



**When machine precision
meets human intuition:**
*a new era in human-machine
understanding*

Editorial

The emergence of the human-machine understanding (HMU) domain marks a significant step forward in the evolution of artificial intelligence. It shifts the focus from generating outputs to interpreting tone and context, enabling AI systems to comprehend human behavior, mental states, and intent in real time. As interfaces grow more intelligent and humanlike, both in the digital and physical space, it is key to design systems that understand, adapt, anticipate and connect with users.

This point of view introduces a practical framework to operationalize that shift across three areas: Sense, Understand and Support. It outlines how organizations can design AI systems that adapt not only to what people say or do, but also to how they feel, what they mean and what they need in the moment. The result is more intelligent, empathetic, and responsive interactions between AI and humans in any role – be they leaders, workers or consumers.

The AI revolution that has been gaining momentum is just the start. Human-machine understanding will deliver deeper insights, establishing more trusted relationships between people and technology.

The launch of the Capgemini AI Robotics & Experiences Lab, alongside our established capability at Cambridge Consultants, reinforces this ambition. It provides a global platform to design, build and scale embodied AI systems, ranging from humanoid and polyfunctional robots to digital humans, that augment people through real-world and humanized collaboration.

Human-machine understanding capabilities will define the next wave of digital experience. Whether easing frustration, shifting pace, or responding with empathy, these systems will support users in ways that feel natural and intuitive. For businesses, it represents both a competitive advantage and a foundation for responsible, human-centered innovation.



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The context

The once clearly delineated boundaries between the physical and digital worlds are disappearing. Emerging technologies are converging in exciting combinations that create new ways for machines and humans to collaborate.

We're seeing virtual assistants evolve into embodied agents, and AI that was once confined to the cloud is now powering robots on the factory floor. We talk to AI assistants, rely on algorithms for recommendations, and use agentic AI systems in the digital aspects of our lives. Recent advances, [like OpenAI's ChatGPT agent](#), are enabling machines to act autonomously, enhancing their ability to collaborate with humans in dynamic, real-world environments.

As AI spreads across software and hardware, from conversational copilots to autonomous machines, one question becomes central: how well do these systems understand our behaviors, context, and goals?

Defining human-machine understanding

So far, the answer to the above is 'not very well'. The AI-enabled revolution in working styles has been confined to a one-way relationship. Current AI models provide limited analysis and interaction, such as requesting clarifications or flagging unhelpful responses. These reactive systems operate with little awareness of human behavior. They analyze input, perform tasks, and provide answers, without grasping the context and the person behind the prompt.

This one-sided understanding has tangible consequences: healthcare professionals hesitate to adopt AI systems they don't trust, industrial robots become less effective as they fail to adapt to changing human work

patterns, and consumer services struggle to maintain meaningful engagement without understanding customer preferences and contexts.

However, these are early days. The generative AI models that create text, images, and video on demand are the first stage of a move towards deeper human-machine collaboration. We are on the cusp of a major transition where AI-enabled systems will take a proactive rather than a reactive approach.

This challenge of bridging capability and experience is precisely what prompted the recent collaboration between [OpenAI and legendary designer Jony Ive](#). As noted when the partnership was announced: "Computers are now seeing, thinking and understanding. Despite this unprecedented capability, our experience remains shaped by traditional products and interfaces." This partnership signals a recognition that the next frontier isn't just smarter AI, but AI that truly understands and adapts to human needs through thoughtful design and interfaces.

The next stage, via human-machine understanding (HMU), will deliver smarter, more intuitive AI. By combining sensor data, behavioral cues, mental states, and contextual information, HMU-aligned systems will interpret what we mean, not just what we say. These machines will adapt their responses in real time and build a trusted relationship with human colleagues.

The solution lies in mutual understanding — not just us adapting to machines, but for them to adapt to us as well. We need machines that understand us and can use this understanding to support us with what we need, when and how we need it.

HMU is a paradigm shift in AI, from direction and generation to comprehension and collaboration. Rather than simply executing tasks, HMU-aligned systems will engage and adapt. These systems will understand our behavior, requirements, and decisions. In the age of HMU, machines won't just support human work, they will learn to understand it.

Achieving this goal is undoubtedly challenging, but recent advances in foundational technologies make it increasingly attainable. Human sensing technologies, once confined to research labs, are now seamlessly integrated into everyday devices. Breakthroughs in AI, machine learning and robotics are driving the development of adaptive technologies capable of offering highly personalized support.

While the potential benefits of human-machine understanding are compelling, achieving them requires more than just vision — it demands a solid technical foundation. HMU operates through a **Sense, Understand, Support** framework that enables machines to effectively partner with humans.



