

An abstract graphic on the left side of the page, consisting of a complex network of white and light blue dots connected by thin white lines, forming a mesh-like structure that extends across the page.

Transformative CX (TCX)

Driving Intimate, Integrated and Intelligent
Customer Relationships

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Transformative CX

TCX, or Transformative Customer Experience, will be a key strategic differentiator for the enterprise, regardless of size or vertical industry, in the age of digital transformation. Powered by automation, cognitive and AI technologies, enterprises must build TCX into their future IT and business investment plans if they want to get closer to their customers, build long-term customer relationships and dominate their competition.

At IPsoft, we believe in TCX because we know there are pioneering companies that are already making investments to transform and improve how they serve their customers, and gaining real business benefits from this approach.

The Rise of CX

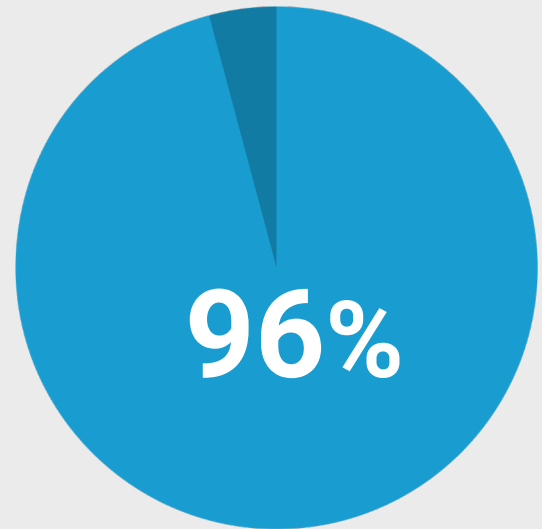
Enterprises today understand that an effective customer experience (CX) strategy is essential for success. While it may seem that CX has always been an enterprise priority, in reality it's a movement that's taken hold only in the recent past.

For example, four years ago a study by one US-based business consultancy made note of the growing number of companies attempting to differentiate themselves from their rivals through the experience they delivered to customers, rather than focusing primarily on products or price. The study found that factors such as "the explosion of digital, the empowered customer, and the acceleration of innovation" were dramatically impacting customer expectations. "The customer of 2020 will be more informed and in charge of the experience they receive," the study concluded. Not only would customers expect companies to know their individual requirements and provide a personalized experience, but they would also demand the experience "proactively address their current and future needs."¹

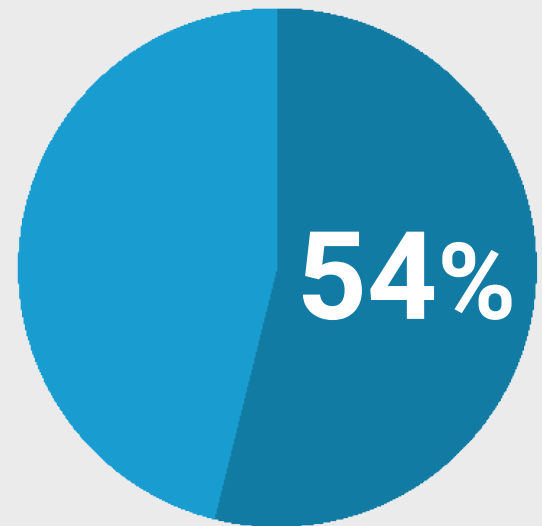
It's apparent that the customer of 2020 has arrived ahead of schedule, based on recent research, industry trends and enterprise investments.

Modern enterprises need a laser-focused CX strategy to compete and win. Studies have shown that companies with satisfied customers enjoy greater loyalty, higher revenues and higher long-term growth.² In contrast, firms that fall short of expectations face higher rates of customer defection, greater expenses related to customer complaints and an overall loss of market share.

The Voice of the Customer



96% said that customer service played a role in their brand choice and brand loyalty



54% have higher expectations for customer service today than they did one year ago

Source: Microsoft's 2017 State of Global Customer Service Report, which surveyed 5,000 people from Brazil, Germany, Japan, the UK and US

What's more, CX continues to be at the top of the investment agenda for CEOs, CMOs, and CIOs, according to analyst firm Gartner's 2017 executive surveys.³ A significant portion of that investment has gone and will continue to go into technology, particularly analytics.

