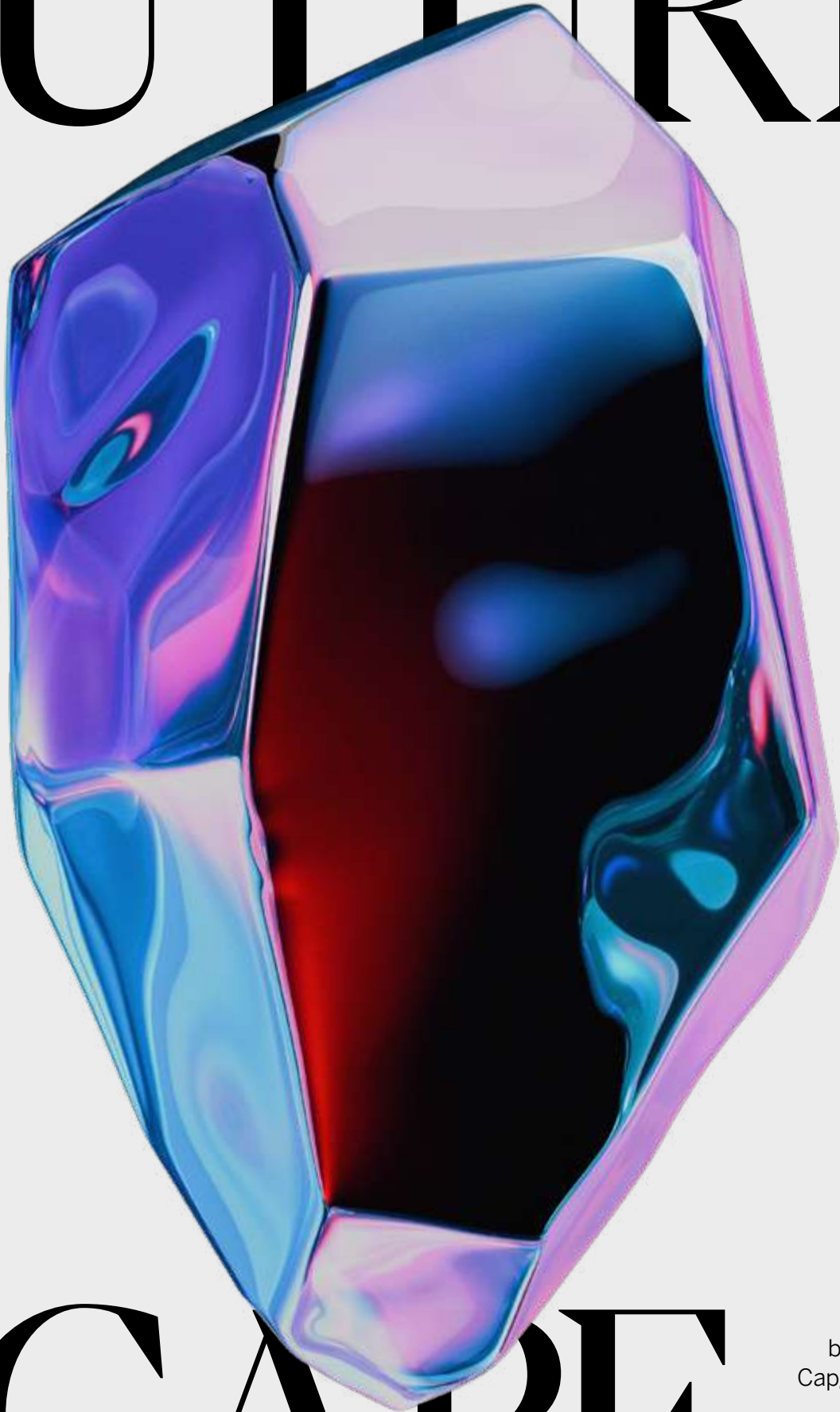


FUTURE

25 trends
transforming
the next
quarter-century



SCAPE

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Dear Reader,

**Here we are:
a quarter of the way into the 21st century.**

Much has changed since the millennium began. Yet little has happened overnight, despite how suddenly new things may seem to appear. For instance, we know today's cutting-edge Gen AI tools are actually the result of decades of speculation, testing, launching and refining. Even now, we're still just at the beginning. AI's full potential will remain beyond our grasp until we can break free from siloed apps and unite on a suitable form factor (or, more likely, *factors*) designed to truly embody AI-enabled experiences.

During frog's decades of innovation, we've learned firsthand that game-changing ideas don't come from new technology. It takes countless iterations, multiple prototypes and often several years to arrive at totally differentiated experiences. We've launched products, services and entire businesses inspired by conversations between frog teams and our clients, between our creatives and business strategists, our industry experts and broader society. It's because of these conversations—sometimes divisive, always passionate—that we know progress can only come from being brave enough to ask the big questions.

That's why, for this year's *Futurescape* report, we posed five pressing questions:

Ebb & Flow: What consumer behaviors and business practices will be replaced next?

Forces of Nature: How will tech, culture and business impact people and planet next?

Machine Visions: In what ways will AI affect our lives that we're not prepared for?

Merging Dimensions: Which traditionally disparate worlds will intersect next?

New Horizons: What challenges will we need to overcome to stay ahead?

We extend our thanks to our visionary partners for your depth and perspective; to all of our frogs for sharing their curiosity and insight in these pages and thanks to you, dear reader, for joining us in shaping the next quarter-century and beyond. We hope the 25 provocations introduced here become starting points for fascinating discussion.

Now, sit back, relax, read, muse, enjoy and reflect. And when you're ready to talk, we're ready to hear from you. Don't hesitate to reach out to us on social media, on frog.co/contact or anywhere else you might find frogs out in the world.