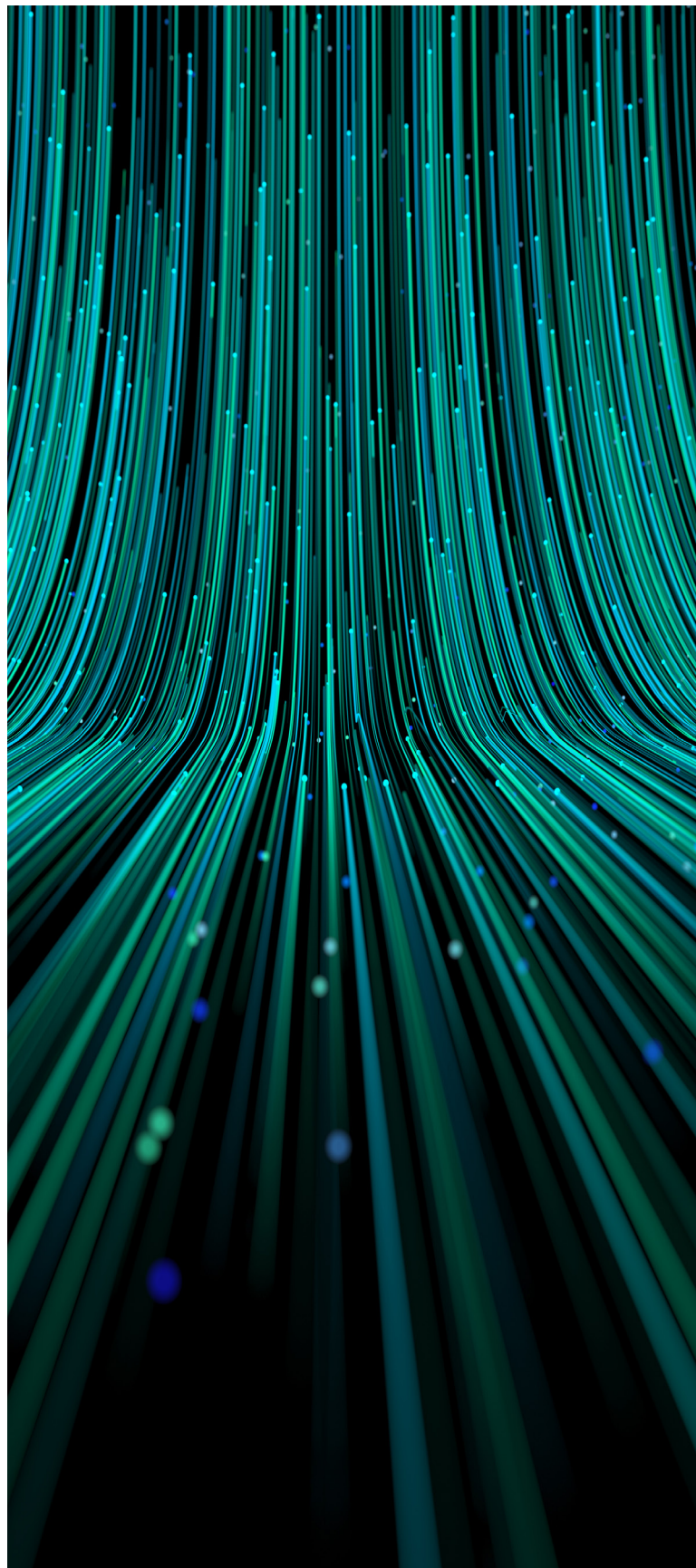
The **Sense** stage captures human and environmental data through various sensing modalities, from physiological data like heart rate that can indicate stress levels, to behavioral observations that provide foundational data for processing.



The **Understand** stage interprets human behavior and internal states within context using AI/ML models, uncovering the 'why' behind human actions — what drives them, what constrains them, and what might happen next.



The **Support** stage delivers precise, timely, and personalized assistance through appropriate interfaces, whether robotic platforms, XR headsets, or traditional GUIs, creating a feedback loop that enables dynamic system adaptation.



Different deployments of HMU might focus on all or parts of this sequence, or run this process end-to-end rather than sequentially as shown in Figure 1. HMU systems will interface with individuals, but a shared context is maintained between them, allowing for optimal support and coordination across team members.

In short, HMU will be a new competitive advantage. The most successful organizations will embrace HMU and use technology to fuse human intuition with machine precision, creating AI-enabled teammates who understand and augment our workforce. For business leaders, the onus is clear – HMU is coming, and it is time to invest now.

As we'll see in this paper, HMU isn't science fiction – the next stage of AI is already beginning. From adaptive cobots and humanoids on the factory floor to AI copilots in healthcare and hyper-personalized customer experiences in retail, HMU is reshaping how

we design, deploy, and interact with intelligent systems.

The underlying technologies that power HMU, such as large language models (LLMs) or vision-language-action models (VLAs), vision-based sensing, wearable biometrics, and edge AI, have matured to the point where real-time, contextual adaptation is possible. What was once confined to research labs will progressively be integrated into consumer devices, enterprise platforms, and robotics systems.

However, taking advantage of HMU is far from straightforward. The rapid pace of technological development means business leaders must ask some important questions. Are you equipping your teams to work with intelligent systems, not just through them? Are you designing experiences that make people feel understood, not just served?

