

TRENDS 2022



7 Customer Experience Trends to Expect in 2022

Summary

Customer experience is becoming more and more vital to your customer base and employees. And it's always changing — so how can your business keep up? Mendix has partnered with Cognizant, a leading global GSI and Fortune 200 company who has deep experience in manufacturing, life sciences, communications/media, retail, and healthcare, to help identify the 7 trends to know when it comes to creating customer experiences in 2022...and keeping your org ahead of the game.



What is a successful customer experience?

Think about that question for a moment.

Because if you ask anybody who's ever had a package delivered to their home, they'll tell you customer experience is about being able to purchase and track that item until it hits their doorstep. Or ask anyone that's been rear-ended in their car and has to go through an insurance claims process. They'll tell you that customer experience is being able to make a claim and get it resolved.

Or take the factory floor where your customers are your shop workers. A successful experience for them is the lifting of manual impediments that slow them down in their jobs. You can cast a digital lens on your factory and give them and yourself a holistic view of your plant's siloed data, which makes something like the finding of a broken part and ordering a replacement through SAP a now-seamless process.

Customer experience is everywhere, in every industry, with every type of service, software, hardware, or product, and it changes person to person. It's the feeling your customers have when they do business with you.

Ultimately, customer experiences need to work, meaning they work where and when users need them to. Customers want to be able to choose how they interact with your products and services. **A successful customer experience is one that's always anticipating and adapting to the needs of the users.** It's so seamless, users don't even think about the technology required for it to operate.

As you might imagine, expectations are high. 80% of American consumers, according to PWC, believe that speed, convenience, and knowledgeable help are the most important factors to a positive experience.¹ Understanding that constant need for change is vital. It's your best tool for advertisement. According to PWC, 65% of customers find that a positive experience with a brand is more influential than great advertising.²

Customer experience is good business. Good experiences can make price points disappear for users. In fact, companies with good customer experiences have a 16% price premium on their products and services.³

Customer experience goes beyond the consumer.

In the B2B space, your employees are your customers, and they have their customers and contractors to think about, too. Optimizing workflows and processes through digitization and automation is one way to create elegant experiences for your internal audience. For example, in the manufacturing space, pulling together disparate systems like the PLM, ERP, and CRM systems can shore up how data is input and shared which can then help you automate manual processes for your employees. This creates optimal experiences that improve your employees' jobs which, in turn, allows them to better support their external customers.

Creating a digital representation of your factory or business enables you to take a bigger step toward supporting your internal employees' customers. Connecting disparate systems goes hand in hand with this notion. The more data you have the better. From connected clothing and wearables to IoT-enabled machines and environments, you can unlock data that you have, the better. The better connected your core systems are, the more efficient your digital representation will be, allowing you to up level processes like machine maintenance or logistics planning.

Today's customer experience needs to take into account all of these different ways to interact. It needs to respond to the joining of the physical and digital worlds to truly create that positive experience.

The world around us is always changing, so the way you build customer experiences should, too.

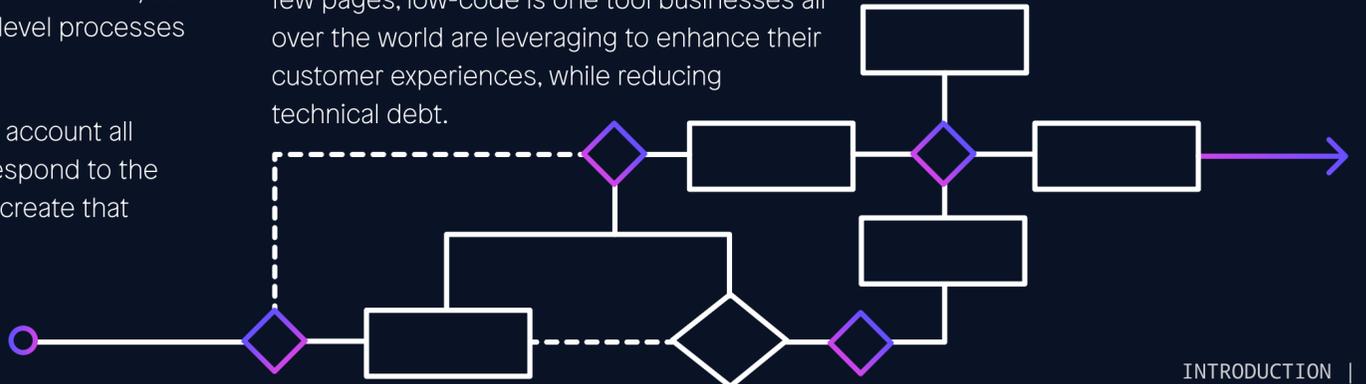
Developing for the customer experience requires a continuous understanding of your user and knowing which technologies to invest in (and which are just fads). Building exceptional customer experiences means making the right investment in development methods and tools that allow you to move your products out of prototype purgatory and into scalable solutions. You don't want to invest in a dev kit that's going to cost you hundreds of thousands of dollars just to watch that trend disappear from the market. You don't want to invest in developers with experience in one particular technology, just to see it fade away from the public eye.

