



How the Ask Avnet Cognitive Assistant Became a Critical Part of the Customer Life Cycle

Avnet's cognitive assistant ups CX and breaks brand silos by embracing the Digital One Office principles

Excerpt for Infosys

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You must innovate your products and yourself in today's hyper-competitive high-tech market

In today's era of disruptive business models, enterprises across all industries are anxious to maintain their relevance and competitive edge, and this is especially true of the high-tech sector, where digital innovation is at the core everything. And as a technology company it's a double-edged sword: not only must your digital products and services offer differentiation and value, but you also need to keep innovating your own operations to stay competitive and ensure adequate time-to-market to stay ahead of your customers' needs.

The potential for disintermediation is dramatically high as products become services and industry lines blur. Your ability to stay relevant is increasingly about embracing change with a clear purpose and strong execution. It is essential to understand why you need to change and what you want to achieve, and then execute swiftly and measure perpetually.

A Fortune 500 provider of global technology solutions, Avnet, is on a mission to reinvent the role of the electronics distributor, elevating customer experience within business-to-business (B2B) ecosystems and breaking down brand silos. This Voice of the Customer report showcases a key element of Avnet's digital transformation strategy, [Ask Avnet](#), a cognitive assistant platform, developed in collaboration with its technology services partner Infosys. Ask Avnet is a tangible example of Avnet's digital transformation strategy in action and a living example of a tech company's journey to the Digital OneOffice.

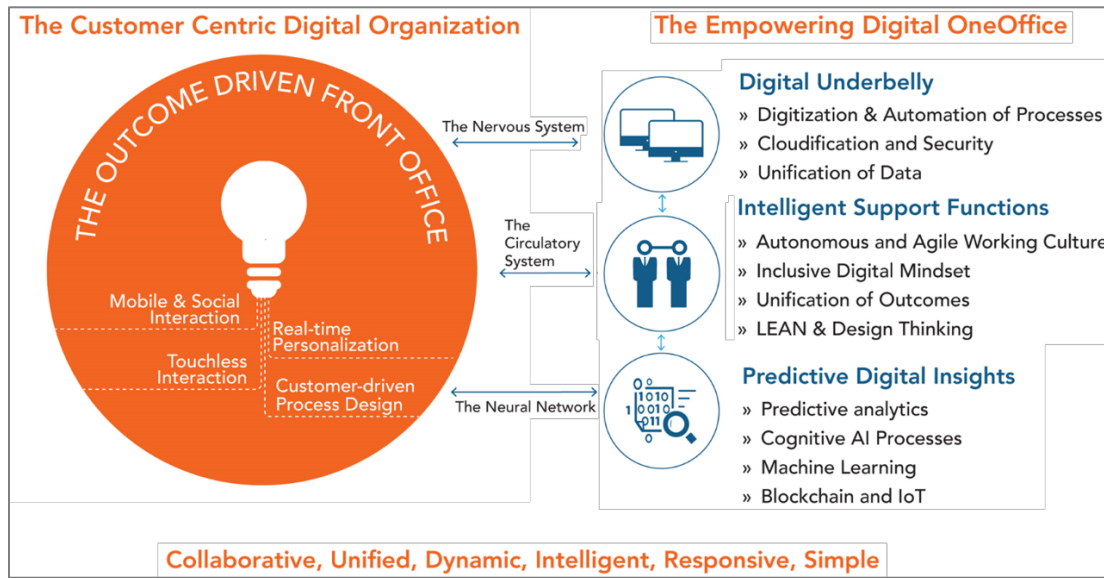
What is a true "Digital OneOffice enterprise"?

HFS defines "digital transformation" as the transformation of an entire organization to deliver compelling and engaging customer experiences while leveraging interactive technologies, intelligent automation, and smart analytics. This transformation entails a top-to-bottom rethink of what it means to operate, in real-time, in a digital business environment, where customer needs can be catered for as they occur. It requires fundamental changes to the way an organization operates, from its front office to its back office and all the touchpoints with its customers, partners, and employees.

HFS devised its Digital OneOffice framework (Exhibit 1) to showcase the endgame of digital transformation, where enterprises can work in real-time to cater to their clients – leveraging whatever interactive channel the clients want to use (voice, email, web, social media, mobile, chat bot etc).

The Digital OneOffice is where teams function autonomously across front and back office functions to promote broader processes with real-time data flows that support rapid decision making. It's where the front and back offices will cease to exist, as they will be, simply, OneOffice.

