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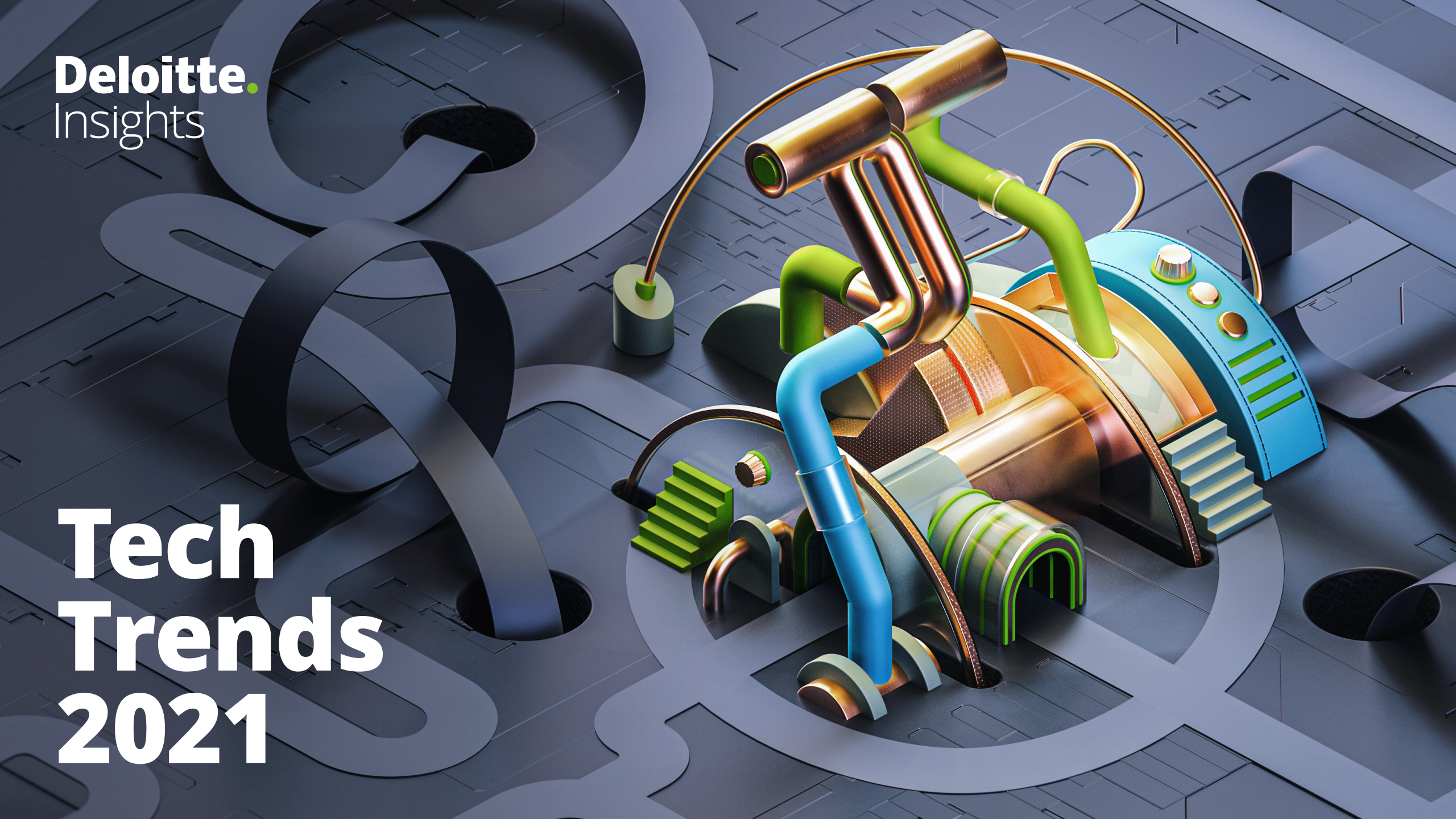
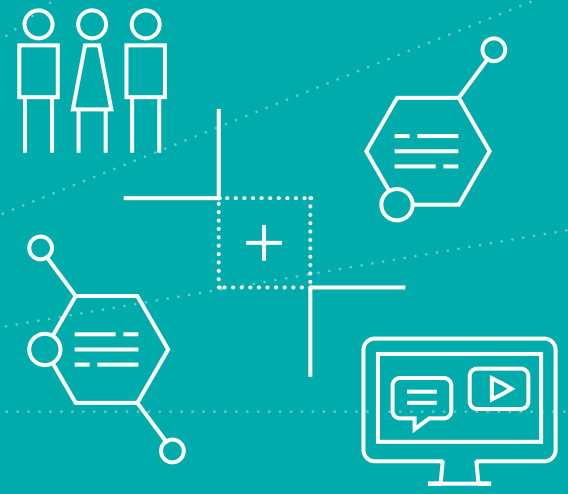
Tech Trends 2021