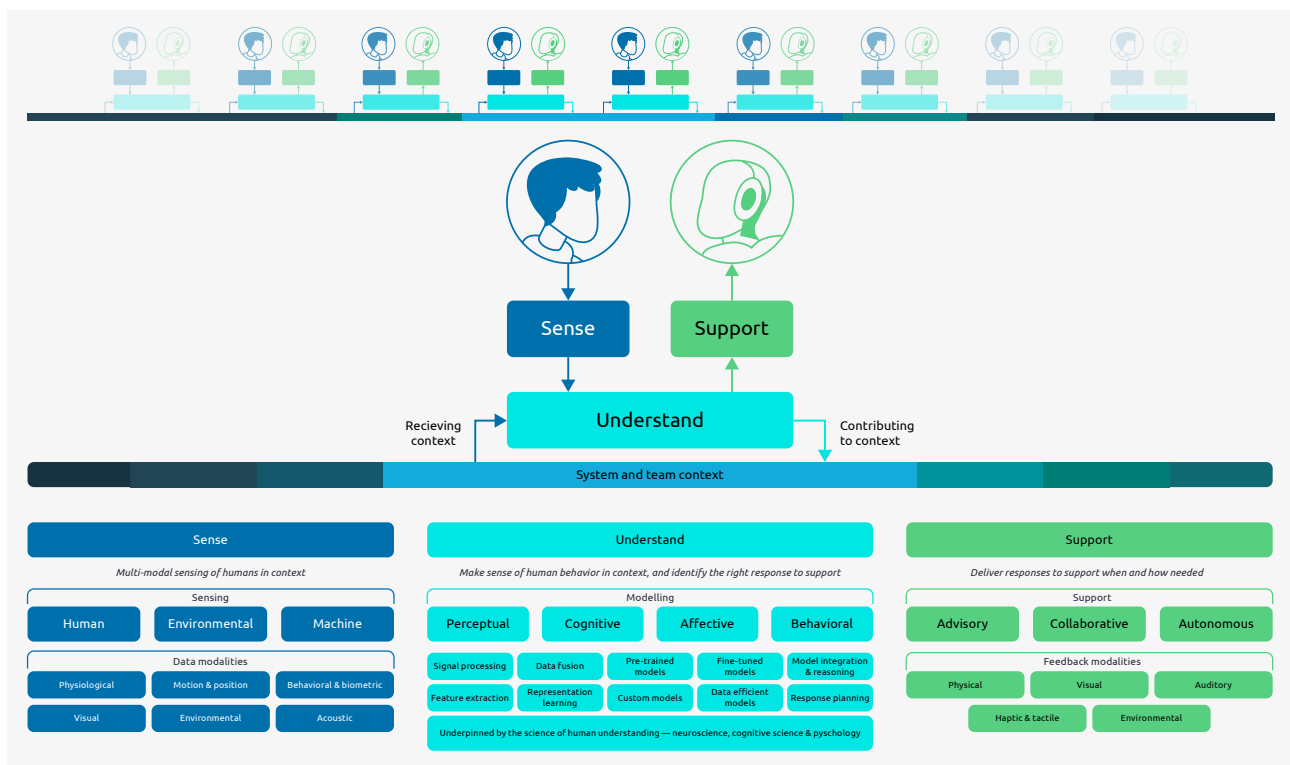


Figure 1. The HMU process – sensing to obtain human data, followed by understanding through models that make use of the sensed data, resulting in the appropriate support, provided at the right time.



HMU redefines value in three key areas

Organizations that embrace this shift to HMU will empower their people, elevate customer engagement, and spark new forms of creativity. Our research suggests HMU is redefining value in three key areas, outlined below:

1. Decision-making – from data processing to cognitive augmentation

HMU-equipped systems will augment cognitive processes by understanding human reasoning, not just supplying information. These systems will comprehend decision-making challenges and deliver information at the right time, tailored to business requirements. In high-stakes, time-sensitive scenarios, such as healthcare, HMU-equipped systems could even account for internal human states, such as stress or fatigue, that might affect decision-making processes.

2. Teaming and autonomy – from tools to teammates

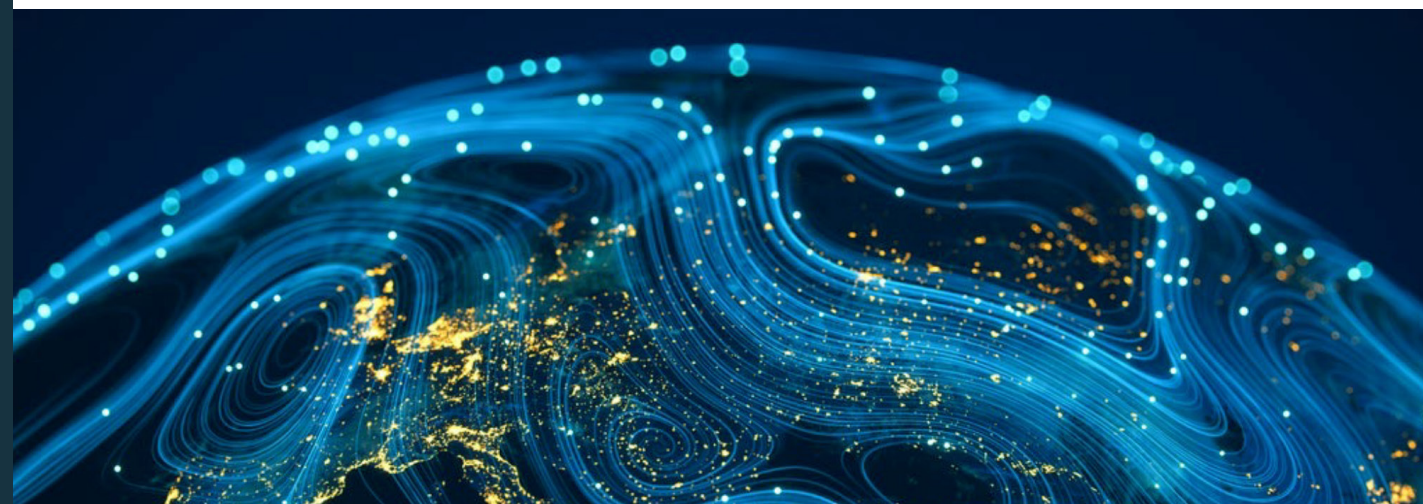
HMU enables AI to interact intelligently and intuitively with humans, turning machines from tools into teammates. We believe machines can only be true teammates once they have enough

agency to contribute to tasks as humans might. An example is collaborative robots (cobots) and humanoids, with capabilities, notably mechanical versatility and built-in safety features, that enable true human-robot cooperation in shared workspaces.

