



Key takeaways

Artificial intelligence (AI) continues to be the key theme of 2026, reshaping industries and influencing nearly every corner of the global economy. Our Fall 2026 Thematic Outlook explores how the rapid advancement and adoption of AI is transforming sectors, creating new opportunities and risks, and redefining where and how we invest.

- AI's value chain continues to expand as adoption deepens, but winners are beginning to separate amongst supply constraints.
- Rising demand for AI compute is intensifying the need for critical materials and power, exposing bottlenecks along the way but also potentially opening new frontiers like space.
- New capabilities emerging in robotics and healthcare may impact our daily lives, while AI & digital assets may reinforce each other through daily use cases.

All figures are presented in U.S. dollars unless otherwise indicated.

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Welcome to the AI economy

The AI investment opportunity is shifting from a concentrated technology buildout toward a broader, increasingly physical economy, with implications and applications for all business sectors and consumers. The next phase of thematic investing may depend on identifying both the beneficiaries of AI adoption and the constraints that determine how quickly the AI economy can scale.

How is AI moving from IT to real-world adoption?

For much of the AI buildout, the investment story has centred on the companies building the infrastructure. But the next phase may become about what that infrastructure enables. We are beginning to see signs that years of AI capex are translating into revenue.¹

Cloud revenue growth for the largest providers has been accelerating as AI infrastructure comes online, showing evidence that demand has begun to be monetized.² In just one year, the combined cloud backlog, which represents signed customer commitments, of Amazon, Alphabet, Microsoft, and Oracle nearly tripled, rising from \$800 billion to \$2.3 trillion.³

But spending on AI and creating value from AI are not necessarily the same thing. As AI adoption matures, opportunities may increasingly favour companies that can successfully deploy AI across their businesses, not simply those investing in AI technology.

1. Source: BlackRock analysis of Microsoft, Alphabet, Amazon Company Q2 2026 and Q2 2025 Earnings Releases, released July 22–30, 2026, Azure = "Azure & Other Cloud Services." Year-over-year growth accelerated from 17% to 37% at AWS, from 32% to 82% at Google Cloud and from 39% to 43% at Azure between Q2 2025 and Q2 2026. 2. Source: Based on BlackRock analysis of Microsoft, Alphabet, Amazon Company Earnings Releases in Q2 2026 and Q2 2025. 3. Rich Duprey, "The \$2.3 Trillion Reason Amazon, Alphabet, and Microsoft May Still Be the Smartest AI Investments," 24/7 Wall St., republished by Yahoo Finance, July 31, 2026.

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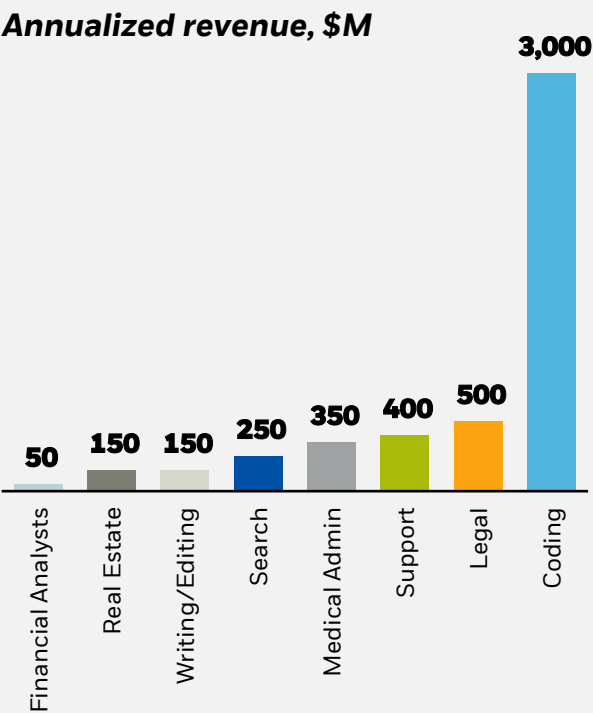
Kellanova offers a real-life example. The company behind the popular Pringles snack, invested \$4–5 million in AI to make every chip more consistent (potato chips that is, not to be confused with AI chips). The result? A 10% increase in quality, 13% reduction in waste, and 40% return on investment.⁴

We believe the next set of AI beneficiaries may include not only the companies building the technology, but also those with the strategy, talent and operating models to put it to work. As a result, AI’s economic value may be measured not by how much technology companies buy, but by what they are able to do differently because of it.

