



Beyond the hype

*Five ways retailers and
brands can drive value in
the enterprise metaverse*

Experts on this topic



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Key takeaways

“We’re on the cusp of a seismic shift: the biggest change to the digital landscape, and culture, since the dawn of social media in the early 2000s”¹

Emily O’Brien, Programme Director,
Unilever Web3 Collective

The enterprise metaverse is a “now” opportunity—a time to build the foundation for a purposeful future that spans the digital-physical divide by creating tangible, measurable, and sustainable business results today.

As the consumer metaverse progresses through the hype cycle, retailers and brands must address the opportunities to leverage key metaverse themes—immersion, decentralization, virtual economy, and community—to drive value within the enterprise:

■ Explore tangible opportunities today

Leaders are realizing productivity gains and cost savings from metaverse initiatives across the value chain: in innovation and design, manufacturing and supply chain, sales and service, and training and development.

■ Enable experimentation

Internal operational efforts create a test and learn environment for user experiences, behavior patterns, and tools and technology.

■ Establish a foundation for the future

Build the foundation for a future where operations and experiences are orchestrated across virtual, physical, and mixed realities.

Introduction

The metaverse, which until last year had largely been confined to movies and science fiction, has now become a “catch all” word for everything from virtual gaming to digital twins, and Web3 to nonfungible tokens (NFTs).

We see the metaverse as a shorthand word for the network of shared 3D experiences that blur the physical-digital divide, characterized by a new set of values such as:

Copresence: the desire to be with others

Collaboration: the need for interaction, voice, and co-creation

Connection: the need for persistent/omnipresent experiences

Contrary to most of the press coverage, the metaverse does not just exist in a headset. It’s essentially everywhere—experienced on a phone, laptop, tablet, and in physical spaces all around us, often through a digital overlay onto the physical world.

And for brands, retailers and customers, those experiences—B2C, B2B, B2B2C, Intra-company—need to be connected to be valuable. No matter how beautiful it is, a silo is still a silo. If there’s no connection from the virtual store to the contact center, or from the digital twin to the shop floor, you’re better off not creating a metaverse experience in the first place.

People generally encounter the metaverse in two ways:

- Immersive online and digital, through virtual synchronous worlds that can be consumed in virtual reality (VR) or on mobile devices and computers.
- Using augmented or mixed reality (AR/MR) which overlays real-time 3D on the physical real world, often with some level of enhancement.

Let’s take a look at how metaverse capabilities could help consumer industries reach new audiences, and how brands can get “metaverse ready.”

What's the potential market for the metaverse?

Forecast to be a multi- trillion-dollar opportunity, many are betting that the metaverse will disrupt industries from gaming and music to fashion, automotive, and real estate.² It promises to expand the traditional idea of retail and consumer experience, going beyond stores, sites, and apps to create immersive commerce-enabled spaces that bridge the digital and physical worlds.

The metaverse offers consumers and businesses a utopian promise of 3D-enhanced experiences, community collaboration, decentralized ownership, and virtual/digital goods, services and money. Fulfilling that promise, however, is likely some years in the future. The metaverse made its debut in the 2022 Gartner Hype Cycle for Emerging Technologies, with a time to plateau of 10+ years.³

If we only consider the *consumer metaverse*, we agree with this projection. Just as digital and mobile commerce each took 5-10 years to gain scale, we believe that outside of specific opportunities (for example, gaming and entertainment), most consumers will not be spending the majority of their days in virtual worlds during this decade.

However, if we think about the *business metaverse*, we see real opportunities today across the value chain, from product innovation to operations, manufacturing to commerce, and user experiences. This is being enabled by the maturation of technology, changes in customer and employee expectations and mindset, and a shift in focus toward cost reduction and productivity.

Areas of opportunity for brands and retailers

We see five key areas of opportunity for retailers and brands to leverage the “metaverse promise”: delivering tangible value and achieving something of worth that would otherwise be difficult or impossible to achieve in a purely 2D world.

- #1 New product development
- #2 Manufacturing and supply chain operations
- #3 Store and space design
- #4 Associate training, service, and support
- #5 Enhanced customer experiences

Metaverse opportunity #1

New product development

There's a lot of excited chatter about the market for digital goods, new kinds of products that only exist in virtual spaces, which promise to deliver software-like gross margins.⁴ And while digital product opportunities exist for some brands, every brand has an immediate path to value in how they create physical products.