A recent Gartner survey found that 84% of respondents expected CX technology investments to increase this year, with customer analytics the focus for most – 41% planned to increase investment in this area, compared to 36% in 2016.⁴

Analytics can help a company understand who a customer is and what they want, but the next step is to deliver the personalized service customers demand. For many enterprises, this requires a wholesale transformation of the customer journey to deliver high-quality interactions each and every time:

- CX needs to be personalized and interactive, so customers feel as though a company treats their problems as priorities, and that the company is truly invested in building a relationship for the long-term.
- CX needs to be tailored to customers within specific industries, especially in verticals such as banking, insurance, financial services and retail where traditional brick-and-mortar businesses are disrupting their own business models in an effort to keep up with digital-born competitors.
- Customers need a CX that allows them to interact with companies on any device or platform instantaneously, or they will switch to a company that is capable of delivering that experience.

Cognitive technologies, in particular, are gaining altitude on the enterprise radar, as corporate leaders start to see how such technology can fundamentally change CX into something truly innovative and game-changing.

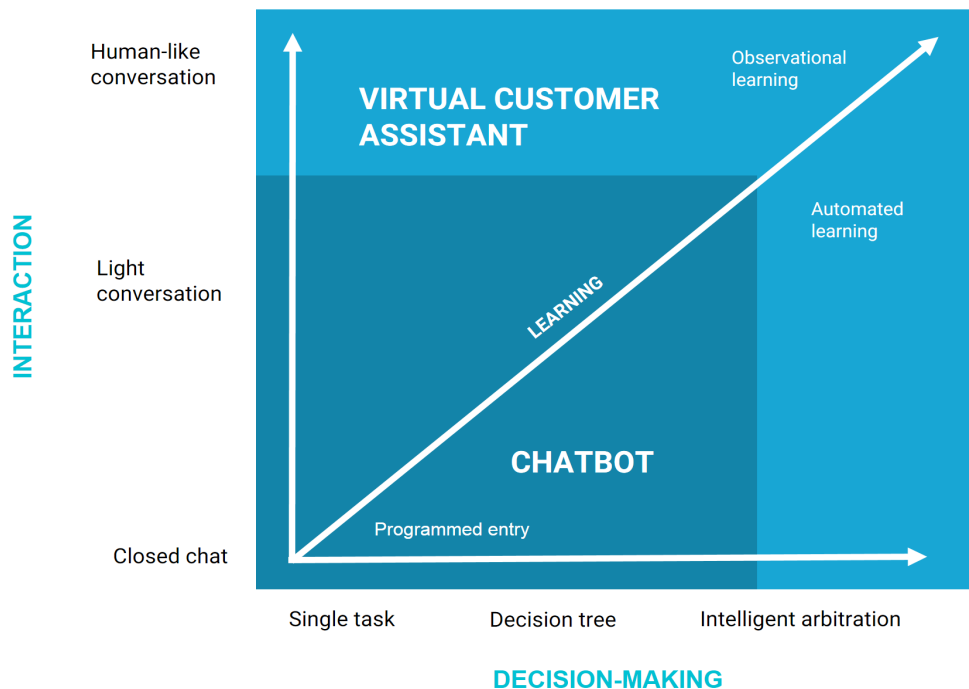
- Effective CX also needs to be proactive, anticipating a customer's future needs, before the customer even realizes what those needs are.

While many enterprises have made investments in low-level chatbots, RPA and baseline analytics to enhance their CX strategy, more and more companies are looking to elevate their CX strategy through the use of automation, cognitive and AI technologies, which can deliver the higher-value capabilities necessary to make CX smarter, more engaging and seamless. Cognitive technologies, in particular, are gaining altitude on the enterprise radar, as corporate leaders start to see how such technology can fundamentally change CX into something truly innovative and game-changing.

At IPsoft, we call this Transformational CX or TCX.

In this white paper, we detail how pioneering IPsoft customers have embraced TCX as part of their strategies to grow.

Chatbots vs. Virtual Customer Assistants



Chatbots lack the emotional intelligence, learning and sentiment capabilities of virtual assistants.

TCX: The IPsoft View

TCX is IPsoft's vision on how AI and cognitive agents can fundamentally transform customer experience, with technology that is inherently designed to make customer interactions more natural, conversational, effective and enduring. Enhancing customer experience in this manner is a core goal for IPsoft with Amelia, its market-leading cognitive virtual agent, able to deliver higher-value customer experiences. What's more, TCX should be focused on building a customer-facing platform that can adapt and learn through its customer interactions, making future customer experiences even more engaging.

