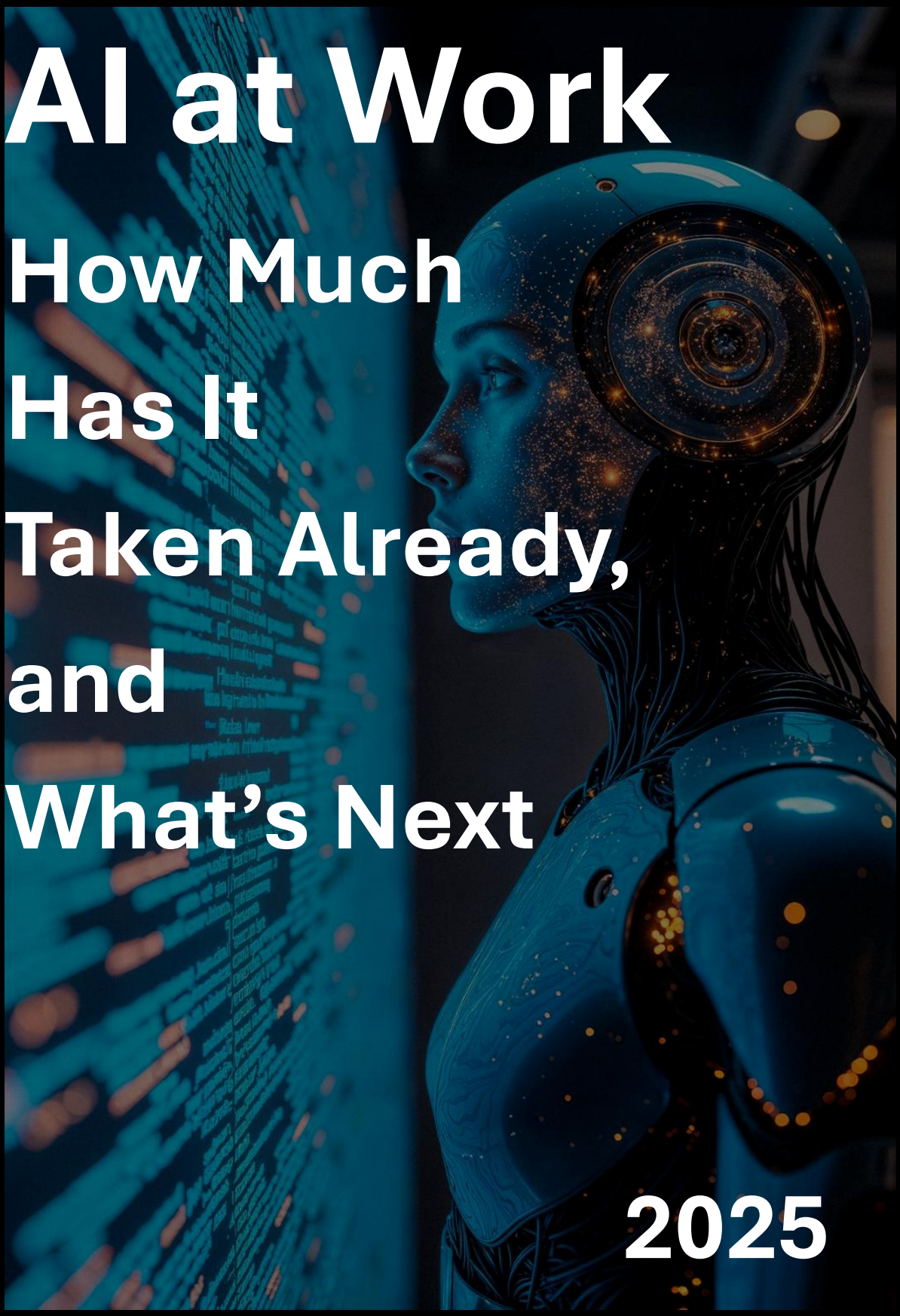


AI at Work

How Much Has It Taken Already, and What's Next

2025

Executive summary

Artificial intelligence (AI), especially generative AI, has shifted from pilot projects to material impact across multiple industries. The best evidence from 2023–2025 shows:

Adoption is mainstreaming: By 2024, ~78% of organizations reported using AI in some capacity (Stanford HAI, AI Index 2025).

Productivity is measurable in specific workflows: Controlled and field studies report 14% productivity gains for customer-support agents using AI assistants (NBER) and ~56% faster task completion for software developers on set programming tasks with GitHub Copilot (academic/industry experiments).

