

Metaverse: Closer than you think

Find the 'real value' now in healthcare

Introduction

There's currently a lot of confusion, speculation and skepticism around the metaverse and the future it promises. But we believe that this next evolution of the internet represents a huge value driver for healthcare organizations — and a missed opportunity, if ignored.

The key will be to understand what the metaverse is, why does it matter in healthcare and how can it drive 'real' value for patients and providers.

What is the metaverse?

The definition of the metaverse is evolving, but we think about it in a way that focuses on value, even as the concept continues to take shape.

This is how we [define the metaverse](#) right now: An evolution of the internet, but a revolution in the making for healthcare organizations, providers and patients.

The metaverse spans physical places and digital spaces, enabling us to collaborate and exchange value through shared interactions and experiences.

95%

of global executives believe that future digital platforms need to offer unified experiences, enabling interoperability of customers' data across different platforms and spaces.

[Tech Vision 2022, Accenture](#)

There's a reason the Metaverse is taking off now – we're craving more **meaningful interaction online**

Asynchronous, text and image-based communication only scratches part of our itch to truly connect across time and distances. Interactions incorporating multiple senses and a sense of space, as those in the Metaverse do, allow us to feel present, together, while generating better interpersonal connection and group cohesion.

By 2026...

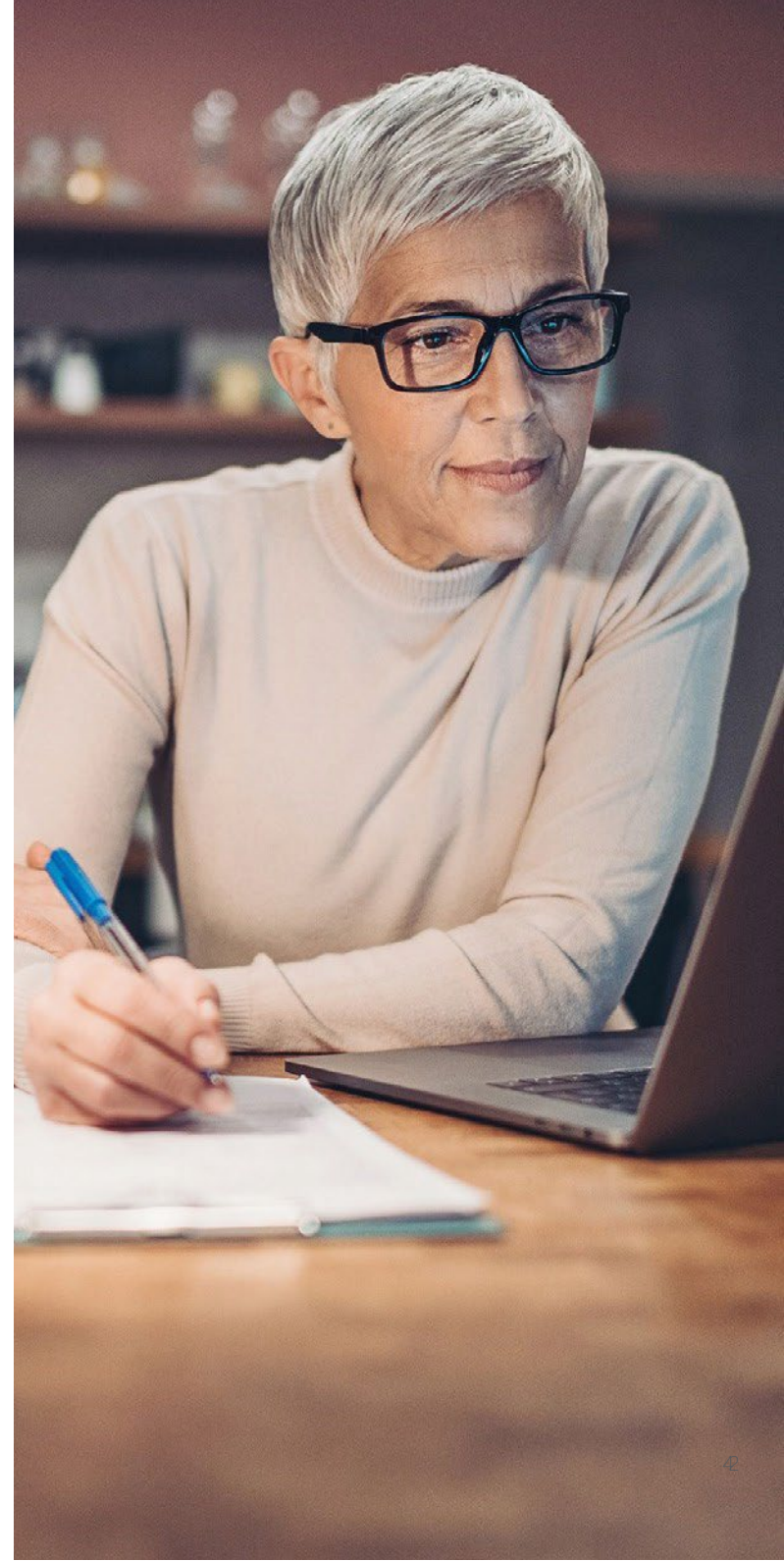
25%

of people will spend at least one hour a day in the Metaverse.

30%

of the world's organizations will have products and services ready for the Metaverse.

Source: Gartner, "[Gartner Predicts 25% of People Will Spend At Least One Hour Per Day in the Metaverse by 2026](#)" February 7, 2022.



Why the metaverse in **healthcare**?

We believe the true opportunity for healthcare falls comfortably into three low risk accelerators, each with high value drivers designed to introduce the metaverse into the care journey.



Accelerate learning

Enhance learning with experiential education and training to enhance the interaction and retention of knowledge and development of valued skills

Simulates real life situations in an immersive environment. Before a surgery, doctors can prep for an operation within a surgical simulator. Medical students can enter a virtual human body, providing a 360° full scale view.

