vsp Global Innovation Center



6 Key Trends from EmTech Future 2026

MIT Technology Review
EmTechFuture

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EmTech Future is MIT Technology Review's flagship emerging technology conference, held on the MIT campus, bringing together leaders from **Google, Microsoft, IBM, Nvidia** and MIT across AI, quantum, biology, robotics, energy and the future of work.

The VSP Global Innovation Center (GIC) attended EmTech Future 2026 to hear directly from the people building these technologies and to track the breakthroughs that will shape the future.

This year's theme was **Convergence**: the future isn't created by single technologies, but instead by what happens when they collide. As the boundaries between fields disappear, what **new capabilities** emerge when technologies from separate domains start working together? The GIC filtered these ideas through a healthcare-focused lens, synthesizing how converging technologies will amplify vision care's evolving role in healthcare.

Read on to dive into the conference's top trends.

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6 Key Trends from EmTech Future 2026

The Trend	The Converging Technologies
1. The Body Becomes A Platform	AR + Robotics + Brain Computer Interfaces
2. AI Sensing Moves Care Upstream	AI + Sensors
3. AI Becomes a Co-Scientist	AI + Biology + Lab Automation
4. Human Agency by Design	AI + Human Judgement
5. Energy Sets the Pace for AI	AI + Energy Infrastructure
6. Security Becomes an AI Arms Race	AI + Quantum + Cybersecurity

Trend 1:

The Body Becomes A Platform

Insight: Human augmentation is moving from science fiction to product. Futurist Amy Webb named it one of three defining convergences, pointing to AR glasses with live overlays, exoskeletons and brain-computer interfaces. MIT researchers showed bionic limbs that return sensation to the user and AI that connects directly to the body's senses.

Why It Matters: The face is prime real estate for this shift. As AI leaves the screen, eyewear is becoming an interface for sensing and information, not just a tool for vision correction. The concept raises new questions about who owns the data a device collects and whether capabilities are sold outright or by subscription.



AR + Robotics + Brain Computer Interfaces

The Details: 3 convergences named by Amy Webb are reshaping people and systems

- ***Human Augmentation***: Technology enhances people's physical and cognitive abilities beyond their natural limits
- ***Ambient Autonomy***: AI is built into spaces and machines that sense, decide, and act in the physical world
- ***Living Intelligence***: AI, sensors, and bioengineering combine into systems that learn and adapt, such as computers built from lab-grown human neurons

Trend 2:

AI Sensing Moves Care Upstream

Insight: AI paired with imaging and passive sensors is shifting healthcare from treatment to early detection. Google Research described AI screening for diabetic retinopathy (ARDA) in clinics in India and Thailand, research on spotting cardiovascular disease, insulin resistance and hypertension through wearables, and MedGemma, an open medical model that can run offline.

Why It Matters: The eye is one of the few places where blood vessels and nerve tissue can be seen without an invasive procedure. Thus, a comprehensive eye exam sits at the center of this convergence, as a front door to detecting chronic disease. Google's example of AI diabetic retinopathy screening, ARDA, returns an outcome during the visit, so patients who need care are referred to an eye specialist before they leave instead of weeks later. VSP's network doctors are positioned to be where referrals land and where follow-up care and long-term eye health data live.



AI + Sensors

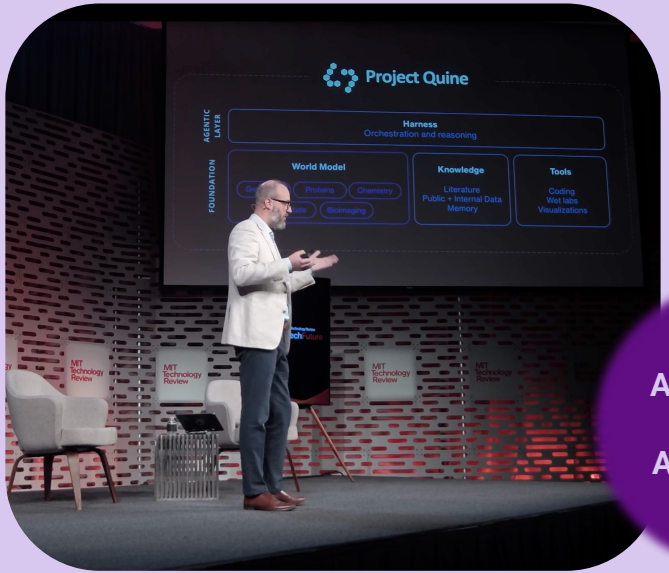
What MedGemma Is: A family of open-source AI models from Google built for health and medicine that handles medical text and images including retinal photos. Developers can download, adapt, and build their own healthcare tools using the technology.

