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There's Nothing Artificial About It

AI and analytics document significantly better digital experiences for customers

Q2 2019

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Executive Summary

Artificial Intelligence (AI) is a broad term covering various types of applications that enable machines to learn and think like humans, at much faster speeds. Increasingly, IT and business leaders are using AI to gain a competitive advantage on their interactions with customers—ultimately leading to a better, more highly rated customer experience.

In some cases, organizations moved too quickly and implemented AI without fully understanding its possibilities and limitations—only to find that the human mind was required in interactions that machines were handling. In others, they took AI more slowly and found initial success with handing off basic functions, such as chatbots answering basic questions. Then, they can build upon that success, becoming more creative to evolve AI-based applications to benefit the enterprise more broadly.

This report evaluates the role of AI in Digital Customer Experience (DCX) strategies and subsequent initiatives. By the end of this year, 85% of organizations will have developed a DCX strategy, so now is the time to establish one for those who haven't already.

First, we look at key best practices for developing a DCX strategy that will result in measurable success. Then, we present the state of the market for adoption of transformative DCX technologies. Customer success analytics and AI lead a long list of transformative technologies. We present the drivers behind using AI, including customer ratings improvements and cost reductions. We also evaluate DCX projects that incorporate AI, along with the specific metrics companies use to document success. For example, those using AI see a 95% increase in new customers, an 80% improvement in self-service transactions, and a 45% boost in customer ratings.

Our research of 697 global organizations documents a profound adoption of and interest in AI and analytics for DCX, along with compelling success metrics.

Developing a DCX Strategy

Adding AI and analytics to any DCX strategy will help bolster success rates. However, not all companies add AI and analytics as part of a strategy, and not all strategies include AI and analytics.

Step 1 is actually committing the time and resources to crafting a DCX strategy. By mid-2018, 36% of organizations had developed a DCX strategy, either enterprise-wide (21%) or in silos (15%). Another 23% had planned a strategy by year-end, and another 26% plan to do so in 2019. If they all succeed, that brings the total number of organizations with a DCX strategy to 85% by the end of 2019, according to Nemertes' DCX study.

Though the details of their methods and goals vary, successful organizations consistently addressed the following in their strategy:

- **Business drivers** – They typically met with business unit leaders and executives to determine the business problems or opportunities they wanted to address with their DCX strategy.
- **Projects** – They identify what specific DCX projects will achieve the business goals—either addressing a problem or capitalizing on an opportunity. For example, will agent analytics improve retention rates? Will new digital channels improve customer ratings
- **Technologies and providers** – They evaluate *all* technologies, including foundational and emerging. For example, is the network engineered properly to support the project and new technology associated with it? Does the security strategy need to be updated? What emerging technologies will propel the company to a competitive advantage—and which providers' roadmaps align best with the company's?
- **Success metrics** – They all determined how they would measure success, aligned with the business goal. What the main driver to increase revenue, decrease costs, improve customer ratings, reduce agent turnover, or some combination? Then, they took baseline metrics and regular checkpoints.
- **Staffing** – They determined the staffing for each project to make sure it was successful. Typically, the projects required a project manager along with a combination of customer experience, contact center, IT, security, and business unit leaders to be involved.
- **Stakeholders** – They carefully identified who would support the initiatives, with funding, as well as evangelism and influence.
- **User awareness** – They solicit help from marketing experts to promote the new technology capabilities to both internal and external customers.

All these factors are important in DCX strategy development. This paper will focus on a few of them – the projects organizations select to achieve their business goals, documented success metrics, and the role AI and analytics plays in amplifying that success. Typically, as organizations start on DCX and planning their associated strategy, the wheels start spinning about how AI fits.

Transformative Technologies, Practices That Belong on the Radar

Of course, the list of technologies to help support the strategy is long, and most organizations are using more apps and providers than they need. In fact, the average company can achieve the same success today with only 65% of the apps they're using, according to the research. Part of the strategy development is taking inventory of existing apps and right sizing what's truly needed to deliver a solid customer experience. Most companies are consolidating providers—looking for those that can cover a variety of DCX functions, from contact center, to agent and customer analytics, to unified communications, all with a compelling roadmap that incorporates increasing AI and other transformative technologies.