The technical debt of this always-moving target called customer experience can accrue quite quickly if you don't have the right technology to adapt and change fast.

7 CX Trends to Expect

We've partnered with Cognizant because they are at the forefront of low-code/no-code implementation, with heavy investment in building centers of excellence for low-code development. Because customer experience is no longer a one-and-done, one-size-fits-all approach, you need to make sure that you're monitoring and evaluating different systems, modalities (devices, touchpoints), and personas for the customer experience and iteratively developing experiences that always work the way customers expect.

It's no wonder why low-code is becoming a popular technology to address customer experience, because as you'll see in the next few pages, low-code is one tool businesses all over the world are leveraging to enhance their customer experiences, while reducing technical debt.



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CX Is Now Experience Management

Developing for the customer experience is no longer a set-it-and-forget-it game. **In 2022, it's now about experience management.**

Let's dive into what that means. The customer journey isn't a monolithic, one-touchpoint experience anymore. Customers and employees now expect the information and functionalities they need when and where they need it. In doing research for their book *Effortless Experience*, authors Dixon, Toman, and DeLisi state, "Customers who attempt to self-serve but are forced to pick up the phone are 10% more disloyal than customers who were able to resolve their issue in their channel of first choice. Each seemingly minor switch has real impact."^{iv}

Consider customer portals. Your customer may review your product on your desktop website, order it with a voice assistant later in the day, and the next week check the order status on their phone, or consider the maintenance of a piece of equipment in the warehouse. A field service engineer may need to use AR to check on equipment, input information on their mobile device, and later collate it at their desktop.

There are multiple personas to take into account, too (more on this later). They all have different customer journeys via the various functionalities that you provide. For instance, that same field service engineer may need to deliver the equipment status to the warehouse manager, who may need different functionalities and require access to different sets of data.

On top of all that, customers' needs are always changing. Technologies come and go. Preferences change. Context varies. These shifts need to be addressed quickly so that you always provide the best experience possible.

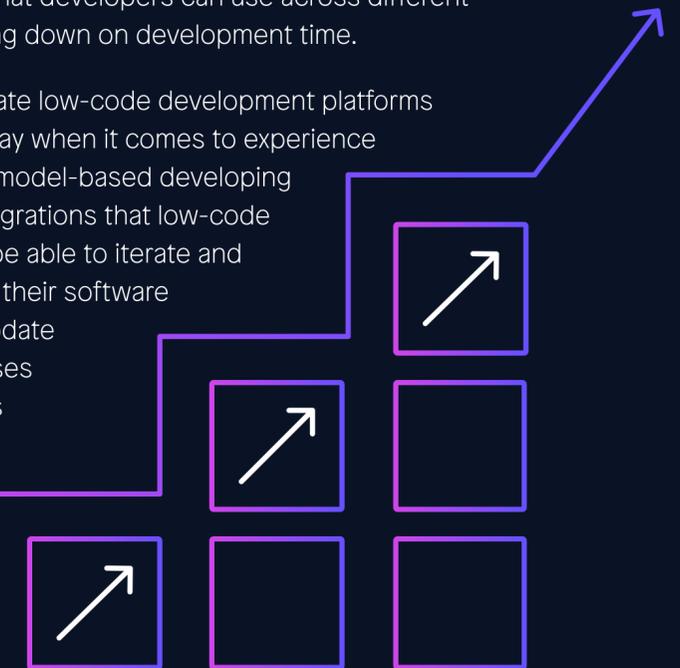
Developing for experience management accounts for all the needs, modalities, and personas. But it's not easy.