Trend 3:

AI Becomes a Co-Scientist

Insight: Reasoning models have turned AI from a research tool into a research partner. Co-scientist systems now read literature, generate hypotheses and design experiments. Microsoft's Project Quine predicted a previously unknown pancreatic cancer cell state that lab experiments then confirmed.

Why It Matters: Faster discovery could accelerate therapies for eye disease and the systemic conditions that affect vision. However, speakers were clear that biology still needs real-world validation, so the bottleneck is moving from ideas to physical testing, and timelines will stay longer than the headlines suggest.



AI + Biology + Lab Automation

What an AI World Model is: A machine learning system that builds a representation of an environment to predict, plan, and reason about how the physical or virtual world changes over time. World models can be trained on biological data to predict how an intervention like a drug might impact the biological system.

What Project Quine is: A Microsoft Research project that builds an AI world model of biology to help scientists decide which lab experiments are worth running, before they spend the time and money.

Trend 4:

Human Agency by Design

Insight: As AI makes content cheap and abundant, human judgment becomes the scarce resource. The key question is whether AI will work for people, helping us think and decide, or if people will end up working for AI, rubber-stamping its output. Microsoft's Jaime Teevan warned of "work slop" that looks polished but has no real thinking behind it.

Why It Matters: Teevan argues the value of a document was always the human thought and effort that went into it. As employees use AI to create content, readers will question the true value of that content. The opportunity is to use AI to capture human thinking, acting like an expert interviewer that draws out the judgment of the writer. Trust will go to organizations that use AI to amplify the judgment of doctors and employees, and that serve members at every level of health literacy.



AI + Human Judgement

Bring the Concept to Work: Ask your AI assistant to reconstruct the process behind something you built with it, then reflect on whether that process was good.

What we heard: *"AI provides access to almost limitless computational power. But our ability to reason over things remains limited."* - Jaime Teevan discussing seven predictions for the future of work

Trend 5:

Energy Sets the Pace for AI

Insight: Compute is now constrained by power. Chips are selling faster than data centers can be built, natural gas is filling the gap, and nuclear timelines don't match build schedules. MIT's Evelyn Wang framed data centers as a full systems redesign spanning power, compute, cooling and community impact.

Why It Matters: Every AI capability carries an energy and cost footprint that is increasingly visible to regulators, clients, and communities. Smaller, efficient models now match frontier models from six months ago, so choosing the right tool for the job serves both sustainability and budgets.



AI + Energy Infrastructure

By the Numbers: The total share of Virginia's electricity now consumed by data centers is ~25%.

What we heard: "*The energy demands of AI are a significant challenge, but we also have an opportunity to harness these vast computational capabilities to contribute to climate change solutions.*" – Evelyn Wang, MIT VP for Energy and Climate

Trend 6:

Security Becomes an AI Arms Race

Insight: Keeping attackers out is no longer a workable security goal. Trend AI's Tom Kellermann noted that criminal groups and nation-states now use teams of AI agents to infiltrate systems, stay hidden, and attack other organizations from within. The physical world shows the same pattern: GPS signals are routinely jammed across the Middle East, leaving pilots with false warnings and failing systems. Quantum sensors that navigate by Earth's magnetic field have now emerged.

Why It Matters: Plan for systems to be compromised, and design them to keep working regardless. For VSP, this means treating member health data and payment flows as targets, containing intruders inside the network rather than relying solely on a perimeter, and tightly limiting access for every AI agent it deploys.



AI + Quantum + Cybersecurity

By the Numbers: Over 1,500 commercial flights are disrupted by GPS jamming every day. Meanwhile, a June 2026 survey of financial-sector CISOs found that 67% of significant attackers resist removal and work to remain inside a network once they have been detected.

What we heard: The chief technology officer of a major airline described Q-CTRL's GPS-free quantum navigation as *"one of the greatest game changers in aviation history."*

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At EmTech Future 2026, the VSP Global Innovation Center engaged with leading researchers and technologists to identify the converging technologies that will shape health and vision care. These efforts help ensure that VSP and the vision care industry remain at the forefront of the evolving healthcare continuum.

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Interested in learning more?

Email us at: globalinnovationcenter@vsp.com