Jess Leitch

Head of frog North America



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EBB & FLOW

What consumer behaviors and business practices will be replaced next?

When we ebb and flow, we experience the natural sequence of decline and growth. To 'ebb' is to recede or diminish and to 'flow' is to rise or increase; one feeding into the other in a continually shifting pattern of change. We see this in nature, in the movement of tides, the changing of the seasons and in weather phenomena.

In the ebb and flow of human habits, renewed preferences and lifestyles emerge. What is currently receding? What might take its place? Whether in our relationships with people, planet or technology, there is a constant tension in responding to these dynamic shifts in human behavior.

Welcome to Club Clarity

Is it time for the next generation of watering holes?

As more people turn away from alcohol, we foresee the rise of new third spaces that will rewrite the rules of consumption. The moment is ripe for forms of togetherness that offer alternatives to indulgent nights out, instead prioritizing shared interests, wellness and cultural experiences.

Out

Social venues organized around vices

In

Social gatherings without the hangover



“While some refuse to pay a premium for beverages that don’t hit the way alcohol does, there’s a growing trend for alternatives.”

Megan Nesbeth
Managing Consultant, Business
Reinvention, frog New York

What we're seeing

Younger generations are drinking less¹ and sales of non-alcoholic beverages have skyrocketed.²

Once popular social clubs, like Soho House,³ have gone through boom-and-bust cycles, replaced by alcohol-free venues,⁴ supper clubs⁵ and private member biohacking forums.⁶

Running clubs and meet-ups based around health and biohacking are increasingly playing the role happy hour used to play for young adults.⁷

Effortless is the New Normal

What happens when agent-led, conversational commerce takes over online shopping?

AI advancements are poised to change eCommerce as we know it. Get ready for effortless purchasing where personal AI agents anticipate needs, handle weekly shopping and assist with major buying decisions, while VR and AR technologies remove the guesswork and frustration from virtual browsing experiences.

Out

Endless scrolling for just the right thing

In

Shopping so intuitive it never feels like work

“Time-poor consumers are dealing with infinite online shopping choices. AI-powered personal agents will enable more efficient use of time and improved outcomes for functional purchases.”

Kerry Lee

Director, CX Transformation, frog London

What we're seeing

Brand and consumer increasingly communicate in natural language, with voice-activated technology in user interfaces now widely accepted by consumers.⁸

With the arrival of Agentforce from Salesforce⁹ and Rufus from Amazon, we are seeing the emergence of the agentic enterprise.¹⁰

Virtual shopping experiences have been shown to enhance consumer engagement, with participants in VR experiences often exhibiting increased interest and positive attitudes towards brands.¹¹



Say No to Technicolor Overload

How can advancements in technology support a retreat toward simplicity?

We've long been aware of the link between smartphone dependency and poor mental wellbeing. Amid the sensory saturation and technicolor overload of context switching between numerous apps, AI filters will help present only valuable content—for better focus, more personal satisfaction and improved performance at work.

Out

Always-on, notification-heavy digital interactions

In

Intentionally quiet products that reduce cognitive load

What we're seeing

E-Ink computers, phones and tablets that promote focus are on the rise, supporting consumers who want to limit distraction and reduce eye strain.¹²

With increased awareness of sensory overload, people are turning their phone screens to grayscale to make it less appealing.¹³

Publishers are offering feel-good fiction as a respite from the overwhelming realities of social media channels that platform controversy.¹⁴

“It’s time to evolve our approach to technology – for boosted morale, better mental health, better strategic planning and better products.”

Silvia Minenti
Managing Consultant, Creative & Design, frog Rome



Time to Take Action

How can brands pivot from purpose to impact to positively influence consumer behaviors?

It's time to stop trying to sell more things via abstract promises of 'purpose.' Customers are no longer willing to take a business at its word. As consumers reject meaningless manifestos and empty pledges, change-focused brands are proving that it's not what you say, but what you do that creates positive impact.



“The world needs results, not reasons. So, let's stop talking purpose and start making positive impact by changing our behavior for the better.”

Simon Mutter
Strategy & Planning Partner,
23red, part of Capgemini Invent

Out

Overpromising and underdelivering on SDGs

In

Wearing your impact on your sleeve with real data

What we're seeing

With less than five years remaining on the 2030 Agenda for Sustainable Development, the world is on track to achieve only 17% of targets.¹⁵

It was proclaimed that purpose is dead at the 2024 Cannes Lions International Festival of Creativity.¹⁶

Sustainable and social movements have become distinctive commercial successes, from Tony's Chocolonely¹⁷ to collaborations in the UK between NHS and supermarkets including Morrisons and Tesco.¹⁸

Making Wanderlust Work

How might the world change if the concept of travel were integrated into more facets of life?

A post-Covid world has reinvigorated wanderlust everywhere. For travelers interested in saving time and accommodation costs while reducing environmental impact, optimizing vacation time often means working en route. Bigger changes could lead to more flexible citizenship types for digital nomads and long-term travel options for those with resources.

Out

Static and separate modes for sleep, work and transit

In

Spaces, services and systems to support a life in motion

“With remote work options a growing norm, we're seeing travelers find new ways to maximize their time at the destination, without taking extra time off.”