TCX is not something that can be achieved overnight, but many customers are already mapping out how to reach it, using AI and cognitive technologies as a foundation.

Ultimately, companies hope to leverage customer interactions and data to provide a more personalized and insightful experience.

Many companies starting on the journey towards that goal have invested in programmed chatbots, which are able to automate some low-level tasks and provide customers with limited information during online or support interactions. However, in the majority of cases, those investments have proven ineffective and will not lead to true transformation of the customer experience, or a rise in Net Promoter Scores for measuring customer satisfaction.

While they may result in somewhat faster interactions and provide another channel for customer interactions, chatbots can only go so far.

Chatbots are programmed to be inherently bi-directional – one input from a customer that receives a programmed response – and therefore lack a multi-dimensional approach to customer experience that can anticipate, adapt and respond to what a customer truly needs.

What's more, many companies neglect to capitalize on the data collected in these interactions to improve and personalize customer experience, whereas a true AI platform powered by a virtual agent is programmed to record all interactions, then learn and improve. An August 2017 survey by Harvard Business Review found that less than half of respondents were using customer data to customize, personalize or enhance customer experience.⁵ Cognitive technologies can leverage that untapped data to get closer to a customer's real needs and habits, anticipating future interactions.

Chatbots and virtual agents simply are not the same, although market hype and vendor promotions have resulted in the two often being considered as such. Chatbots are often a weak first line of interaction with customers; if a chatbot cannot address a customer inquiry through its pre-programmed responses, it will pass the interaction to a human colleague to essentially start the customer exchange all over again – resulting in a frustrating customer experience. The human agent therefore wastes a customer's time (and patience) reiterating information already given in order to resolve an issue, and are themselves prevented from engaging in other higher-value tasks. In addition, if a customer who had a previous issue works with the same chatbot system a second time, most often the chatbot has no record of previous interactions, and can't anticipate or call upon the customer's history to draw conclusions from previous resolutions.

Chatbots and virtual agents simply are not the same, although market hype and vendor promotions have resulted in the two often being considered as such. Chatbots are often a weak first line of interaction with customers.

Customer experience is not about deflecting customers, but engaging with them. However, when interacting with a chatbot, it's most likely a blank slate every time.

Virtual agents also work with their human colleagues. The substantial difference versus a chatbot is that agents like Amelia leverage natural language alongside semantic and episodic memory capabilities to take the customer experience much further than a programmed chatbot. If a virtual agent resolves an issue without human intervention, human agents can spend their time addressing other issues, improving their productivity. If a virtual agent cannot resolve an issue, it can hand off the customer to a human colleague with a complete history of their current and previous interactions, allowing a human agent to pick up where the virtual agent left off, without the need to recap an entire support episode. What's more, virtual agents have the ability and agility to scale and handle hundreds or thousands of inquiries as needed, especially at peak times, and escalate only those inquiries or incidents that require human intervention. Human colleagues can deliver more efficient and personalized service when virtual agents like Amelia have performed much of the heavy lifting behind the scenes.

TCX: Intimate, Integrated and Intelligent

Companies know that an ability to deliver immediate customer experience 24/7 is a baseline requirement, and is absolutely critical for any successful engagement strategy, because customers won't wait. However, if a customer quickly reaches customer support, and then has a negative experience (like being put on hold or waiting endlessly in an online queue), any customer goodwill gained from that rapid connection is lost.

If companies don't have the necessary technology to take advantage of interacting with customers 24/7, it doesn't matter how fast or quick customers can connect. Cognitive platforms allow companies to augment 24/7 capabilities by scaling with changes in demand for instant access through customers' favorite channels, even at peak demand times. This 24/7 scale is an underlying power of TCX.

For an enterprise to bring full TCX to its customers, it must have three core elements that can only be delivered through the proper investments in AI and cognitive technologies. There are some pioneering customers that are working to achieve all three of these elements in their quest for TCX, and many are focused on one or all three of these elements as they attempt to innovate.

TCX must be intimate, integrated and intelligent.

Intimate: Intimacy in customer experience is more than having a record of previous interactions. As described above, low-level chatbots most likely do not have access to a customer's history; for many customers, every interaction with a chatbot feels like it's the first time they've contacted that company with an inquiry or support request.