Healthcare use is scaling under regulation: The U.S. FDA's public list surpassed 1,000 AI/ML-enabled medical device authorizations by late 2024 (FDA/Nature Digital Medicine analysis), signaling rapid clinical embedding, especially in imaging.

Finance is already data-driven with AI: Global central-bank and industry surveys indicate most financial firms now use AI for fraud detection, liquidity, and credit processes (BIS 2024; national regulators).

Transformation > wholesale job loss (so far): Global labor bodies (ILO, OECD) find high exposure to task change, with unequal effects across occupations and demographics. Entry-level, routine cognitive work faces the greatest displacement risk, while augmentation benefits skilled workers.

Forward look: Major analyses (McKinsey, WEF) point to up to ~30% of work hours being automatable by 2030 in mature economies, with potential multi-trillion-dollar annual value if redeployment and reskilling keep pace.

Bottom line for leaders: AI has already taken, and will continue to take, tasks at scale. The upside (productivity, quality, speed) is real where workflows are well-instrumented; the downside concentrates in routine, entry-level cognitive roles. Strategy must shift from ad-hoc tooling to systematic workflow redesign, risk controls, and skills pathways.

1) Where AI has already changed the work

1.1 Software engineering

Outcome: Faster boilerplate and routine coding; uplift in code review, test generation, and documentation.

Evidence: A controlled experiment found developers with an AI pair programmer completed a standard task ~55.8% faster than a control group. Large enterprise rollouts show higher completion rates for routine tickets and faster onboarding of junior engineers.

Work "taken": Drafting functions/tests, writing documentation stubs, translating between frameworks, basic refactoring.

What remains human-critical: System design, security/privacy decisions, complex architecture tradeoffs, on-call, and cross-team communication.

1.2 Customer support/contact centers

Outcome: Assistive copilots surface knowledge, draft replies, and recommend next actions in real time.

Evidence: In a Fortune 500 field deployment, agents using an AI assistant resolved issues per hour ~14% higher on average, ~30%+ for the least-experienced agents.

Work "taken": First-draft responses, knowledge lookup, summarization, after-call notes/QAs.

What remains human-critical: De-escalation, policy exceptions, sensitive compliance calls, complex troubleshooting.

1.3 Healthcare (especially imaging and triage)

Outcome: Widespread FDA-cleared AI for image analysis (radiology, cardiology, ophthalmology), workflow orchestration, and decision support.

Evidence: 1,000+ FDA authorizations (through 2024) of AI/ML-enabled devices; rapid growth in image-based diagnostics and workflow tools.

Work "taken": Preliminary reads/triage, quantification (e.g., lesion counts, volumetrics), report templating.

What remains human-critical: Differential diagnosis, care planning, clinician-patient communication, ethical decisions.

1.4 Financial services

Outcome: AI embedded in fraud detection, cash-flow forecasting, credit scoring, liquidity management, and collections.

Evidence: Surveys compiled by the BIS (2024) indicate ~70% of financial firms report using AI across these functions; national regulators corroborate broad adoption.

Work "taken": First-pass anomaly detection, transaction monitoring, document extraction, portfolio early-warning signals.

What remains human-critical: Model governance, fairness/risk, exceptions management, credit policy, relationship banking.