Yaroslav Krasilnikov
Consultant, Creative & Design, frog Munich

What we're seeing

There's a growing network of [Nightjet trains](#)¹⁹ in Europe and [sleeper buses](#), supporting more eco-friendly, leisure-driven travel preferences.²⁰

When surveyed, [32% said slow travel](#)—including train, coach, ferry and campervan trips—are calmer and more stress-free compared to flying.²¹

[The Villa Vie cruise company](#) is offering extended cruises as a break from political reality. Meanwhile, there's a rising demand for 'clean cruising' to reduce emissions.²²

Make *Your* Mark

By tuning into the ebb and flow, we give ourselves the opportunity to reflect on the perpetual cycles of rise and fall that shape the landscape of our lives. There's a powerful momentum to the ins and outs of change, capturing the collective imagination and driving forward business and societal behaviors.

Pitfalls to avoid

Don't surrender too much decision-making to technology.

AI interactions should not be intrusive, but they cannot override human judgement in business or by consumers.

Increasing motivation doesn't necessarily lead to action/impact.

Change the choice architecture by increasing an audience's capability and opportunity to change.

Beware of digitalism that sacrifices real life interactions.

Instead, consider how digital enhances reality, striving to balance functionality with user wellbeing.

Questions to ask

How can we unite diverse groups through shared interests and concerns to combat social isolation and promote improved living practices?

How can your organization stay true to its cause, whether that's emission reduction, ethics or experience elevation? How might this commitment incentivize loyalty?

What might help individuals reclaim focus and balance in their daily lives and achieve a more mindful relationship with technology?

FORCES OF NATURE

How will tech, culture and business impact people and planet next?

With the climate crisis worsening, the natural phenomena that shape our environment and influence human life—from weather events to geological activity and biological processes—are behaving in unpredictable ways. Just as the forces of nature are changing, so must we.

How can we do more while using less resources? Is it time for a new

boardroom role to balance nature, indigenous and social concerns with financial priorities? How can radical thinking help us reach beyond planetary boundaries? Like a gentle breeze can carry seeds to distant lands, subtle shifts in cultural currents can spark global movements.

Expanding the C-Suite

How can businesses make room for social and environmental inclusivity?

With the climate crisis worsening, businesses must use their position of influence to help turn the tide—or face consequences. This may require new boardroom leadership, like chief philosophy officers, chief ethics officers and chief happiness officers, dedicated to expanding viewpoints and bringing attention to urgent matters beyond business performance.

Less

Financial bottom line dominating boardroom discussion

More

Measurable integration of ethics in decision-making

What we're seeing

Research into sustainable leadership has shown that a collaborative relationship between the boardroom and management is essential to achieving sustainability targets.²³

Organizations like soap company Dr. Bronner's represent a “counterculture” vision for corporate leadership.²⁴

There's growing awareness and dialogue²⁵ around how prosperous societies and profitable business depends on the health and resilience of nature.²⁶

“We must consider how to invite a sacred space for leaders to grow other ‘muscles’ that are necessary for an unpredictable landscape.”

Kara Pecknold
Vice President, Creative & Design, frog Munich



The Digital Planetary Body

Can we shift our thinking and perceive AI as an intelligence with a global body?

It's possible to visualize AI's true scale as a digital brain with an Earth-bound body, reliant on rare metals and natural resources. Were AI to evolve to perceive our planet as its virtual body—experiencing life rather than just processing it—this awareness could be incentive to help alleviate its own negative environmental impact.

Less

Viewing AI as a purely digital phenomenon

More

Understanding AI's deep connection to Earth's physical resources



“AI could become a digital brain with an Earth body. As we continue to integrate AI into our daily lives, how do we plan for this possible symbiosis? Can it be a force for healing the very planet that sustains both of us?”

Jason Severs
Head of Design, frog New York

What we're seeing

AI hardware relies on materials constructed using rare metals mined from the Earth.²⁷

AI data centers will consume 20% to 25% of US power needs by 2030, up from 4% in 2024. In response, OpenAI are pitching for 5GW data centers to be built in the US, which would output the equivalent of five nuclear reactors.²⁸

The European Parliament requires that future AI systems must be designed with the ability to log their own energy consumption.²⁹

Biodesign in Full Bloom

How are existing life forms inspiring sustainable product development?

Biodesign brings the natural world into creative processes to enable better performing, more sustainable solutions. This innovative approach is being adopted worldwide, from mycelium-based packaging to bacterial dyes in fashion. Institutions and designers have long been experimenting in this field, with recent advancements aligning with global initiatives and rapidly emerging regulation.

Less

Using old-fashioned, inert materials in product design

More

Integrating biology to bring life into everyday experiences

What we're seeing

Biofabrication, such as bacterial dyeing, requires 500x less water—which is crucial, as 20% of global wastewater comes from conventional textile dyeing and processing.³⁰

Cement manufacturing accounts for 8% of the world's CO2 emissions.³¹ Fortera has developed technology that intercepts carbon exhaust and routes it back to make additional cement, inspired by coral reef formation.³²

Additional examples of biodesign innovations include jellyfish collagen³³ and eggshells as sustainable building materials.³⁴

“Let’s remain curious about the potential of nature—and use that curiosity to create sustainable products, systems and services.”

Amy McLean

Associate Consultant, Creative & Design, frog Sydney



Sourcing Energy From Beyond

Is helium mining on the moon the next alternative fuel frontier?

Discussion continues on mining the moon for Helium-3, a potential low-carbon, safer nuclear power source. Proponents see the moon as offering limitless energy via a combination of fusion power plants, lunar robotics and space infrastructure. Detractors have cost and natural resource concerns. While speculative, Helium-3 mining reflects a continued search for alternative energy sources.

Less

Earth-bound energy sources and technologies

More

Thinking galaxy-wide for novel, clean energy sources



“Helium-3 mining on the moon could revolutionize the energy sector by offering a cleaner alternative to fossil fuels and reducing carbon emissions on Earth.”

