

The Metaverse

Metaverse: Evolution, then Revolution

Gradually, then suddenly:
The metaverse is changing the
way we experience the internet

accenture



Contents

It's time to cut through the hype

4

Technology and creativity will accelerate the metaverse

7

Metaverse: A continuum that will transform all parts of the businesses

8

Where is the value?

10

And it all needs to be responsible

19

Conclusion: How to reap value from the metaverse

20

Building toward our metaverse vision

21

Research methodology

22

Executive Summary

It's time to embrace the new world.

Since starting the Metaverse Continuum Business Group, we know that there is enormous potential for consumers and businesses: The metaverse is the next iteration of our digital future. It is revolutionizing how we work and opening new doors for value generation across industries. The metaverse is also transforming economies and social spaces, as an ever-expanding Internet of Place and Ownership. To tap into this potential, businesses can pair technology with creativity, driving experiences that will invigorate our lives, work and society.

It's time to cut through the hype

Metaverse is a buzzword with fluctuating definitions. Is it the same as Web3? Are there other words to define it? Will my company look cool if we say it? And does it really matter? Some have a short-sighted vision of the metaverse as a bleak, computerized world powered by people in virtual reality (VR) headsets. But once we cut through the misconceptions and hype, its potential is clear. The swath of contingent technologies will evolve and converge, as the Internet of Place and Ownership opens bold new opportunities for businesses and consumers.

The metaverse will impact people, too. It is a revolutionary virtual addition to our world that is enriching the human experience with new possibilities, not detracting from it. The metaverse will become a place where humans will find purpose, love and friends across a new type of internet, opening aspects of each individual that will disrupt work models and form powerful communities.

How do we begin? To gain a better understanding of this potential, let's start with definitions.

The 3D evolution of the internet is underway. This is what we call the Internet of Place, adding a sense of space to the digital world and bringing digital elements to our physical lives. It contains a continuum of virtual realms that operate across a spectrum. On one side, there are virtual worlds and locations where people converse, trade and socialize. On the other, an augmented reality (AR) layer overlays our physical world, creating new opportunities for interaction and engagement.

Users access these realms in 2D and 3D, accessible via devices such as headsets, phones, and computers. Significant advances in real-

time rendering of photorealistic environments, true-to-life virtual physics, artificial intelligence and real-time 3D creation tools such as Unreal Engine or Unity support the creation of these environments. With these technologies, the Internet of Place will expand as new communities form and grow. Additionally, a "Mirror World" is created when virtual places are linked to the real world via digital twins. At their core, digital twins replicate the performance of individuals, physical assets and processes in a virtual environment to help us understand how these objects might behave under a variety of circumstances.

We also see the Internet of Ownership developing quickly—a digitally native infrastructure powered by technologies such as blockchain, decentralized identities, confidential computing and more that creates the ability for people to carry their identity, money and objects from place to place in the digital world. The driving cultural force behind the Internet of Ownership is known as Web3. This user-led movement emphasizes digital ownership and transparency in the products and services that make up the Web3 ecosystem.

As a user-centric movement, Web3 leverages the vast ecosystem of distributed data technologies behind the Internet of Ownership. While specific technologies are highlighted above, the key enabler of the Internet of Ownership is its **tokens**. Tokens are the digital encapsulation of rights and obligations that when transacted upon by owners can transfer financial, functional or social value to others. Tokenization is what will enable users to carry their identities, money and objects from place to place in the digital world.

The Internet of Place can exist without the Internet of Ownership, and vice versa—but only together can they help to realize the full value of the metaverse. As they combine over the next decade, we believe people,

organizations and ecosystems will find entirely new sources of value. This fusion will create a brand-new spectrum of digital worlds, realities and business models ripe for exploration. In the Accenture Technology Vision 2022, we call this the Metaverse Continuum, where immersive technologies and new types of ownership combine to bring about the next era of our digital lives.

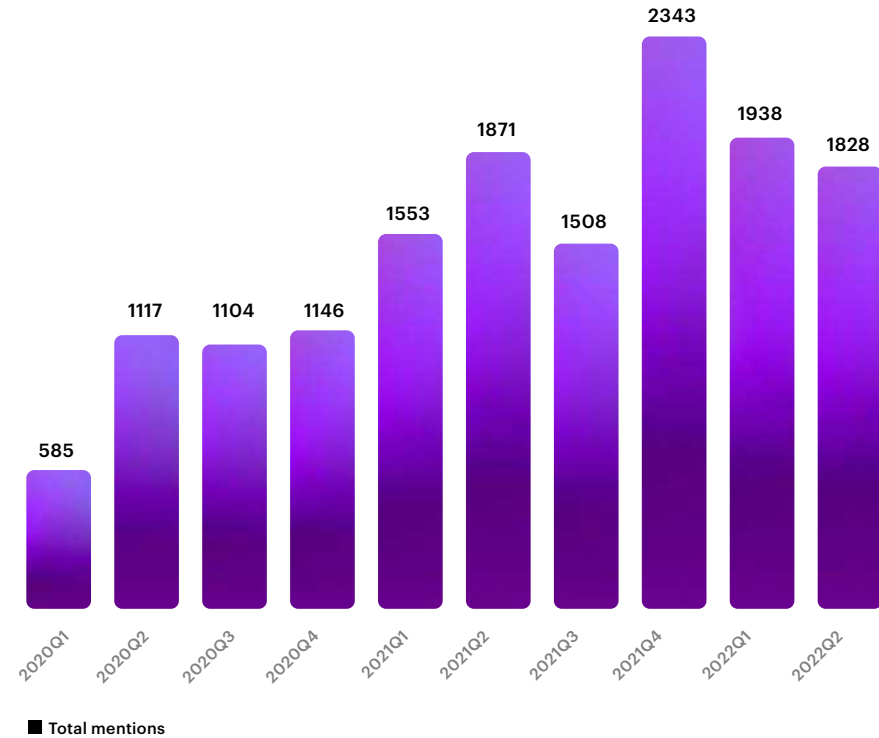


Figure-1: Accenture’s analysis of earning call transcripts shows that interest around the metaverse continues to remain strong. The total mentions of metaverse-related keywords increased a staggering 212% during 2022Q2 over 2020Q1.



