Technology Vision 2022

Meet Me in the Metaverse

The continuum of technology and experience, reshaping business

Voices of **Change**

From insights to action, the path to extraordinary value starts here.

accenture

The Metaverse Continuum is a spectrum of digitally enhanced worlds, realities, and business models poised to revolutionize life and enterprise in the next decade.

From metaverse and Web3, to digital twins and conversational AI, efforts to reimagine the future of technology are giving rise to new worlds and realities businesses will soon need to operate across – stretching from digital to physical and encompassing consumer experiences and enterprise business models alike.

The Metaverse Continuum's impact will be felt across every dimension of the enterprise.

Thinking about "just" the metaverse misses the bigger picture. It's not about one virtual environment or another, but the deep-rooted impact they will have on our reality. Over the next decade, nearly every environment that businesses currently operate across will transform as the Metaverse Continuum matures. Leaders will need to reimagine every dimension of their enterprise, from operating models to their core value proposition – and some are already starting today.

98%

of global executives believe continuous advances in technology are becoming more reliable than economic, political, or social trends in informing their organization's long-term strategy.

Ambitious businesses are starting to shape the rules and expectations for our new worlds.

A Chinese news agency, **Xinhua**, has unveiled a virtual newsroom with an AI news anchor who can deliver breaking news to audiences 24 hours a day.

Amazon Sidewalk was activated, instantly creating smart neighborhoods, and extending the reach of existing smart devices far beyond their original range.

Vail Ski Resort built a digital twin with details like real-time snowfall, past weather data, and critical mountain infrastructure. It's also automating the physical mountain with remote monitoring and automatic snow guns that activate based on weather.

98%

of global executives agree that emerging technologies are enabling their organization to have a broader and more ambitious vision.

Executives need to change how they think about their business and adopt a future-forward mindset.

As the new worlds and business environments of the Metaverse Continuum are built, early entrants are starting to bring ideas and precedents to them. This is a rich opportunity to shape how people live and how business is conducted long into the future. But it also comes with a measure of new responsibility: Trust will be critical to adoption and enterprises must consider how they are building a "Responsible Metaverse" and setting the standards for all that follow.

Our four technology trends for 2022

WebMe

**Putting
the Me in
Metaverse**

Programmable World

**Our Planet,
Personalized**

The Unreal

**Making
Synthetic,
Authentic**

Computing the Impossible

**New Machines,
New Possibilities**

Trend 01

WebMe

Putting the Me
in Metaverse

The next generation of the internet is starting to take shape.

There is growing certainty that our digital world is in the early stages of significant change. Today's efforts to reinvent the internet are driving the creation of immersive digital-only worlds, decentralized governance, and a deeper blurring between the boundaries of the digital and physical.

Metaverse and Web3 technologies are being used to propose exciting new ways to experience, communicate in, and transact in the next generation of the internet. These will become critical components of how enterprises orchestrate successful digital strategies in the future.

71%
of global executives state that the metaverse will have a positive impact on their organizations, with

42%
believing it will be breakthrough or transformational.

8

Digital experiences and data are two fronts of the new internet driven by emerging technology.

Metaverse initiatives are re-platforming the internet, reshaping how people experience it. Instead of the internet as a disparate collection of sites and apps, metaverse efforts let users move beyond browsing to inhabiting digital content.

Web3 is reinventing how data moves through our internet systems. Web3 aims to create a layer of transaction and trust across the web by making different parties the arbiters of their own data, bringing an undercurrent of provenance, veracity, and value to the web.

While current efforts are largely separate, these fronts are powerful complements and the maximal value of both will depend on their convergence. Web3 initiatives will need a simple and intuitive experience to gain widespread adoption, and metaverse efforts to make the web experience more "real" will need an underlying data foundation that guarantees trust, safety, and optionality for all involved.
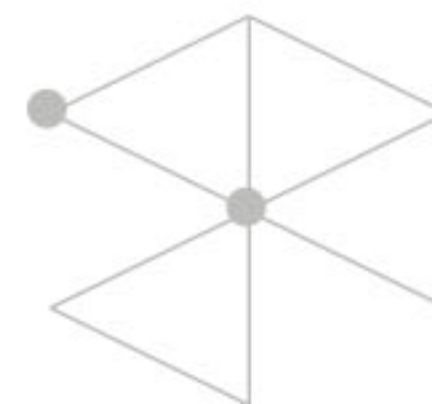
Pioneers in this space will gain advantages like those the first digital natives saw.

Enterprises still have a chance to get ahead of the market and lead the next wave of digital business, but they need to start building new strategies today.

For most, their current digital strategies were designed for the exact constraints the next version of the internet seeks to eliminate. This means they need to fundamentally rethink their role in the digital world – from what they sell, to how they engage with customers or clients,

how employees do work, and everything in between. They also need to start putting their technical foundation in place in order to support the new products and services their future business will be built on.

The first who are prepared and willing to experiment with the next internet will define digital business for decades to come.

Trend 02

Programmable World

Our Planet, Personalized

The physical world is becoming programmable.