Bespoke for billions: Digital meets physical



PHYSICAL + DIGITAL MERGE

Customer journeys integrate in-person and digital elements to create compelling, customized brand experiences.

DESIGN FOR AN AUDIENCE OF ONE

Designers and coders tailor human experiences to the individual's behaviors, attitudes, and preferences.

TECH SCALES TRUST

Thoughtful design amplified by trust-enabling tech supports a future with bespoke, human experiences.

TREND 8

Bespoke for billions: Digital meets physical

Creating human experiences at scale

During the COVID-19 pandemic, a tailor on London's Savile Row—unable to travel to customers—found himself measuring clients two continents away in Seoul for bespoke suits ... with the assistance of a robot.[1] By necessity or choice, people have increasingly embraced digital interactions in all aspects of their everyday lives, whether in working remotely, online schooling, or ordering groceries.

Yet our growing reliance on digital interactions has left many of us pining for more personalized human experiences. In Deloitte surveys conducted during the pandemic's early months, more than half of the participants said they wanted their virtual experiences to feel more "human."[2]

In what we recognize as an emerging trend, consumers are becoming less satisfied with distinct physical or digital experiences. They want the best of both: personalized interactions combined with the convenience of digital. During the next 18 to 24 months, we expect to see leading companies embrace the *bespoke for billions* trend by exploring ways to use human-centered design and digital technology to create personalized, digitally enriched interactions at scale.

The trend carries a degree of urgency, for one simple reason: Customers are impatiently waiting. Two-thirds of participants in a spring 2020 Deloitte survey said they had already tried a new digital experience—virtual concerts, social gatherings, government transactions, or something else. These digital alternatives to in-person activities initially seemed adequate, but the law of diminishing returns quickly asserted itself.[3] As it turns out, many of the digital experiences that have become mission-critical leave customers wanting more, which is hardly a recipe for long-term success.

Our growing reliance on digital interactions has left many of us pining for more personalized human experiences.

What does a bespoke digital experience look like for your customers? They're looking for an answer.

Physical + digital is the new bespoke

Humans have long valued experiences and products that are customized for them. Since the early 1800s, London tailors have created bespoke experiences working intimately with clients who select fabrics, buttons, and patterns to compose a physical expression—a flattering one, naturally—of their taste, personality, and ambitions. Traditionally, a tailor might create custom clothes for only dozens of regular customers during a career. In a field long based on hands-on personal attention rather than technology and automation, comparatively few have experienced creating and wearing bespoke clothing.

Savile Row's challenge and opportunity is to retain the cachet of customization while widening availability, with the aid of various technologies. Leading companies and brands are looking to arrive at the same place—from the opposite direction. Many are in the early stages of experimenting with existing and emerging technologies, combining them in innovative ways to design and scale more personalized human experiences and outcomes. As opposed to *mass customization*, in which consumers can choose from a limited number of options, a *bespoke* experience is tailored specifically to an individual's behaviors, preferences, values, and beliefs. Eventually, we expect that technological advances will allow companies and brands to create bespoke experiences for billions of people—not just the privileged.