Accenture's metaverse vision: "We see the metaverse as a continuum that spans the spectrum of digitally enhanced worlds, realities and business models. It applies across all aspects of business, from consumer to worker and across the entire enterprise; from reality to virtual and back; from 2D to 3D; and from the cloud and artificial intelligence to extended reality, blockchain, digital twins, edge technologies and beyond."

Before embracing the metaverse, businesses are asking important questions: "Will the metaverse help us save money? How will it help my growth targets? How can the metaverse increase the time to market for our products and services? When will it happen?"

Our response is the same to all businesses: There is value in the metaverse right now for anyone to reap, and the capturable valuable will increase dramatically with time.

Major players in the automotive, retail and banking industries have already begun their metaverse journeys:

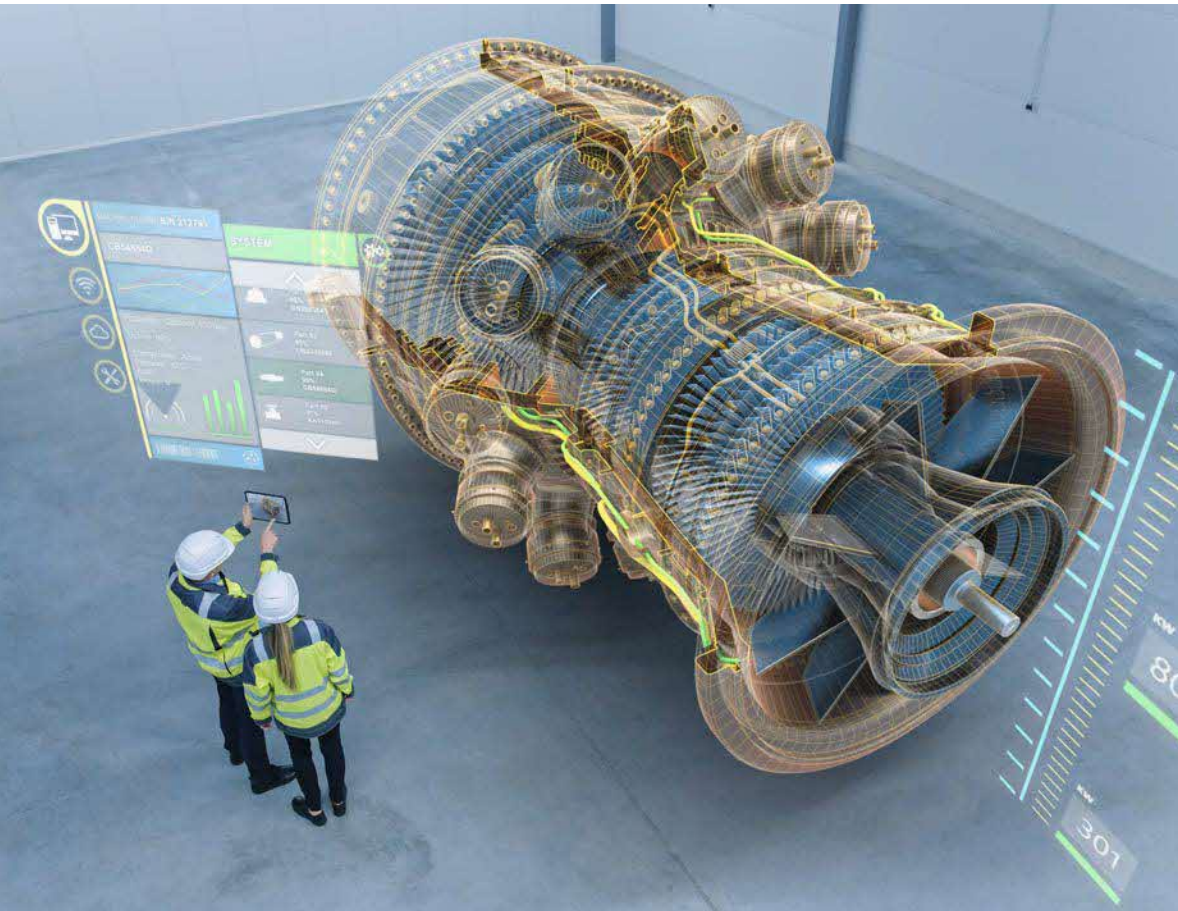
- Automotive companies are creating exciting "phygital" launches of new vehicle models as well as using augmented reality and digital twins to improve manufacturing and quality assurance processes in facilities and across their supply chains.

- Luxury brands are using tokens to create digital twins of physical clothing items and leveraging AR virtual shopping experiences.

- Banks are creating customer-centric experiences in virtual environments to reduce queues, and using VR training to simulate client interactions in a safe, realistic setting.

It's time to act. Finding value in the metaverse is not a distant ambition, and businesses can start capturing value today.

Technology and creativity will accelerate the metaverse



We've seen this story before: Technology has always accelerated human creativity and ingenuity. From the earliest discoveries of fire to modern computing devices, we've used technology to express ourselves, connect and improve lives.

We also know that technology drives major cultural shifts. We're at the dawn of the next culture-defining moment, as we express and connect in new and exciting ways. And we must prepare for it.

The technology behind the metaverse is certainly exciting, but the most important element is us, as humans. It's the well-designed, creative and frictionless experiences—imagined by people—that will make the metaverse stick.

That's because great metaverse experiences, products and services require an understanding of human needs. This needs to satisfy the core drivers influencing human behavior—the desire for material (such as a car) and immaterial things (such as influence), to bond, to satisfy curiosity, to protect and for emotional experiences like pleasure and excitement. But most importantly, the technology behind these experiences must be invisible.

We've all seen failed and abandoned metaverse experiences spurred by the initial hype. Much like physical experiential marketing, an experience in the metaverse is only alive when people are there to create the buzz of conversations and discussions.

Metaverse experiences require diverse creative teams to fully come to life. Event planners, architects, theme park designers, film writers and game designers are just a few examples of the diverse talent needed to supplement the typical marketing teams.

We don't yet know the precise path of metaverse adoption because many of the contributing technologies are still in development. This is like the technologies behind mobile phones, which existed for decades, but only became clear when they evolved into the smartphones we use today. The train of adoption keeps pushing forward; and we must catch it and continue to learn as it moves into the new horizon.