Intimate

TCX delivers greater customer intimacy through the use of cognitive agents' ability to put data and interactions into the proper context.

Leveraging natural language, deep neural networks and machine learning, agents like Amelia can understand how humans think and speak, and use advanced analytics to enrich experiences with real-time data insights.



Integrated

TCX requires that the same customer experience be delivered across multiple integrated channels, wherever and whenever the customer wants to interact.

Cognitive technologies allows integrated interactions to be passed from one channel to another without loss of quality or intent.



Intelligent

Understanding how customers are feeling and thinking during conversations is inherent in TCX, by knowing the customer, and dynamically responding to requests through the correct process. Unlike chatbots, which follow programmed static steps, virtual agents can look for opportunities to go beyond what the customer was expecting and identify cross/up-sell opportunities that resonate with customers.



TCX at a Gaming Company



Amelia was deployed as a customer service agent to directly engage with the company's gamer community to detect potential online phishers.



Amelia's conversational skills allowed her to speak naturally to customers and also **accelerated the verification** process drastically.

Chat times were **brought down from 20 minutes to 3 minutes.**

Customer satisfaction has reached 88%. She is **identifying user accounts correctly 99% of the time** and 4% of all chats involved phishers.



Even if chatbots possessed that data, they lack the programmed ability to put that data into proper context, anticipate a customer's needs, or provide resolutions more quickly based on previous interactions.

Cognitive platforms and virtual agents are by their nature designed to bring greater customer intimacy. One of the more direct ways to establish that intimacy is being able to speak as a customer speaks, literally.

IPsoft's Amelia can interact with users in 40 languages through natural language processing (NLP); through deep neural networks (DNN) and machine learning (ML) she can understand how humans speak and interact, which is often not in complete thoughts or sentences.

Advanced analytical capabilities allow Amelia to enrich every user interaction with decisions based on real-time data insights. These include performance analytics to

measure interaction accuracy, escalations, and overall customer satisfaction, which in turn can drive continuous improvements in her ability to deliver a valuable and seamless experience. Decision support functionality also allows Amelia to leverage or present analytic outcomes to customers or her human agent colleagues to keep them informed and help them make better decisions. Additionally, Amelia is always on and available 24/7, providing assistance and support to customers whenever they need it.

Integrated: TCX requires that the same customer experience be delivered across multiple integrated channels, wherever and whenever the customer wants to interact. While many enterprises might offer multiple CX channels, TCX with cognitive technologies allows integrated interactions to be passed from one channel to another without loss of quality or intent; an inquiry submitted in one channel can be answered in another.

TCX in Banking



A leading Swedish bank wanted to offer more than a million of their customers an easier way to submit banking queries online so as to lessen the call volume for live agents and allow clients to be quickly serviced.



Amelia is communicating with customers in Swedish on matters such as password resets for online banking accounts or locating the nearest bank. She is handling more complex use cases like ID verification questioning, which takes place after an account sensitive question is asked.



Amelia has reached **80% accuracy** on the wide array of roles she has taken over.

She is **answering approximately 200 customer queries** a day.

Her intent recognition, which allows her to respond rapidly to online requests, is at **85% and expected to rise**.

Most enterprises see the need for a seamless, integrated experience; the Harvard Business Review survey found that almost 80% of respondents viewed such a strategy as essential.

Users can interact with Amelia through chat over the web, in mobile apps, and social channels such as Facebook. Amelia also has the ability to connect by voice, via collaboration tools such as Slack, and even through intelligent home agents such as Amazon Echo and Google Home. Amelia can start a conversation on Facebook, then direct a customer to the corporate chat system where she has access to all the internal systems to better assist the customer, all while maintaining the context of the conversation.

An integrated approach through TCX is not solely about operating over multiple channels. Virtual agents need to be able to access all customer data and

information, which means integration into business processes and systems. Amelia's integration framework gives her the flexibility to orchestrate and control internal systems, including leveraging APIs and web services to retrieve data or start processes in business systems, directing bots and controlling devices such as printers and scanners, and informing users with messages by email or text.

Intelligent: TCX relies heavily on emotional intelligence -- understanding how customers are feeling and thinking during CX conversations, solving problems by knowing the customer, and dynamically responding to requests through the correct process. Unlike chatbots, which follow programmed static steps, virtual agents can look for opportunities to go beyond what the customer was expecting and identify cross/up-sell opportunities through messages that resonate with customers.