Training is a natural for the metaverse. New nurses can visit a virtual patient room and practice correctly setting up a patient monitor. Healthcare professionals can virtually learn about and interact with different medical devices.

Education and gamification in the metaverse turn learning into a more interesting exercise. Patients can virtually practice how to correctly use a nebulizer for themselves or their child. Another patient can view a multi-dimensional blocked artery, and scores points for knowing the signs and symptoms.

Metrics: Increase medication adherence and patient compliance; improve retention; reduce training costs; increase productivity



Experience together

Create an immersive, collaborative environment for patients and providers that can improve engagement and care experiences

Virtual patient interaction with providers, loved ones as well as other patients is the hallmark of the metaverse. A physical therapist can demonstrate exercises in a relaxed safe setting. Patients with shared experiences can visit one another at a virtual kitchen table without leaving their home.

Remote professional collaboration uses virtual spaces and extended reality to streamline the exchange and sharing of information between shifts in a hospital, among providers consulting on a complex case or across care teams to expedite the discharge process.

Pediatric care is an ideal venue for the metaverse because children and teenagers have grown up with extended reality technologies. Extended reality can be a welcome distraction to a pediatric patient who doesn't like IVs or is receiving another round of chemotherapy treatment.

Metrics: Enhance the care experience, accelerate speed of treatment, decrease stress on staff and improve outcomes



Connect from anywhere

Enjoy the freedom to build a secure network of care professionals from anywhere and provide greater care access to diverse populations

Access to care takes on a whole new meaning in the metaverse. An individual can participate in a hybrid clinical trial, virtual and in person, to receive potentially life-saving treatments. A person in a wheelchair can easily enter their doctor's office to access care.

Remote operations are more viable as the metaverse allows people to connect from anywhere providing opportunities for humans-in-the-loop to work from any location and operate medical devices from a safe distance with precision.

Digital marketing in the metaverse is richer and more responsive. Healthcare organizations can invite patients to virtually try out exercise equipment at a new wellness center or invite a physician to explore how to use genetic testing in their practice.