Metaverse: A continuum that will transform all parts of the businesses

So where do we start? Let's explore how the metaverse will shape customers, enterprises, industries and the economy.

The financial infrastructure that underpins it all

The metaverse will become an important economic and financial environment, underpinned by a vibrant economy where businesses will find new opportunities to offer products and services, and customers will trade in the new reality. Digital currencies already provide a new means for users to store value and exchange assets in the metaverse, using wallets that convey a new sense of identity.¹ Additionally, central banks will continue to develop central bank digital currencies (CBDC), which will serve as another, potentially more stable, means for users to store value and exchange in the metaverse in the future.

An economy thrives when it is backed by a diverse network of stable and trusted currencies that will evolve as the metaverse grows. It is important to ensure financial regulation and compliance in a metaverse environment.

How the metaverse will impact customers

Virtual platforms and buzz-worthy brand activations are just the tip of the iceberg. Meeting customer needs in the metaverse means blending physical and digital touchpoints to create purposeful, value-adding and frictionless products, services and experiences.

For example, 3D commerce gives customers a new way to buy, driving acquisition and retention. Tokenization creates new forms of social, functional and emotional value for customers, increasing brand loyalty

and engagement. And blockchain-enabled traceability in supply chains gives customers a better understanding of where their products come from.

These are only a few applications of the many to come. Yet by reframing metaverse technologies and experiences as a suite of tools to help solve unmet customer needs like these, our clients are already seeing new revenue streams.

How the metaverse will impact enterprises

The metaverse will make enterprise intranets as we know them today obsolete, replacing them with immersive, virtual town squares where employees can collaborate, socialize, create and celebrate together. However, this is not about replacing eight hours of video calls with eight hours of VR meetings—far from it. It's about

identifying the ways in which the metaverse adds value to the employee experience, making work easier and more impactful.

Training is one example. Virtual worlds allow for a more engaging shift in workplace learning. Instead of cheesy instructional videos, employees can practice and apply skills in a real-time immersive setting alongside others. This applies to everything from learning culture and core values via an onboarding experience when an employee joins a new company, to a safe space to practice complex, high-risk and hazardous scenarios, to improving soft skills, where empathy and the nuances of human behavior matter.



How the metaverse will impact complex ecosystems

Businesses are always seeking new efficiencies, especially during times of economic unpredictability. The metaverse optimizes how a product is sourced, created and brought to market through the power of virtual simulations and a new level of partner collaboration—separating industries from their inward facing organizations.

In an industrial setting, businesses are increasingly leveraging 3D simulations and digital twins to test and learn. In virtual versions of their businesses, they can measure and predict the effects of changes and

improve connections between workers and supply chains through advanced true-to-life simulations. These improvements could be a shift to a new manufacturing technique, a more efficient store layout or new product designs.

However, there is nothing constraining the power of immersive digital twins to the industrial setting. Increasingly, this value stream is breaking free of the manufacturing facility and into diverse usage cases from improving hospital operations to generating snow on ski mountains to port operations.

“The interest in exploring the metaverse comes primarily from the need to analyze any trends that have potential to transform, revolutionize or improve business, e.g., the retail space in the case of Carrefour,”

Nicolas Safis,
Innovation Director at Carrefour Group.

Where is the value?

Executives expect returns from their metaverse investments in the short run. According to the Accenture Business Trends Survey conducted in April – May 2022, respondents in companies having some form of a strategy around the metaverse believe that in the next three years, a 4.2% share of their revenues will come from new products, services or business models related to the metaverse. This represents a value of \$1 trillion.

We see the same trend reflected in the Accenture CxO survey conducted during the same period too. Eighty-nine percent of 3,200 executives surveyed agree that the metaverse will have an important role in their organizations' future growth.

The metaverse has vast potential, underpinning the very infrastructure of new and existing economies while benefitting consumers and businesses. We can tap into its potential today, while planning for new business opportunities that lie ahead. As mentioned, we divide the metaverse into three key areas—consumer, enterprise, industrial. In the next section, we'll describe where and how value is emerging across these areas.

Question: Which metaverse use cases are you most interested in exploring at present?