3. Adaptive experiences – the hyper-personalization revolution

With HMU, businesses can develop deeper, personalized experiences that boost customer engagement and loyalty. These developments can span everything from modeling individual preferences during an interaction to inferring internal states, such as attention, mood, or engagement, that influence what users take away from an experience. An HMU-enabled system can interpret these responses and adjust accordingly to deliver intuitive responses.

Across all three areas, it's important to recognize that HMU is more than a technical shift. It's a cultural and strategic evolution in how we relate to systems. It's about machines adapting to us, not just us to them.



Delivering real-world value

So, how are these advances playing out in real-world scenarios? HMU can unlock value in use cases where humans and machines collaborate to shape outcomes. Let's explore the potential impact of HMU across three sectors: healthcare, industry, and consumer.

Decision-making in healthcare environments

Modern healthcare is a data-rich process. Clinicians and machines exploit data for better healthcare outcomes, with generative AI enhancing decision-making processes.

Take [Color Health's AI copilot system](#), which helps clinicians create cancer treatment plans by analyzing patient data and healthcare guidelines for missing diagnostics. Early results show clinicians can maintain oversight and reduce analysis time from weeks to minutes. Confidence is crucial for AI-enabled healthcare decisions. A key challenge in this evolution is building trust and transparency in AI-driven decisions. This has led to promising developments in storytelling-based explainable AI (XAI) that provide comprehensible explanations to users¹, from smart home environments to eHealth

interfaces, can build trust in HMU and address the diverse needs of healthcare professionals and patients.

Sensing and monitoring technologies are another area of data-led progress. AI-powered systems now include transformers that recognize surgical gestures with 94% accuracy². Digital twin systems, meanwhile, enable real-time monitoring by integrating data from sensors, devices, and systems to optimize clinical and non-clinical operations³.

Teaming and autonomy in industrial settings

The transition from Industry 4.0's automation-focused approach to Industry 5.0 turns traditional human-machine interactions into collaborative partnerships. Evidence suggests a deeper human-machine relationship enabled by emerging technology:

Collaborative robots (cobots) have capabilities, notably mechanical versatility and built-in safety features, that enable human-robot cooperation in shared workspaces. Case studies demonstrate dramatic productivity gains, with implementations like metal

1. Dubey, Akshat, Zewen Yang, and Georges Hattab. "AI Readiness in Healthcare through Storytelling XAI." arXiv preprint arXiv:2410.18725 (2024).

2. Chen, Ketai, D. S. V. Bandara, and Jumpei Arata. "A real-time approach for surgical activity recognition and prediction based on transformer models in robot-assisted surgery." International Journal of Computer Assisted Radiology and Surgery (2025): 1-10.

3. Han, Yilong, et al. "Digital twinning for smart hospital operations: Framework and proof of concept." Technology in Society 74 (2023): 102317.

fabricator [Raymath's cobots](#) expanded production, boosting productivity by 600%, and helping staff focus on meeting new customer requirements.

Advances in AI and machine-learning have enhanced robots' abilities to adapt to dynamic environments and tasks. The integration of adaptive intelligence and self-learning capabilities enables robots to work alongside humans in increasingly complex scenarios, recognizing patterns and responding to real-time changes. Semi-autonomous cleaning cobots have been trialed in Spanish hospitals to follow programmed routes yet move around people, supported by developments in shared mental models and situational awareness frameworks⁴.

Industry demands, particularly workforce challenges and skill shortages, are accelerating adoption. [Bison Gear and Engineering's transition](#) demonstrates effective implementation: moving from requiring two full-time operators per shift to a single operator managing multiple systems while maintaining productivity. This case shows how successful implementation combines targeted automation with strategic redeployment of human capabilities.

Adaptive experiences in the consumer sector

The consumer sector has experienced perhaps the most visible transformation in how people and technology work together.

Advances in LLM-powered tools are supporting the shift to personalized experiences. Evidence suggests almost 25% of consumers now use generative AI for shopping⁵. These AI-enabled developments are changing how humans and machines collaborate and influence each other's decisions and actions.

Other emerging technologies, such as virtual and mixed reality, are also being used to develop new customer experiences. From virtual try-ons in retail environments to health apps that offer support based on user behavior, integrating data and technology with human interactions helps firms develop rich user experiences. We see this in modern gaming experiences that respond to player emotions⁶, theme park attractions that adapt to visitor reactions⁷, and mental health apps that adjust their support based on user behavior patterns⁸.

However, building user trust through transparent AI-enabled decisions and maintaining smooth customer experiences remains a delicate balance. Consumer businesses must maintain core functionality while focusing on sophisticated engineering techniques and user-centered design that delivers hyper-personalization.