Figure 1 shows the top technologies or practices organizations selected when asked what they expect will transform customer experience. Customer satisfaction analytics tools are most transformative, followed by AI, next-generation mobile, Internet of Things, cloud services, and agent analytics. The top two go hand-in-hand: as analytics guide the AI engine on how to adjust to changes and make decisions; and the decisions the AI engine makes feed the analytics tool to provide success or failure reports to the humans for fine-tuning. Indeed, when we asked organizations in the study how they were using AI in customer interactions, many saw AI's role as being embedded in their advanced analytics tools.

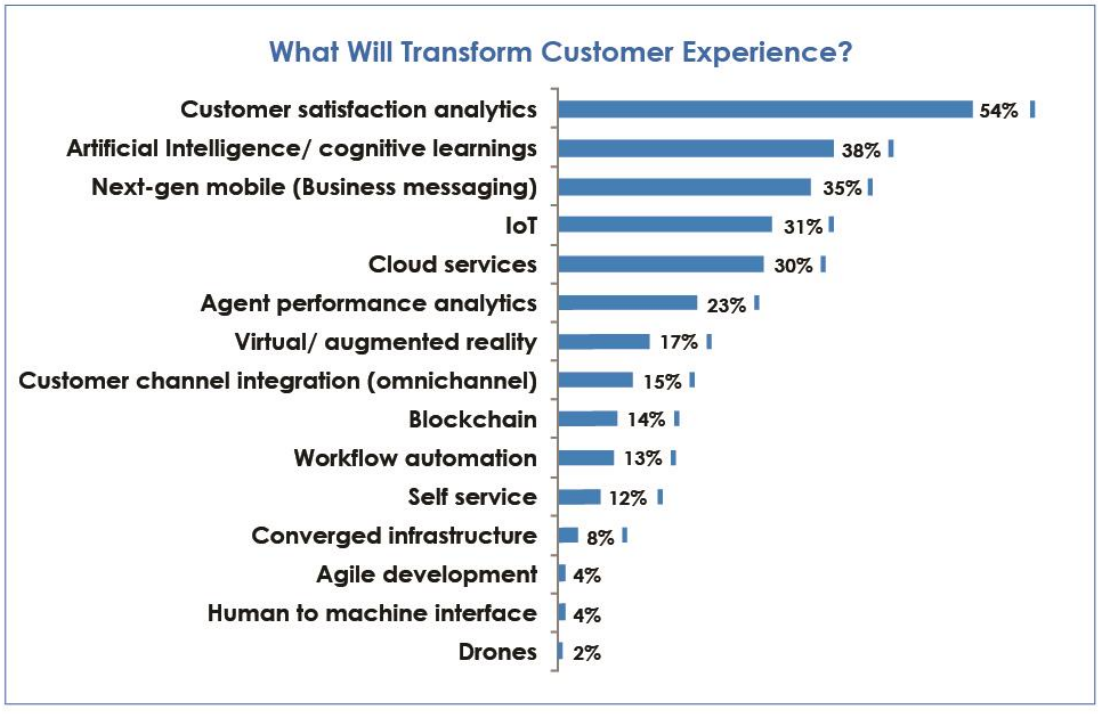

Figure 1: What Will Transform Customer Experience?

The Many Definitions of AI

Artificial Intelligence (AI) is a broad term covering numerous technologies. Broadly speaking, AI is the ability of computers to simulate human cognitive behavior, including the ability to learn, reason, and self-correct. A human, essentially, programs a machine to think and learn like a human. When that machine completes a task based on rules that humans program, the result is considered intelligent behavior.

Actual AI functions or tasks can be broad or narrow in scope. For example, a broad AI function is a machine that recognizes someone has walked into a room, or that a car has pulled into a driveway. More narrow functions are, unsurprisingly, limited in scope but highly functional—perhaps even more functional as a human. Examples of narrow AI functions are facial recognition or image classification for a photo store. Although AI automates functions, it doesn't eliminate the need for humans to refine, interpret, and analyze data sets.

One of the most common components of AI is **machine learning**, which uses human-developed algorithms to understand data received, and then adjust the algorithms as the data changes or as the processing engine learns more about the data. The goal of machine learning is for the machine to continuously train itself based on an initial training data set and rules humans provide, as well as results of processes. One benefit of machine learning is no specific programming is performed; rather, the proxy for programming is based on the data set training results. But fully leveraging machine learning takes time and requires experts who understand the technology and what is represented by the specific data set. Although machine learning ultimately may reduce costs, organizations must factor the costs of data scientists. AI is generally only as good as the data sets being used to train it, along with the skillsets of the data scientists.