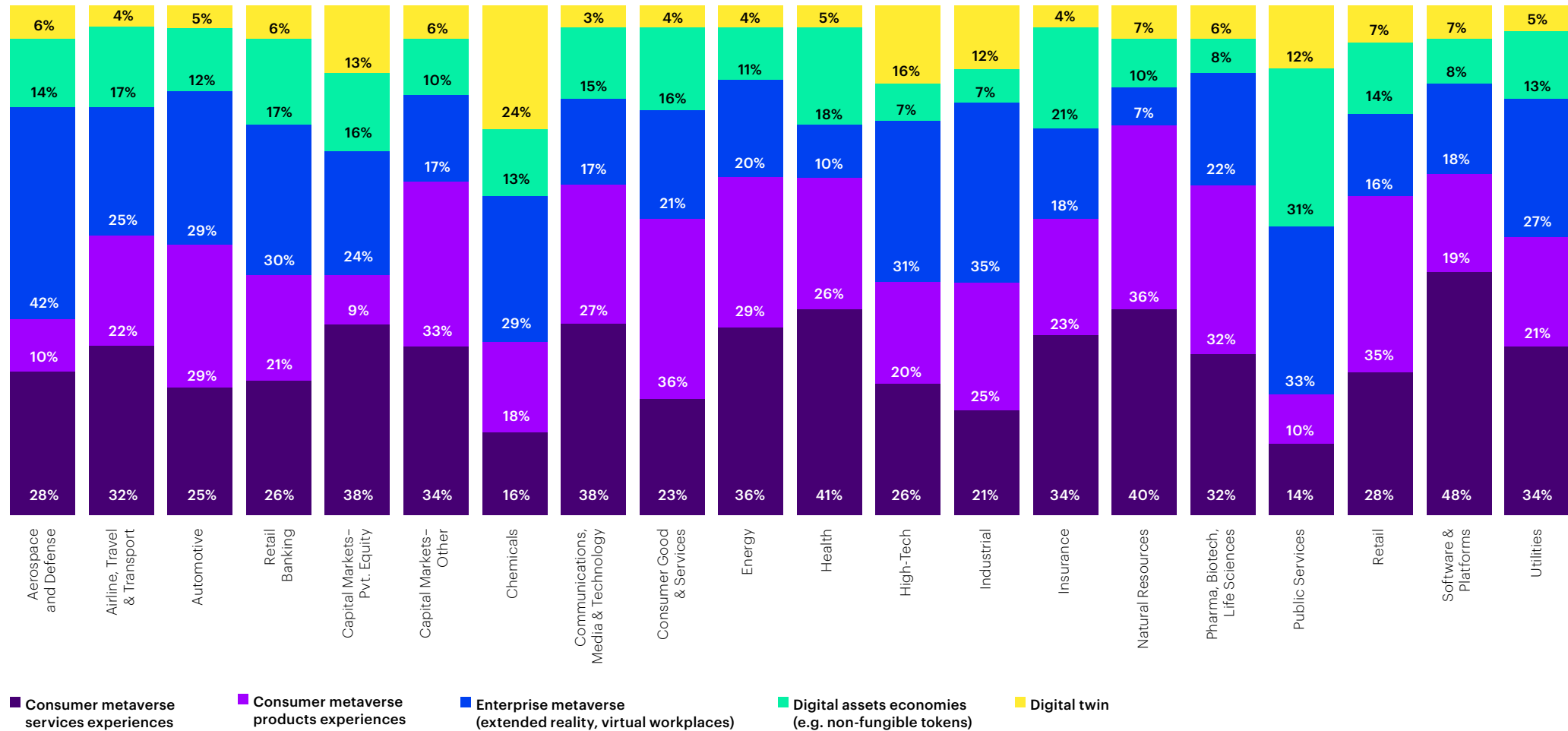


Figure 2: Across many industries, executives are most interested in metaverse use cases associated with consumer product and service experiences.
 Source: Accenture CxO Survey, April-May 2022: (n=3200)

Consumer metaverse

The metaverse is swiftly opening new ways for consumers to connect and socialize together, forming strong bonds within close-knit communities. The Internet of Ownership brings new kinds of value and experiences to everyone, and brands can form stronger ties of customer loyalty in the new paradigm.

People are finding joy, delight and fun in immersive experiences. There is even more value for customers with incentivization and self-expression enabled by tokenization and avatars.

Immersing the senses and the mind

Immersive technologies enable multi-sensory experiences that create real connection and bring users closer to brands. These experiences can also unlock information previously constrained by the limitations of the real world. For example, shoppers can visualize products on themselves prior to purchase, or wear clothing that cannot physically exist in the real world, pushing the boundaries of art, expression and fashion.

Immersive product experiences are becoming more normalized. This is allowing brands to showcase new products and services through more compelling touchpoints. For example, Chinese multinational technology company Baidu unveiled Robo-01—a new autonomous car — on Xirang, its metaverse app. A virtual master of ceremonies introduced the car to its audience, drumming up interest for the product and the app’s metaverse capabilities. The news generated much discussion on the microblogging platform Weibo, where a hashtag for the car’s unveiling gained almost 40 million views.²

But metaverse experiences need to be more than just visually interesting if brands expect to see growth from them. They need to be something customers want to visit, often and consistently. To accomplish this, experiences must contain a mechanic or gamified element. For example, Pet Simulator’s “Adopt Me” game is one of the most popular games on Roblox with over 28 billion+ visits (as of June 2022).³



71%

of 325 respondents participating in Accenture’s recent focus group discussions expect the metaverse to provide real-world shopping experiences, such as the ability to try clothes and products before purchasing, over the next three years.

“Virtual try-on experience in the retail industry has been a game changer. Right now, it is being used for simple social interactions which have a fun element, but gradually new use cases are being developed, e.g., weather reporting and progression games.”

— AR Platform Lead of one of the largest social media platforms.

Incentives

Tokenization gives brands, creators and influencers direct ownership of fan relationships via social tokens. And the tokens give fans more control and decision-making rights as rewards for their loyalty and participation. Fans can also use tokens to directly invest in their favorite creators, receiving pieces of content, access to exclusive material or membership in the creator's community in return.

These incentives create powerful customer journeys. For example, Starbucks is reimagining its loyalty programs by using tokenization at scale to create an accessible Web3 community. "Starbucks Odyssey" allows users to buy digital collectable stamps that unlock access to new coffee experiences.⁴

Retaking ownership of our identities

In the physical world, identity is defined by characteristics such as race, ethnicity, gender, age, personality and physical attributes. But our digital identities are less clear. Today, it includes what the web knows about you (which you do not control) and how you present yourself online (which you do control).

"NFT is not just a sticker with value—it's an entryway to a world of opportunity with specific utility. Defining that utility needs to be based on brand's needs."

— Senior executive for metaverse initiatives in a global sportswear brand

Today, the way we present ourselves depends on the website or platform. Who we are on LinkedIn is how we express ourselves professionally, which is different from how we express ourselves on Reddit or Instagram. But soon, avatars may become the new expression of our digital identities.

Avatars are a virtual manifestation of someone's digital identity and personify many forms of identity expression—products, experiences and values. With avatars, users are no longer confined by the characteristics assigned to them at birth and are empowered to express themselves in ways not possible in real life. One participant from Accenture-organized focus group discussions on the metaverse offered the following insight: "The metaverse will allow us to be more confident because there is little fear of being judged based on our looks or behavior in a virtual environment."

Some companies have already started testing consumers' identity appetite. In 2021, Dior partnered with avatar app Zepeto to create digital makeup looks,⁵ and with Ready Player Me to launch exclusive fragrances with an interactive experience. In 2022, Dior launched its first-ever metaverse exhibition in China, "On the Road," which showcased fall 2022 menswear through an interactive experience hosted on Baidu's metaverse social app. Not only do these experiences entice luxury fashion fans to follow Dior to a new channel, but they appeal to consumers' desire for exclusivity and social standing.

For continuity, identity credentials and digital assets should be consistent across experiences. This isn't currently possible because we onboard as users for different service providers.

"Avatars are the new face of digital identity. Those are shells or capsules around one's identity—still working with traditional ID protocols and data, but now including a 3D representation."