That shift may already be spreading through the broader enterprise economy faster than in previous technology cycles. In the first three years after the launch of ChatGPT in late 2022, 29% of Fortune 500 companies and 19% of Global 2000 companies adopted AI.⁵ What may be even more telling is where that adoption is beginning to take hold. Coding may be the obvious starting point, but faster-growing enterprise use cases are also emerging in legal and medical administration, industries that by some measures have been historically slower to adopt new technologies, as evidenced in Figure 1.

Figure 1: AI may be rewriting the enterprise adoption playbook

The surprise isn't coding- it's where AI is also gaining traction

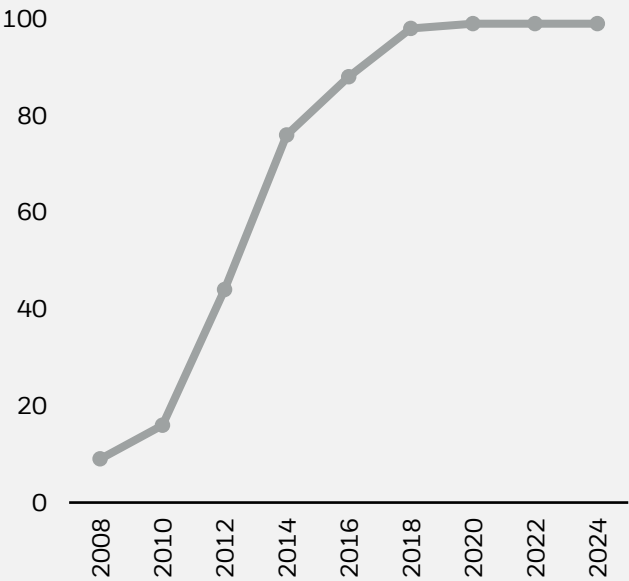


Source: A16Z news, “AI adoption by the numbers,” 4/8/2026.

Figure 2: AI may be rewriting the enterprise adoption playbook

Healthcare surprises to the upside, as a historically slow adopter

Percent of hospitals adopting EHR



Source: Office of the National Coordinator for Health Information Technology, June 2026

4. Source: Wall Street Journal, “Artificial intelligence helps perfect Pringle chip-making,” August 11, 2026. 5. Source: A16Z News, “AI adoption by the numbers,” April 8, 2026. The adoption levels shown were reached just over three years after ChatGPT launched in November 2022. 5. Source: A16Z News, “AI adoption by the numbers,” April 8, 2026. The adoption levels shown were reached just over three years after ChatGPT launched in November 2022.