Carman Ho
Associate Consultant,
Creative & Design, frog Sydney

What we're seeing

Scientists estimate that 25 tons of Helium-3 could power the US for an entire year.³⁵

Interlune, a US-based lunar resource startup, announced a \$15 million seed funding round to support its goal to extract Helium-3 from the moon and bring it to Earth.³⁶

A UN agreement from 1967, signed by 100 nations, says no nation can own the Moon and many cultures consider the Moon sacred.³⁷

Bringing the Harvest Home

Is small-scale agriculture the answer to solving the food crisis?

Hydroponic systems grow crops without soil and in controlled environments, making them ideal for urban or rural areas with limited land. These systems can consistently produce nutrient-rich food in underserved areas, directly addressing food deserts. Simultaneously, businesses are experimenting with small-scale farming and strategic partnerships to bring fresh food closer to home.

Less

Long-haul trips for meat and produce

More

Small-scale farming in unusual, opportunistic places

What we're seeing

2.1 million Americans live in a food desert and don't have a car or public transportation.³⁸

In Canada, The Growcer focuses on remote and food-insecure communities, providing hydroponic farm modules placed near or in grocery stores.³⁹

In their first year, Germany's Rewe Green Farming cultivated 20,000 tilapias in the store's 13 rooftop basins, together with 732,000 basil plants, using 90% less water than in conventional farming.⁴⁰

“To remove the need for last-mile logistics for many of the items, what if the store becomes a farm?”

Jason Severs
Head of Design, frog New York



Make *Your* Mark

The forces of nature are taking unexpected twists and turns, highlighting the need for sustainable, adaptable and innovative approaches to global issues. The symphony of the forces of nature and human ingenuity is a testament to the enduring interplay between the natural world and the structures we've built together as a society.

Pitfalls to avoid

Avoid conforming to the leadership mantras of today. Instead, seek the deeper soul work required to craft places where can thrive.

Don't sidestep planetary needs in service of technology. Elevate humanity's role as stewards of Earth by balancing the consequences of the ecosystem.

Beware of an over-reliance on major chains. For a resilient marketplace, remember to demand local options to augment choices.

Questions to ask

What action will balance profits with impact, remembering a responsibility to people, planet and shareholders equally?

How could thinking outside the box when it comes to energy sources and materials used open up new sustainable pathways to the future?

How could short-distance procurement be woven into your supply chain to avoid long travel distances where possible?

MACHINE VISIONS

In what ways will AI affect our lives that we're not prepared for?

As AI and machine learning technologies continue to advance, we're granted unprecedented clarity and insight into our world. We can perceive and interact with challenges and opportunities in novel ways, training our virtual lens to focus on bold new visions of the future.

From the rise of generative AI to experiments in voice cloning, AI will reshape how we perceive

privacy, communication and social norms. With this vast landscape of possibility opening up before us, staying focused on priorities is key. What action can we take to maintain a healthy balance between enjoying the benefits of machine visions and maintaining human agency?

The Selective Trust Paradox

How can we mindfully incorporate AI into decision-making to avoid biased outcomes?

Well before the recent AI boom, there was a well-known phenomenon of ‘algorithm aversion’: the avoidance of using AI in important decision-making. But as AI integrates into daily life, we may over-rely on it for a cascade of low-stakes decisions, requiring us to be more deliberate as to where we place our trust.

No

Direct, specific human choices with manually accessible information

Yes

Generalized outcomes due to AI’s growth into nuanced, deeply human domains

What we're seeing

AI’s presence in day-to-day decisions has fostered over-reliance in routine tasks.⁴¹

High-profile AI failures, such as AI hallucinations,⁴² biased facial recognition⁴³ and flawed algorithms in hiring, deepen skepticism in high-stakes contexts.⁴⁴

Research shows humans prefer fallible human decisions over the so-called ‘black box’ of AI in moral or ethical scenarios.⁴⁵

“Without proper safeguards, selective trust in AI could create blind spots in collective judgement and amplify the risks of poor decision-making and biased outcomes.”

Yenti Pavri
Consultant, CX Transformation, frog Sydney

Finding Ourselves in AI

What happens when AI begins to know ourselves better than we do?

AI-powered VR/AR headsets, wearables and neural implants with almost telepathic qualities could soon surpass phones as core communication tools. These devices would unlock AI's potential to understand consumer desires more intimately, revealing new insight into what we want most, directing us toward manifesting our desires in real time—and introducing privacy invasions along the way.

No

Simplistic algorithms that act as glorified flow charts

Yes

Immersive, precise predictions that holistically shape our worldview



“Imagine an AI suggesting a career change, a breakup or a relocation based on your habits, conversations or health data. The convenience could be extraordinary, but the psychological impact of an algorithm ‘knowing’ you better than you know yourself? Potentially unnerving.”

Kyle Struthers
Associate Consultant,
CX Transformation, frog London

What we're seeing

Marketing has now reached a critical juncture where it must avoid becoming overly familiar to prevent being perceived as intrusive or creepy.⁴⁶

An early attempt to make phones obsolete, the Rabbit r1 from Teenage Engineering has so far received mixed reception.⁴⁷

Scientists at the GrapheneX-UTS Human-centric Artificial Intelligence Centre created a portable, non-invasive device capable of translating silent thoughts into written text.⁴⁸

Me and My Cyber Self

How can we walk the path towards self-actualization with AI clones?

AI applications are introducing a slew of autonomous agents. The next step could be AI clones who will behave like us, carrying out tasks or even connecting on dating apps to chat with other digital friends. Could the advent of another ‘us’ in a digital world mark the beginning of transhumanism?

