

The illiterate of the 21st century will not be those who cannot read or write, but those who cannot learn, unlearn, and relearn.

Alvin Toffler

# Fun Fact

Peach Fuzz has been crowned Pantone's Color of the Year for 2024



# Transforming The Next Tech Disruption

### By. Sharad Agarwal

Throughout history, there have been these cycles of innovation, and inventions that have changed the course of the world. First, it was the wheel. Followed by the clock. Then came the compass, printing press, steam engine, light bulb, computers, and finally the internet. The next big thing quite obviously - is Generative AI.

# Power of LLMs

Generative AI is an advanced technology that is capable of generating content in the form of text, voice, visuals, or even synthetic data. It leverages large learning models to set on the task of creating novel content. Some of the very commonly known LLMs are authored by: OpenAI - GPT 3, 3.5, and 4 Google - LaMDA and PaLM Hugging Face - BLOOM Meta - LLaMA NVIDIA - NeMO LLM "Its (Generative AI's) performance will compete with the top 25 percent of people, completing any tasks before 2040."

# Envisioning the Future

Stay ahead of the curve. Here is a possible scenario: We will see AI systems capable of weaving complex narratives, choreographing musical symphonies, and potentially partnering in the creation of bestselling novels. A pivotal innovation in this space is multi-modal generative AI systems adept at harmonizing various inputs like text, voice, melodies and visual cues. Picture an AI that, upon hearing a descriptive narration, can promptly draft a comprehensive article, render an illustrative image, set it to an apt musical backdrop and narrate it in multiple accents or languages.

# Wearable Personalised AI Devices

Devices like the 'Al Pin' from Humane will become commonplace in time. Today it is already possible to summarize your email inbox, holding up food to the camera to get nutritional information and get real-time translation. We will soon be able to talk to similar devices and they will implement the instructions through voice commands and gestures. Coding will become a thing of the past.

# The Metaverse Mass Adoption

Mass adoption is likely to happen when certain life-changing applications like 'Metaverse of Senses' becomes a reality. Very soon people will be able to 'smell coffee' in the Metaverse. The application of this technology in healthcare will enable doctors to remotely diagnose the state of our organs with over 90% accuracy. Stay tuned!



## About the author

Sharad Agarwal is the Chief Metaverse Officer at Cyber Gear, specializing in translating business cases into Web3 solutions. With expertise in crafting brand strategies that converge physical and digital experiences, he helps businesses navigate and future-proof their presence in the metaverse. In addition to consulting, he provides valuable advice to e-commerce and meta startups, guiding them in fundraising efforts and forming strategic global partnerships.

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# Shape of Things To Come

### **Alison Alexander**

Since 2021, we've been witnessing a whirlwind of technological advancements, propelling us into the thick of the 4th digital revolution. For some, this era represents a gateway to untold possibilities, a glimpse into a future brimming with innovation and progress. Yet, for many, this rapid transformation is like watching a high-speed train in motion, wondering how to hop on without being left behind.

# Top 10 Predictions:

- Intensified AI Competition: The increasing competition in AI technologies will not only offer diverse, advanced options for consumers but also drive equitable access to cutting-edge technology, reducing digital disparities.
- 2. Increased Crypto Regulation: Enhanced regulations in the cryptocurrency sector will not only stabilize and legitimize these digital currencies but also foster their adoption in economically unstable regions, promoting financial inclusivity.
- Retail's Digital Asset Investment: The retail sector's growing investment in digital assets, evolving beyond current NFTs, will democratize customer experiences, offering equitable digital engagement opportunities.