The more modalities (touchpoints, devices, etc.) you support means the need for more software development kits. This results in greater technical debt as your org explores mobile development platforms, augmented reality tools, and IoT sensors (and any number of new technologies). In fact, the total installed base of IoT connected devices is projected to jump from 13.8 billion units in 2021 to 30.9 billion by 2025.^v Available developers are a rarity these days, let alone finding highly-skilled ones capable of building out sophisticated customer experiences with different modalities.

The unemployment rate for software developers is at an all-time low.^{vi} And to address the constant shift in needs, waterfall project management methods aren't going to cut it.

In 2022, expect a shift as organizations will more earnestly use Agile and DevOps methodologies to iterate faster. A modular approach to building capabilities will give businesses the ability to create reusable components that developers can use across different applications, thus cutting down on development time.

Alongside Agile, anticipate low-code development platforms coming more into the fray when it comes to experience management. With the model-based developing and out-of-the-box integrations that low-code offers, businesses will be able to iterate and deploy new versions of their software faster and be able to update operations and processes with while core systems remain up and running.



The Word “Hyper” Is Now Part of “Personalization”

The apps you’re building now are being consumed by multiple personas. Many people with different responsibilities are active up and down the supply chain, an approval process, or a request for service. This means that the applications that support these processes need to have holistic customer experiences that consider multiple personas, numerous modalities, custom functionalities, and authenticated levels of access to different types of information.

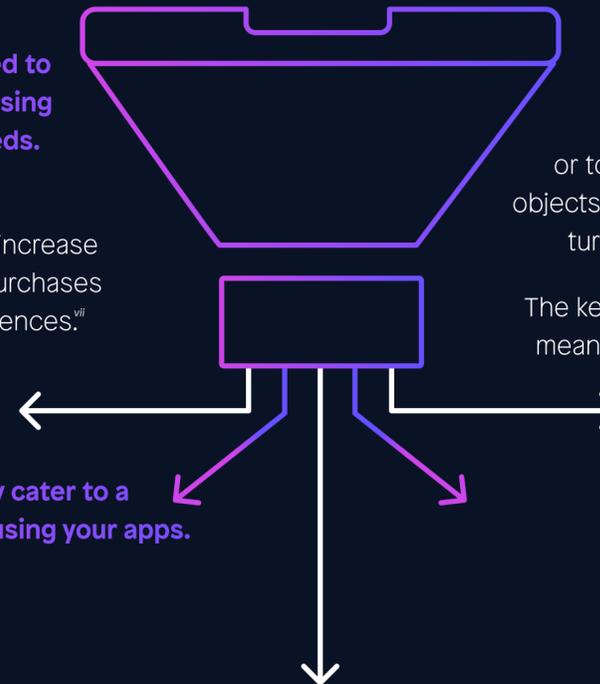
Exceptional customer experiences need to be constantly adapting to the people using your apps, their job roles, and their needs. In other words: hyperpersonalization.

Hyper personalization can contribute to increase revenue. 49% of buyers made impulse purchases after receiving more personalized experiences.^{vii}

Achieving hyper personalization relies on data and artificial intelligence (AI).

Here’s why: Data allows you to uniquely cater to a user and the context in which they’re using your apps.

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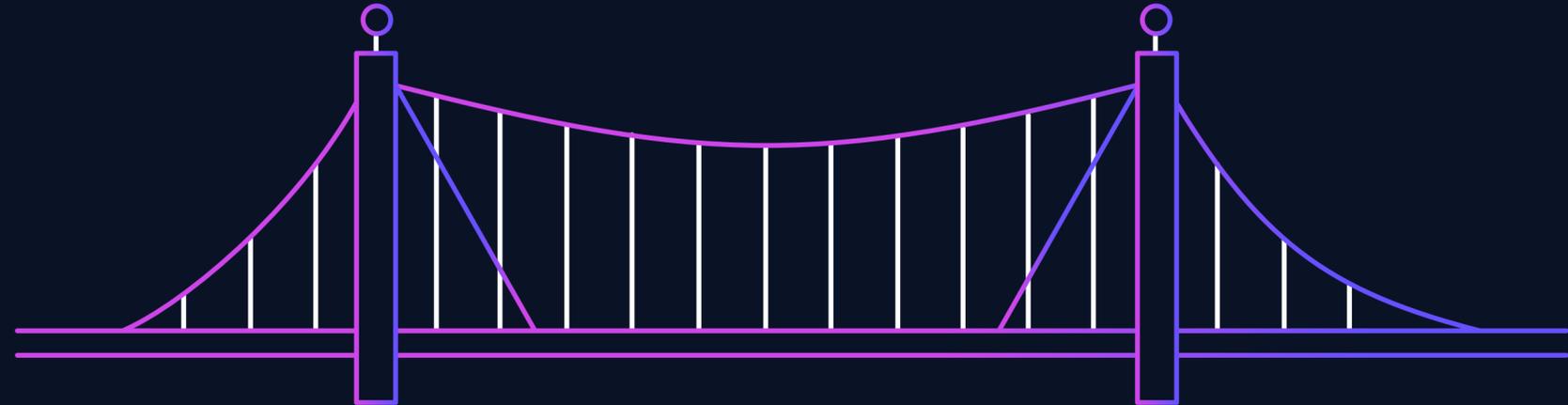
For that, you need to understand how users interact with your application, and this starts with feedback loops.