Drill down another level under machine learning, and the next subset is **deep learning,** which relies upon labels, patterns, and classifications to categorize data. Like a brain, deep learning algorithms try to compare data to classifications they have already made. Deep learning requires fast and powerful computer processors to quickly discover the characteristics it will use for classifications; machine learning requires those characteristics be programmed manually. One of the greatest benefits of AI's learning components is speed-to-learn. For example, IBM Watson is capable of "reading" one million books per second.

AI: Strategic Differentiator

AI is embedded into numerous products and services covering everything from IT to manufacturing automation. Specific to DCX initiatives, IT and business leaders pointed to some key sub-segments that are attracting their attention.

Figure 2 on the following page shows AI plans of the research participants. In the study, 44.6% said they were using or planning to use AI for their customer-facing interactions or analysis. The chart breaks down which forms of AI those organizations plan to have in place by 2020.

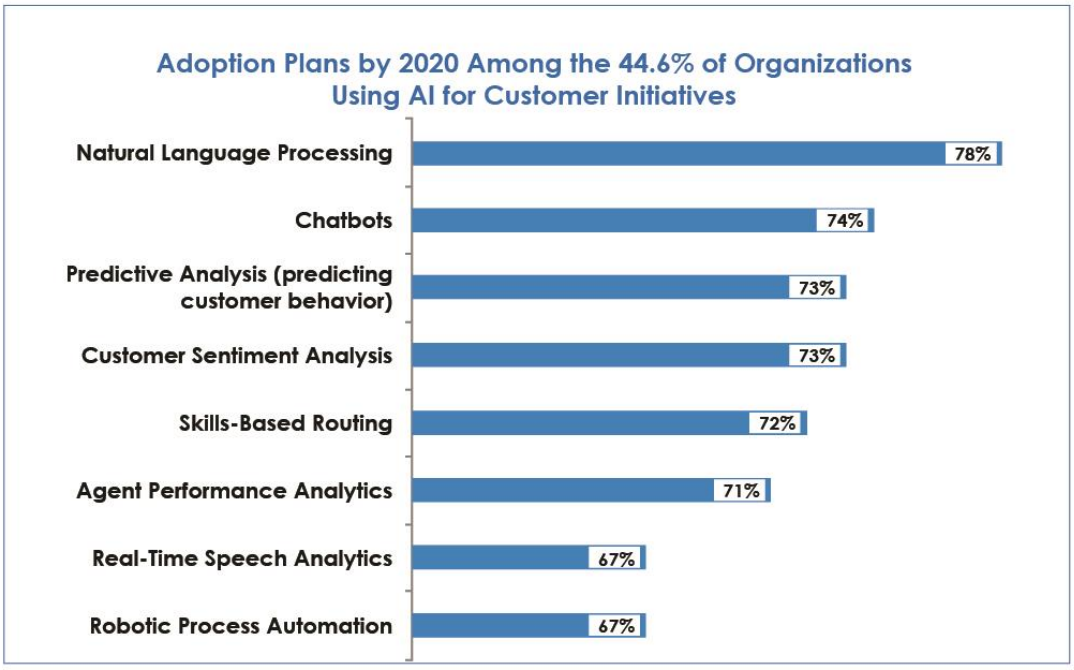

Figure 2: Adoption Plans by 2020 Among Those Using AI for Customer Initiatives

Where do they see AI helping them with their DCX initiatives?

- **Natural Language Processing (NLP)** – Understanding speaking or writing languages and being able to interpret those into meaningful statistics or actionable recommendations.
- **Virtual agents/chatbots** – Computer-aided, virtual robots that address basic questions and functions to free human agents to handle more complex ones.
- **Predictive analysis** – Algorithms that predict customer behavior based on a variety of pre-programmed or learned factors, such as past behavior, regional trends, and behavior of other customers with similar demographics.
- **Customer sentiment analysis** – Algorithms designed to detect human emotion, and make decisions based on it.
- **Skills-based routing** – Advanced rules that change in real-time, based on the AI algorithm, to govern how to route customer interactions based on skills of agents available and circumstances causing customer interactions at that time.
- **Agent performance analytics** – Complex analytics evaluating pre-determined metrics of contact center agent performance, typically used to train or motivate agents and to improve customer experience by making decisions based on those analytics.
- **Real-time speech analytics** – Tools that listen to customer's verbal content to analyze next steps for customer service agents, typically using agent screen pops.
- **Robotic Process Automation (RPA)** – Software and bots used to automate various mundane, rules-based processes within a broader business process aimed at reducing staffing costs and human error, while saving human time for more complex requirements.