- **4. Blockchain in Everyday Life:** The expansion of blockchain beyond cryptocurrencies will increase transparency and security across various sectors, contributing to fairer and more trustworthy systems.
- 5. Normalization of Al-Generated Imagery: As Al-generated images and artwork become mainstream, this technology will open creative avenues to underrepresented groups, supporting inclusivity in artistic expression.
- 6. Metaverse Corporate Expansion: The growing corporate presence in the metaverse will explore new domains for business and community building, offering immersive experiences that are more accessible and inclusive
- 7. Enhanced AI in Education: The integration of AI in education will personalize learning experiences, addressing the limitations of traditional systems and bridging educational gaps, particularly for marginalized communities.
- 8. Growth in Decentralized Finance (DeFi): The rise of DeFi will empower individuals, especially those without traditional banking access, democratizing financial services and contributing to economic equity.
- 9. Advancements in AI Ethics and Governance: Increased focus on ethical AI usage and robust governance frameworks will ensure its responsible application, fostering fair and unbiased technology deployment.
- 10. Increased Emphasis on Digital Inclusivity: Accelerated efforts to bridge the digital divide will emphasize making technology accessible to all, underlining the importance of digital equality.



### About the author

Alison Alexander, acclaimed as one of the Top 50 Business & Marketing Visionaries and a prominent figure in Strong Women in IT, adeptly merges her deep knowledge in Web3 technology with a fervent dedication to public service. Boasting over three decades of local government innovation experience, she provides a distinctive perspective on leveraging technology to improve community life. Her tenure as a CEO within the UK's local government has equipped her with valuable insights into the public sector, enabling her to effectively utilize Web3 tools to enhance citizen lives.

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# What will shape 2024?

# Susan Furness

# The Voice of the People

I sense an orchestra of multivoices, straight from the heart of the Individual singing loudly on behalf of the Collective. The intention will be 'together as one' but the lyrics will likely be at crosswires, across nations, across divides, before they land in harmony.

# A Struggle to Be In Conscious Community

I sense at the heart of individual desire is happiness, good health, a sense of security, and belonging ... in community, for common purpose, for common good. However, in 2024, it's more likely the inner intention of togetherness of community will be marred for some time, brushed by the dark side of power; when fearfulness goes into battle with fearlessness and the useful economics of Community Capital struggles to provide a positive Return on Engagement (ROE). When Behavioural Economics is an oxymoron, taking us deeper into debt – with, of and against each other – before we reach the 'New World of Balance'.

# The Continuous Emergence of Tech

I sense emerging technology is now a constant as much as the constant of change it provokes and evokes.

On the bridge from Web2 to Web3, this gives license to the individual to share voice – both actual and Al-enabled - in the centre of the communities that will continue to seed, grow, and flourish as the immersive economy morphs, flexes, and shapes. Therefore, I sense yet another set of constants will become a reality in 2024 – a) the constant need for leaders to shift the playing field, b) the constant need to for leaders to empower the 'tomorrow team' – those focussed on the new way of playing to succeed, c) the constant need to manage cash inflow, cash management, cash retention, and cash usefulness, d) the constant need to integrate the embrace of life-long learning nourished by open conversation in the workplace, and at home.

# What will be different from 2023?

My sense is 2023 will be very different from 2024, but not so much different from 2020 and 2021, the years I call DC – During Corona.

This is because we may well have 'listened' to the words not spoken during the curious Corona time but reality today, in 2023, tends to suggest we did not act to act differently than BC (Before Corona).

I sense Humanity will be given another chance at another chance of being different AC (After Corona), in 2024.

I will walk into 2024 carrying the words of poet and author, Professor Gary Boelhower; "take the hand that knows your hand by heart".



# About the author

Susan Furness is an unconventional strategist, facilitator, and mentor who walks on the leading edge of change. Among various complementary advisory roles, she is a senior associate at Edgewalkers International; the first skill of an Edgewalker is 'sensing the future'.



# A Bright Future

# Dr. Martha Boechenfeld

The year 2024 is right around the corner, and it promises to bring exciting innovations that will shape the future of technology and society. As we enter a new era driven by advancements in artificial intelligence, quantum computing, space exploration, and more, there are plenty of reasons to be optimistic about the coming years.

# Al Continues its Rapid Advancement

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# Quantum Computing Reaches an Inflection Point

The 2020s are predicted to be the decade when quantum computing transitions from pure research into early commercial viability.

2024 in particular may prove to be a pivotal year as quantum systems advance from prototype physical qubits to the first fully error-corrected, logical qubit. With quantum computing platforms becoming increasingly stable and scalable, pioneering companies across sectors like finance, pharmaceuticals, chemicals, and utilities can begin exploring potential use cases.