Right now, there is typically a smartphone or tablet between the consumer and the experience. But over time, the device will no longer be needed as an interface: The consumer will get the experience delivered when, where, and how they want it without even requesting it. As an early example, for years ride-share companies have used ML and data-driven algorithms to predict where and when consumers might need rides.[4] As a result, the ride-share car is often right around the corner when you exit the building, before you even open the app.

Large gaps remain in many physical-plus-digital consumer experiences. Let's say a couple downloads an online retailer's augmented reality (AR) app that allows them to envision a sofa in various styles, fabrics, and colors in their living room. While digital experience can suggest whether and how the size and design will complement their living space, the experience is incomplete, since the customers are unable to experience the sofa's physical comfort. Indeed, because many consumers are still reluctant to purchase

without physically experiencing items—especially expensive ones—some online retailers are opening physical stores to round out the shopping experience. For example, Casper, an online mattress company, has opened 20 stores, with plans for more, to allow customers to try out their mattresses; they can even book a nap.[5]

Without a digital infrastructure in place, sectors traditionally grounded in the physical world will likely be slower to evolve. To overcome this challenge, some brick-and-mortar companies are partnering with digital natives to blend their physical human experiences with digital elements. For example, one social media platform offers its retail advertisers a customized online storefront that delivers a seamless digital experience to attract new customers from the platform's vast social network. Targeted social ads entice a consumer to click on desirable items to learn more, which takes the consumer to a mini website stocked with curated items based on that individual's online behaviors and preferences.[6]

Imagine that consumers could opt in to continue that journey in the physical world with a personal experience tailored to their individual tastes and preferences. One consumer may like a dress she sees online but hates dealing with returns; she wants to try the dress on before deciding to buy. Perhaps this customer requests a reminder when she finds herself in the vicinity of a branch of the department store. If she prefers not to interact with a salesperson, her mobile device—equipped to access the spatial web—could help her locate the dress in the store. Another individual may prefer that the store's virtual stylist arrange to have the dress, along with coordinating accessories in her preferred colors and sizes, waiting for her in a private dressing room. And yet another individual may simply want a personalized selection of clothing delivered to her home.

Over time, we expect, digital interactions will enhance a growing number of physical experiences, and vice versa. The convenience and simplicity of digital interactions will eventually be seamlessly infused with the warmth and assurance of meaningful human exchanges.

Design for an audience of one

In a January 2020 survey, 3,000 C-suite executives said that they believe elevating the human experience should be a top organizational priority, yet 96% of them have struggled to design and launch anything resembling human-centered experiences.[7]

Pioneering companies and brands are exploring ways to fill this need with human experience designers who create value-enriched human interactions, both physical and digital. These designers possess the

sensibilities, empathy, and imagination needed to create satisfying, trust-enhancing interactions for personas, which are groups of consumers who share similar needs, behaviors, and goals. They create highly nuanced elements of the customer journey and specify the various ways those elements can be strung together to reach an outcome that's satisfying for both the customers and the brand. Experiences designed for groups of similar people can be more satisfying than *one-size-fits-all* but still do not meet the notion of *bespoke*.

The companies and brands further along in the quest for bespoke experiences are pairing designers and coders in cross-functional teams with the goal of designing for an audience of one—a truly customized experience tailored to the behaviors, needs, and values of a single individual.
But human experience design is evolving so fast that even designer/coder collaboration could become obsolete. There's a new breed of human experience creative: designers who use code as their medium, eliminating the gap between design and execution. By combining creative sensibilities with technical know-how, these designers/coders can create increasingly seamless experiences based on individuals' behaviors and preferences, defined by real-time data that's relevant in the moment.

There's a new breed of human experience creative: designers who use code as their medium.

Using AI and ML, designers/coders can develop a deeper understanding of what *individual* consumers want, enabling them to tweak the experience to suit that person, essentially creating bespoke experiences based on understanding who the individual is, where they are, and which offers they are likely to want.