Exhibit 1: The HFS Digital OneOffice Framework



Source: HFS Research 2019

The OneOffice framework is a guide to aligning the entire organization to drive a customer experience (CX) that gives it a competitive edge. The framework requires breaking down the silos between the front and back offices so that information and data flow freely at speed, and enterprises can not only cater to customer needs, but they can also anticipate them with smart analytics and a powerful B2B ecosystem.

An organization realizes OneOffice when the needs and experiences of the customer are front and center to the entirety of business operations, which requires automated data flows between the customer interface, your customer-facing staff, and operations staff to create common goals and outcomes across the organization.

Cognitive assistants are emerging as an enabler of the OneOffice as they play an integral role in facilitating the flow of data more conversationally to help information get to where it needs to go to support the customer. It's critical to note that cognitive assistants are not your simple rules-based chatbots. They have

greater learning and processing capabilities that transcend basic conversational tools as they can learn, understand language and context, and execute on business processes.

Avnet—setting a digital transformation agenda for an almost 100-year-old company

Avnet is a global technology solutions company with an extensive ecosystem that delivers design, product, marketing, and supply chain expertise for customers across product lifecycles. The company, founded in New York in 1921, has expanded and changed throughout its nearly century-long existence in an effort to stay relevant and drive value for its customers. In the past decade, the changing competitive landscape and shifting customer needs have driven the company to pivot. Through leadership changes, divestitures, and various acquisitions, it has developed an enhanced set of capabilities, has continued to push a traditional business model online, has ensured alignment and expertise with the latest technology trends such as Internet of Things (IoT) and, starting in 2016, has formalized a digital transformation strategy and associated leadership.

As part of its investment in digital transformation, Avnet hired Nishant in early 2016 as Vice President of Digital Strategy and IoT. Nishant, a veteran of Premier Farnell, an Avnet-acquired (2016) distributor focused on the small order space, and more recently Accenture, where he supported consumer packaged goods companies with their digital transformation of customer experience, sales, and marketing functions, had a strong context for Avnet’s business and challenges. The concept of digital transformation is a hollow one, though, until you apply it to a specific business. Thus, Nishant set about understanding and documenting the landscape Avnet was operating in—competition, partners, customers, and employees—and then setting a strategic agenda.

“Changing the culture of an almost 100-year-old company is a daunting task. Creating a ‘why’ mission focused on cultivating happier customers and more productive employees was clear and intuitive for internal sponsors to accept.”

—Nishant, Vice President of Digital Strategy, Avnet

The resulting charter became a dual objective to drive frictionless customer experience and help make employees more effective at their jobs. Nishant intentionally selected these areas where digital strategy could gain traction and result in execution and tangible results. He was very open that changing the culture of an almost 100-year-old company is a daunting task. Creating a “why” mission focused on cultivating happier customers and more productive employees was clear and intuitive for internal sponsors to accept.

Ask Avnet—modernizing the customer experience in electronics distribution

Executing and achieving scale with digital transformation remains a major challenge for many companies. Nishant, working with Avnet’s innovation, technology, and transformation teams, honed in on challenges in Avnet’s customer service function as a focus area for digital transformation execution. Customers engaging with Avnet’s customer service function are often B2B and include engineers, procurement specialists, and professional makers who often have complex queries. Key challenges were that customers could not easily navigate across the various brands under the broad Avnet corporate umbrella; customer service employees, many of whom have strong technical and engineering expertise, spent too much time on mundane tasks; and customer service was not available 24x7x365. The project objectives for what became Ask Avnet crystallized as:

1. Create a concierge-like experience that helps customers seamlessly navigate across Avnet’s ecosystem of online brands including Avnet.com, element14.com, Hackster.io, MakerSource.io, and PremierFarnell.com, thus enabling access to Avnet’s full breadth of capabilities.
2. Improve employee experience through reducing mundane tasks and enabling focus on value-added work.
3. Expand customer service availability to 24x7x365 without hiring additional headcount.

Avnet, which already had an existing relationship with Infosys, tapped its partner to help assist with the co-innovation and development of its Ask Avnet cognitive assistant initiative.

Making Ask Avnet operational

As the cornerstone of the Ask Avnet initiative, Avnet wanted to invest in artificial intelligence (AI)-enabled self-service to facilitate expanding customer service capabilities without adding headcount. Its existing

partner Infosys had assisted the firm with the realization of its digital experience program, inclusive of e-commerce. This meant that Infosys had a wealth of relevant institutional knowledge about Avnet and its systems, its massive array of products and multiple brands, and its customers globally. By the end of 2016, Infosys also had amassed experience working with facets of AI technology such as machine learning (ML), natural language processing (NLP), and cognitive assistants, which proved to be the magic mix. Avnet tapped Infosys to help it design, launch, and run Ask Avnet.