Metrics: Increase access to care; improve operational performance; reduce costs

The technology behind **the experience**

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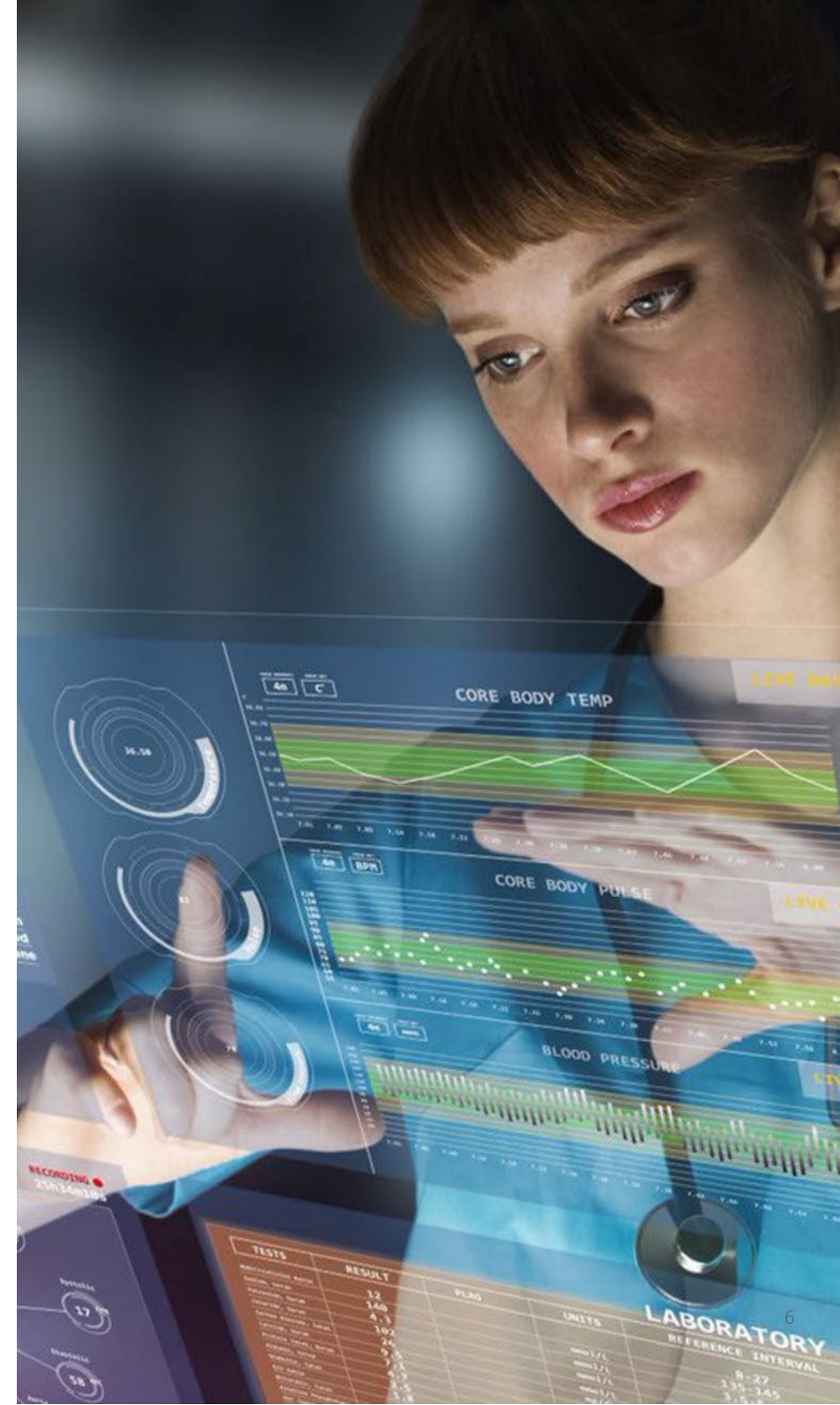
It's a unique **convergence of technologies** that have created a place where healthcare professionals, providers and patients can accelerate learning, experience together and connect from anywhere.

Five of the top 10 most tested and adopted [emerging technologies](#) will power the metaverse:

- Internet of things (IoT) and edge computing
- Blockchain
- Next-generation connectivity
- Digital twins
- Extended reality

81%

of healthcare executives [expect the metaverse](#) to have a positive impact on the healthcare industry.



Ventilator Challenge UK builds a resilient supply chain

Avanade helps Consortium manufacture 20 years' worth of ventilators in 12 weeks using the power of Microsoft.

Business Situation

As tens of thousands of UK residents fell sick at the beginning of the COVID-19 pandemic, many of the most seriously ill required ventilators to help them breathe. With projections that the National Health Service (NHS) could need nearly five times the number of available ventilators, the British government called for a rapid, homegrown solution to make up for the global demand cutting off the supply from overseas.