The metaverse offers the chance to *streamline, enhance, and accelerate the digital product development process* through improved collaboration across R&D, innovation, product design, and production. Real-time 3D enables the creation of enhanced product development processes, reducing the pressure of in-person schedules and the need for physical prototyping and sampling. 3D-enabled visualization and communication tools enable team members to create, inspect, test and review across virtual worlds, sparking new ideas and cross-team communication.

These methods are driving efficiency improvements such as: faster time to market, better collaboration across teams, improvement in product-market fit, and reduction in overall product development cost.⁵

The ability to more easily collaborate with colleagues, partners, and even consumers, paves the way for a fundamental re-think of product design and innovation. Shared spaces, co-creation, and co-presence tools can speed up or remove steps in the process as essentially all key stakeholders are more directly involved. And in addition to improving operations, replacing physical with digital can drive improvements in sustainability.

The metaverse can also *augment physical products with digital information*. The creation of “smart” products enables ongoing, real-time updates that can unlock new capabilities (sometimes for an extra charge) and provide a valuable usage feedback loop. This new capability helps ensure that consumers have up-to-date accurate information on the product so that they can make better buying, usage, and consumption decisions.

“This is indeed about testing and learning. The beauty of virtual environments is that on both product and VM (visual merchandising) sides we can try new things. We are experimenting with how these elements and environments can co-exist to provide a seamless consumer journey, for example, a fully digital experience, or selling physical products in the virtual environment and vice versa. These learnings will allow us to enhance future activations and to evolve our digital ecosystem.”⁶

Martijn Hagman, Chief Executive Officer, Tommy Hilfiger

Metaverse opportunity #2

Manufacturing and supply chain operations

Augmented, virtual, and mixed reality; complex simulations (also known as digital twins), and AI/machine learning (ML)-enabled services offer many potential enhancements and efficiencies to manufacturing, engineering, and supply chain processes.

These technologies allow organizations to both virtually represent existing business functions (such as a production line) and to overlay new capabilities on top of physical processes. Metaverse-enabled “make” and “move” operations can create value in three ways:

1. *Design, test, and revise before you build.* Major assets that need to be built in the real world—such as factories and distribution centers—can be designed, adjusted, stress-tested, and adjusted again, using digital twins, or virtual models built to reflect the physical world. This can help ensure that the end result is optimized before the first brick is laid.

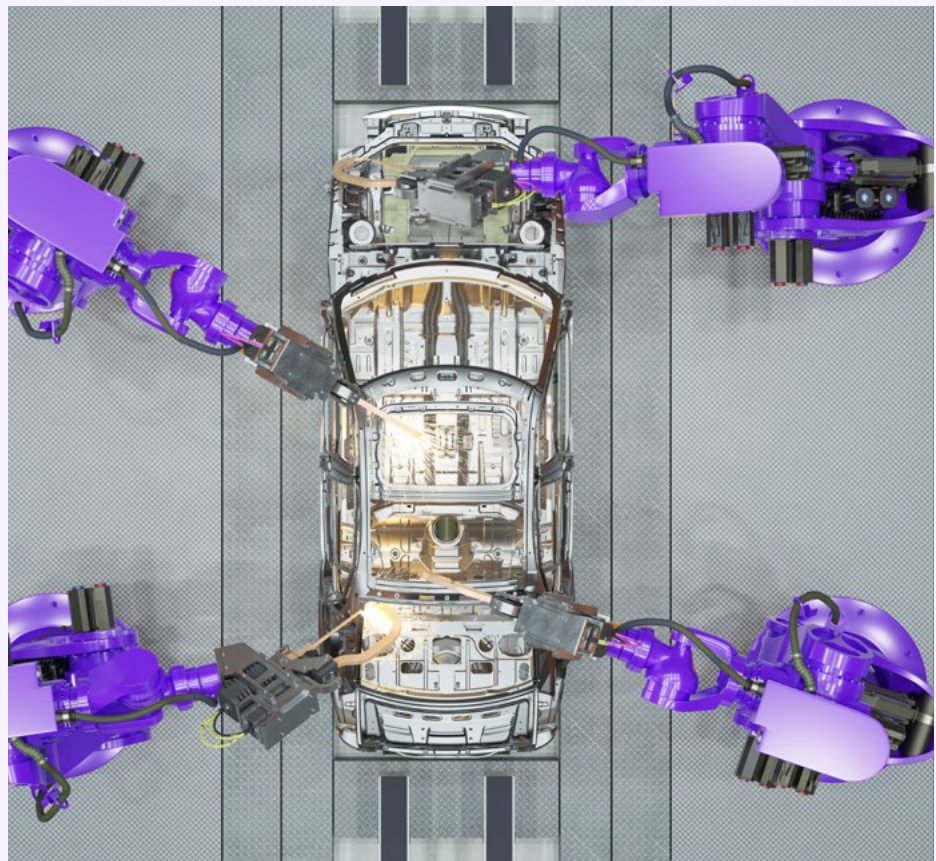
In addition to the digital twin of a facility, brands can create digital twins of information systems as part of the same virtual space, which enables:

- *Data:* real-time event streaming
- *Simulation:* advanced testing & collaboration
- *Collaboration:* shared and tracked virtual spaces
- *Visualization:* interactions of people, products, devices, and machines

Case study

BMW

BMW, which is well regarded for their manufacturing expertise, created a digital twin for an entire factory representing every aspect of operations: buildings, equipment, parts, workers, and robots, and with support for AI-enabled use cases such as predictive maintenance production planning, and advanced analytics. The digital twin was in operation for six months and drove an estimated 30% improvement in efficiency once the factory was built.⁷



2. *Enhance production efficiencies and improve supply chain agility* through AR/MR and AI-enabled computer vision. Distribution centers are full of multi-step, repetitive processes that require speed and accuracy. Focus-intensive tasks such as pick-to-light/put-to-light, assembly, and quality control benefit from AR/MR wearable devices that enable greater hands-free interaction, visual and audio guidance and confirmation to increase accuracy, and ongoing monitoring to help ensure worker safety and manage regulatory compliance.
3. *Find problems before they occur and fix them quicker when they arise*, powered by real-time ongoing monitoring across business operations and facilities. Incorporating AI and AR/MR-enhanced computer vision into intelligent workflows can provide near-real-time operational insights that keep facilities up and running.

Human troubleshooting and decision making can be enhanced using a smart AR/VR headset on a production line to detect potential outages or latency and anticipate capacity issues. In higher-risk situations or hard-to-access areas, agile robots can automate routine and repetitive inspection tasks, and identify and solve maintenance problems. The data capture capability of these mobile autonomous robots also continually and accurately updates any digital twin simulations. Case in point: Boston Dynamics leverages AI and advanced analytics using a mobile robot to help maintain equipment in industrial settings, helping organizations identify problems in real time and improve decision making in the moment.⁸

Collectively, these innovations can produce significant performance improvements in what are some of the costliest parts of the value chain, such as:

- Automation and acceleration of routine and repetitive tasks
- Reduced risk and margin of error, as well as improved safety and accuracy
- Increased employee focus on higher value tasks, supported by data gained from automated processes.

Metaverse opportunity #3

Store and space design

Planning, creating and building stores, merchandising displays, and other physical spaces is resource and time intensive. Demands for store and space innovation are accelerating, as customers desire more interesting experiences and more regular “refreshes,” and retailers and brands look for ways to differentiate themselves in the physical world. In the metaverse, retailers and brands have opportunities to quickly create, visualize, and update stores, working seamlessly across teams, locations and iterations. We see potential value at both the macro and micro level of store and space design.

Strategic ideation, creation and planning

As with both product and facility design, the creation of stores’ showrooms, and other commercial spaces can benefit greatly from the use of 3D/spatial design processes, immersive virtual review and approvals, and the ability to rapidly iterate on new ideas.

Brands can significantly expand the variety and specificity of concepts, formats, and practically all aspects of interior design, adjusting macro and micro aspects to align with local/regional consumer, brand, and competitive dynamics. 3D visualization tools and virtual spaces can help teams iterate quickly, while remaining within the boundaries of what’s possible in an existing building or space.