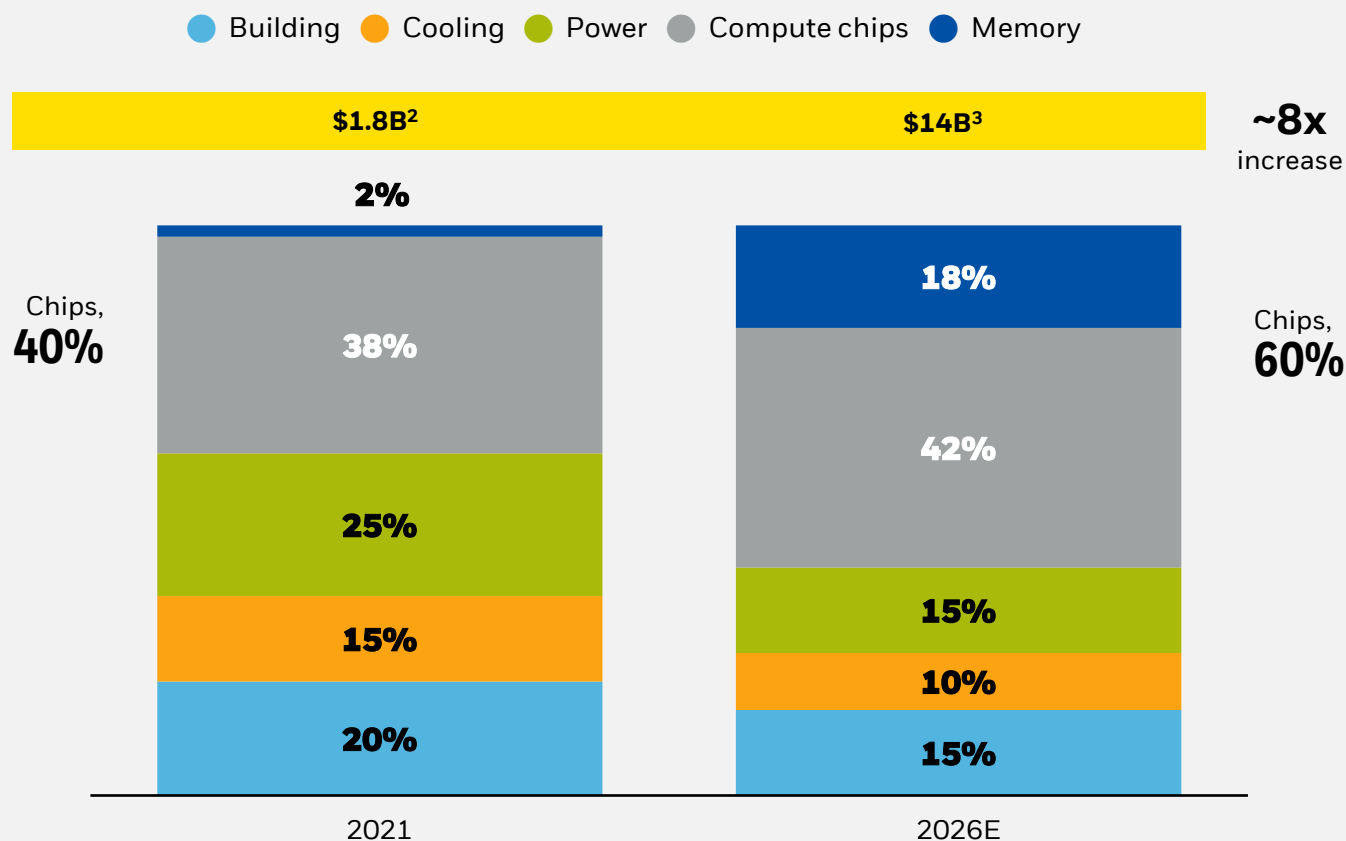
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Could semiconductors constrain the AI economy?

As AI moves beyond the tech sector, the challenge may increasingly shift from whether companies want more compute to if the physical supply chain can provide it fast enough. Unlike software, semiconductor capacity cannot scale overnight. Chips are estimated to account for roughly 60% of datacenter build costs in 2026, up from about 40% in 2021⁶, with memory representing much of that increase.

Figure 3: Chips drive 60% of build costs, led by memory

Share of total data-center build cost by component, 2021 vs. 2026 (estimated)



Source: Exponential View, "The states of the AI economy," June 25, 2026 Subject to change. Forward-looking estimates may not come to pass.

Over a typical four-year hardware cycle, compute capability has improved roughly 250% faster than memory bandwidth⁷ – creating a growing mismatch between what AI systems can process and how quickly data can reach them.

⁶ Source: Exponential View, "The states of the AI economy," June 25, 2026. Forward looking estimates may not come to pass. ⁷ Source: Amir Gholami et al., "AI and Memory Wall," arXiv 2403.14123, March 21, 2024.

The constraint is difficult to solve quickly because adding semiconductor capacity is a multi-year physical undertaking.⁸

Figure 4: A breakdown of the multi-year process to build new semiconductor capacity.

