4 to report a suspicious charge or credit card activity…." Each option triggered the routing of a call to a specific department or pool of assistants.

Like Buzz Lightyear's plastic space suit, speech-enabled IVRs added buttons and blinking lights to signal modernity. They could understand your voice! Albeit for a well-defined set of commands. They also added the ability to recognize simple utterances and provide answers. Still, for many years, IVR scripts remained remarkably static and universally annoying.

Change took place at telephony systems' characteristically slow pace. Working with vendors or integrators, companies could add new options. Banks, for instance, started with automated activation of credit or debit cards, a high-volume activity that shouldn't involve intervention by expensive agents. In the multichannel world, they added options like "assistance with our website" or "instructions for downloading and use of our mobile app." The largest and most sophisticated banks added natural language understanding, the ability for callers to "say anything"



in response to an opening “How may I help you?” prompt. Meanwhile, other verticals, like telecommunications, retail, travel, healthcare and insurance built IVR applications to handle high-volume activities, including answers to frequently asked questions, store locators, order or shipping status, or hours of operation.

If these functions resemble the expectations one might have for an intelligent virtual assistant (IVA) or chatbot, that resemblance is intentional.

Accelerated Development: Pandemic-Driven Demands

The global pandemic accelerated IVRs’ evolution from an off-putting electronic gatekeeper into more helpful intelligent virtual assistants (IVR-to-IVA). Millions of homebound individuals made crucial calls into the businesses that provided them with healthcare, financial services, Internet connectivity, entertainment and government services. Call volumes for many of these verticals are notoriously spikey (think service outages, tax deadlines, popular streaming services). Yet the pandemic gave rise to a challenging combination of high call volumes addressing a set of issues and challenges that had yet to be defined. Social networks were rife with complaints to the effect that “telling me ‘Your call is important’ every three minutes while subjecting me to music-on-hold for two hours has robbed me of all goodwill toward you.”

Retooling the “on-hold” experience was the low hanging fruit and starting point for IVAs. At a bare minimum, the prompts played during music on hold were replaced with helpful suggestions. “Hang up and visit our website” was a common suggestion. Another group of companies invested in technology to make it possible to “arrange for a call back” without losing their place in line. Other candidates were the suggestion to “initiate a chat” on their digital channel of choice. These modest beginnings comprise the beginnings of omnichannel, digital commerce that is largely under the customer’s control.

Expediency also led many companies to move their conversational chatbots and voicebots from test beds or proof-of-concepts into the critical conversational paths with customers. Many of the largest firms in the popular verticals had already built bots whose first tasks strongly resembled dialogs that had been designed for speech-enabled IVRs.

At United Airlines, for instance, speech-enabled IVR systems had already demonstrated that they could key off the originating phone number to offer highly personalized, and time sensitive options. As an example, back when traveling was a regular part of our lives, the IVR system would answer call with “Hello Dan, I see that you have a reservation to fly to San Francisco tomorrow, are you calling to change that flight?”

There are analogous offerings from many other industries. For example, a financial services giant fielded handled a three-fold increase in inbound call volume to voice self-service. Used IVA logic to ascertain purpose of the call and direct callers to a newly designed website. This bank incurred a five-fold growth in queries over digital channels and was able to offer a single persona across all channels.

How To Build Conversational Engagement in the IVR

While pandemic lockdowns led to spikes in inbound call volumes and the dramatic changes led to accelerated digital transformation specifically around understanding the purpose of calls and customer intents. This subsequent ramping up of resources and personnel followed this approximated familiar pattern:

Figure 1: From IVR to IVA: The Path Forward

The change has been driven by companies that had already made investment in the technologies and personnel to accommodate changing customer preferences and behaviors. Turning IVRs to IVAs (Intelligent Virtual Assistants) was a matter of necessity. Increased call volumes and task complexity has, in effect, rendered DTMF-only IVRs obsolete.

IN THE SPACE OF A FEW MONTHS, IVRS MADE AN ACCELERATED TRANSFORMATION FROM THEIR ROLE AS AN AUTOMATED FRONT DOOR FOR VOICE SELF-SERVICE TO PROVIDING NATURAL LANGUAGE VIRTUAL ASSISTANCE AT THE HUB OF ACTIVITY OVER BOTH VOICE AND DIGITAL CHANNELS

Form Follows Function: The Move to Engagement Cloud

No rational customer wants to stay on the phone and "on hold" for prolonged periods of time. It is only made worse by the questionable taste in the IVR repertoire interrupted occasionally by the oft-challenged observation that "your call is important to us." Major changes started when leading-edge companies replaced those