No

Reactive AI that waits for our specific direction

Yes

Proactive AI clones working as a team to anticipate needs

“If I gradually replaced parts of myself with an AI clone, how far could it go? Could it handle tedious phone calls, get legal advice or even help parent my kids? What if I created multiple clones—could we assist each other at work, become friends and perhaps replace the need for others?”

Anton Löf

Senior Consultant, Creative & Design, frog Stockholm

What we're seeing

Journalist [Evan Ratliff](#) has carried out voice clone experiments, conducting interviews and personal meetings using voice clones.⁴⁹

Video generator [HeyGen](#) turns scripts into talking videos with customizable AI avatars that can speak 175 languages.⁵⁰

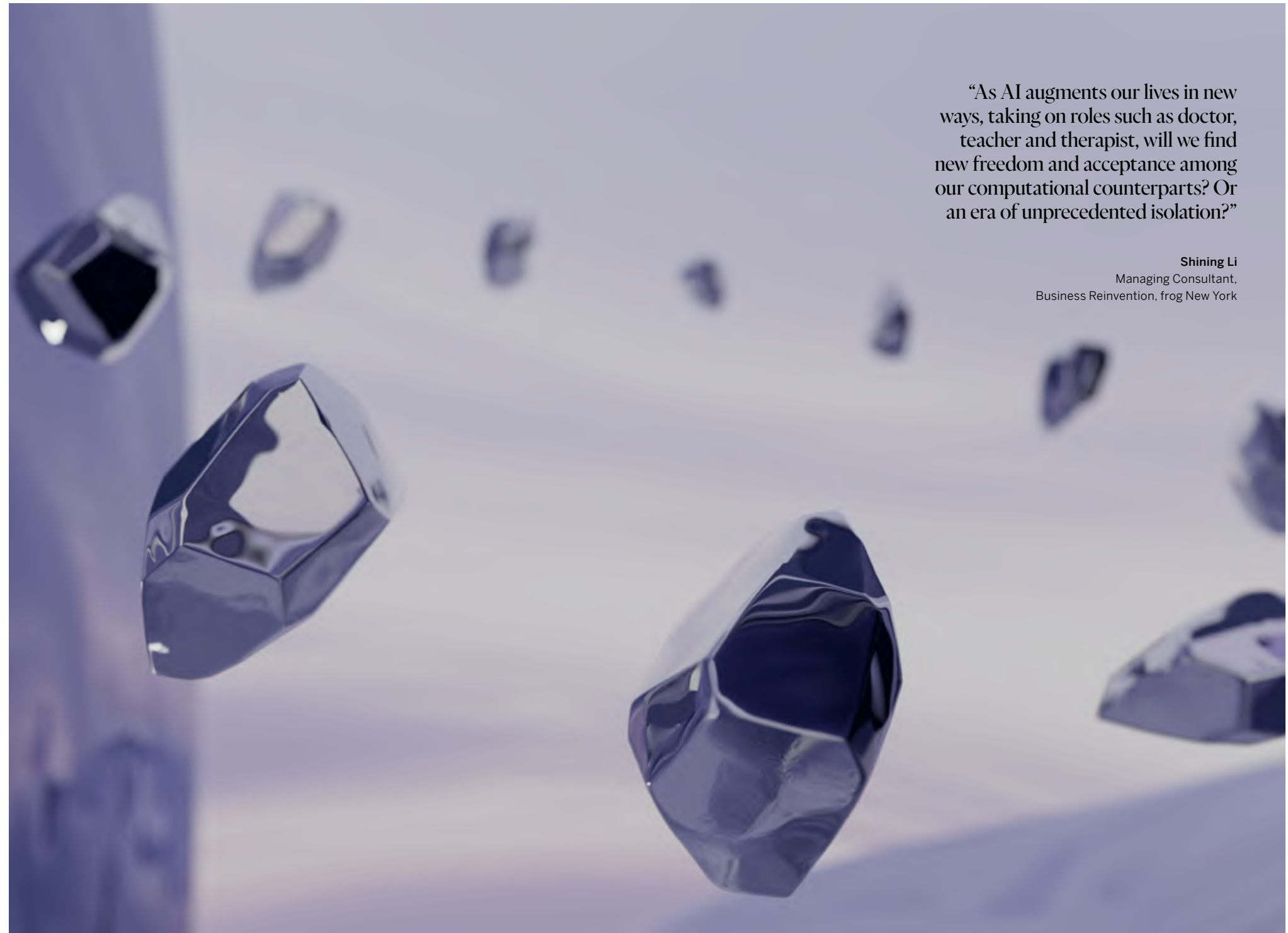
[Rewind](#) captures your computer while you work, allowing you to track everything you see and hear to feed your clone.⁵¹



Intimacy, Duplicated

What's next in the world of human-machine relationships?

As generative AI increasingly communicates and interacts like humans, our social bonds could be stretched to allow for a new level of closeness with the agents behind AI-powered experiences. The potential for algorithmic intimacy poses a socio-spiritual challenge to the boundaries of what we think of as authentic and 'real' society.



“As AI augments our lives in new ways, taking on roles such as doctor, teacher and therapist, will we find new freedom and acceptance among our computational counterparts? Or an era of unprecedented isolation?”

Shining Li
Managing Consultant,
Business Reinvention, frog New York

No

Waiting for computers to finally pass as human

Yes

Leapfrogging past the Turing test toward life-like expression

What we're seeing

In response to a survey revealing employees lacked physical touch, Klick Health created [Holiday Hugs](#), an AI tool that generates images of people hugging.⁵²

Spike Jonze movie or real life? [AI chatbot declares love for man and urges him to leave his wife.](#)⁵³

In a world where anything could be real or fake, authenticity matters—88% of consumers say authenticity is central when deciding which brands to support.⁵⁴

Confronting AI's Prophecy

How can we take an interconnected approach to shaping AI's growing influence?