The more iterations you release, the more feedback cycles you create. The more information you collect from feedback, the better you can inform AI and machine learning. The better trained your AI and machine learning, the more automation you can infuse into your applications. Automation then helps you scale up and become extremely unique to a customer.

Scaling up means creating more modalities or touchpoints, which then allows you to digitize objects and activities that you couldn’t previously. In turn you provide a better customer experience.

The key to training your AI is faster feedback loops, meaning faster iterative cycles, which is why rapid app development tools like low-code platforms are crucial in developing the new customer experience.

Mobile Remains The Touchstone + Native & PWA



Developing mobile apps is a must if you want to compete in a digital world. So it's important to select development software that supports both AppStore-based mobile architectures (Native and Hybrid) and browser-based architectures—web and progressive web applications (PWA) so you can deliver the best customer experience for every mobile scenario.

Getting your architecture right helps you cater to different personas, contexts, and devices that require different features.

The first decision you need to make is whether your mobile app is best suited for an AppStore or browser-based architecture. Then choose between web/PWA or Native/Hybrid. Each architecture varies greatly in terms of pros and cons, so choose wisely.

Need a rich user experience that integrates with any device feature? Go native. Need offline without an App Store dependency? Progressive web apps are what you need. Concerned about the cost of development and maintenance? Stick with responsive web. Leading mobile development platforms take a best-of-breed approach by offering both PWA and Native.

Why? Because Native is by far the superior AppStore-based architecture, and PWA trumps web when it comes to browser-based architectures. **Offering both PWA and Native enables orgs to deliver the best of both worlds.**

The ubiquity of mobile isn't the only reason it's so important. It's how mobile devices are evolving. They're changing from data-getting machines to data-gathering machines. The cameras on phones are now incredibly sophisticated and professional-grade. If you think of barcode or QR code reading, or AR-enabled applications, this means that mobile devices aren't just for the user to receive information, but provide it as well.

Providing that information is easier now too, with 5G networking. Now your apps and the people using those apps can communicate better and faster. Your apps will need to work offline too. Not everyone will have the luxury of a 5G connection, and some users won't be able to connect at all in certain areas. Offline-first is important for use cases where a stable Internet connection is not always guaranteed.

It's Not "Just Mobile" Anymore

Wearables. Sensors. Connected and intelligent environments.
In 2022, expect the digital and physical worlds to continue to collide beyond "just mobile."

Wearables like watches are already in vogue. Extend that digital couture to the shop floor, the warehouse, or the construction site, and you've got connected wearables like coats or helmets that don't just display text messages, but could very well sense an employee's well-being.

Wearables aren't just changing the way employees operate. Much like the changes in mobile discussed earlier, they change the way you collect data, too. You need to be prepared for the glut of data you're going to receive from connected clothing.

This wearable-acquired information can also work in tandem with physical environments. Sensors can detect credentials on a lanyard or a smart watch and determines who gets access to certain areas in a plant or lab. In conjunction with augmented reality (AR), a visitor could even wear smart glasses that guide them through the building with AR directions.

Augmenting the physical with the digital is one way to address the new customer experience, but there's also replicating the physical, too, by way of the digital twin. Virtually representing an object or system allows you to innovate faster.

Connected sensors on the physical asset can deliver information to the digital one and help you analyze, and thus predict outcomes, faster. With digital twins, not only are you innovating faster, but you're moving from a connected world to one of intelligent and maybe even autonomous operations.

What's important to note about the convergence of the physical and digital is that interactions within it need to be as seamless as possible. When someone is interacting with a machine using AR, for example, the AR experience needs to work so they can focus on the machine and not the technology.