TCX in Insurance



Seeking to bolster online support for their new web-only offering, a large US-based insurance company expected upwards of 3,000 users a week and did not have the resources to cater to so many customers.



Amelia's scalability and ability to engage in multiple, quality conversations at the same time allowed the client to meet the increased demand for chat-based interactions without lowering customer satisfaction.

Thus far, Amelia is performing at a **93% accuracy** rate while **managing more than 150 different query types**.



Virtual agents such as Amelia can understand what end-users say and mean – and we believe this aspect of TCX will be a critical differentiator for enterprises to attract, retain and satisfy their customers. Emotional intelligence leads to a much higher level of understanding, and therefore a better user experience that requires a minimal amount of repetition or clarification. This is due to machine learning skills that recognize intent, episodic memory that generates appropriate responses, logic memory that drives conversational intelligence, and (in Amelia's case) her natural language capabilities in 40 languages.

Through empathetic response capabilities, Amelia can adapt her responses and expressions to create a truly personal and contextual experience for each customer, leading to higher-value interactions and building strong relationships between a company and its customers. What's more, Amelia learns through her interactions and optimizes the customer experience; the more she interacts with customers, the more her capabilities and interactions evolve to a higher state.

TCX is Essential for Success and Business Benefits

All forward-thinking companies that view customer experience as a true competitive differentiator need to adopt a TCX strategy, and adapt their current CX strategies to include AI and cognitive technologies. We know that success breeds more success when thinking about implementing TCX. Organizations that have piloted or implemented Amelia with focused projects for one or two services have proven the value of cognitive technologies, and are moving ahead with even bolder initiatives.

Achieving the core elements of TCX – intimate, integrated and intelligent CX – takes time. However, while early days, customer case studies and examples like those referenced in this paper demonstrate TCX's significant potential.

These innovative customers see a future where a Digital Workforce, comprised of virtual and human colleagues, delivers more efficient and intelligent customer encounters through TCX. Every successful deployment of cognitive virtual agents such as Amelia is generating more advocates and admirers, from CEOs and CIOs to end-users and customers that have had successful interactions working with a virtual agent. These executives and end-users are becoming some of the most vocal proponents of TCX, as they achieve their organizational and business goals. A broad range of enterprises, from large multinational banks, through insurance companies, to telecommunications providers and others, are already achieving real business benefits in the here and now, with great expectations for the future. Some of these benefits are more easily measured – higher Net Promoter and Customer Satisfaction Scores, improved time to resolution, and higher productivity, to name a few. Some public corporations are even starting to reference their higher Net Promoter Scores within their companies' annual reports to demonstrate their TCX investments are working.

Other TCX benefits are subtler and potentially harder to define, but will become more apparent over time, and in fact may have longer-lasting impact thanks to cognitive

TCX is not a coming attraction or a trend that will suddenly appear – TCX is here and should be considered a business imperative for the enterprise.

technologies' ability to detect and analyze emotion dynamically. The ability to create an emotional connection through cognitive agents between a customer and large "unemotional" corporations engenders loyalty and long-standing relationships. In a customer's mind, the conversation shifts from "this company wants to provide me with a product or service I need" to "this company cares about my needs." With this kind of connection, TCX can drive improved retention rates, cross- and up-sell opportunities and ultimately increased revenue and a healthier bottom line.

TCX is not a coming attraction or a trend that will suddenly appear – TCX is here and should be considered a business imperative for the enterprise. Companies should realize that if they don't take steps to implement TCX, competitors surely will, as customers' desire for intimate, integrated and intelligent CX continues to grow.

Endnotes

- 1 Walker, "Customers 2020: The Future of B-to-B Customer Experience"
- 2 Ju-Yeon Lee, Shrihari Sridhar, Conor M. Henderson, Robert W. Palmatier (2014), "Effect of Customer-Centric" Structure on Long-Term Financial Performance', Marketing Science
- 3 Gartner, "Future of Experience: A Gartner Theme Insight Report"
- 4 Gartner, "Survey Analysis: Customer Experience Innovation 2017 - AI Now on the CX Map"
- 5 Harvard Business Review: Closing the Customer Experience Gap, August 2017



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