Technologies scale trust for billions

As physical and digital experiences merge, building trust will become an even more critical element in delivering meaningful human experiences. Looking back to our London tailor, trust is at the heart of the client's experience during the design and creation of his custom-made suit—or any bespoke experience, for that matter. Trust is why the client returns to his tailor again and again, even when a pandemic makes travel difficult. He's unlikely to trust a robot to fit his suit, except when his tailor is directing its movements.
So how can companies scale intimate one-to-

one experiences to fit billions? Accomplishing this will require thoughtful human design amplified with trust-enabling technologies. Two main technologies that can enhance—or destroy—trust are AI and the use of personal data.

Building trust will become an even more critical element in delivering meaningful human experiences.

To drive increasingly powerful—and personal—human interactions, algorithms and systems will need vast amounts of personal data and information. To build the trust that's essential to the interaction, organizations will need to carefully design technologies to behave in trustworthy and ethical ways, as we described in *Ethical technology and trust* in *Tech Trends 2020*. Moreover, meeting the local, regional, national, and transnational patchwork of data and data-usage regulations will require careful planning and engineering.

Intuitive, experiential technologies supporting the *bespoke for billions* trend today are laying the groundwork for an era in which it will be possible to be human at scale. As we discussed in *Tech Trends 2020*, affective computing technologies such as natural language processing, facial expression recognition, eye tracking, and sentiment analysis algorithms recognize, understand, and respond to human emotion. Right now, true human connections are limited to the number of people we can fit into a room. Technologies such as phones or webcams connect us to other humans, but they remain only a conduit. Connections made through technology conduits are useful yet emotionally limited.

The figure "Technology tools of the bespoke experiences trade" (page 141) outlines the foundational technologies supporting the *bespoke for billions* trend; many of these have been around for years, becoming more sophisticated with each evolution. What's new are the possibilities that are created at their intersection. Consider the innovations that could result from increased deployment of LIDAR sensors and AR capabilities on mobile phones, or the hypertargeted personalization possible via AI/ML platforms. In these cases, and many more, the power is in the intersection of technologies.

Individually, each of these technologies is incredibly powerful. Together, the ability to recognize and respond to emotions, transact seamlessly across channels, move effortlessly between virtual and digital space, and leverage the increasing power of mobile platforms is enabling the next generation of human experiences.

Technology tools of the bespoke experiences trade

Many of the technologies that underlie the *bespoke for billions* trend have been around for years, becoming more sophisticated with each iteration. What's new is the exponential capabilities that are enabled when these technologies are combined in meaningful ways.

Omnichannel marketing platforms

As digital and physical interactions begin to merge, we are seeing omnichannel platforms evolve from previous generations of digital marketing platforms. Combining the ability to accurately target consumers in real time in the digital world with the increased ability to identify consumers in the physical world enables more targeted and more helpful interactions. Increasingly, through the power of *MLOps*, these platforms can generate better and more cost-effective recommendations, nudges, and promotions to support customers.[8]

Handheld devices as platforms

Mobile phones and other devices have evolved from devices simply enabling phone calls to sophisticated mobile computing platforms. Today, advanced devices feature increasingly powerful cameras, GPS and location sensors, LIDAR for measuring spaces, native AR libraries for overlaying virtual objects on reality, 5G high-speed connectivity, and much, much more. The near future will feature body scanning to support virtual clothing fittings and the ability to identify or produce perfectly fitted clothing.[9]

Affective computing

Also sometimes known as "Emotion AI," affective computing is increasing the ability of computers to interpret and react to human emotions in real time. Whether through natural language processing and sentiment analysis, voice stress analysis, or cameras cataloging microexpressions, AI is increasingly capable of recognizing our emotional state and intent. It might manifest as a helpful virtual salesperson who welcomes you to your favorite store and directs you to sale items you might love. Or it could be the virtual customer support agent who echoes your frustration while following a "save" script to persuade you not to cancel your service; only this agent has access to all of your data and history and the ability to tailor the perfect proposal to entice you to stay.[10]