Achieving this balance is challenging because the consumer sector's technical requirements change constantly. Yesterday's cutting-edge feature is tomorrow's expectation. HMI-enabled solutions must be agile, adaptable, and capable of incorporating new interaction methods as they emerge.

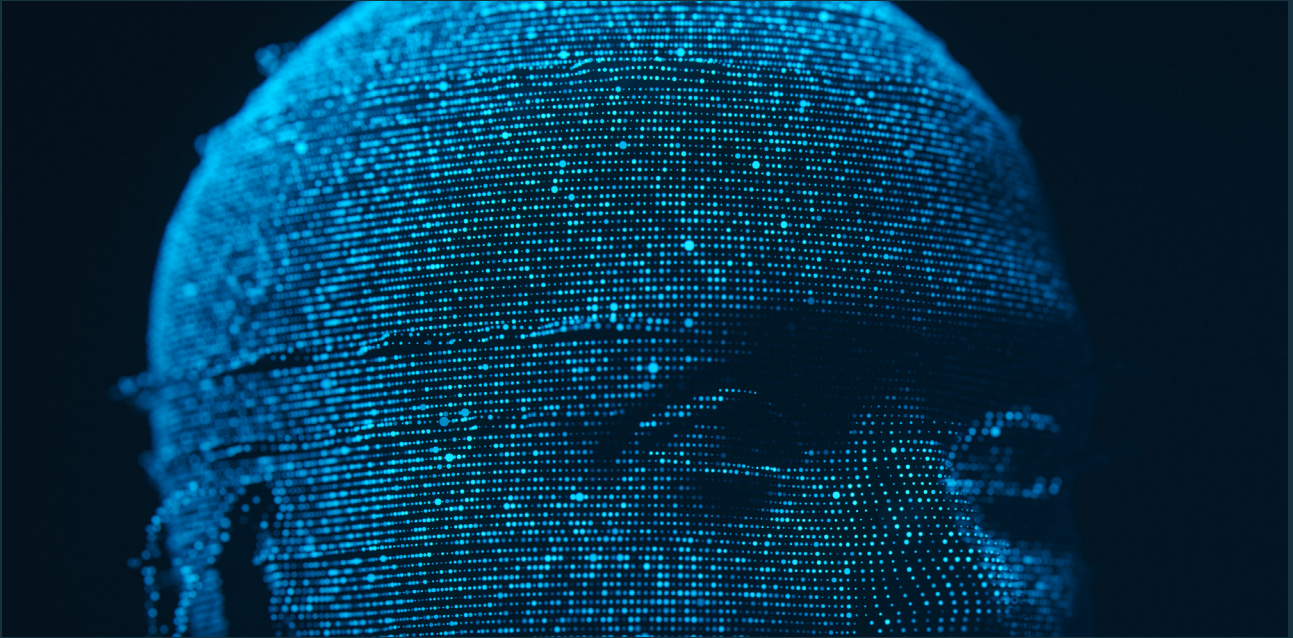
4. Aldridge, Audrey L., and Cindy L. Bethel. "M-oat shared meta-model framework for effective collaborative human-autonomy teaming." Companion of the 2023 ACM/IEEE International Conference on Human-Robot Interaction. 2023.

5. Capgemini Research Institute. "What matters to today's consumer: 2025 consumer behavior tracker for the consumer product and retail industries". 2025

6. Lobel, Adam, et al. "Designing and utilizing biofeedback games for emotion regulation: The case of nevermind." Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems. 2016.

7. Neil Sahota. "The Magic Of Tomorrow: How AI Is Transforming Amusement Parks." Forbes. 2024.

8. Torous, John, et al. "The growing field of digital psychiatry: current evidence and the future of apps, social media, chatbots, and virtual reality." World Psychiatry 20.3 (2021): 318-335.



The humanoid advantage: *built for human spaces*

The recent surge in humanoid robotics represents a particular application of HMU principles. Unlike traditional industrial robots designed for dedicated automation spaces, humanoids are explicitly built for human-centric environments. Companies like [Figure](#) are advancing this vision, announcing plans to bring alpha testing of their humanoid robots into homes [during 2025](#).