Ultimately a seamless experience means getting the right data at the right time. Whether it's tracking a package for delivery or people moving from space to space on a factory floor, the right information needs to be delivered at the right time, so that the right insight can be gleaned and the right actions can be taken.

Getting on top of this seamless back-and-forth of information requires tight, yet flexible, data integration.

That is why getting your architecture right the first time with mobile is vital.



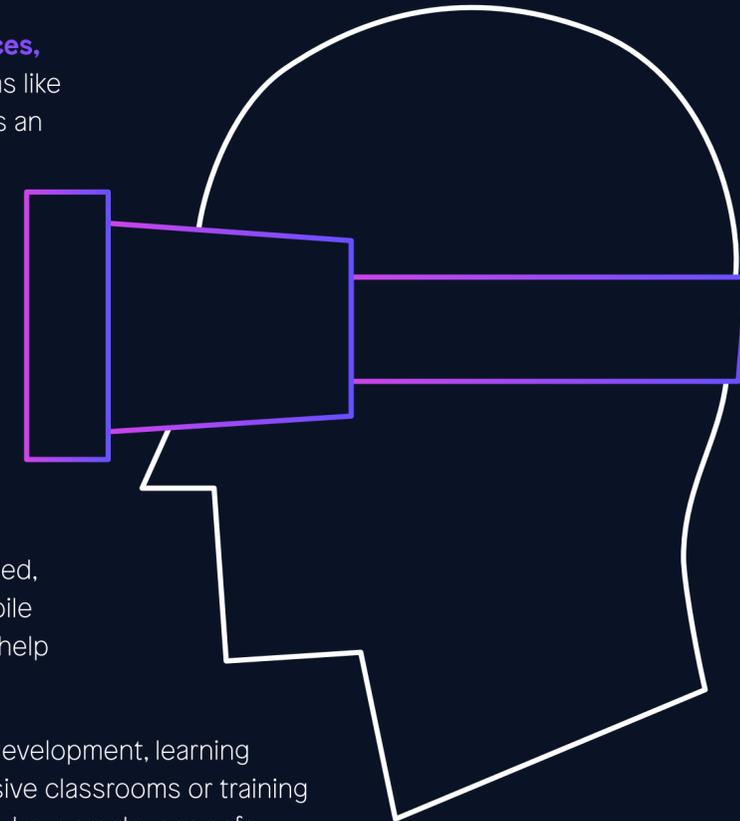
AR + VR Will Be Industry-Specific

No Oculus headset required for this section. The customer journey doesn't stop with devices. The more sophisticated technology becomes, the further the physical and digital worlds blend. Which brings us to augmented reality (AR) and virtual reality (VR).

It may not ever get to the pervasive level of mobile devices, but AR and VR are coming to an industry near you. In areas like manufacturing, the case for augmented reality technology is an obvious one, and in some organizations, is already being deployed. AR allows manufacturing companies to create 3D models of new products, and perform quality assurance checks on them before they even hit the assembly line. AR-enabled applications can let employees bring up assembly or maintenance instructions to help optimize maintenance. There are some instances where AR is being used to accelerate and scale up hands-on training and upskilling.

There are also industries where the case for AR/VR is needed, but maybe not quite as obvious. In insurance, there are mobile apps that allow underwriters to photograph accidents and help assess damage with AR and image recognition.

AR/VR can help us learn, too. In education or learning and development, learning and development companies are using VR to create immersive classrooms or training experiences. The right VR experiences can even keep us and our employees safe. For instance, in other industries where workers handle dangerous materials, companies can use VR to train their employees without risk of being harmed.



Out-of-the-box APIs Are Changing The Connectivity Game

Connection is everything in this day and age. You need better ways to connect to your customers, even when offline. You need experiences that connect customers to each other. And you need your modalities and contexts to all connect, too.

Seamless customer experiences—jumping from one modality or context to the next without a drop-off or a hiccup—requires smooth system integration.

The most important factor is how you integrate your systems. Make sure they can speak to each other, share data when appropriate, and have a standard UI so that moving from one modality to the next isn't a jarring experience.

To create cohesive experiences across modalities and contexts, leverage technology that offers out-of-the-box APIs that cater to connecting disparate systems and data sources. This way, you can immediately start connecting your core systems of record together and concentrate on what really matters: what the customer wants.

Automation Is the Newest Player

Do you know what the number one challenge in managing workforces is? It's not the broken coffee machine in the breakroom (although, that is a problem). According to a Gartner CEO study done in 2020, it's outdated work processes. Whether it's a paper-driven process or an email-chain approval workflow, clunky processes are driving employees crazy.