Product merchandising, promotions and seasonal planning

Today's existing product, store and customer segment information can be extended into the metaverse to visualize a real-time, hyper-local view of individual stores and their planning requirements.

This new form of 3D intelligence—which is not available through current planning, marketing and commerce capabilities—can support the continual change required in retail execution to optimize store layout and performance. Everything from dynamic planograms, designed to visualize exactly the right aisle and shelf location to create maximum impact for a new product, to collaborating with brand and retail partners, to placement of displays and signage, each can be modeled, communicated and iterated until they are ready to go in store.

For example, a retailer and brand can work together on best practices for the product assortment in a new store layout. The brand can show the ideal setup for the range, with the ability to create store-specific variations. Partners can be working in different locations, but able to discuss, visualize, review and adjust together, accelerating and improving decision-making and time to value.

Aspects of physical space and merchandise layout can be tested and validated digitally/virtually with consumers and partners faster and cheaper than traditional methods.

Digitally enabled physical spaces

Essentially every physical space must be more digitally enabled, with the ability to: support AR, VR and MR experiences; collect and ingest streaming data on assets, devices, usage, and environmental/contextual factors; and self-monitor to make corrective changes as needed.

Today's stores need to support computer vision, electronic shelf labels, RFID or other inventory tracking, frictionless self-checkout, and AR/MR. The level and type of connectivity, networking, data, and compute required must be accounted for in the planning process, so any barriers can be overcome before the space is built out.

InContext Solutions, a leader in 3D simulation for retailers and brands, has seen virtual testing of in-store merchandising deliver results 10 times faster at 95% cost savings compared to traditional approaches, including:

- Results in days not months
- 10x cost reduction⁹

“Visualizing in-store merchandising changes allows retailers and brands to think big without failing large.”

Dave Rich, CEO, InContext Solutions

Case study

Mercedes-Benz Stadium

Mercedes-Benz Stadium is one of the world's most technologically advanced mixed use physical spaces. IBM helped deliver an IT and operating platform that is as much a part of the building as the concrete, glass, and steel. From mobile apps to network infrastructure to cloud computing, the IBM platform is designed for consumers and employees to interact seamlessly and securely with fast, uninterrupted access to rich, analytics-driven content, personalized for their needs and optimized for the devices they carry.

And the data that digitally-enabled spaces generate can transform our understanding of what, how, where, and when brands merchandise, interact, and sell; and also the likely outcomes of our decisions, providing a more evidence-based and informed view of business value and ROI.¹⁰

Metaverse opportunity #4

Associate training, service, and support

Many retailers and brands have focused initial metaverse efforts on the consumer. We see the possibility of shorter timeframes to lasting value when organizations focus on the associates who help deliver customers' experiences.

There are opportunities in two key areas:

Associate training

Retailers and brands provide a range of supports to frontline associates across essentially every aspect of their employee experience: onboarding; task and skill development; product, service and promotion requirements; technical service and repairs (for example, devices, equipment, machinery, field/store systems); brand values and empathy; even how to handle contextually challenging situations. On all of these fronts, the demand for more engaging and effective learning, delivered at a manageable cost, has increased.

Leading brands are turning to augmented, virtual and mixed reality to deliver “learning moments” that resonate across multiple learning styles.¹¹ Immersive hands-on training helps users quickly intake difficult-to-learn information and gain a knowledge and skills foundation, increasing knowledge retention and elevating skills and capabilities.

But it's not just about learning a new task. The ability to be immersed into a human-centered story that feels real helps people understand and prepare for more complex situations, where brand values, culture, and empathy play a big part in successfully handling them.

Case study

Walmart

“Our associates have told us [VR training] helps them feel more confident and prepared to perform their job and interact with customers, members and fellow associates.”¹²

Lorraine Stomski, Senior Vice President for Learning & Leadership, Walmart

To help employees understand what’s required to deliver always-elevating service requirements, Walmart has rolled out VR training to more than one million of its US store associates. More than 17,000 headsets and 600+ content modules help ensure that training can impact all associates in each store. Managers and department managers as well as customer-facing colleagues in stores are able to access experiential learning. Already, Walmart has been able to reduce what had been an 8-hour training session to just 15 minutes per employee, without sacrificing effectiveness.