# Satellite Mega-Constellations Expand Global Connectivity

The space industry continues its rapid growth, with private companies launching new satellite broadband "megaconstellations" containing hundreds or thousands of satellites. SpaceX's Starlink and Amazon's Project Kuiper aim to provide global high-speed satellite internet access by 2024. Expanded satellite infrastructure will dramatically increase global connectivity, providing broadband access to underserved rural areas along with enabling cutting-edge applications across sectors like agriculture, transportation, emergency response, and environmental monitoring.

# Environmentally Sustainable Tech

With climate change threats growing more urgent, we will see an increased focus on technologies that reduce environmental impact across areas like renewable energy, electric vehicles, smart power grids, and more sustainable computing infrastructure. Major tech companies aim to utilize AI, advanced sensors, drone imagery, and other innovations to provide sophisticated monitoring and management of emissions, resource usage, supply chains, and ecological impacts. Greener technologies will play a key role in building a more sustainable future.



# About the author

Dr. Martha Boechenfeld is a visionary at the forefront of the Metaverse and Web3 revolution, Web3 Advisor, and Investor. Recognized as a "Top 100 Women of the Future" and a "Top 50 Business & Marketing Visionary," Dr. Boeckenfeld is not just a thought leader; she's a trailblazer defining the digital era. At the helm of 'Marthaverse,' Dr. Boeckenfeld seamlessly blends the digital and physical realms, creating unparalleled experiences. Her latest venture, femitopia.com is a testament to her commitment to leveraging AI for the betterment of humanity.

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# 2024 Predictions

# **Amna Usman Chaudhry**

2024 is set be an exciting year when it comes to the emerging technologies space. There will be lots happening, especially at the AI and Generative AI front. We can expect the evolution of AI agents to perform more complex tasks and handle multimedia, the growing role of cloud services in assisting enterprises with large language models, the introduction of generative AI-powered shopping advisors in retail, the fusion of industrial digitalization with generative AI for enhanced efficiency and the list can go on. There will also be proliferation of deepfakes with advancements in multimodal models, concerns over GPU shortages due to increased AI demand, and focus on AI ethics and AI regulations.

# Spatial Computing

Spatial computing will be taking center stage, especially with the upcoming much-awaited launch of Apple Vision Pro and VisionOS, the first spatial operating system in the XR market. Spatial computing will be poised for significant advancements, and we can expect improved hardware and wearables, dedicated software, evolving interaction options, Al integration, and applications in various fields like healthcare, remote work, and education.

# **Edge Computing**

Edge computing will also come into play, and along with 5g, enable more seamless and scalable spatial computing applications. These technologies provide high-speed, low-latency connectivity and move data processing closer to the source, improving the performance of VR/AR streaming, cloud gaming, and remote collaboration.

### Blockchain

Blockchain's global market potential is forecasted by Gartner to reach US\$96 billion by 2024. Its adoption in DeFi, CBDCs, cryptocurrencies, and stablecoins is set to become more mainstream. The Middle East, identified by Chainanalysis as one of the fastest-growing cryptocurrency markets, is likely to see increased usage of greener blockchains, aligning with the COP28 commitments. Additionally, as quantum computing advances, research into quantum-resistant secure c ryptography and blockchains will be crucial.

# Industry 4.0

As we embrace Industry 4.0 in a rapidly evolving world, the importance of education and upskilling cannot be understated. According to World Economic Forum's Future of Jobs Report 2023, 44% of workers' skills will be disrupted within the next five years alone. Similarly, 75% of companies surveyed were planning to adopt emerging technologies such as blockchain, Al, big data, and cloud computing within the next five years. As multiple industry landscapes are transformed with these technological, economic and environmental trends, the concept of lifelong learning will be recognized and embraced on various levels.



# About the author

Amna Usman Chaudhry is a financial economist and strategist for frontier technologies such as blockchain, metaverse, and Web 3.0. She is a graduate-level lecturer with teaching experience in London and Dubai. Amna is an advocate for diversity, equity and inclusion, as well as Founder and Board Member, working with many influential global organizations, including the United Nations. Amna is the Global Winner of the Woman in Web 3.0 Award, has been listed on the Women in Fintech Powerlist as the Standout 45 and was recognized as one of the Top 100 Women of the Future.