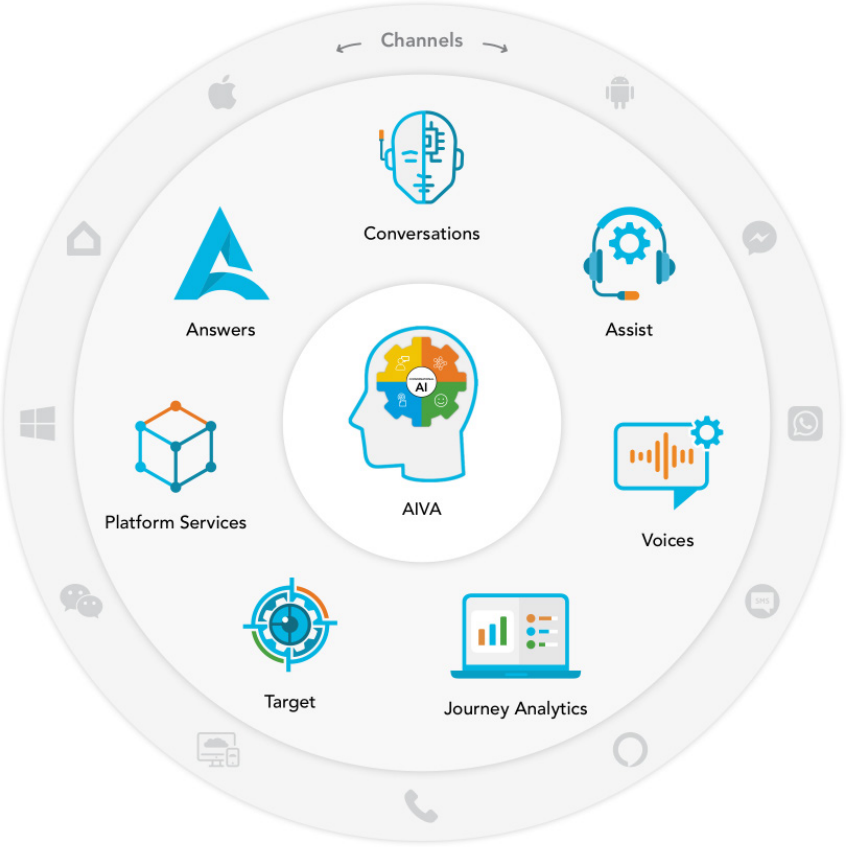
messages with suggestions that callers adopt alternative tactics to task completion. The two options that caught on most quickly included call-back (or "virtual hold") and IVR-to-Digital "deflection." They opened the door to more formidable, in-call options that introduce natural language conversations aimed at task completion.

"Form follows function" is a phrase coined by architect Louis Sullivan, known as "the father of the skyscraper." It became one of the basic principles of industrial design, starting with the ice-tray like latticework of multistory buildings in 19th century Chicago and rendered today as the message streams or "feeds" and bubbles displayed on a single-pane-of-glass display of the 21st century smartphone. "Agility" is the defining term for digital, omnichannel conversational marketing and customer support. Successful strategies offer individuals the ability to carry on asynchronous conversations that string together points of contact at the times they choose, over the device that is most convenient for them at that time.

Providing them with consistently correct responses or actions toward a single SaaS platform that integrates chat, messaging and voice channels while supporting both virtual and live agents. One such example is the [24]7.ai Engagement Cloud demonstrating both the form and function of the new center of gravity for Conversational Service Automation. Specific tasks and actions that it supports include:

- **Intent Prediction**: Recognizing or even anticipating the purpose of a call based on the natural language inputs from individuals over voice, chat or messaging.
- **Conversational AI**: An engine that applies elements of conversational AI consistently across channels and modalities; supporting write-once and render everywhere, including through the Voices – [24]7.ai's conversational IVR.
- **Card Creation:** Embedding rich graphic material into responses that can be rendered in message-based conversations or as screen-pops during IVR or agent voice calls.
- **Messaging Support:** Including Apple Business Chat, Facebook Messenger, Google's Business Messages, and WhatsApp.
- **Reporting and Administration:** An intuitive user interface provides insights into the performance of the solution and features industry-specific out-of-the-box dashboards, streaming analytics, and multiple ways for business leaders to customize reports using their own parameters.
- **Integration Points, Connectors, APIs:** Solutions connect to backend systems and workflows to complete transactions. Open APIs enable support for new messaging apps and other custom extensions. AIVA can also integrate with external AI frameworks such as IBM Watson, Google Dialogflow, and Google TensorFlow.

Figure 2: A Single Platform for Conversational Engagement



Engagement is Defined as Conversational Service Automation

With helpful prompts from the IVR, individuals now follow their own decision rules to define preferred paths to task completion. At a minimum, they can arrange for a callback and terminated their calls "without losing your place in the queue." Lately, many IVRs run a "Voice-to-Digital" routine – if they detect that a call is from a mobile phone, they can send a caller a URL or link to a chat channel with a live or virtual agent, ready to complete the task.

Owners of smart speakers may have called out a familiar wake up word to invoke a popular voice assistant to navigate them toward completing their desired tasks. Then the re is the ubiquitous smartphone. This personal communicator enables hundreds of millions of people to initiate either voice or text conversations through search engines, messaging platforms or text messages. They are also the most popular devices for engaging in business chat with live or virtual agents, or initiating voice calls through a company's mobile app. [24]7.ai's Engagement Cloud is prepared to handle voice-based conversations across all of these popular channels.

In terms of “Every Brand”, a bank, airline, ISP or government agencies are applying the principles of Conversational Service Automation to address the key challenge of providing consistently correct answers, actions or recommendations, across all media and devices at scale. The most cost-effective way to do so moves customer service’s center of gravity from discrete and separate resources for handling each modality (voice or text) or device (phone or computer or smart speaker or car) to cloud-based resources that take what Opus Research calls an “either/and” approach. Customers or prospects may choose between voice or text, chat or SMS, smartphone or car infotainment system and expect to get the correct result no matter what. [24]7.ai’s Engagement Cloud” makes it possible.

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, conversational intelligence, intelligent authentication, enterprise collaboration and digital commerce. **www.opusresearch.net**

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