The ability to “show, not tell” can be invaluable in major seasonal events such as Black Friday—where the pace of shopping reaches a fever pitch—or major product/campaign launches.¹³

Internal service and support

Extended reality scenarios in training and virtual customer engagements can enable colleagues to quickly learn new information, rehearse set pieces, and practice in-demand skills around product information, event and promotion orchestration, and store and customer service processes.

“Real life” simulations can also extend to other areas. In the hiring process, candidates can experience authentic workplace situations before joining the company, giving them an understanding of what a “day in the life” looks like. This can also provide the hiring manager with a more accurate picture of how someone might fit in the role.

And as part of ongoing career progression, immersive versions of complex tasks and scenarios can support subject matter development to help ensure that the internal talent pool is continually supported and provided with genuine opportunities to learn and apply new skills.

Creating and managing timely and relevant training content is just as important as how the training is delivered. A content library that can be automatically populated in real time with 2D and 3D assets provides a more consistent experience for training and can be further leveraged as a searchable knowledge base for B2C uses.

Using badging and tokens to unlock and reward personalized routes through content and training means that everyone receives their own unique learning journey, whether it’s seasonal staff, full-time permanent colleagues, or business partners.



Metaverse opportunity #5

Enhanced customer experience

Augmented and virtual experiences are expected to redefine how consumers research, browse, buy, and receive goods and services. The metaverse offers the promise of “everywhere retail,” where shopping happens both actively and passively, accessible anywhere, all the time.

And while this vision is not yet reality, we see three near-term, meaningful on ramps that can be used by brands and retailers to engage, entertain, convert, and serve customers.

Augmented experiences

Adding digital elements to the physical world to provide an enhanced shopping experience that can be delivered in real-time through rich 3D visual and audio assets. Some examples include:

- A customer shopping in a grocery store can use augmented reality to see all the organic products without having to hunt through each aisle.
- Across town, a shopper in a concept store is intrigued by the current campaign, even more so when they are recognized and receive a unique personalized offer to use in store that day.
- A customer anywhere sees a product they like, whether in a store, on an ad, or being used by someone walking down the street, and wants to learn more. They can scan it with a mobile device and connect “live” with a product ambassador (from the brand or the retailer) who can share the most current, accurate, contextually appropriate information.

Augmented experiences are designed to offer a natural, easier access point for a wide range of customers, providing richer engagement and more ways to convert.

Immersive experiences

Brands and retailers engage with consumers in immersive digital spaces, allowing exploration in ways not possible in the physical world. These kinds of experiences can:

- *Extend existing omnichannel capabilities* into the virtual world. This could be customers browsing a truly “endless aisle” of products. Or it could be a highly curated experience, where the virtual store contains only items and brands that have been purchased before, along with adjacent recommendations. In both examples, products would be shown in virtual representations of the real-world, enabling digital commerce to go beyond the limitations of current website navigation. Incorporating digital-only products into this experience opens up the possibility of new revenue streams, at potentially attractive margins.
- *Enable “showcase” experiences*, where brands meet directly with customers and provide a one-to-one personalized experience, akin to private shopping services that are currently only available to the most affluent customers. Because they are delivered in the brand’s own virtual world or in a third-party microverse, “showcase” experiences can deliver live events, Q&A sessions, master classes, and other activities to many more customers.
- *Provide persistent service*, with the ability to deliver human-centered, real time 3D content that optimizes virtual and physical brand spaces for “in the moment” communication, tasks and issue resolution. Metaverse tools, spaces, and capabilities can enable hyper-personalized customer service and support, ranging from:
 - Real-time direct conversation with a store or brand associate in a dedicated virtual space.
 - Professional expertise from a product or brand expert in a virtual or augmented physical space.
 - An always-on “meta assistant,” which can be integrated with existing chat platforms to assist with complex issues, support high-volume processes such as customer account/profile management, and deliver accurate and updated product information.

Almost every type of browsing, shopping, buying, service or support experience can be adapted in a similar manner.

Co-creation and innovation

The ability to bring brand enthusiasts into the design, marketing, sales, and service processes creates opportunities to expand the reach and scale of coverage, incorporate more diverse points of view, and open new revenue and monetization opportunities.