Year 0	Commit capital / construction begins
Years 1-2	Build the factory and clean rooms
Years 2-3	Install and test manufacturing equipment
Year 3-4+	Meaningful production begins ramping

2 How is the AI economy becoming a physical one?

AI bottlenecks aren't just limited to semiconductors, demand is extending well beyond chips and data centers to the raw materials that underpin them. Copper, lithium, nickel, and more all sit within broader supply chains supporting electrification, batteries, power infrastructure and advanced technologies. Yet expanding supply is not simply a question of finding more resources.

New mines can face long development timelines, permitting hurdles, declining ore grades and significant capital requirements, creating the potential for supply to lag demand. One example? Copper, where current project pipelines could leave a quarter of 2035 demand unmet.⁹

And copper isn't the only pain point. The funnel for materials is narrowing at refining; currently the leading refining country accounts for an average of 72% of global refined supply of critical raw materials, including copper, lithium, nickel, cobalt, graphite, and manganese.¹⁰ In our view, not only is more supply needed, but refining must diversify.

Beyond critical materials, the physical demands of AI extend directly to the power system. As data centres scale, electricity demand is beginning to accelerate after decades of relatively muted growth, creating what may be the largest expected step-up in U.S. electricity demand growth in a century.

Did you know?

121 GW: projected U.S. data centre IT power demand by 2030.

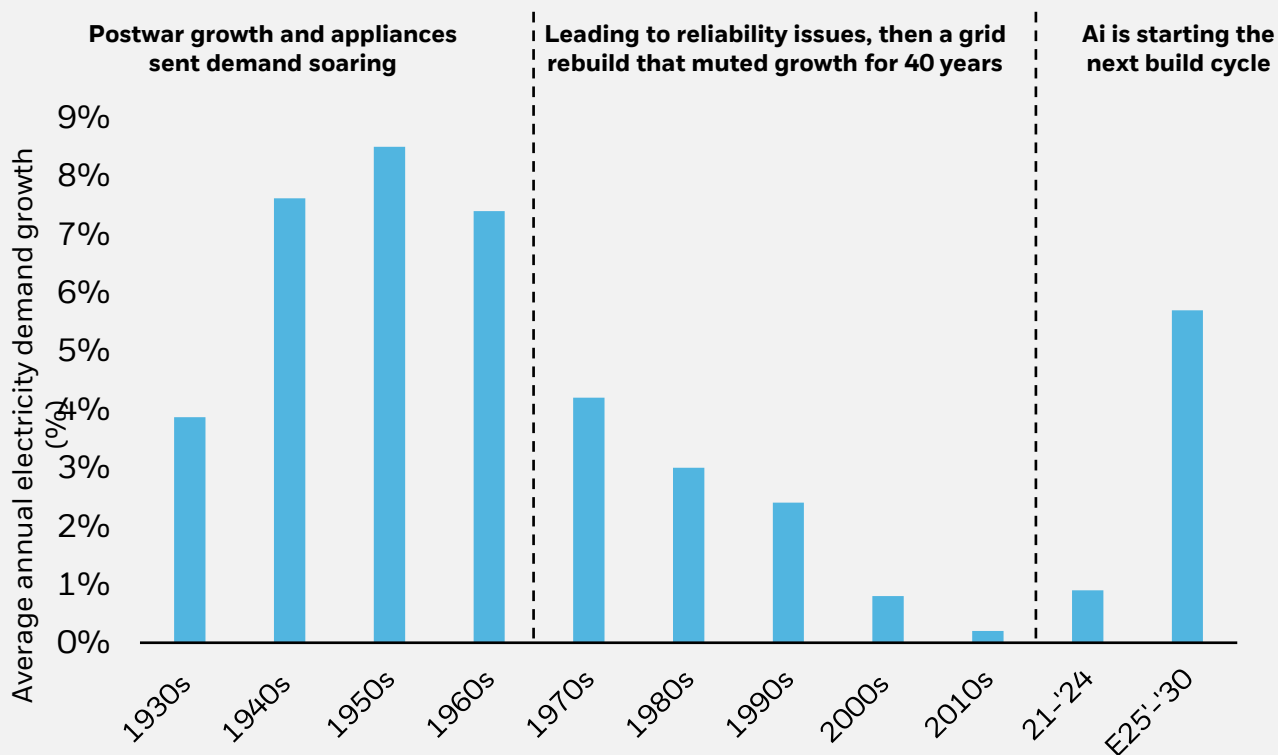
McKinsey, July 31, 2026.