—Sercan Altundaş, SDK & Integrations Team Leader, Ready Player Me

Through self-sovereign identity models, the user onboarding experience is reversed. Service providers onboard to the users, giving them control over what data is shared with websites, services, applications and other users across the web.⁸

Brand strategy

The metaverse will transform how brands deliver on their promises. We recently identified life centrality as a critical growth driver for staying relevant to customers. Brands must also consider the dynamic lives of their customers in the metaverse, but within the context of the new missions customers are on. It's still important to appeal to customers' transactional, emotional and social needs—it's just not 1:1 with the physical world. Soon, it will be commonplace to see a digital layer over the physical worlds consumers and companies inhabit. Advances in augmented reality are already preparing us for this—digitalizing identity, possessions and worlds.

Tokens will transform the way brands engage with customers. A universal digital wallet solution is currently in the works to enable their broad usage. It will give brands and users a place to store and control any digital asset—identity, money and objects—and will be portable across all sites, experiences and communities.

As adoption grows, brands will find value in the first-party data customers allow them to access via tokenization. However, getting and keeping access to this data is based on a new trust dynamic where users are in control. You can build trust through employing data-use transparency, aligning your reputation to customer values, and being mindful of how your brand builds the relationship around products and services.

New products and business models

In the physical world, products and services provide a specific utility to customers. When brands experiment with virtual products and services, they need to retest the utility. Brands are finding value today in reimagining their products and services as blended physical and digital assets. These brands are also creating entirely new revenue opportunities through the deployment of exclusive content and co-collaborations with customers enabled by tokenization.

Combating real-world problems

Brands have started using the metaverse to solve real-world problems such as validating identities. For example, real estate, art and luxury fashion are all using blockchain to authenticate and combat counterfeit markets. With an NFT's unique identification, issuers and buyers have a true certificate of digital ownership, guaranteeing authenticity and protecting both consumers and businesses.



“Universal digital wallet infrastructure will create the ability to carry tokenized identity, money and objects from place to place in the digital world. Massive business model change is coming, and the winning digital business will be the one that earns trust to directly access the real data in our wallets to create much better digital experiences.”

—David Treat, Senior Managing Director,
co-lead of Accenture’s Metaverse Continuum Business Group

Secondary marketplace revenues

Digital products are providing new sources of revenue beyond their initial sales. For example, one of the largest sportswear company's original collections in the metaverse grants owners exclusive rights to its merchandize throughout the year. As a result, this company saw more than 50,000 transactions on the secondary market, generating revenues in excess of US\$175 million.

Control over brand journeys

Branded marketplaces give enterprises control over the consumer experience. They will also prevent the brand dilution that happens in large marketplaces. Big tech is starting to experiment with these marketplaces as well. For example, Salesforce has recently piloted its NFT cloud commerce plugin.⁹

Consumers have an appetite for these digital products and services. Currently, our research indicates that Gen-Z and Millennials are open to spending their money on digital experiences and products (see Figure 3). Brands will need to get creative to make themselves visible to customers. As new experiences hit the market, customers will expect more than a 3D store in a virtual world.

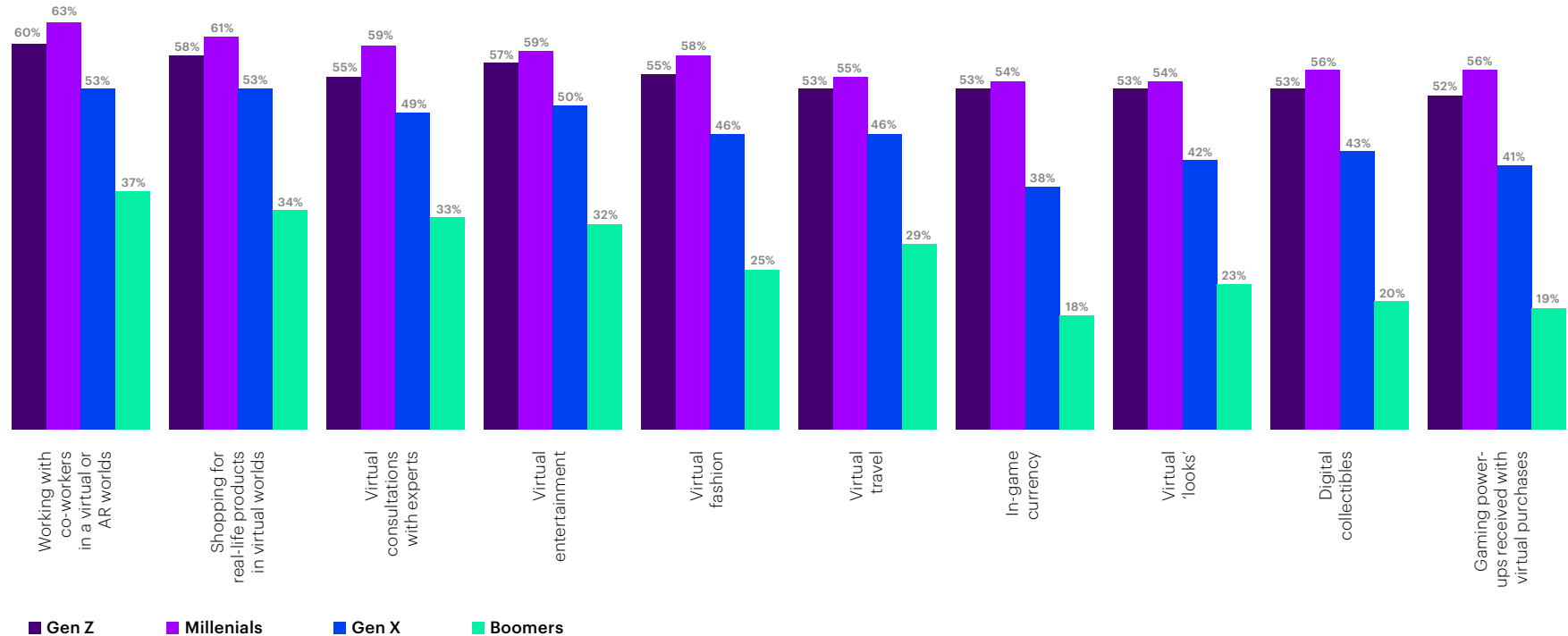


Figure 3: Gen-Z and millennials are interested in buying virtual experiences and products in a virtual world in the next year
 Source: Accenture Consumer Pulse Survey, Feb 2022: 11,000+ consumers over 16 countries

Enterprise metaverse

The metaverse introduces a new dimension to an organization's enterprise and will underpin its core enterprise software and functions, enhancing the way people engage, learn, and collaborate. It allows us to work together no matter the distance, to feel the presence of colleagues in virtual meetings, and to operate within remote sites or digital twins of spaces. In short, the metaverse will change the workplace across physical and digital spaces.