Natural Language Processing (NLP) Delivers Key Benefits for DCX

NLP is high on the priority list for organizations, primarily because it serves a few key purposes and helps many of the other technologies, such as chatbots, predictive analysis, and customer sentiment analysis. Most importantly, it feeds data into 360-degree views of the customer.

Better CSAT, Reduced Costs Top Benefits From AI

As IT and business leaders evaluate and deploy AI, benefits center around three core areas.

- Improved customer satisfaction – 30% of organizations cite improved CSAT as the top benefit of AI. By getting customers more accurate answers more quickly, or by predicting what they may need before frustration sets in, they can improve customer satisfaction.
- Reduced cost – AI helps contact center agents spend less time on calls, according to 24% of the research participants. AI also helps simply reduce the number of calls for 16% of participants. Together, both end up reducing costs because organizations need fewer agents to handle customer interactions.
- Enable new sales or upsell – For 12% of the research participants, AI helps them sell more by providing agents information based on customer behavior; or by providing customers suggestions of what else they may want to buy based on previous buying patterns or similar purchases from other customers.

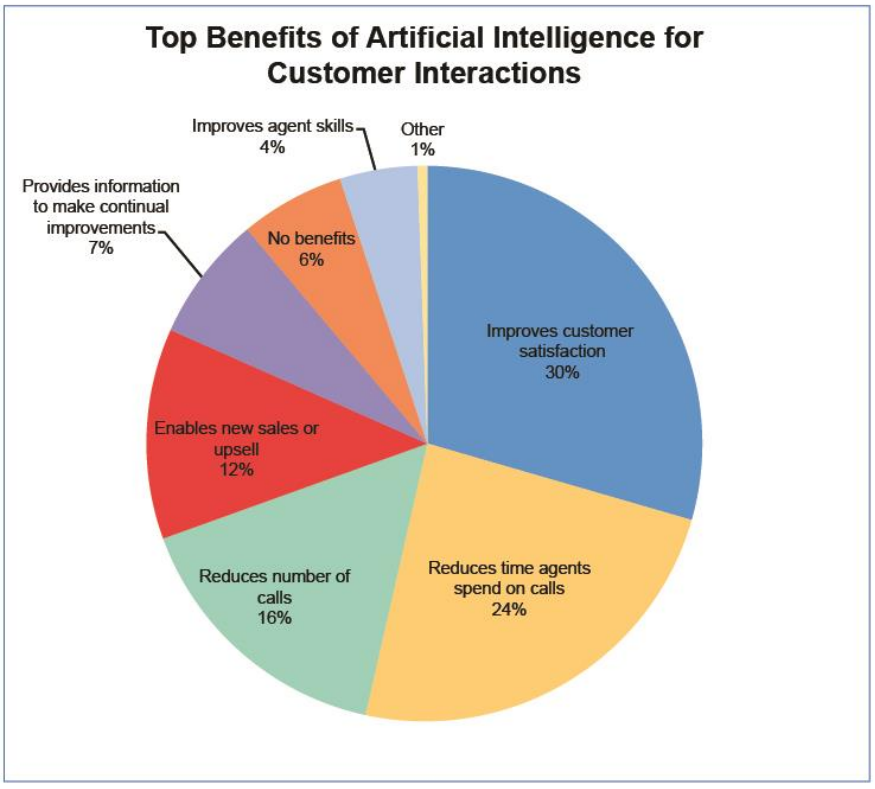

Figure 3: Top Benefits of Artificial Intelligence for Customer Interactions

AI-Enabled Success

Organizations already are seeing success by using AI in their customer initiatives. They typically started their projects driven by true business needs: Sales are slipping, how can AI-based technology help drive more revenue? Customer ratings are low, how can AI embedded into digital channels, analytics, and chatbots help improve the experience?

Nemertes asked organizations for their success metrics before and after their DCX + AI initiatives, and the results were very compelling. Figure 4 summarizes the findings. Most significantly, organizations increased new customers won by 95%, boosted self-service transactions by 80%, and improved customer ratings by 45%.

AI also helped in financial metrics. It helped to increase digital sales by 39%, and it decreased cost per transaction by 19%. For example, when organizations rely upon real-time analytics that show what customers need now, they can adjust recommendations for additional items dynamically—and all the while, the AI engine learns for future similar transactions.