Thousands of leading organizations from across industries were brought together – branded as the Ventilator Challenge UK Consortium – with a shared goal to manufacture more than 10,000 ventilators in 12 weeks.

Solution

Avanade quickly dispatched a team from across Europe and India to help deliver multiple digital solutions to support the supply chain and ventilator production.

We implemented Industry 4.0 technologies, including business applications, data analytics, artificial intelligence and mixed reality for:

- Rapid supply chain management using Microsoft Dynamics 365
- Ventilator assembly line training with a Microsoft HoloLens 2 mixed/extended reality solution
- Control tower dashboarding using Microsoft Power BI for a single source of truth and production

Results

Over the course of the initiative, 15 million parts from 88 global suppliers flowed through the Dynamics 365 supply chain solution, and the Consortium produced 13,437 ventilators. That's 20 years' worth of typical ventilator production in just 12 weeks. With ventilators available to those who need them, the NHS now has the critical equipment to continue its fight against COVID-19.

Learn more at [Avanade.com](https://www.avanade.com)



But for the Metaverse to engender trust and connection, we must overcome the **challenges of building and maintaining it**



Accessibility & inclusivity

Create a welcoming environment for everyone. Use accessibility features to make experiences more enjoyable for every user.



Privacy

Obtain clarity and consent for what data is collected/aggregated and how it's controlled and used, while instituting safeguards that keep pace with the quantity and granularity of data generated by the Metaverse.



Identity

Look for ways to safely carry identity management and authentication protocols across worlds and platforms to protect against fraud and abuse, taking extra precautions if using biometrics for identification.



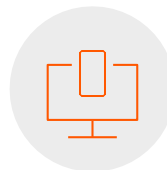
Security

Maintain a secure environment by assessing the risk of attacks, breaches and outages for your unique Metaverse use cases and positioning security as a core component of user trust.



Safety

Identify and address any physical threats to personal health and safety that might exist in the Metaverse. Maintain that same level of care for emotional safety so participants feel protected from abuse, harassment and other potential harms.



Digital assets

Maintain customers' trust in the authenticity and security of transactions and investments they make in the Metaverse by exploring digital assets like cryptocurrency and NFTs.



Human psychology

Understand short- and long-term psychological implications before widescale technology adoption. Consider how individuals might use new tools for self-expression, personal growth, satisfaction and engagement, while anticipating shifting norms.



Oversight & accountability

Institute an ethical framework to safeguard experiences and outcomes. Create experiences that reflect your core values to build trust with customers and employees, while maintaining dialog with stakeholders.

The right approach to the metaverse is a **pragmatic one**

At Avanade, we're helping our clients become metaverse ready. We're guiding them on a journey that takes advantage of the most significant investments and strategic trends in the metaverse. **We also make sure to identify and address the challenges.**

Using our expertise in data and experiences and our strong alliance with Microsoft, we're helping clients build proofs of concept and pilots that realize the opportunity of the metaverse — for healthcare organizations to be and do more, and to find value in all the new ways that we'll relate to places, data and each other.

We encourage small, concrete steps now to start building a foundation that minimizes risks and takes advantage of the metaverse opportunities in healthcare.

The expertise to become **metaverse-ready**

We can provide access to Microsoft capability, including [Mixed Reality Capture Studios](#) and [AltSpaceVR](#), a unifying holographic virtual collaboration across virtual and augmented reality, laptops and smartphones.

Accenture, our parent company, recently set up the [Metaverse Continuum](#), offering creativity, technology and deep industry experience to design, build and operate metaverse capabilities.

Where to begin?

1 hour

Let's chat over lunch or set up a meeting in the Metaverse.

1 day

Let's get together with a few of your colleagues and explore the potential of the Metaverse for your organizational needs.

1 week

Let's build a Metaverse roadmap and strategic plan together.



Meet us in the metaverse

Avanade is reimagining metaverse in healthcare – whether it’s accelerating learnings, creating immersive collaborative environments or designing connected healthcare communities where virtual, augmented and physical blend together, let’s get started.

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About Avanade

Avanade is the leading provider of innovative digital, cloud and advisory services, industry solutions and design-led experiences across the Microsoft ecosystem. Every day, our 56,000 professionals in 26 countries make a genuine human impact for our clients, their employees and their customers. Avanade was founded in 2000 by Accenture LLP and Microsoft Corporation. Learn more at www.avanade.com.

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