A new way to collaborate

The metaverse shows huge promise to improve productivity, increase workforce equity and reduce travel along with its carbon impact, as well as increase employee retention. Workers can join virtual spaces together, regardless of location across the world, and work on the same projects. Colleagues form a stronger connection through immersive collaboration, as they work together toward a unified company goal.

Take our partnership with Microsoft and Meta as one example, where we are creating VR solutions customized for businesses. A new type of work is being embedded into the existing communications suite, allowing our clients to build museums of their history for new joiners, build brand equity and increase recruitment.

Additionally, process design and development will also be faster and cheaper with the metaverse. Interactive digital environments enable collaboration regardless of location. This means clients, vendors, partners and customers can bring their own supply chain data and meet in the metaverse.

Learning and employee experience

The best employee experiences hinge on getting the moments that matter right, such as connection, upskilling and communication. The metaverse is a versatile, scalable solution for improving the employee experience across a geographically distributed workforce. This can manifest in many ways, whether it be virtual onboarding, hosted engagement, inclusion or well-being activities.

Mater Private Hospital and Siemens Healthineers Value Partnership team built a representation of the hospital's radiology operations to review current layouts and identify potential improvements. Through extensive consultations, a digital twin was created allowing the partners to run different scenarios, identify the best use of equipment and pressure test a physical layout.

Improvements that previously took months or years of trial and error could now be achieved in a matter of days or weeks. The digital twin helped the hospital shorten MRI wait times for patients; accelerate patient turnaround for MRIs; increase equipment utilization; and lower staffing costs (in terms of overtime paid per day).¹⁰



Immersive experiences in the metaverse create a digital center of gravity for teams and organizations by giving proximity and enhancing collaboration. For example, industrial companies are training in VR so they can leave production lines up longer and at a higher efficiency, rather than slow them down to train new operators.

A virtual environment also allows employees to express themselves in new ways. Employees' digital avatars become extensions of their identities and they can customize their workspaces to fit their individual tastes. Plus, employees become creators. For example, at Accenture, our African American Employee Resource Group used the metaverse to celebrate and to invite others to celebrate Black History Month.

As technology accelerates the pace of change, the shelf life of skills shortens. With its ability to drastically reduce the gap between skill acquisition and application, the metaverse enables companies to become talent creators and nurturers—building a pool of upskilled, relevant talent and increasing the value people can provide.

Accenture's enterprise metaverse, the Nth floor, is a virtual environment created to bring Accenture people together to meet, collaborate and learn. Within the Nth floor, a virtual campus called One Accenture Park is helping new employees personally connect with the culture and plant the seeds of professional relationships. This type of immersive experience enables new hires to experience orientation in a more personal way and meet many more people.



Industrial and systems metaverse

The metaverse virtualizes industrial systems and processes with immersive technologies such as AR and digital twins. The industrial sector is realizing the benefits today within operations and supply chains.

Simulation and real-world operations

Digital twins allow management teams to interact with operational systems and reach across to their partners' networks, both upstream and downstream. Linking digital twins to a company's machinery, operating models, processes and systems enables predictive maintenance, better team collaborations and trainings, and real-time remote monitoring. Accenture is working with Mars, the global leader in confectionary, food, and pet care products and services, to transform and modernize its global manufacturing operations with artificial intelligence (AI), cloud, edge technology and digital twins.

Accenture and Mars have been trialing digital twins for Mars' manufacturing operations since

late 2020. Applied to its manufacturing plants, digital twins will enable Mars to simulate and validate the results of product and factory adjustments before allocating time and resources in the physical space. The companies tested a digital twin to reduce instances of over-filling packages, a common problem in the food industry. The digital twin gave Mars a bird's-eye view of the production lines at one of its factories. The twin fed sensor data from manufacturing machinery into a predictive analytics model, which allowed factory line operators to monitor events in real-time and adjust the filling process. Accenture and Mars will work together to apply digital twin technology and models to the company's manufacturing facilities globally. This will give Mars factory line operators real-time insights into current and predictive performance.¹¹

Supply chain networks

Supply chain transparency is key to resiliency and collaboration. Businesses with deep visibility into each piece of their value chains can make more



strategic decisions during disruption. Tokenization increases transparency while retaining data ownership, driving massive improvements to supply chain. Increasingly, immersive places provide the opportunity to move the command center and control tower to virtual spaces to better collaborate across the ecosystem.

The metaverse and Web3 technologies are contributing to the quest for more sustainable supply chains. They promise to reduce carbon emissions by substituting physical goods with digital ones and replacing real-world presence

with virtual interactions. Additionally, digital twins will help companies optimize physical spaces or products well before they are made or moved in real life.

Shell, Accenture and Amex GBT launched one of the world's first blockchain-powered digital book-and-claim solutions for scaling sustainable aviation fuel (SAF). It is the largest SAF book-and-claim pilot at launch, offering around 1 million gallons of SAF—enough to power almost 15,000 individual business traveler flights from London to New York.¹²

And it all needs to be responsible

The metaverse is a massive opportunity for businesses to create value. But it's important to approach it with firm values to stand by and protect. It gives us the chance to make this new era of internet more responsible than those of the past. The metaverse should be an opportunity for humans to collectively imagine and build a future that is more sustainable, diverse and inclusive.

It's essential that we create a metaverse where people want to engage and have trust that it is run responsibly. Trust is what shapes the design and deployment of technology, product policies and practices.