Who experiences these clunky processes? Your employees and your customers. The spreadsheets, paper forms, emails, or poorly cobbled together series of systems they need to navigate to get their jobs done are all experiences. When those don't work the way they expect or need, that's a bad experience.

Enhancing those experiences starts by building applications that run those business processes. Look for development tools that are more model-based and user-centric to make it easier to build apps that control business processes. You can also more easily integrate core systems of record with those apps, too, so that data sources aren't so disparate.

Sometimes, the best experience is no experience. If you can automate a lot of tasks for a user so they don't have to go do it themselves, you're saving them clicks, time, and money for migraine medication.

Not having to jump from system to system? That sounds like a successful customer experience. Not having to walk all the way over to the printer to get that form? Well, that's a dream come true for your users.

What's Next

Creating successful customer experiences is not easy, even if you know what to expect for the next calendar year.

It's more technology for your stack. More developers for your team. More time in the day to connect everything. How do you address all these ever-changing customer needs in the little time you have and avoiding technical debt?

Think big. Technology is advancing so rapidly that it's hard not to imagine the possibilities of what you can create for your customers.

Start small. But the scope of possibility can be overwhelming, so don't try to build everything at once. Take it one story at a time.

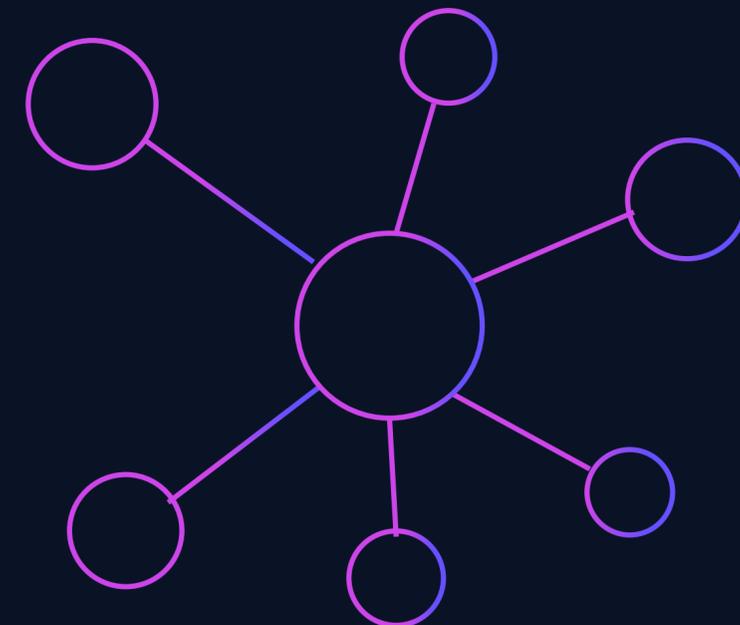
Act fast. Leverage Agile development methodology and augment it with low-code technologies to deliver and iterate software faster. Also, utilize multiexperience development platforms, which are making it possible for organizations like yours to develop for that broad range of technologies in a one-stop shop.

No matter what you use, the biggest key to always meeting the continuously changing needs of the user is to know that there's no endgame. Think big. Start small. Act fast.

Go Make It.

Endnotes

- i Puthiyamadam, Tom. 2018. "Experience Is Everything: Here's How To Get It Right". <https://www.pwc.com/us/en/zz-test/assets/pwc-consumer-intelligence-series-customer-experience.pdf>.
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- iii Ibid
- iv Dixon, Matthew, Nick Toman, and Rick DeLisi. 2013. *The Effortless Experience*. Portfolio.
- v Vailshery, Lionel. "Internet of Things (IoT) and non-IoT active device connections worldwide from 2010 to 2025." 2021. <https://www.statista.com/statistics/1101442/iot-number-of-connected-devices-worldwide/>.
- vi 2020. *Software Developer Overview*. <https://money.usnews.com/careers/best-jobs/software-developer>.
- vii "Segment Survey Finds Consumers Will Spend More When Their Shopping Experience Is Personalized, But Most Retailers Are Missing The Mark". 2017. *Globenewswire News Room*. <https://www.globenewswire.com/news-release/2017/10/25/1300518/0/en/Segment-Survey-Finds-Consumers-Will-Spend-More-When-Their-Shopping-Experience-is-Personalized-but-Most-Retailers-are-Missing-the-Mark.html>.



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