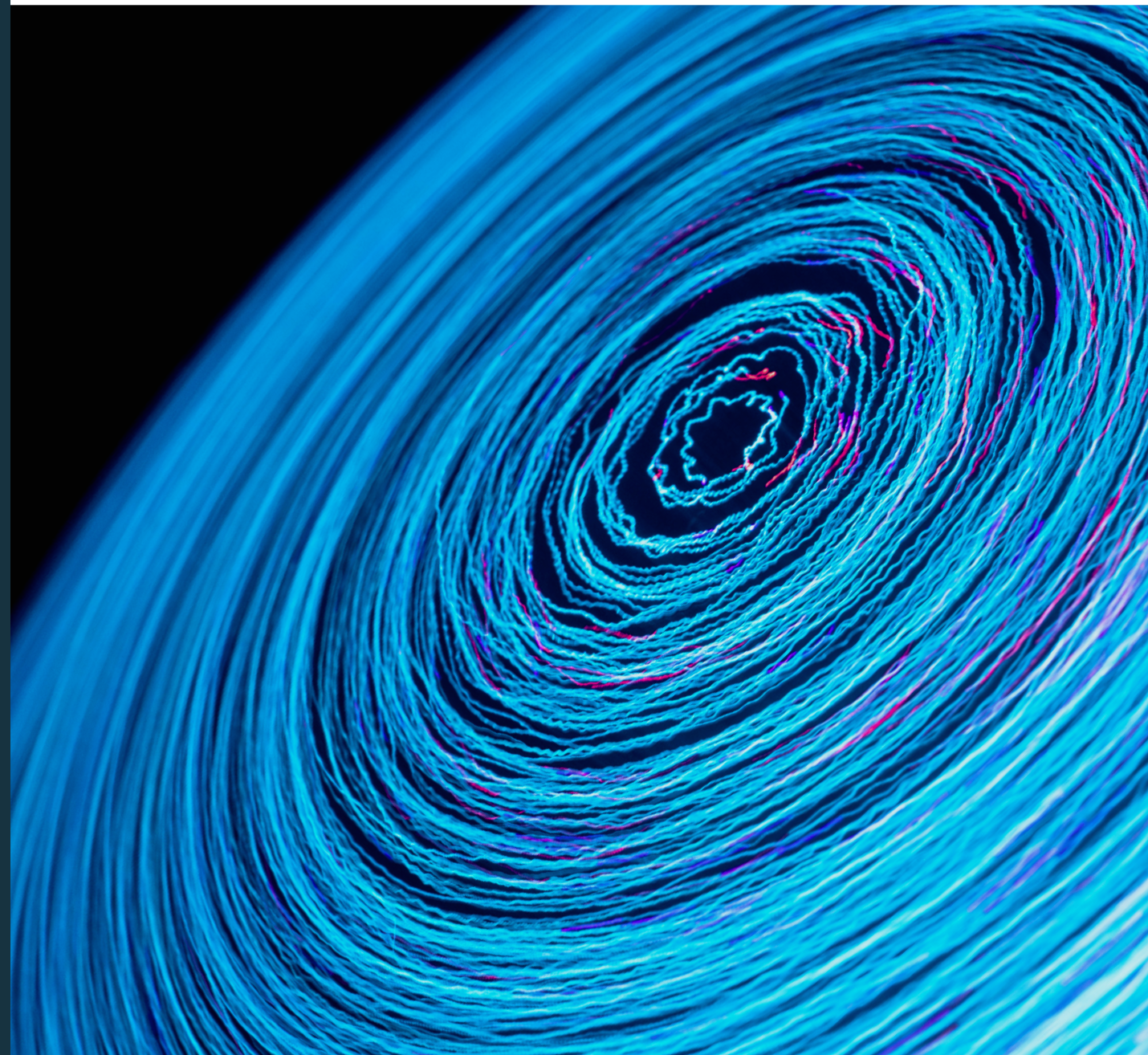
The strategic logic is compelling: our homes, hospitals, and care facilities will always remain fundamentally human-centric spaces. Rather than redesigning these environments around robotic limitations, humanoids with human-like forms and behaviors can integrate seamlessly into existing workflows and spaces.

The deployment strategy for humanoids follows a clear progression. Initial commercial applications focus on brownfield manufacturing environments, where the ability to work within existing facilities alongside established human teams provides

immediate value without costly infrastructure overhaul. As technology matures and costs decrease, we can expect expansion into healthcare and consumer markets, where the human-centric design of homes, hospitals, and care facilities makes humanoid form factors particularly advantageous.

As robots develop more advanced world models to operate alongside humans, understanding how these models interface with human cognition and resulting physical behavior is critical. HMU bridges this gap by enabling machines to sense and interpret human goals, intent, and reasoning, allowing for adaptive, real-time collaboration. Just as humans anticipate and coordinate with one another, robots equipped with HMU can refine their responses based on user behavior, cognitive state, and contextual feedback.

This is essential in industrial settings, where effective human-machine teaming requires not just automation, but mutual understanding.



Vision scenarios for an HMU-enabled future

So far we've seen how advances in data and AI foster a closer relationship between humans and machines, where both parties collaborate closely to produce desired outcomes. During the next decade, innovations in HMU-aligned systems, with advances in related technological areas, including virtual and autonomous agents, robotics, and extended reality, will converge to create new capabilities. So, what will these HMU-aligned systems mean for users? Here are three potential sector-specific future scenarios in healthcare, industry, and consumer settings.



Healthcare: *A doctor's journey*

Dr. Su Jingfei begins her shift in a London hospital by adjusting her neural link. This Clinical Companion System (CCS), which Su calls Cal, feels like a trusted partner. Built through thousands of cases, Cal adjusts Su's environment for residual stress and highlights the day's schedule, seamlessly linking to past surgeries for personalized insights.

During rounds, Su and Cal tackle a puzzling diagnosis. Detecting Su's frustration around coming up against several dead ends, Cal simplifies data streams, flags anomalies, and retrieves relevant histories from the hospital's edge computing network. Su and Cal's collaboration blends human intuition with machine precision.

This level of augmentation requires significant testing and refinement. Su recalls the early days of CCS integration, including the near suspension of the program over privacy

breaches. She reminds her team that understanding the strengths and limitations of HMU-aligned systems is the key to success.

A trauma alert interrupts their discussion, pulling Su into action. Cal syncs incoming patient data with past cases, highlighting differences and initiating protocols in real-time. Later, reviewing AI metrics with the hospital board, Su reflects on how medical training has evolved: today's medical students integrate AI seamlessly into healthcare routines.