Avnet and Infosys evaluated various technologies and decided to move forward with Microsoft Azure and its growing suite of cognitive and intelligent capabilities and services under the Azure AI umbrella. The minimum viable product feature set for its initial release included a web app for customers available 24x7 that provides product information, pricing, recommended complementary or related products, order status, and rich content from the Hackster.io and element14 communities. It was also critical to ensure a quick and seamless hand-off to a live agent if the cognitive agent could not provide the necessary service. Nishant indicated that Avnet did not have much in the way of pre-existing AI capabilities; thus Infosys' knowledge and experience was critical.

“Implementing a low-level chat bot for an easy or standard process is straightforward. Developing an industry-specific cognitive capability requires a lot of work to train the AI engine for the necessary intent.”

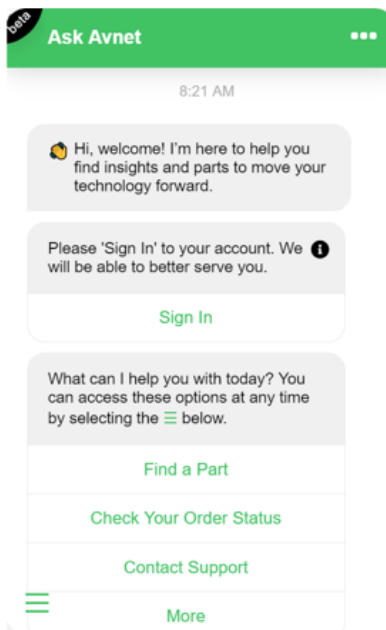
Komal Jain, Industry Head – High-Tech, Infosys

While Infosys had experience with Microsoft Azure and its expanding array of cognitive tools, it still had to invest substantial time developing and training algorithms for industry-specific intent—the content and context needed to support Avnet’s customer base, employees, and partners were not out-of-the-box functionality. Learning and understanding typical questions, recommending products, and learning to pull pricing required a strong collaboration with Avnet operations resources, systems, and data. According to Komal Jain, Infosys’ high-tech industry head, implementing a low-level chat bot for an easy or standard process is straightforward. Developing an industry-specific cognitive capability requires a lot of work to train the AI engine for the necessary intent. Infosys thus invested time to collaborate and innovate directly with Microsoft to ensure the best results for Avnet. Avnet ensured strong pre-beta and beta testing with its engineers and customers to refine features and functionality.

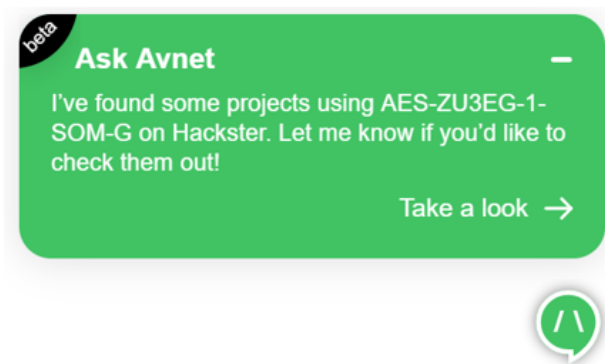
Avnet launched Ask Avnet for beta testing with select customers in July 2017 and went to open beta release in November 2017 for the Americas. In its initial incarnation, it enabled guided product and parts navigation, real-time order tracking and status, access to Hackster and element14 with the click of a button, and curated access to projects and parts based on what you're working on. Exhibit 2 showcases the open beta Ask Avnet interface. Since its initial launch, Avnet has expanded its geographical reach; added functions such as the ability to schedule sessions with engineers and a semantic search to ensure the cognitive assistant understands users' queries about technical attributes; and integrated other Avnet brands.