Spatial web

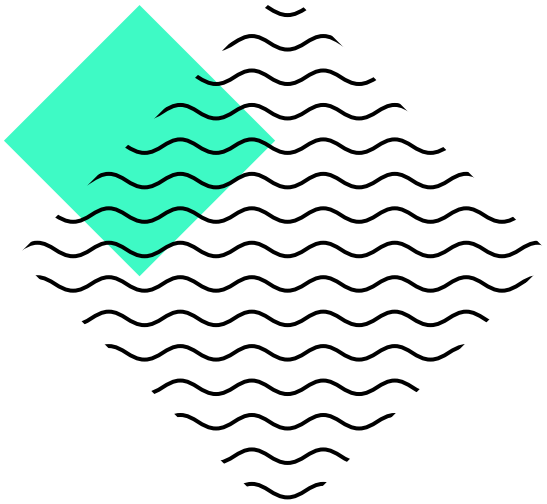
By combining high-resolution mapping of the physical world with AR and VR capabilities, spatial web technologies allow the projection of virtual objects into the physical world. Leveraging the increasingly powerful technologies built into phones, tablets, headsets, and more, the spatial web allows users to interact with increasingly lifelike virtual environments. As this technology evolves, users will be able to interact with information within physical spaces, instead of relying on traditional screens, tablets, and phones.[11]

Next-generation identity management

The underpinning of trusted interactions is the knowledge of the identity of the user. Without robust identity verification, organizations risk losing trust by leaking data. Identity management systems are hard at work to supplement credential validation and two-factor authentication to also include biometrics, behavior validation, and other advanced mechanisms for validating identity.

The way forward

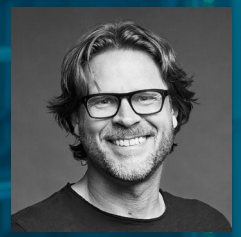
The instability and uncertainty created by the pandemic seem to have only amplified the need for authentic human connection. Organizations are combining and refining existing and emerging technologies to create a more meaningful blend of physical and digital experiences to engage their customers. And the best of those experiences will be targeted to an audience of one, in a more human, trustworthy fashion, creating the possibility of bespoke experiences for billions—delivering to each exactly what they want, when, and how they want it.



MY TAKE

Hans Neubert

Principal and global practice leader, Digital Experience Design, Gensler



Physical environments are an important beacon for the relationships we have with brands and companies.

Even digital-first companies are building physical outlets as another way to create engagement with their customers. In many ways, blending digital and physical experiences is easier for them because they already have a robust digital infrastructure in place.

The building sector is ancient, and understandably slower to evolve. As the world's largest architecture firm, Gensler has refined the physical process of orchestrating thousands, sometimes millions, of moving parts to create something that's safe, useful, and beautiful. Real estate is just at the beginning of its digital transformation. Our advantage in this new world is that architecture has always been bespoke, so we're accustomed to tailoring designs for individuals.

My design team's role is to disrupt our firm from within. We are helping Gensler transform its approach to architecture from creating

physical buildings and interiors to creating holistic experiences. We are merging physical spaces and digital interactions to create personalized experiences for the end users, whether they are employees, sports fans, students, passengers, or shoppers.

The pandemic has accelerated technological change and acceptance of new innovations. Some of those conversations began earlier, but today people are paying more attention: Now, CEOs listen when we describe how their office building can be a more personalized, engaging environment by enriching the built environment with digital experiences. For example, in the analog world, there is a physical sign on the building that shows the way to the exit or the elevator. In the new world, when a remote worker visits the corporate office, the meeting invitation on his computer tablet is the clearing pass for security, the elevator key, and the map to the conference room. That may not sound revolutionary to a digital native, but it *is* for an analog industry like real estate. In a way, we've moved ahead seven to 10 years in just six months.

We are helping Gensler transform its approach to architecture from creating physical buildings and interiors to creating holistic experiences.