Additionally, costs per transaction drop when AI handles functions a costlier human would have previously handled, or when the AI engine can assist a human agent to reduce call handle time. It's important to note that most use cases of AI to date are fairly basic. As companies learn more about how to apply AI to business functions, we expect to see even better business metrics.

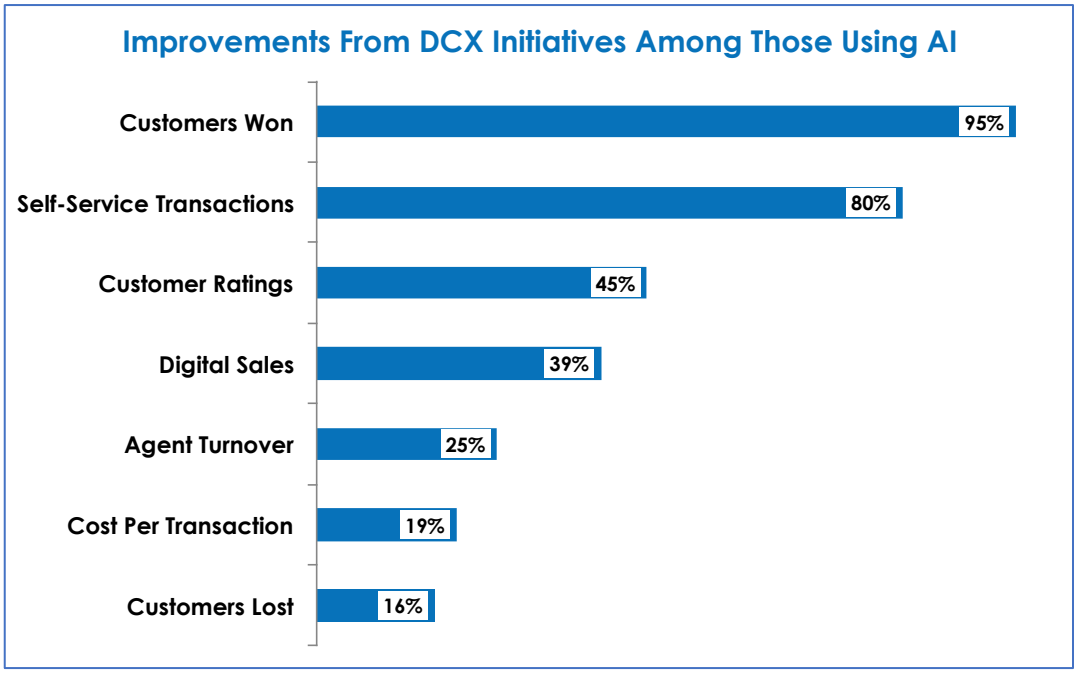

Figure 4: Improvements From DCX Initiatives Among Those Using AI

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Case Study: AI Improves Customer Ratings, Reduces Cost

A large high-tech company discovered measurable success by using AI in a somewhat risky way. The organization uses AI to address customer complaints—an area typically handled with kid gloves.

The company boldly set forth a goal to close complaints without human intervention if there is a greater-than 80% chance for success using AI. It analyzes the initial complaint using NLP, and then matches the resolution with a probability score (which increases over time and is now at 90%). The AI engine has authority to issue credits, deliver parts, and approve warranty claims.

The results? The company saw an 11% improvement in customer satisfaction scores and a 25% reduction in staff required to field customer complaints. Now, the AI engine closes more than 30% of customer complaints with a 90% success rate. The 10% it can't close get routed to a human agent.

Artificial Intelligence Cuts DCX Costs

- 25% reduction in staff handling customer complaints
- 11% boost in customer ratings
- AI engine closes 30% of complaints with 90% success rate

Conclusion

AI and analytics in DCX transactions are still in early stages, with significant promise to come. Bottom line: Those not strategizing around AI and analytics for their DCX initiatives are at a competitive disadvantage. The time is now to work with business unit leaders to identify problems and opportunities—and then collaborate with technology partners to uncover the possibilities AI and analytics can deliver. Organizations must consider their options—despite any perceived technology complexity—and include plans in their DCX strategy. Specifically, they should:

- Develop a DCX strategy. Find details about how to develop a successful strategy here.
- Evaluate the technologies available to address both foundational requirements (i.e., network, communications, security), as well as emerging innovations (i.e., AI-based advanced analytics, chatbots, IoT, and more).
- Assess providers—including their plans for incorporating AI into their contact center, customer engagement, customer service, and analytics/customer success capabilities.
- Align the corporate requirements with provider roadmaps.