- Many consumers expect the brands they purchase to treat them as equal partners. Brands and retailers can enable and empower consumers as true co-creators and brand ambassadors through shared spaces, tokenized access to restricted spaces, and collaboration with members of the brand team. There are more ways now to bring brands and consumers together, and the means to provide “win/win” incentives, letting them share in the rewards through new business and ownership models.
- Digital products, experiences and services that are completely virtual—which could never exist in a 2D digital world—can be produced and distributed through a digital supply chain, across multiple worlds and microverses. Many brands are creating and experimenting with new company and partnership models, to sell different kinds of products. For example:
 - Burberry has partnered with the gaming platform Minecraft to blur the lines between physical and digital, building a branded presence in the game environment and also creating a line of Minecraft clothing and accessories, available for purchase through Burberry stores and ecommerce.¹⁴
 - Nike acquired the RTFKT digital studio, which specializes in digital collectibles, bringing the physical world of sneakers together with gaming and NFTs. Nike/RTFKT is now releasing regular drops of digital sneakers, opening up a new product line and setting the stage for future revenue streams.¹⁵

Considerations before stepping into the metaverse

There is significant experimentation happening across marketing, new products and services, and differentiated experiences with varying degrees of success. Brands and retailers that are wondering whether to experiment in the metaverse should take that first step, as long as they:

- Spend time understanding what is the right fit for their brand and company. What feels authentic and credible, and not forced?
- Target the right customers for the right reasons. Is the brand looking to create deeper connections with brand fans, who may relish the chance to do something more/new? Or is the organization looking for customers from a specific demographic, who may be new to the brand?
- Identify and agree on what the brand is trying to learn, and how/where/when the learning outcomes will be applied.

This is a golden opportunity for brands and retailers to learn, using new, previously unavailable types of data, such as how long someone looks at a product, holds it, or interacts with it. This also offers the potential to further segment customers and augment the data tagged to each customer profile. Similarly, micro-experiences and gamification activities open the door to gaining more and different insights about customers to supplement existing marketing plans.

For immersive customer experiences to be successful, brands and retailers need to offer two important things:

First, the augmented experiences should have a genuine reason to exist, and provide an even better reason for the customer to return. An immersive customer experience should offer more than the ability to scroll up and down a virtual shopping aisle that is a replica of the local store. Other than niche segments of brand zealots and tech enthusiasts, consumers are generally not demanding a virtual version of a store or product, no matter how beautiful the experience. Retailers and brands must define what is useful, meaningful, and desirable about their immersive experiences, with an eye toward attracting customers back after the first visit.

And second, the metaverse experience should connect back to the existing business. The key to finding value in the consumer metaverse, especially value that can scale, is based on how immersive experiences connect to the brand, extending the footprint and feeding insights into the core business.

Action guide

What can retail and consumer product executives do today?

The bar for experiences is higher than ever, with the metaverse offering the promise of truly immersive commerce-enabled experiences that can drive engagement, conversion, and loyalty in new and more lasting ways.

01

Identify benefits you can deliver today

Be purposeful on where you want to focus the effort. Think through which areas of your consumer experience and business operations would benefit from metaverse concepts such as co-presence, collaboration, and physical/digital integration.

02

Bring 2D and 3D worlds together

Consider where 2D and 3D content can co-exist happily together, such as digital twins, associate training, or customer support. This is a fast track to understanding where value exists as well as what capabilities you need to scale. And the best part? You can build on what you already have by re-using existing assets and capabilities.

03

Create transition points

Identify when and where the potential transition from 2D to 3D worlds could happen across your consumer experience and internal operations. Create easier transition points and on ramps, such as augmenting physical space with a useful 3D digital layer.

04

Measure twice, cut once

Leverage your existing analytics and intelligence capabilities to select the right experimentation projects so you can test, learn, and scale in a rapid and agile manner. Identify upfront the metrics and measurement criteria needed for rollout to avoid multiple rounds of approvals.

05

Choose partners that can scale

Work with your existing partner ecosystem to identify shared objectives and complementary capabilities. Focus on those who can create tangible value, and who can help build the foundation from garage-to-scale operations.

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