Many AI use cases focus on cost saving and efficiency, with such benefits received by shareholders, not the end user. With new AI governance underway, such as the EU AI Act, implementing regulation and ethical guidelines can ensure AI development prioritizes human wellbeing, protects workers and fosters independent thinking.

No

AI eroding critical thinking skills and sidestepping compliance

Yes

Elevating the importance of human focus and critical thinking

“The vision of AI as a utopia that could drastically improve the lives of people is already being challenged. Machines are currently being designed not in the service of people, but machines in the service of big tech and industry.”

Rob Burton

Managing Consultant, CX Transformation, frog London

What we're seeing

In [negative responses to AI's potential influence on the workplace](#),⁵⁵ we're seeing echoes of [the 19th-century labor movement of English textile workers](#) who opposed automation.⁵⁶

The [World Economic Forum](#) report highlights misinformation and disinformation as risks associated with the misuse of AI, including potential for biases.⁵⁷

One Forbes article states, “[the minute we start looking at AI as machine thinking, we're in trouble](#)” because it means we've outsourced critical thinking to machines built for replication and regurgitation.⁵⁸

Make *Your* Mark

The expansion of machine visions promises incredible advancements while posing challenges to our privacy, autonomy and critical thinking. With AI technology enabling us to make sense of vast amounts of data with ease, let's fix our gaze on reaping the benefits while remaining vigilant to the potential biases embedded in these technologies.

Pitfalls to avoid

Avoid treating AI as either a perfect oracle or flawed tool.

Balance is key for human-AI collaboration.

Don't rule out the possibility of enduring human-machine bonds.

Honor our human need to form deep connections—and the vulnerability in doing so.

AI should not be built solely for business. Clear human benefit must be built in. Tech should be at the service of people, not the other way round.

Questions to ask

How can individuals and organizations achieve efficiency and scalability in AI-enhanced decision-making, while preserving fairness and transparency?

In what ways might human-machine friendships irreparably stretch the social fabric of our human bonds?

What systems can AI developers, businesses and policymakers develop to allow humans to critically engage with AI outputs, enabling co-creation and trust building?

MERGING DIMENSIONS

Which traditionally disparate worlds
will intersect next?

When different worlds come together, entirely new ones become possible. We have seen the effective merging of once disconnected dimensions across history, from the advent of the peanut butter and jelly sandwich to the explosion of e-sports. As industries, roles and ambitions converge, they bring people- and planet-minded advancements across experiences, business, design and technology.

From unlikely partnerships to the emerging ubiquity of new interaction models, the overlap at the center of the Venn diagram is always where we find the connections across subjects and systems that will allow us to exponentially adapt to changing environments.

Policy of Prevention

How can policy and technology prompt individualistic preventative care?

Food and beverage and health sectors are increasingly intersecting. Rising diet-related diseases have pushed focus from treatment to prevention across all levels, aiming to improve long-term outcomes. We see this playing out in examples ranging from continuous health monitoring with digital biomarkers to the enforcement of further transparency in food labels.

Combine

Digital tracking of individual health behaviors

With

A health-conscious and compliant food and beverages sector

What we're seeing

Global efforts are underway to curb unhealthy consumption in examples including [software](#) that examines food quality and safety.⁵⁹

Research from the [World Health Organization \(WHO\)](#), shows that digital health technologies increase autonomy, which can help improve women's health and promote gender equality.⁶⁰

Some [doctors](#) are wary of wearables and are concerned about over-monitoring of our bodies.⁶¹

“The shift from cure to prevention, enabled by new tools and solutions, empowers people to individually and collectively take charge of their personal health management.”

Kathryn Erneccq
Senior Manager, Business Reinvention, frog Paris

Engaging in Our Natural Language

How will digital and physical combine for the next wave of omnichannel experiences?

We're witnessing a shift from app-centric to natural language-centric experiences. Here, journeys transcend platform boundaries through voice recognition and frustrating, disconnected interactions are transformed into integrated, holistic, omnichannel experiences. Our digital touchpoints will further adapt to embed into the physical world, allowing us to connect without sacrificing privacy, seamlessness and empathy.

Combine

The hyper-personalization of the digital world

With

The dynamism of physical environments and human speech



“Tomorrow’s users will seek experiences that flow as naturally as their thoughts and emotions.”

Antonello Crimi
Head of Design, frog San Francisco

What we're seeing

Voices are fundamental to humans and our interactions which is why we're seeing increased demand for voice-based user interfaces (VUI).⁶²

In-person shopping is transforming with products like, Caper shopping carts.⁶³ They are powered by GPS and AI, allowing for tailored shopping experiences all through the cart itself.

Deutsche Telekom released a smartphone concept that replaces apps with an AI assistant.⁶⁴

The Mind-Body Program

How can we embrace personal health as a fuller journey of self-mastery?

Wellness apps have become systematically programmed into our lives—infusing cognitive, physical and emotional health into one inseparable system of data-driven insight. Users are increasingly adept at navigating an interconnected journey of health optimization and self-mastery. Innovation here means addressing data privacy issues and the need to mitigate info overload to avoid undermining wellness benefits.

Combine

Personal awareness of the mind-body connection

With

Tech-powered wellness integrated into more facets of life

What we're seeing

Workday announced a tool that will help companies to understand employee sentiment on their wellness offerings in real-time.⁶⁵

Within the Constitution of the World Health Organization (WHO), health is defined as a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity.⁶⁶

The global wellness economy is growing rapidly and is forecasted to hit \$9 trillion by 2028.⁶⁷

“The monistic approach to wellbeing addresses growing overwhelm among individuals navigating fragmented, isolated elements that neglect synergies of interconnected health.”