# Dr. Annelize Booysen

As we approach 2024, the convergence of maturing foundational technologies is bound to transform our world in three likely ways: augmentation, blending of real and virtual, and a nuanced focus on environmental, social, and governance (ESG) issues.

# An Augmented World

Augmented, Connected Workforce: The rise of generative AI is reshaping the workforce. By 2026, 80% of companies are expected to have generative AI applications, compared to just 5% today. This shift will lead to new roles like Chief AI Officers and a trend of employees using their own set of curated AI tools. Intelligent apps will also enhance workforce productivity and well-being, with teams comprising both humans and machines, including 'Custobots' capable of negotiations and transactions.

**Super Creators:** Al's assistance in routine tasks saves time which allows for more strategic thinking and creative problem-solving. This synergy, along with quantum computing advancements, will amplify creative solutions across various fields. However, the shortage of semiconductors and microchips may limit Al growth in the short term.

# A Blended World

**Extended Reality:** The concept of multiverse identities and virtual immersive spaces is becoming more commonplace. Studies like Stanford's Proteus Effect suggest that virtual experiences can positively influence real-life behavior. Technologies like Apple Vision Pro will start blurring the lines between real and virtual interactions.

**Digital Assets:** Digital Twins and Triplets are gaining traction, offering real-time and historical data representations of physical objects. 'Phygitals' integrate digital and physical aspects of buying, launching the concept of immersive commerce. Real World Assets, powered by blockchain, allow fractional ownership in diverse assets.

# Refined ESG Focus

**Environmental Cost and Sustainability:** Consciousness about carbon footprint is gaining a meaning. Initiatives like Oda's climate receipt and Tokyo's avant-garde pop-up bar next to a garbage dump are raising awareness. The trend towards synthetic products like lab-grown cotton and lab-mined diamonds reflects a shift in green living, focusing on alternative methods rather than just reduced consumption.

**Ethics and Equity:** The growth of AI necessitates ethical guardrails. The rise of Ethics Consultants, equitable economic models, and trust restoration initiatives using technology are key trends.



# About the author

Dr. Annelize Booysen is the founder-architect of Your Global Village, an immersive virtual village for global-minded business owners who want to keep up with the tech changes to ensure they remain relevant over the next decade. A global citizen, she has woven her international experiences and perspective into the creation of a unique transitional immersive virtual village that provides a gentle on-ramp for business owners into the Immersive Web and Web3. Inspired by a medieval walled city, Your Global Village is a bridge to the Future of Business, building close-knit communities that create commercial value for its residents, establish legacy through collective global impact and embed Web3 business strategies into existing business models.



# Lifting Leadership Capabilities for Navigating the Whirlwind

### **Rohit Talwar**

In 2023, ChatGPT opened the world's eyes to the potential of artificial intelligence (AI) – leading to 24 billion+ visits to mainly new AI tools. This is just the tip of the spear, and 2024 will undoubtedly see accelerating development and interest.

Organisations will be under pressure to engage with concepts such as generative AI, large language models, small language models, general world models, artificial general intelligence (AGI), and more advanced tools such as ChatGPT 5.0, Qstar, and Google Gemini. In response, for organisational leaders, four critical **'LIFT'** capabilities are emerging:

**Leaning at Speed:** We cannot stay abreast of every new concept or application area; however, we can raise our broader understanding of how AI is evolving. This means a massive focus on raising organisation-wide digital literacy so we are not blindsided, left clueless, or completely paralysed by each new wave of concepts and tools. There is little choice - we can either be digital assets or digital liabilities – there is no middle ground. This means helping everyone take responsibility for their learning and destiny.

It also means embedding micro-learning as a core part of our day – taking at least a few minutes to learn about a new concept, tool, or application.

Innovation as DNA: The technology is undoubtedly exciting, and it is easy to rush to embed it. However, unless we adapt our mindset and processes, the results can be disappointing. The key is making sure we have a toolkit of innovation approaches that create a common language for tackling challenges and opportunities. This is essential to ensuring applications are always centered around the customer or user needs and experience. Having commonly understood innovation approaches helps all involved stay focused and aligned on the goals, process, and delivery of the project.