⁸. Source: BlackRock, illustrative timeline for new memory fabrication capacity based on Micron FYQ1–FYQ3 2026 results/remarks and Micron FYQ3 2023 presentation. ⁹. Source: IEA, Global Critical Minerals Outlook 2026. ¹⁰. Source: IEA, Global Critical Minerals Outlook 2026. Share of refined material production in 2025. Materials measured include copper, lithium, nickel, cobalt, graphite, and manganese. Excludes rare earths. ² The top supplier's share declined from 90% in 2023 to 85% in 2025.

Figure 5: Big demand has historically brought big buildouts

Surging power demand in 1930s–60s led to blackouts and backlash, resulting in decades of grid investment and reform

Average annual electricity demand growth (%)



Source: Grid Strategies, Power Demand Forecasts Revised Up for Third Year Running, Led by Data Centers, November 2025. Historical data sourced from NERC, Edison Electric Institute and the U.S. Energy Information Administration. 2025–2030 figure reflects Grid Strategies' forecast based primarily on FERC Form 714 filings. Forward looking estimates may not come to pass

3 Why are space and defence emerging as AI investment themes?

As the physical constraints around AI become more visible, space is emerging as a potential frontier for solving some of those challenges. Falling launch costs and improving space infrastructure are lowering the barriers to experimentation, enabling companies to test ideas that would have seemed far less practical even a decade ago.

Did you know?

95%: less expensive to launch a rocket to space now versus 65 years ago.

"How Much Does It Cost to Launch a Rocket?," Orbital Radar, visited August 2, 2026. Figures based on company list prices and data from NASA, FAA, Bryce Tech and CSIS Aerospace Security.

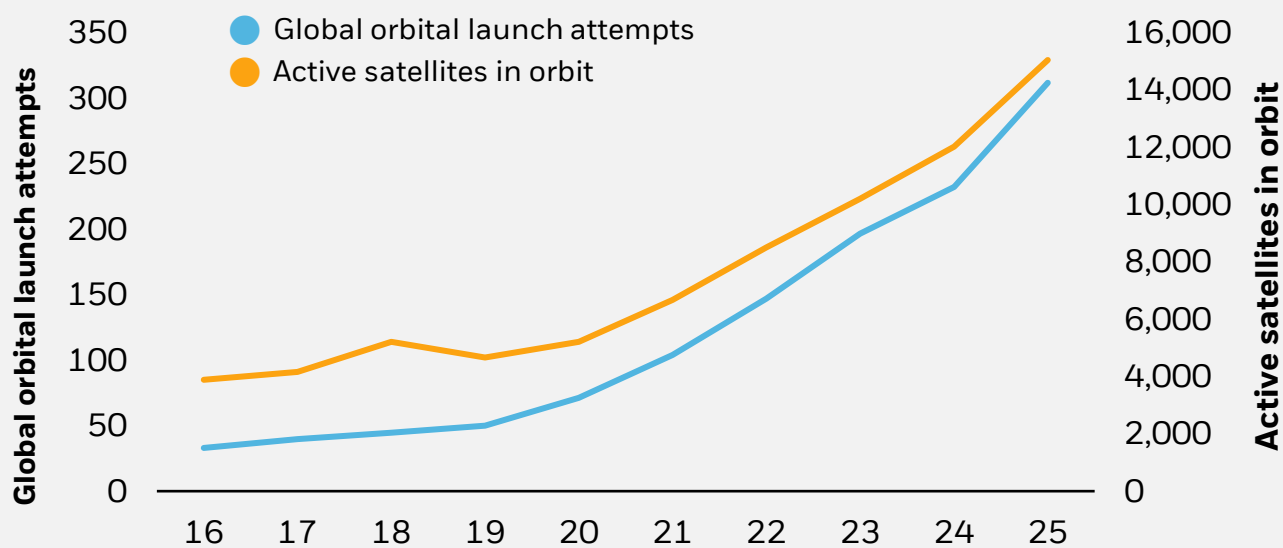
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Orbital computing is one example. While the technology remains highly experimental and significant engineering challenges persist, placing computing infrastructure in space could potentially offer access to more abundant and consistent solar energy, while reducing dependence on terrestrial land, transmission and grid connections. Solar panels in space can generate roughly four to ten times more power¹¹ than comparable systems on Earth, and suitable orbits can provide near-continuous sunlight rather than outputs that vary with weather and seasons.