Gensler has also broadened our design reach to include the user's experience before, during, and after visiting a building. For example, a soccer fan doesn't engage with the team only when they're in the stadium—that built environment is part of a greater journey. So, as the team owner, you have a vested interest in not just enriching a fan's interactions in the stadium—you also want to understand how to connect and engage with your fan before, during, and after the game. We're considering the full 360-degree fan engagement.

Likewise, we're diversifying the people we involve during the design process to better understand the end-user benefits. Beyond the CEO and the real estate leader, we bring in IT, marketing, brand, HR, and other stakeholders to integrate more multidisciplinary and multifunctional views.

One big challenge that's holding us back from offering more personalized experiences is the lack of an "urban platform," a common chassis for building customized digital elements for the physical world of architecture. We're actively working on that but until that's fully

evolved, designing and building 360-degree user experiences will continue to be slower and more expensive than we and some clients would like.

Meanwhile, Gensler is committed to creating experiences that serve a higher purpose. We design for the end user, not just the building owner or real estate developer. And because it's no longer acceptable to consider only half of the population's needs, we must design for equity. Likewise, designing for safety isn't enough—we must also design for global health. And finally, because buildings are a major contributor to climate change, we must design with a lens toward protecting the environment.

Transforming our traditional architecture firm into an experience design firm that leads with architecture hasn't been easy, and the payoff for this innovation isn't immediate. We're able to do this because we're an employee-owned firm, and we keep investing in the next generation. We're very much driving our own future.

EXECUTIVE PERSPECTIVES

STRATEGY // The pandemic has given fresh importance to the CEO's role as an end-user ethnographer.[12] Organizations are scrambling to respond to customers' values, risk appetites, and preferences as they design safe experiences that blend the physical and digital. CEOs are on point for directing this human experience strategy. They should consider shifting trends on what technology is enabling (for example, increases in virtual shopping and service) as well as the differences in what people are expecting from brands. Ultimately, a consistent, humane experience is the goal, and setting direction from the top down can help CEOs lead their organizations in line with their values—and their vision for responding to unprecedented times.

FINANCE // As human-centered design improves and IT brings more use cases to the finance team, CFOs should be mindful of the business case: Which metrics (ROI, cost per impression, etc.) will justify investments, and which products or services are ripe for disruption? Moreover, in a primarily digital economy, CFOs should consider how human connections drive accounting and valuation. They may need to revisit concepts of impairment or sales tax implications to assess whether such standards preclude them from showing strong financial statements. Likewise, the value of high-quality human experience platforms may be difficult to quantify, but it can also become a leading indicator of an organization's performance.

RISK // Physical and digital are blending to create hybrid user experiences. In this new environment, privacy-related issues may be amplified relative to purely physical or digital customer interactions. This shift can lead to CROs rethinking traditional forms of security such as the password and opting for newer methods such as mobile biometrics. They should pay close attention to privacy as technology enables organizations to increasingly identify unique customers and their data across channels. Risk leaders may also be dealing with a generational divide on human experience, as expectations vary widely between digital natives and older generations.[13] Leaps in cybersecurity and blended experiences may require organizations to bring along customers who aren't ready for the change. Accordingly, the CRO's role in creating trust among consumers becomes more important than ever.

ARE YOU READY?

KEY QUESTIONS

1

How agile are your customer journeys? Are they seamless and consistent across all channels, both physical and digital? What does it feel like from your customers' perspective?

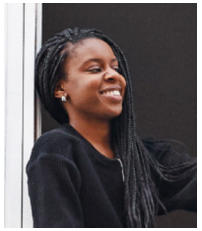
2

Is your organization experimenting with technologies that will lead to offering more personalized experiences, both in-person and digital?

3

Is your customer data formatted in a way that is machine-readable? Can you access customer data beyond demographic and transactional data to include behaviors, attitudes, emotions, and preferences? How can you use technology to build customer trust?

LEARN MORE



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Our insights can help you take advantage of emerging trends. If you're looking for fresh ideas to address your challenges, let's talk.

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