Foresight for All: The challenge here is making sure everyone is thinking about the future – whatever type of change they are delivering. This starts with surfacing and testing assumptions about the future in all our business and project plans. On a broader scale, the recognition is growing of how powerful it can be to use tools such as horizon scanning and scenario planning in helping to build anticipatory capabilities, respond proactively to potential shocks and opportunities, drive strategy, focus innovation, and guide development of new offerings.

**Transformational Thinking:** The recognition is dawning that Al is enabling us to both do what we do in fundamentally different ways and to do fundamentally different things. This means stepping back and asking, "How would we do this if we were starting again?" Artificial intelligence is not just changing how we play the game or refine the rules – it is bringing about a level of thinking that will redefine the game itself. The biggest challenge here is making sure leaders are equipped with the capabilities required to help them navigate their organisations into and through a rapidly changing reality.



# About the author

Rohit Talwar is a global futurist and leading authority on how businesses, new ventures, individuals, and countries can navigate a fast-changing world and respond to the opportunities and challenges posed by new business thinking, accelerating innovation, and game-changing technologies such as Al. He is the editor and co-author of nine books on the emerging future. Rohit has worked with leaders in global business, government, new ventures, and global agencies in over 70 countries on six continents.



# Outlook 2024

# **Enrico Nonino**

The evolution of monetisation models in the transition from Web 2.0 to the AI era of 2024 reflects some important shifts which will mark the rise of new revenue opportunities.

Shift to Hyper-Personalised Revenue Streams: If Web 2.0 relied heavily on mass monetisation strategies, targeting broad user bases for ad revenue and subscription models, the new Web will see the rise to diversified revenue streams generated from hyper-personalised services. Companies will leverage on advanced analytics and machine learning algorithms to understand individual customer preferences and deliver tailored experiences. (Spotify's Wrapped)

**Ethical Branding as a Revenue Driver:** With AI taking such a massive role in how the future-proof companies need to operate, the ethical implications of its AI will take even more focus in 2024. So will be their branding. Companies positioning themselves as ethical AI practitioners see an increase in consumer consideration, customer trust, brand equity, and, consequently, revenues.

**Collaborative Ecosystems for Monetisation:** Coming from an era often thrived on closed platforms and proprietary models for rev gen, going forward we will probably see more emphasis given to collaborative ecosystems and open protocols with the smarter players generating collaborative

 $\label{lem:condition} \mbox{revenue-sharing models, as seen in Al platforms that integrate seamlessly with diverse industries.}$ 

# Agile Monetisation through Continuous Value Delivery:

Companies may potentially abandon monetisation models driven by monolithic releases with substantial feature sets for more agile, iterative processes, incorporating user feedback promptly, and staying ahead of the innovation curve. This will make the rev-gen tied up to a more dynamic value chain driven by continuous updates, reflecting a move from one-time product sales to recurring revenue models.

### **Storytelling for Brand Value and Premium Pricing:**

With markets rapidly evolving to a stage of maturity, differentiation through effective storytelling and humanising AI may well become revenue drivers. To make their services swing in blue oceans companies must - now even more than before - master narrative-driven marketing to command premium pricing and attract their loyal customer base.

### XR Integration for Immersive Monetisation Experiences:

In 2024, the integration of Extended Reality (XR) technologies is not just about user experience but also about generating a diversified revenue stream out of them. Hence, monetising immersive experiences, moving beyond traditional interfaces to XR-driven revenue models. Yes, Apple Vision Pro may sound expensive for some (now), but Microsoft's HoloLens is already marking a departure from the web-centric user experiences of the past.



# About the author

Enrico Nonino is a senior marketing executive with 15+ years of experience in integrated marketing, brand strategy, and partnerships across travel, media, music, entertainment and emerging tech. He developed and led multi-million D2C and B2B marketing programmes in organisations of all sizes - from unicorn companies to global brands like Spotify, The X Factor, Lastminute. He holds advisory roles for different business ventures, with a focus on #AI, #musictech, and #web3.

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