People and enterprises are gaining unprecedented command over the physical world as it becomes innately programmable.

The rise of new technologies including 5G, ambient computing, AR, and smart materials is embedding digital capabilities into the fabric of our environments. As these technologies continue to advance, they are transforming people's relationship with the world, letting them interact with their surroundings in a seamless, screenless way, and turning the physical world into an environment that is as smart, customizable, and programmable as the digital one.
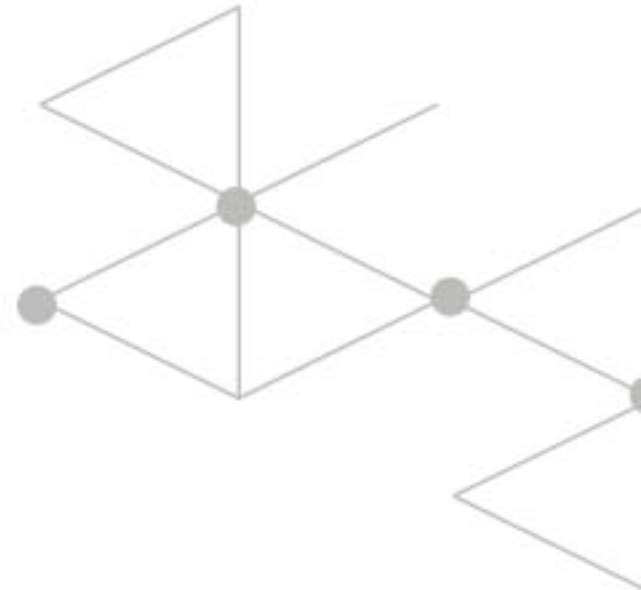
79%

of global executives believe programming the physical environment will emerge as a competitive differentiation in their industry.

The programmable world will be brought to life across three layers: Connected, Experiential, and Material.

## Creating a connected foundation.

Up to now, smart devices have been limited in compute power and operated separately through discrete apps, but emerging technologies like ambient computing and 5G are bringing their true promise to life. As they mature, they will enable the creation of hyper-connected environments.

Transforming experiences.

With AR glasses and digital twins, any environment can be augmented with a digital experience. This new dimension of seamlessly embedded information will give people unprecedented insight into their surroundings and the novel ability to control how they perceive the world.

A new generation of manufacturing and materials.

Advances in digital manufacturing are making on-demand and hyper-customized products a reality, and the invention of new smart materials and programmable matter is driving a new generation of smart things that can embed digital capabilities and customizability into physical reality.
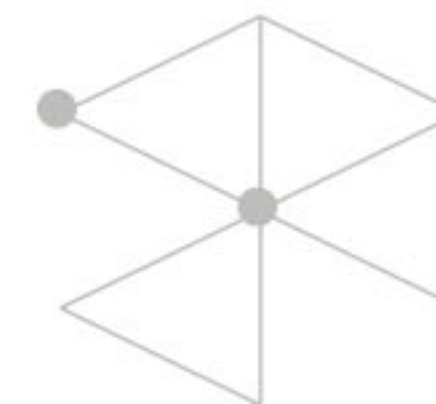
Private and secure interoperability will be critical.

Most businesses aren't going to develop all of these real-world technologies in-house, so interoperability between different companies' products will be key to scaling digital capabilities and presence in the physical world in a way that drives customer satisfaction.

However, as more connected, intelligent devices are introduced to the world – and more devices from more companies are connected together – risks to privacy and security are growing. Businesses' ability to safely connect programmable world technologies will impact the environments they can design, the partners they can have, and how quickly they can introduce new offerings.

Trend 03

The Unreal

Making Synthetic, Authentic

We are entering a world with synthetic realness.

AI-generated content is getting more sophisticated, to the point that it can convincingly reflect reality. In this world of synthetic data, images, and chatbots, as well as augmented and virtual realities, we are forced to face the questions of what's real, what's not, and perhaps more importantly, when do we care?

96%

of executives report that their organizations are committed to authenticating the origin of their data and genuine use of AI.

With synthetic realness increasing in our world, trust in technology and enterprise is at stake.

Deployed authentically, synthetic realness can push AI to new heights – for instance, by solving for issues of data bias and data privacy, synthetic data can bring next-level improvements to AI models in terms of both fairness and innovation. However, bad actors are using these same techniques to create deepfakes and disinformation, undermining people's trust in the technologies.