Exhibit 2: Ask Avnet Cognitive Assistant

Ask Avnet interface and navigation



Ask Avnet suggests relevant articles and projects based on what you're working on



Source: Avnet 2019

Ask Avnet business results

Ask Avnet has been up and running for just over one year. To date, Avnet cites the following as the key benefits and achievements of Ask Avnet thus far:

- **Adoption and utilization:** Getting customers to change their behavior is always challenging. However, Avnet's client base has embraced Ask Avnet; each week it logs 1000s of users and the number is growing.
- **Increased sales conversions:** While the vast majority of Avnet's sales are still conducted offline, Ask Avnet's ability to provide contextual information about products, projects, and related components has supported an increase in online sales. Customers are buying more online versus a comparison to offline purchasing behavior. For online channels, there is a threefold conversion rate on Ask Avnet compared to its website.
- **Reputational lift:** Avnet was the first distributor to launch a cognitive assistant, helping to further its reputation as a leading technology company and helping to bring to light the full breadth of its portfolio. A reputation as an innovator helps cater to current and future engineers and makes Avnet more relevant in the digital economy, where consumer brands dictate a certain standard of online access and ease of experience.
- **Enhanced customer satisfaction:** Ask Avnet baked in a simple satisfaction scoring mechanism at the end of each interaction—a one-to-five rating scale for satisfaction. Its score has been gaining steadily and is well above historical averages. As intended, Avnet accomplished the score increase without adding headcount.
- **Cross-pollination of brands:** Avnet, its customers, and its employees have all been delighted with the ability to provide a view of complementary products and services across the Avnet ecosystem of brands and companies. Customers appreciate the ease of navigation, which is now via a single source rather than different websites. It showcases the breadth and depth of Avnet's portfolio.
- **Employee benefits:** Ask Avnet has begun to successfully manage a portion of mundane requests that were formerly sent to live agents. Offloading these easily resolvable requests helps improve the quality of agents' work because they can focus on more complex customer challenges. Employees also appreciate the cognitive agent's ability to recommend context-based information from the Avnet ecosystem.

Nishant is very open that Ask Avnet is still a work in progress. Together with Infosys, the firm is working on further harnessing its data to expand the capabilities of Ask Avnet. Examples include leveraging its knowledge of customer interactions to offer a more proactive and personalized level of service and refining machine learning models around technical spec sheets for its six million products to offer the most relevant product information.

Lessons learned

There is a wealth of experimentation with new change agent technologies and digital business models. As there is no playbook for how to apply digital transformation and make it work, HFS asked Avnet and Infosys to comment on lessons learned throughout the Ask Avnet process:

- **Start with the customer.** Established enterprises, particularly in the B2B space where they feel somewhat shielded from consumer trends and demands, generally don't want to admit it but they can be very resistant to change. However, if you build your business case around how to help the customer, it will help you gain support to achieve objectives.
- **Start small and scale.** If you are trying to break new ground that's not business as usual to your company, start small. Then test, iterate, and pivot as needed. It's much easier to recover from getting something wrong when the mistake is small; you can recalibrate and keep trying. If you start too big and fail, you've wasted both time and cost—and recovery might not be an option.
- **It's an ongoing process.** Implementing cognitive technologies is not a one-and-done implementation process. Once you've launched a program and have achieved a modicum of success, you will gain popular support from your customers and employees to continue refining and enhancing capabilities. Be sure to measure the impact of your program and never lose sight of why you started it in the first place. Ongoing alignment is essential.

Bottom line: Ensure relevance and simplification in the hyper-competitive high-tech market by embracing the principles of the Digital OneOffice

Avnet is on a multi-faceted journey of digital transformation and its Ask Avnet initiative is a compelling example of a company embracing digital technology, breaking down its internal silos to drive an improved and inherently more real-time customer experience. The clear prioritization of its customers is helping guide Avnet where to invest and what to prioritize, to ensure it remains a critical component of its customers' lifecycle for creating the products of the future. The alignment of digital strategy with execution and quantifiable results will help Avnet continue to stay relevant and ultimately help it define the future of electronics distribution.

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Elena Christopher is Research Vice President at HFS. Elena is responsible for driving the industry-specific research agenda for HFS, digging into the major trends impacting each in-scope industry and the implications for business process and IT services. Her industry coverage areas are High-Tech, Banking and Financial Services and Telecommunications. She also leads HFS' coverage of automation with an emphasis on RPA. Elena brings more than 25 years of IT and business process services expertise to HFS.

About HFS Research: Defining future business operations

The HFS mission is to provide visionary insight into major innovations impacting business operations, including: automation, artificial intelligence, blockchain, Internet of things, digital business models, and smart analytics.

HFS defines and visualizes the future of business operations across key industries with our Digital OneOffice™ Framework.

HFS influences the strategies of enterprise customers to help them develop OneOffice backbones to be competitive and to partner with capable services providers, technology suppliers, and third-party advisors.

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