Charles Kind
Senior Consultant, CX Transformation, frog Utrecht



Breathing Life into Blueprints

What possibilities will engineering biology bring?

The fusion of biology and technology is spurring a new bioeconomy. Called ‘engineering biology’ (AKA synthetic biology, synbio), investment is underway in biosolutions for everything from alternative fuel sources to sustainable materials. The pace of growth is accelerated by technologies such as AI and digital twins, creating virtual, predictive models poised to transform R&D forever.

Combine

The proven success of the scientific method

With

The experimental disruption of tech innovation



“After successfully engineering the physical and chemical worlds, biology steps into the spotlight, where synthetic biology begins to rewrite life’s code as AI accelerates discovery and optimization”

Chris Price
Senior Manager,
CX Transformation, frog London

What we're seeing

A Capgemini Research Institute report identified that 96% of organizations are pursuing biosolutions, with 72% of working to accelerate sustainability objectives.⁶⁸

The World Economic Forum and Capgemini explored how to accelerate the commercial bioeconomy that is being driven by digital advances and engineering biology.⁶⁹

The Department of Science Innovation & Technology found that the UK public is generally open to new engineering biology products, but there is a lack of bioliteracy.⁷⁰

Next-Level Reasoning

What will it be like when AI begins prompting us to think differently?

Human reasoning and intellect will be woven into AI to move it beyond the current copy-and-paste, prompt-based approach. In the future, generative AI will not only answer questions, but will raise its own questions. Instead of being solutions-based, it will respond with comprehension and offer prompts, provocations and directions to help move human intelligence forward.

Combine

The organic, creative value of human intuition

With

The traceability and insight of machine intelligence

What we're seeing

The [HBR Guide to Generative AI for Managers](#) introduces the concept of the 'co-thinker' for business leaders who want to augment dozens of traditional management tasks.⁷¹

AI expert, Andreas Sjostrom discussed how [Agentic AI Heartbeats](#) can create a rhythm of self-determination, with psychology guiding decision-making and autonomy.⁷²

Knowing that emotions and morals affect trust and perception, [USC researchers](#) are exploring the alignment of language models compared to opinions held by humans.⁷³

“I believe the next iteration of the reasoning AI paradigm will feel more human and more profound, like deconstructing an idea with a group of people in the studio, discussing a mood board concept in a project room, or going for a walk with an inner monologue to tighten a thought.”

Andreas Markdalen
Global Chief Creative Officer, frog Milan



Make *Your* Mark

Exploring merging dimensions opens up possibilities that can disrupt life and industries, igniting curiosity and creativity—and ultimately help us reinvent our world. By reflecting on these matters we can ground our objectives and enhance our ability to explore new intersections and create meaningful connections.

Pitfalls to avoid

Don't get stuck in a reactive mindset. Thinking proactively versus passively results in better, more effective outcomes.

Avoid looking at data, media and experience in silos. Look for opportunities to combine customer interests and drive integration across data and tech stacks.

Be mindful of real-time data overload. Evaluate the relevancy and effectiveness of interventions over time.

Questions to ask

What are the potential benefits and challenges of moving beyond a prompt-based approach in AI?

How might we facilitate positive, data-driven human-centered experiences?

What would a new era of preventative healthcare and physiological optimization look like on a macro scale?



NEW HORIZONS

What challenges will we need to overcome to stay ahead?

Together, we seek new horizons to anticipate and explore—to harness moments of creativity and innovation in hopes of driving change that benefits people and planet. As we look for guidance on how to prepare for the next quarter-century, let's take a pause to reflect on what could be if we dare seek it.

Of course, with all new thrilling opportunities are hazards to brave and lessons to learn. Looking forward often means contemplating on learnings from the past in new light, as well as feeling free to look beyond the limitations of today to realize worlds not yet imagined.

Unleashing Zero UI

How will life change when screens stop mediating our experiences?

The era of zero UI (zero user interface) is upon us. The series of screens and interfaces that we interact with daily will fade as technology integrates so seamlessly with life. Driven by biometrics, AI and multi-modal systems, this paradigm shift redefines user experiences—turning payments, access and services into intuitive, touchless natural-language driven interactions.

Now

Using sites and apps to plan our every step

Next

Navigating the world without looking down at devices

“This is a call to rethink UX: moving from screen-based design to crafting seamless, human-centric journeys where service and experience, not interfaces, take center stage.”

Rubina Brouns
Consultant, CX Transformation, frog Utrecht

What we're seeing

University of Tokyo researchers are using touchless blood pressure screening tech that uses data collected from a video call or smartphone app.⁷⁴

Continental presents a car with intelligent interaction technologies using biometrics.⁷⁵

Over 70% of the Philippine population have official digital national IDs verified through biometrics, removing the need for interfaces to ease authentication for various transactions.⁷⁶

Building Emotional Resonance

What's the best route to genuine customer connection at scale?

Consumers now widely expect experiences to align with their values while also addressing their emotional wellbeing. Designing from an emotion-led perspective shifts the focus from what technology can do to how it makes people feel. With this increasing pressure on brands to deliver emotionally resonant experiences, hyper-personalization is emerging as a key differentiator.

Now

Uneven, hit-or-miss product and service interactions

Next

Experiences that feel right every time



“frog has long said ‘form follows emotion.’ Brands that elevate emotional resonance will unlock new levels of customer loyalty, create future-proof offerings and stand out in a competitive landscape.”