Sometimes we want synthetic, sometimes we want real, sometimes we just want to know which is which – and enterprises are the ones that need to navigate this controversial terrain.
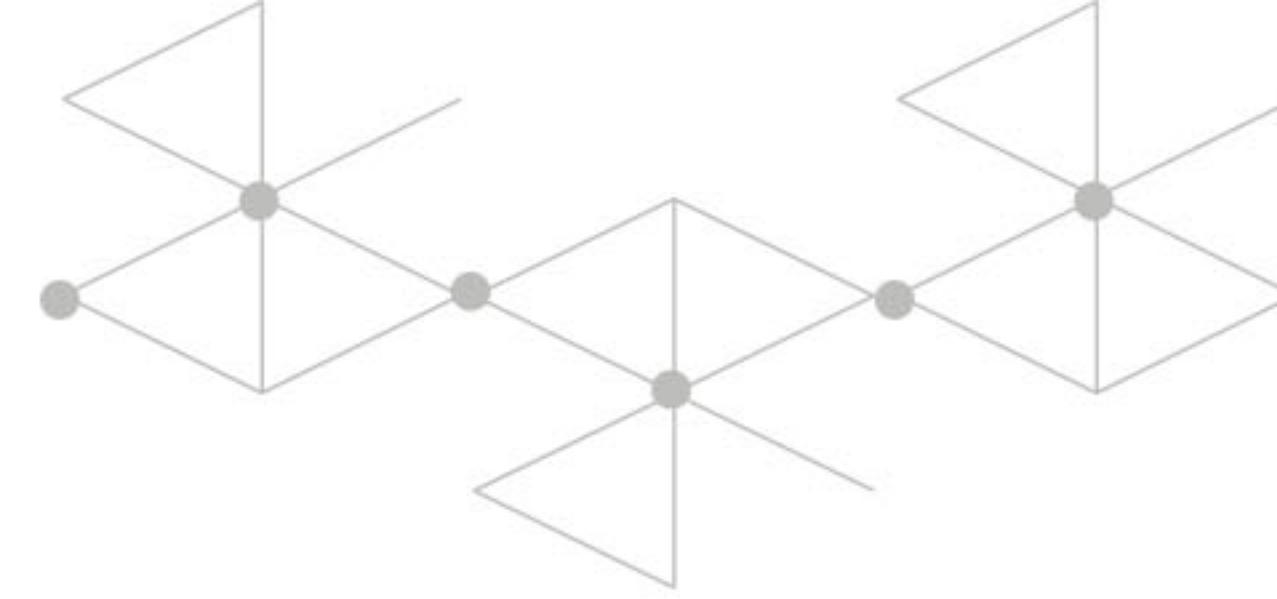
Authenticity is the new compass.

Authenticity means being true to oneself and genuine in a way that others can attest to –
and concerning the use of synthetic realness, means taking heed of four primary tenets:

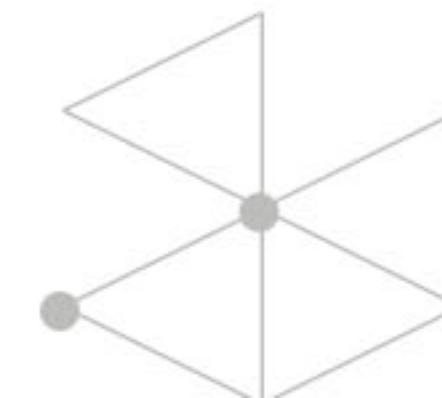| Provenance	People	Policy	Purpose
what is its history?	who is responsible?	what are its restrictions?	what is it trying to do?

Ultimately, a focus on authenticity will help unlock new attitudes towards AI,
unleashing the full benefits of the unreal world.

Trend 04

Computing the Impossible

New Machines, New Possibilities

Next-generation computers will reshape industries.

We are on the precipice of an industry-altering change, brought on by advances in next-generation computing.

The outer limit of what is computationally possible has shaped and defined today's industries – but as next-generation computers advance, that outer limit is shifting. For enterprises, this can either be an industry-ending event or the biggest opportunity in generations.

The ones who start rearchitecting their industry today, anticipating a future with these machines, will have the best shot at the latter.

The types of compute power making the impossible possible.

The next generation in computing has started to emerge, making industry-altering capability increasingly feasible. Several computing areas are leading the way:

High Performance Computers (HPC)

are massive parallel processing supercomputers that can help businesses take advantage of the huge swaths of data inherent to the digital world in ways that would be too expensive or inefficient using traditional computing.

Quantum computers

use properties of quantum physics to enable massively parallel and probabilistic problem solving – meaning they could solve a class of problems that are considered impossible for classical computers.

Biology-inspired computers

either mimic (bio-mimicry) or harness (bio-compute) the power of biological processes to store data, solve problems, or model complex systems in fundamentally different ways, with the potential to improve power efficiency, speed, accuracy or other computing constraints.

To start forging tomorrow's industries, consortiums and partnerships are paramount.

Many of the problems that next-generation computers will let enterprises solve are large, systemic challenges that require collaboration. This means that the computing alliances forming today are where the lines of industry are starting to be redrawn.

Additionally, enterprises face a significant talent shortage that is getting more severe, so partnerships may be critical to access needed hardware and expertise.

75%

of executives are considering investing or partnering with others to address previously unsolvable problems using next-generation computing (e.g., High Performance Computing, Quantum Computing, Bio-inspired Computing).

Conclusion

Competing in this next decade will require more than just increasing technology and innovation skills. It will require a truly competitive vision – both for what these future worlds will look like and also what your enterprise will need to become to succeed in them. Technology points us in the right direction, but the rest is up to you.

Thank you

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