As Su finishes her shift and heads home, Cal dims non-essential feeds to match her fatigue while keeping emergency alerts active. Together, they prepare for another day of refining the balance between human intuition and machine intelligence.



Industry: *Partners in production*

Quin, a senior operator, steps onto the factory floor, their smart PPE seamlessly syncing with the Team Co-ordination Network (TCN). Biometric scans confirm steady vitals, though stiffness in their posture prompts an automatic adjustment in task distribution before they reach their station.

K2, Quin's humanoid robot partner of three years, pivots toward them with a familiar head tilt — an expression they refined together for clearer nonverbal cues. Nearby, a newer human-robot team struggles with a complex sequence, and the TCN flags the operator's rising tension. A glance between Quin and K2 is all it takes. K2 transmits optimized movement patterns while Quin explains the human elements of the task. The network logs the benefits of this exchange, improving future training protocols.

Midway through the shift, a sudden crash from the loading bay spikes stress levels across the floor, and the emergency system activates. K2, drawing on historical data, knows Quin handles crises best when actively engaged.

"Quin, maintenance could use our expertise. I'll secure the line," K2 says, its tone calibrated for reassurance. Quin and K2's seamless partnership blends human adaptability and machine precision.

As Quin's shift ends, K2 projects a holographic replay of their morning assembly. "Your right shoulder tension has dropped 12% since we modified the handoff angle," K2 notes, offering a slowed-down practice iteration for further refinement. Before Quin heads home, K2 compiles their shared learnings, including optimized patterns, problem-solving insights, and emergency responses. These learnings are added to the collective knowledge base, ensuring incremental improvements for future shifts.

"Take care, Quin" K2 says, offering the small wave they developed together, a gesture neither necessary nor programmed, but one that captures the essence of their partnership: technically precise, quietly caring, and uniquely their own.



Consumer: *A shared experience*

Michael and Arjun step into Barcelona's morning light, their movements seamlessly entwined with an invisible intelligence attuned to their rhythms. Their digital companion has learned not just their habits — Michael's instinct to plan, Arjun's love of spontaneity — but how they experience the world together. The system anticipates the ebb and flow of their energy, sensing when to guide and when to fade into the background, orchestrating possibilities without intrusion.

As they pass the bustling market, the system senses their diverging reactions — Arjun's pulse quickens as his excitement grows, while Michael tenses at the growing crowd. In response, it suggests a quieter entrance for Michael while translating market vendors' banter for Arjun, who delights in conversation.

Inside the market, subtle nudges shape their experience: a spice stall reminiscent of past culinary adventures, and an unexpected find that sparks shared curiosity. When their biometric signals hint at fatigue, the system gently leads them to a tucked-away courtyard restaurant — intimate, unhurried, perfectly in tune with their needs.

This is technology not as an interface but as an enabler of connection, threading individual moments into a shared narrative. It understands more than just preferences; it senses the unspoken language of companionship, amplifying joy and easing friction without imposing itself. Here, HMU is not about control but creating space for relationships to flourish.



From vision scenarios to HMU-enabled realities

The visions we have covered paint a potential future state of humans and machines working seamlessly together. Now, we need to get there.

The pioneering developments in generative and agentic AI are the most visible signs of a move towards HMU. However, despite the huge advances in the LLMs that support these systems, fundamental challenges remain in achieving true human-machine understanding. While generative technologies and some automated

machines can engage in sophisticated conversations, they struggle with context, cultural nuances, and complex mental states.

In industrial settings, we see the promise and limitations of current approaches. Recent developments in collaborative robotics, from industrial manipulators to humanoids, show how systems can respond to an increasing range of structured inputs, but true contextual understanding remains a significant challenge.

Context-aware computing promises to bridge this gap by leveraging a network of sensors and smart devices in a \$127 billion market by 2032⁹. However, the big challenge is developing systems that interpret information with the nuance humans bring to interactions.

The technical hurdles are significant: current systems must integrate data from diverse sources, from proximity sensors and IoT devices to user interaction patterns and environmental signals, while addressing standardization and interoperability issues.

Major tech companies are attempting to solve this through context-as-a-service offerings and edge and fog computing integration for real-time processing. Multimodal LLMs offer another path forward, enabling richer interactions through combined visual and textual understanding. This advancement opens new possibilities for customer service, product design, and user experience optimization.

We believe the next frontier lies in understanding behaviors. Companies like Meta, Apple, and Google are gathering multimodal data from multiple sources, which may form the foundation of the next generation of models. Evidence comes from the prevalence of wearables. The data gathered from our phones, laptops, and wearables can detect and predict when dangerous health events are likely to occur and even start an intervention. [Google's research](#) into combining their vast wearable data with language models is an example of this.

The human factor is crucial for businesses in adopting and adapting HMU. Success hinges not just on the technology itself, but on one's ability to upskill one's workforce and address their concerns. Clear communication about human-robot collaboration is essential for workforce acceptance. However, the core challenge remains – creating systems that maintain contextual awareness while respecting privacy concerns and operating within regulatory frameworks.

9. <https://www.coherentmarketinsights.com/press-release/context-aware-computing-market-4692>



HMU and data security: Risks and mitigations

While HMU is the basis for technologies that understand human behavior and provide personalized assistance, these systems will interact with us deeply and know our requirements. The risks with this level of interactivity are significant.

The priority for those who develop HMU-aligned technologies is simple: security best practices. However, achieving a manageable level of risk is far from easy.