The broader implication extends beyond data centers. As access to orbit becomes cheaper, and more active satellites are launched, entirely new space-enabled markets may become more economically viable.

The technology may still be early, but the combination of falling costs and growing activity is creating a flywheel; cheaper access enables more experimentation, which can support new infrastructure, applications and ultimately new investable opportunities.

Figure 6: Cheaper access to space unlocks a whole new lunar economy
Orbital launches and active satellites have nearly tripled since 2020



Source: McDowell, Jonathan. "Space Activities in 2025," February 4, 2026. Planet4589.

4 AI in daily life

11. Source: NASA Glenn Research Center. "Re-Evaluating Satellite Solar Power Systems for Earth." 4th World Conference on Photovoltaic Energy Conversion, 2006.

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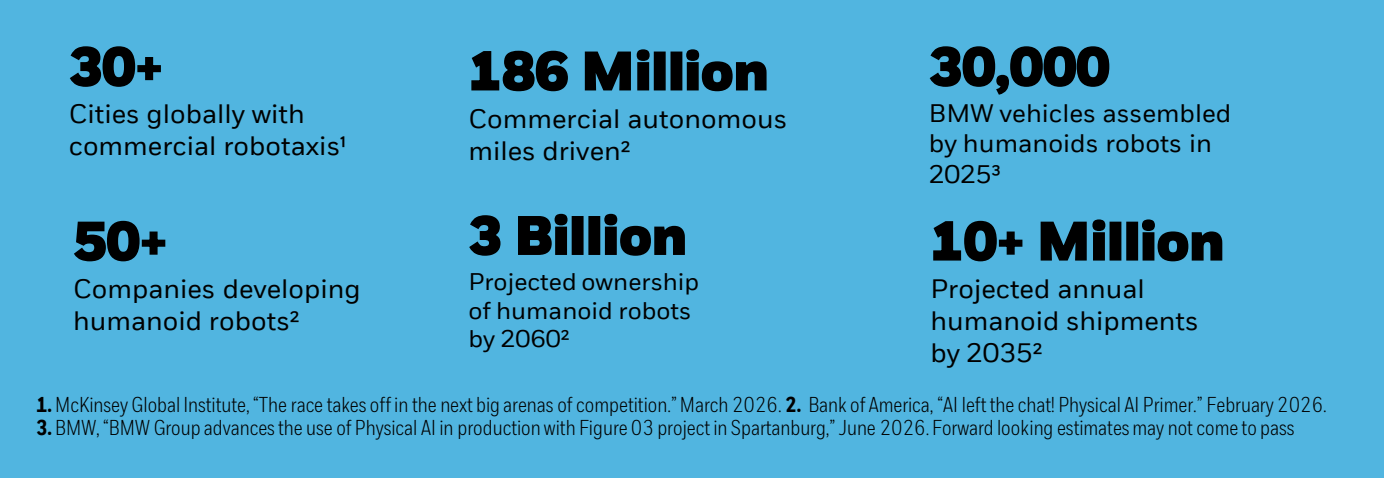
How robotics are bringing the AI economy into daily life

Robotics may be one of the clearest examples of AI’s move beyond the digital world and into the physical one. Robotics bring superintelligence into the real world by allowing machines not just to process information, but to perceive, move and act on it. What was once concentrated in controlled industrial settings is increasingly expanding into transportation, manufacturing and, over time, everyday consumer use cases.