Paul Taylor
Director, Creative & Design, frog Sydney

What we're seeing

To connect on a deeper level with consumers, brands will need to look beyond the data to understand their needs and aspirations.⁷⁷

Game developers found that creating more engaging and emotionally resonant characters improves player enjoyment and retention.⁷⁸

Recent research shows that personalization can elevate the meaningfulness of gifting; reinforcing emotional connections and increasing the recipient's self-esteem.⁷⁹

The Power of the Parasocial

How can we foster trust, transparency and loyalty across increasingly fragmented digital interactions?

Thanks to the advancing sophistication of AI agents, we may see a rise in parasocial interactions—where a consumer gains a one-sided sense of connection and/or community when engaging with media. Integrating trusted, ‘known’ AI agents across channels, brands may be able to repair fragmented experiences in secure, decentralized environments to create two-way lifetime value.

Now

Disparate, inconsistent experiences that lack personality

Next

Trusted AI brand advisors guiding you across individualized networks

“We now see digital not as an interface but as a participant. The trend began with recommendations, automation and is now crystallizing in active systems that approach human understanding.”

Sheldon Pacotti
Director, Customer Data & Tech, frog San Francisco

What we're seeing

By 2027, [Gartner](#) predicts 40% of customer service cases will be handled by unofficial third-party Gen AI tools because of convenience and accessibility.⁸⁰

Decentralized technologies like blockchain are gaining traction as advances in [quantum computing](#) are making encryption methods vulnerable.⁸¹

[Companies](#) are recognizing the value of datasharing partnerships and are taking steps to ensure that customers and relevant parties are receiving due transparency.⁸²



Outer Space Gets Closer

How can we inspire growth beyond our own atmosphere?

As the International Space Station ends operations in 2030, we're witnessing a transition to new models of Low Earth Orbit (LEO) technology to continue space experimentation and exploration near Earth's surface. Commercially owned and operated satellites are advancing global connection, space infrastructure and research in preparation for future missions to the Moon, Mars and beyond.

Now

Dreaming to travel and communicate around planet Earth

Next

Waking visions of space grounding our world



“LEO technology will revolutionize space life by supporting sustainable space exploration and potential space settlements, expanding human presence beyond Earth.”

Jens Hofmeister
Vice President, Business Reinvention, frog Munich

What we're seeing

NASA published its Low Earth Orbit Microgravity Strategy and endorses the need for human presence in LEO.⁸³

Breakthrough improvements to low-orbit satellites will provide millions access to high-speed communications, while reducing costs, power consumption and the number of satellites required.⁸⁴

Airbus Space and Defense signed a deal with Eutelsat Group to build the extension of its OneWeb LEO constellation.⁸⁵

Innovation to the Rescue

What if we designed with utopia in mind rather than disaster?

Amid climate change, geopolitical unrest and global health crises, strategic foresight too often involves preparing only for the worst possible outcomes. Yet, without the definition of ideal visions, too, scenario planning can feel reactive and disempowering. Instead, we see a shift toward balancing hope and prosperity aspirations with doom-and-gloom projections for more effective futurecasting.

Now

Preparing for uncertain futures from a place of fear

Next

Feeling empowered to realize utopia

“Business leaders will become more adept at preparing for situations that may have been thought of as unlikely to happen two years ago.”

Rob Weaver

Senior Manager, Creative & Design, frog Melbourne

What we're seeing

Mexico City's mayor built 15 "utopias" offering accessible welfare services and cultural activities to address significant economic and cultural inequality in impoverished communities.⁸⁶

The United Nations outlines how innovation in technology like blockchain, drones and cloud technology can help with disaster management.⁸⁷

Rather than take advantage of disaster, Uber anticipated needs by offering free rides to Hurricane Milton evacuees.⁸⁸

Make *Your* Mark

When we seek new horizons, we create space for the conceptual to become concrete. Waves of inspiration arise from one another and it's through this mutual support, one wave feeding the next, that we can work together to challenge the status quo and transform idle thinking into new realities.

Pitfalls to avoid

Superficial experiences deteriorate customer relationships. Embed emotional resonance into design practices and embrace transparency.

Avoid relying on UI-heavy designs or invasive data practices. Prioritize human-centric, privacy-compliant solutions that meet expectations for security, transparency and ease of use.

Be mindful about leaving the past in the past. Progress will come to those who learn, adapt and build resiliency in response to experiences of the past.

Questions to ask

In an era of fragmented digital interactions, what role can decentralized technologies play to enhance transparency and build trust?

What can brands do to balance the need for emotional connection with the demand for innovative technology?

How might we achieve seamless, secure and intuitive interactions where biometric authentication replaces traditional touchpoints?

“Let’s take this opportunity to innovate for a future that reflects our highest aspirations. The journey towards an eco-digital era begins with the choices we make today.”

Gagandeep Gadri
Managing Director, frog

Futurescape represents a multifaceted collection of viewpoints, proof points, pitfalls to avoid and questions to ask. We hope that you’ve enjoyed the space to explore. Of course, this is only a look into tomorrow. What comes next is up to you.

While interpretations of these trends may shapeshift with every glance, creating dialogue on important matters helps anchor us, providing a source of support, perspective, inspiration and guidance, especially when faced with uncertainty and rapid change.

Take this as an invitation to challenge the status quo—to explore new data points and new vantage points alike. Going forward, we hope you’ll ask: how might these provocations inspire you to make your mark in the next quarter-century?

To access source links,
download the report at
fro.gd/25trends

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We want to thank the frogs from all across the pond for submitting their brilliant ideas, and especially the 35 colleagues from 13 studios featured in this year's *Futurescape* report.

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