Six key considerations



Safety:

Poorly designed interfaces could cause physical (musculoskeletal or neural) injuries, nausea or motion sickness, or psychological harm (such as fear or addiction).



Privacy:

Unfair practices could result in excessive data gathering, unauthorized data sharing or sales of data, manipulative consent, and a lack of transparency.



Cost:

Non-compliance could lead to delays, recalls, and financial penalties. A lack of structured risk assessment could result in poorly designed and costly systems. Without appropriate safeguards, meanwhile, IP could be lost or stolen.



Security:

Malicious attacks could influence decision-making, adversely affect individual agency, or trigger other risk scenarios. System software and hardware must also secure personally identifiable data.



Ethics:

A lack of honesty and transparency could result in manipulation or misleading feedback that damages trust. Biases present in algorithms could lead to underrepresentation, miscarriages of justice, and amplification of harmful biases.



Regulation:

Businesses must consider security and privacy laws, AI legislation (for example, the EU AI Act), ethical bodies and committees, and health and safety laws.

Businesses and business leaders must ensure tight interactions between HMU systems and business concerns. Conflicts between these areas, such as a new service that collects data in a manner that could infringe personal privacy, must be resolved to create a well-engineered system. However, system complexity continues to increase, making guarantees against misuse an intractable challenge. The most likely pathway to success is assurance rather than guarantees.

Assurance is a declaration of confidence in a system; high assurance means high confidence. The pathway to assurance consists of four phases that should be completed and replayed on an ongoing, cyclical basis:

Threat and hazard identification

Misuse and abuse cases, threat modeling, safety analyses, surveying legislation

Risk assessment

Impact assessment and prioritizing severe risks

Test and remediation

Test HMU systems and implement controls and mitigations

Monitoring and reporting

Document findings, monitor continuously, review regularly

Business leaders must treat assurance like a fast-moving target. In addition to the activities of errant individuals, other external parties, such as regulators, will add pressure for organizations embracing HMU. For example, individual applications should be investigated carefully to ensure compliance with the EU AI Act.





Seven things to do now: a structured approach to HMU

The evolution of HMU technologies presents opportunities and challenges. Their effective integration into your organization is a strategic necessity to stay competitive in an automated world. Business leaders must take a structured approach that balances technological capability with human experience.

- 1 Evaluate your human-machine interfaces – Assess whether existing systems align with emerging HMU capabilities and identify gaps where better human understanding could enhance performance.
- 2 Invest in robust technical infrastructure – Effective HMU integration requires a foundation of reliable sensing and data pipelines, scalable AI models, and adaptive system architectures.
- 3 Prioritize human-centered design – Machines that understand users will only succeed if built with human needs, cognitive models, and usability in mind.
- 4 Identify high-impact use cases – Look for areas where improved human understanding could deliver the most value, whether in decision support, operational efficiency, or workforce augmentation.
- 5 Plan for gradual integration – Rather than overhauling systems overnight, consider pilot projects that test HMU breakthroughs and support larger-scale adoption.
- 6 Commit to ethical AI development processes – Trust and transparency are crucial to adoption, with a focus on fairness, accountability, and responsible AI practices.
- 7 Prepare your workforce for change – Strategic planning for workforce adaptation ensures employees are equipped to work effectively with intelligent systems.

The most successful HMU implementations will balance innovation with practical application to integrate fresh capabilities into real-world operations. The goal is to create machines that process information more effectively as true partners in achieving business objectives.

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About Capgemini's AI Robotics and Experiences Lab

Through its research and application of these technologies, the lab explores the next frontier in human-machine understanding—uncovering both the opportunities and challenges that will shape our client's operational transformations. Capgemini's AI Robotics and Experiences lab focuses on: designing the future of industrial operations by exploring the convergence of technology, machines and robotics, simulating the human experience to study how human and machine can best interact, implementation of embodied AI and physical AI through scalable operational use cases. A team of in-house senior technology experts, in tandem with a robust partner ecosystem are co-creating roadmaps and prototypes that help organizations gain a competitive edge. By leveraging human-AI collaboration the lab unlocks new opportunities across industries – building on existing digitalization efforts already in place.

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Cambridge Consultants (CC) is the deep tech powerhouse of the Capgemini Group. Deep tech is a mindset, a bold strategy that harnesses radical science and engineering to achieve things no-one else can. It delivers transformative business value and growth for our clients, who gain defendable commercial and operational advantage from new-to-the-world products, services and processes that they own. We overcome the ultimate business challenge: turning something that doesn't yet exist into a reality. Our advice is built on practice, with over 750 scientists, engineers, designers and consultants working globally across more than 20,000 sq. m of state-of-the-art R&D facilities. As part of Capgemini Invent, CC is backed by 340,000+ Capgemini team members in more than 50 countries.

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Capgemini is a global business and technology transformation partner, helping organisations to accelerate their dual transition to a digital and sustainable world, while creating tangible impact for enterprises and society. It is a responsible and diverse group of 350,000 team members in more than 50 countries. With its strong over 55-year heritage, Capgemini is trusted by its clients to unlock the value of technology to address the entire breadth of their business needs. It delivers end-to-end services and solutions leveraging strengths from strategy and design to engineering, all fuelled by its market leading capabilities in AI, generative AI, cloud and data, combined with its deep industry expertise and partner ecosystem. The Group reported 2024 global revenues of €22.1 billion.

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