Did you know?
30X: the cost to build a humanoid robot has fallen more than 30X in a decade.
Barclays, "Impact Series 14: AI Gets Physical," January 2026

The market remains in its early stages, but the breadth of potential use cases points to a vast long-term addressable opportunity.

Figure 7: Early adoption is visible with more projected to come



How may AI transform healthcare and the consumer economy?

Healthcare is another area where AI’s capabilities intersect with a growing structural need. The world is aging, with one in six people globally expected to be aged 60 or older by 2030.¹³ Older populations spend roughly twice as much on healthcare as younger groups¹⁴ and aging demographics means more patients, more medical data and greater demand for care — without a corresponding increase in the resources available to deliver it.

Did you know?
50%: AI support may increase cancer detection by up to 50%.
Hernström V, et al., The Lancet Digital Health, 2025. Randomized Swedish mammography-screening trial.

13. Source: World Health Organization, as of October 2025. 14. Source: Peterson-KFF Health System Tracker, as of March 2026.

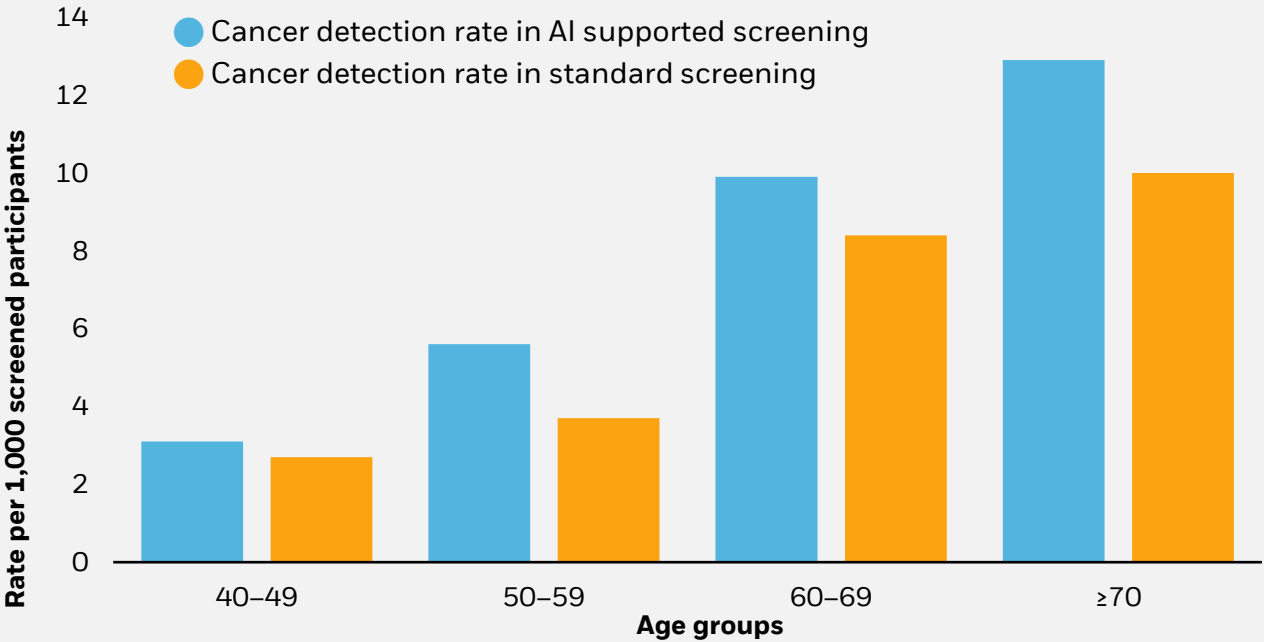
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That imbalance creates a natural role for AI. Rather than replacing clinicians, AI may help healthcare systems make better use of scarce resources by helping doctors process more information, identify issues earlier and extend expertise across a larger patient population. Radiology and diagnostics are one early example of how AI can augment existing workflows.

AI is helping doctors see more, sooner

AI-supported radiology screening can improve cancer detection and help scarce medical resources reach more patients.