Companies must be intentional with the metaverse. It's important to understand how technologies in the metaverse stack can hamper sustainability goals, and to mitigate risks accordingly. However, we believe the metaverse can also support organizations' ESG goals—from behavior change through deeper levels of empathy to reduced emissions from digital twin technologies.

While exciting, all innovation starts by building on values from the start. On firm foundations comes a mature and pragmatic approach to the metaverse.

Gerando Falcões (GF) is a non-profit organization (NPO) committed to eliminating poverty in Brazilian favelas (Portuguese for slums). GF aims to transform communities into “dignified, digital and developed environments,” where proper housing, access to healthcare and education, women's autonomy and more are possible and available to all.

GF recently launched FavelaX, an initiative in partnership with Accenture that brings high-tech tools to turn favelas into innovation labs. In the first leg of this initiative, they named a poor community within the favelas “Favela Mars” and chose it as the location to pilot a “digitally transformed slum” platform called Favela 3D.

To engage the younger audience, Accenture developed and launched the game Mission FavelaX, the “first immersive experience of a non-profit organization in Latin America” on Roblox. Players climb a six-floor rocket ship placed in the middle of a favela to learn about what life is like for the people living in these communities as well as the actions that can help improve them.¹³

Conclusion: How to reap value from the metaverse



During uncertain economic conditions, it's tempting to look to the familiar for innovation. But the metaverse is here and its technologies are moving fast to build our digital future. The way enterprises adapt to circumstances, remain relevant and find new opportunities has fundamentally changed. The metaverse can serve as the key to both survival and prosperity in this new world.

The metaverse may seem daunting or opaque, but businesses can move ahead by keeping their strategies simple and focused, building on the very foundations of the metaverse. The size of the prize is huge for businesses that take an integrated approach and tap into the full and vibrant potential of the metaverse for customers.

There are three rules that we must apply:

Be creative and keep it simple

Businesses should only develop metaverse experiences that are within their users' mental models. In practice, this means going back to the basics and building upwards. Creativity is still key—this is not a lift-and-shift of current products and services. With this mindset, businesses can focus on the right metaverse strategies and operating models.

Start small and focused

Businesses should approach the metaverse with a rigorous, customer-focused mindset that artfully services their needs. They should also focus on understanding how to apply the metaverse to different parts of the business. Otherwise, they could end up with multiple tendrils of innovation, potentially wasting company time and finances.

Engage with early building blocks

Metaverse and Web3 ecosystems are rapidly developing and launching new opportunities for value generation. This continues to open new doors for businesses—as long as these businesses target the right areas quickly but thoughtfully. Early engagement engenders true long-term trust with customers over time and grants an edge over the competition, but reckless engagement damages trust.

Building toward our metaverse vision

The metaverse will integrate our physical and digital worlds, reshaping how we live and work. Businesses will drive this transformation with the highest standards for safety, security, diversity and trust. Communities will arise from virtual worlds, collaborating and opening new opportunities for engagement backed by a new type of economic infrastructure. And in this new world, social connections and business dynamism will thrive like never before.

In the end, the metaverse comes down to people. As the building blocks continue to rise, they will encourage an ecosystem of players to work together toward common goals that will swiftly change the world, much like the internet of the past.

The Metaverse Continuum will define the next era of digital transformation, revolutionizing life and enterprises in the years ahead. It's speeding towards mainstream adoption—and businesses need to move now if they wish to join the race.



Research methodology

At Accenture, we have been working on the component technologies of the metaverse for years, handling hundreds of patents and delivering hundreds of projects for our clients. We used our expertise to inform our research and approach. Toward evolving meaningful and real insights on where value lies in the metaverse, we have used a combination of qualitative as well as quantitative research methods:

- **Focused group discussion:** We conducted hour-long focus group research with 325 US-based participants to understand their perceptions and biases about the metaverse, with a focus on their adoption barriers. These participants, spread across age (18 years to 65+ years), household income (<\$30K to >\$200K), gender (male, female, non-binary), and ethnicity, have been active on internet and social media, and were also aware of/ have experienced metaverse.

- **Interviews with industry experts:** We conducted 20 in-depth video interviews with metaverse subject matter experts covering Accenture's clients, sandbox gaming platform vendors, technology solution providers, and metaverse startup representatives. Qualitative insights gained from these interviews range from opportunity and investment areas, strategies and quick win approaches, and budget and organization, to ecosystem opportunities and challenges. The interviews were conducted between May and August 2022.

- **Discussions with C-suite executives:** Over the period April–September 2022, we conducted discussions with nearly 50 C-suite executives of businesses exceeding revenues \$1 billion to understand their perspectives on the metaverse and Web 3 technologies; the value they would like to unravel in the metaverse; and the Web3 technologies they would like to explore.

- **Algorithm-based analysis of proprietary databases:**

- a. **Analysis of earnings calls transcripts** — We leveraged our data science research capability to perform a natural language processing (NLP) analysis of more than 100,000 earning calls transcripts of 11,407 companies listed on the S&P Global Index. We analyzed the transcripts for a list of more than 100 metaverse-related keywords for earnings calls held between January 2020 – July 2022.

- b. **Metaverse investment analysis**—We analyzed VC investment on metaverse-related start-ups using the Crunchbase database. For the investment analysis, we identified metaverse-related start-ups as companies that fall into one of the following five categories (as mentioned in their descriptions): digital ownership and ID; enterprise simulations and digital twins; immersive consumer experiences; metaverse algorithms and AI; and responsible metaverse. The analysis was conducted for the period of January 2017 to September 2022.

- **Accenture CXO survey:** Between April and May 2022, Accenture Research conducted a global survey of 3,200 C-level executives across 15 countries, to understand their perspectives and

their organizations' investments direction toward pertinent business-centric topics, including the metaverse. Respondents represented 19 industries from companies \$500 million or more in global revenue.

- **Accenture Consumer Pulse survey:** Accenture's Consumer Pulse Survey offers insights into consumer outlook, sentiment and behaviors two years on from the start of the pandemic (March 2020). This current survey was conducted between 7th and 15th February 2022, with a representative sample of 11,311 consumers from 16 countries. The survey was conducted online and targeted consumers who have made purchases for their households in the past six months. Respondents were split evenly across gender and age group.