Figure 8: Cancer detection rate per 1,000 screened participants



Source: Hernström V, et al., The Lancet Digital Health, 2025. Randomized Swedish mammography-screening trial. Graph represents early screening performance measures per 1000 screened participants for 10-year age groups. “Up to 50%” reflects the approximate increase in cancer-detection rate for ages 50–59; the overall increase was 29% (6.4 vs. 5.0 per 1,000 screened). Overall recall and false-positive rates were slightly, but not significantly, higher with AI support.

AI & Digital Assets may reinforce each other

Tokenization is emerging as a potential next evolution of financial market infrastructure, creating a new digital wrapper for traditional assets and potentially reshaping how investors access, hold and transact in markets. As more real-world assets move on-chain, the opportunity is expanding beyond digital-native assets toward areas such as funds, credit and other traditional securities. Ethereum currently represents the blockchain with the largest share of tokenized real-world assets, underscoring how the development of these digital rails may become an increasingly important part of the evolution of market infrastructure.¹⁵

¹⁵. Source: RWA.xyz, Network Metrics, July 31, 2026.

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We also believe AI & digital assets are mutually beneficial technologies that may reinforce adoption of both in everyday use cases. Consider an example of using AI agents to book your next trip. AI could help research, optimize, and ultimately book travel logistics autonomously. It could look like this:

Figure 9: Vacation loading...

An illustrative example of agentic commerce and payments to help a human user research, optimize, and book travel logistics autonomously

Vacation loading...

An individual requests a trip booking including flights and hotels and sets their budget.

AI agents do the work

AI agents access the user's applications to understand scheduling, traveling preferences, and payment details. Agents combine this personal data with sourcing valuable 3rd party data on airfare, room rates, availability.

Payments made via blockchain

3rd party travel data is exchanged for a micro-payment from user's wallet and settled on blockchain rails, ensuring in near real-time an efficient and verifiable micro-transaction occurred.

Bon Voyage!

Based on user and 3rd party data, the agent then makes reservations directly with airlines & hotel booking systems. Finalized itinerary and receipts are returned to the human user.

Source: BlackRock Digital Assets Research. For illustrative purposes only.

At a higher level, this example demonstrates the intersection of AI as machine-native intelligence, with crypto as machine-native money, and blockchains as providing the programmable infrastructure that connects intelligence with economic activity.

5

What does the expanding AI economy mean for thematic investors?

AI has entered its next chapter, no longer beheld to just a single sector, but instead reshaping industries and influencing nearly every corner of the global economy. As the AI value chain continues to evolve, the opportunity is broadening beyond the companies building AI to those best positioned to put it to work.

The next phase of AI is also becoming increasingly physical. Rising compute demand is intensifying the need for critical materials and power, exposing bottlenecks along the way. At the same time, falling costs and advancing technology are opening new frontiers across space and defense, expanding the industries and companies participating in the AI buildout.

As AI moves into everyday life, we are seeing new use cases for AI especially where growing demand meets limited resources; from robotics and autonomous systems to disrupting the healthcare system as we know it. Financial markets are also evolving, and AI & digital assets may be able to reinforce each other via daily use cases.

For investors, capturing these themes may increasingly require looking across sectors, understanding where constraints and adoption are emerging, and being selective about where value is ultimately created to fully capitalize upon the AI economy.

Related ETFs

Technology

XQQQ

iShares NASDAQ 100
Index ETF

XCHP

iShares Semiconductor
Index ETF

RTEC

RBC Global Technology
Fund

Materials, energy and utilities

XETM

iShares S&P/TSX Energy
Transition Materials Index ETF

XBM

iShares S&P/TSX Global Base
Metals Index ETF

XUT

iShares S&P/TSX Capped Utilities
Index ETF

Industrials

XAD

iShares U.S. Aerospace &
Defense Index ETF

CIF

iShares Global
Infrastructure Index ETF

Consumer and health care

RLST

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Technology Fund

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Authors



JAY JACOBS

US Head of Equity ETFs,
BlackRock



DARSHAN PURI

Head of Equity Strategy,
Americas, Fundamental
Equity, BlackRock



OSCAR PULIDO

Global Head of Product
Strategy, Fundamental
Equity, BlackRock

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