- **Accenture Business Trends survey:** In May and June 2022, Accenture Research conducted a global survey of 3,450 C-level executives across 22 countries to understand the importance of the key business trends. Respondents represented 26 industries from companies \$500 million or more in global revenue.

References

- 1** World Economic Forum (2022), The Macroeconomic Impact of Cryptocurrency and Stable Coins, White Paper, available at: https://www3.weforum.org/docs/WEF_The_Macroeconomic_Impact_of_Cryptocurrency_and_Stablecoins_2022.pdf and accessed on November 17, 2022.
- 2** Beatrice Tamagno (2022), Baidu Uses Metaverse App to Unveil Its First Commercial Self-Driving Car, Article published on RADII, available at: <https://radii.co/article/baidu-self-driving-car> and accessed on November 15, 2022
- 3** playadoptme (2022), What is Adopt Me?, available at: <https://playadopt.me/> and accessed on October 29, 2022
- 4** Starbucks Stories and News (2022), Starbucks Brewing Revolutionary Web3 Experience for its Starbucks Rewards Members, September 12, available at: <https://stories.starbucks.com/press/2022/starbucks-brewing-revolutionary-web3-experience-for-its-starbucks-rewards-members/> and accessed on November 10, 2022
- 5** Becky Bargh (2021), Dior goes after Gen Z with virtual beauty link-up; published in Cosmetic Business; available at: https://cosmeticsbusiness.com/news/article_page/Dior_goes_after_Gen_Z_with_virtual_beauty_link-up/177953 and accessed on July 21, 2022
- 6** Dior (2021), Miss Dior Immersive Journey; available at: https://www.dior.com/beauty/en_int/th/miss_dior_immersive_journey.html/ and accessed on July 21, 2022
- 7** JING DAILY (2022), Dior Jumps Into China's Metaverse; available at: <https://jingdaily.com/dior-metaverse-exhibition-xirang/> and accessed on July 21, 2022
- 8** Andrew Tobin & Drummond Reed (2017), The Inevitable Rise of Self-Sovereign Identity, available at: [The-Inevitable-Rise-of-Self-Sovereign-Identity.pdf](https://www.sovrin.org/docs/The-Inevitable-Rise-of-Self-Sovereign-Identity.pdf) (sovrin.org) and accessed on September 20, 2022
- 9** Salesforce (2022), Mint and sell NFTs on a trusted, sustainable platform, available at: [Mint NFTs on a Trusted Platform - Salesforce.com](https://www.salesforce.com/news/press-releases/2022/09/03/mint-and-sell-nfts-on-a-trusted-sustainable-platform/) and accessed on September 03, 2022
- 10** Siemens Healthineers (2018), Digital Workflow Optimization; available at: https://corporate.webassets.siemens-healthineers.com/1800000005658034/d2ba2b3d0cc5/From_Digital_Twin_to_Improved_Patient_Experience_Case_Study_1800000005658034.pdf and accessed on July 21, 2022
- 11** Accenture (2022), Accenture Collaborates with Mars to Develop “Factory of the Future” Using AI, Cloud, Edge and Digital Twins, News Release, available at: [Accenture Collaborates with Mars to Develop “Factory of the Future” Using AI, Cloud, Edge and Digital Twins | Accenture](https://www.accenture.com/in-en/news-events/press-releases/detail/12/22/accenture-collaborates-with-mars-to-develop-factory-of-the-future-using-ai-cloud-edge-and-digital-twins) and accessed on November 15, 2022
- 12** Shell (2022), Shell, Accenture and Amex GBT launch one of the world's first blockchain powered digital book-and-claim solutions for scaling sustainable aviation fuel (SAF), Press Release, available at: [Shell, Accenture and Amex GBT launch one of the world's first blockchain powered digital book-and-claim solutions for scaling sustainable aviation fuel \(SAF\) | Shell Global](https://www.shell.com/press-releases/2022/11/shell-accenture-and-amex-GBT-launch-one-of-the-worlds-first-blockchain-powered-digital-book-and-claim-solutions-for-scaling-sustainable-aviation-fuel-saf/) and accessed on November 15, 2022
- 13** Accenture (2022), Helping Brazil's slums tackle poverty; available at: [Helping Brazil's slums tackle poverty | Growth Markets \(accenture.com\)](https://www.accenture.com/in-en/news-events/press-releases/detail/12/22/accenture-helping-brazils-slums-tackle-poverty) and accessed on August 3, 2022

Authors

Mark Curtis

Managing Director and co-lead,
Metaverse Continuum Business Group

David Treat

Senior Managing Director and co-lead,
Metaverse Continuum Business Group

Katie Burke

Senior Manager,
Metaverse Continuum Business Group

Raghav Narsalay

Managing Director,
Accenture Research

Disclaimer: This content is provided for general information purposes and is not intended to be used in place of consultation with our professional advisors. This document refers to marks owned by third parties. All such third-party marks are the property of their respective owners. No sponsorship, endorsement or approval of this content by the owners of such marks is intended, expressed or implied.

Acknowledgements

We thank everyone in the Metaverse Continuum Business Group and Accenture Research who assisted with the report, from research to insights.

About Accenture

Accenture is a global professional services company with leading capabilities in digital, cloud and security. Combining unmatched experience and specialized skills across more than 40 industries, we offer Strategy and Consulting, Technology and Operations services and Accenture Song — all powered by the world's largest network of Advanced Technology and Intelligent Operations centers. Our 721,000 people deliver on the promise of technology and human ingenuity every day, serving clients in more than 120 countries. We embrace the power of change to create value and shared success for our clients, people, shareholders, partners and communities. Visit us at www.accenture.com.

About Accenture Research

Accenture Research shapes trends and creates data-driven insights about the most pressing issues global organizations face. Combining the power of innovative research techniques with a deep understanding of our clients' industries, our team of 300 researchers and analysts spans 20 countries and publishes hundreds of reports, articles and points of view every year. Our thought-provoking research – supported by proprietary data and partnerships with leading organizations, such as MIT and Harvard – guides our innovations and allows us to transform theories and fresh ideas into real-world solutions for our clients. For more information, visit www.accenture.com/research.

Copyright © 2023 Accenture.
All rights reserved.

Accenture, its logo, and New Applied
Now are trademarks of Accenture.