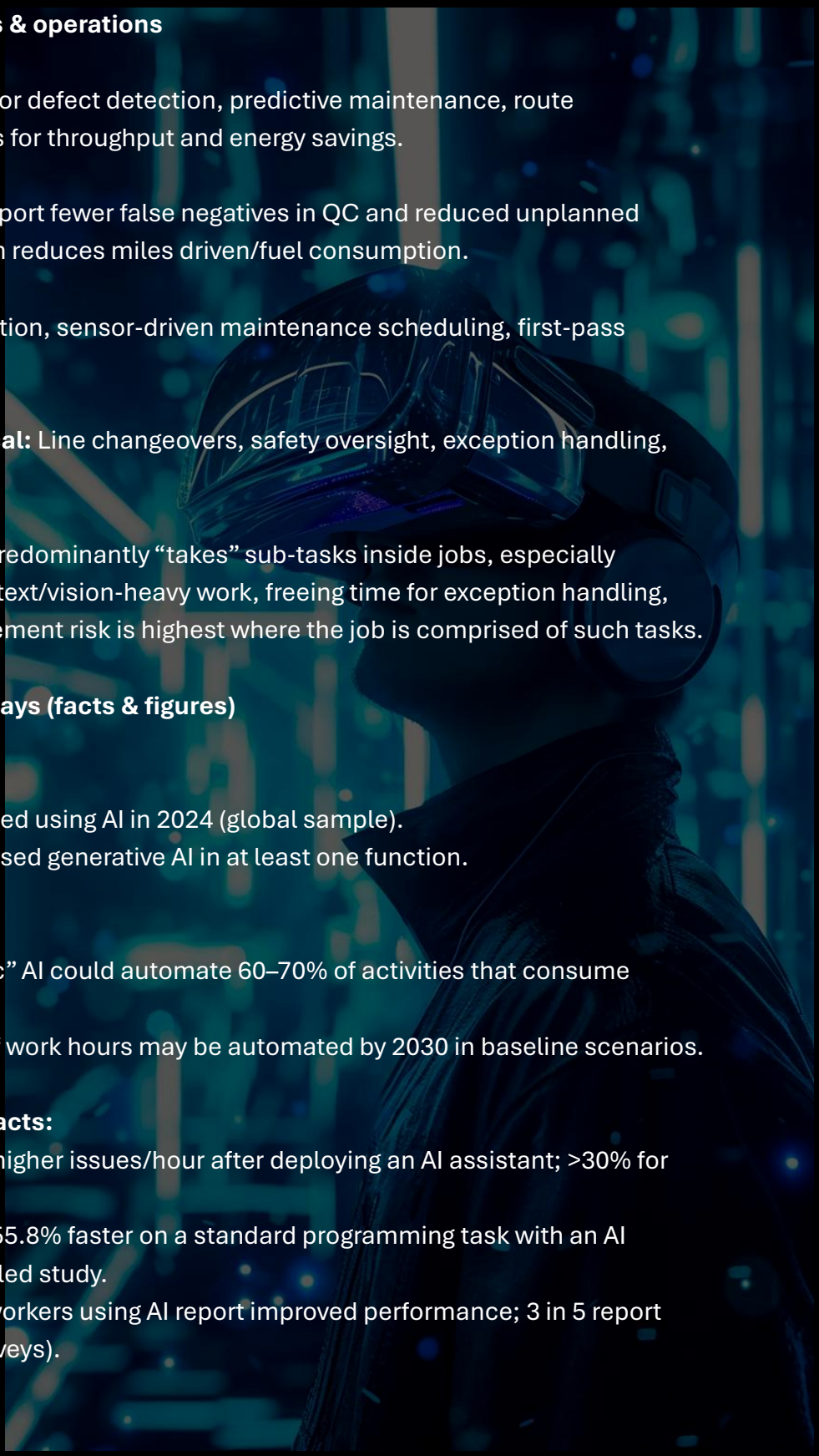
1.5 Retail/CPG and e-commerce

Outcome: AI accelerates demand forecasting, pricing, personalization, catalog/product content, and returns prevention.

Evidence: Industry research and large retailer case studies show double-digit error reductions in demand forecasts and widespread investment in generative AI for content and recommendations.

Work "taken": Product copy and image variants, forecast updates, promo elasticity modeling, chatbot FAQs, returns triage.

What remains human-critical: Assortment strategy, brand voice governance, creative direction, supplier negotiations.



1.6 Manufacturing, logistics & operations

Outcome: Computer vision for defect detection, predictive maintenance, route optimization and digital twins for throughput and energy savings.

Evidence: Plants and DCs report fewer false negatives in QC and reduced unplanned downtime; route optimization reduces miles driven/fuel consumption.

Work "taken": Visual inspection, sensor-driven maintenance scheduling, first-pass scheduling, and routing.

What remains human-critical: Line changeovers, safety oversight, exception handling, vendor/partner coordination.

Pattern across sectors: AI predominantly "takes" sub-tasks inside jobs, especially high-volume, rules-based or text/vision-heavy work, freeing time for exception handling, service, and design. Displacement risk is highest where the job is comprised of such tasks.

2) What the best evidence says (facts & figures)

Organizational adoption:
• 78% of organizations reported using AI in 2024 (global sample).
• In 2023, one-third already used generative AI in at least one function.

Task automation potential:
• Current gen-AI plus "classic" AI could automate 60–70% of activities that consume employees' time today.
• In the US/EU, up to ~30% of work hours may be automated by 2030 in baseline scenarios.

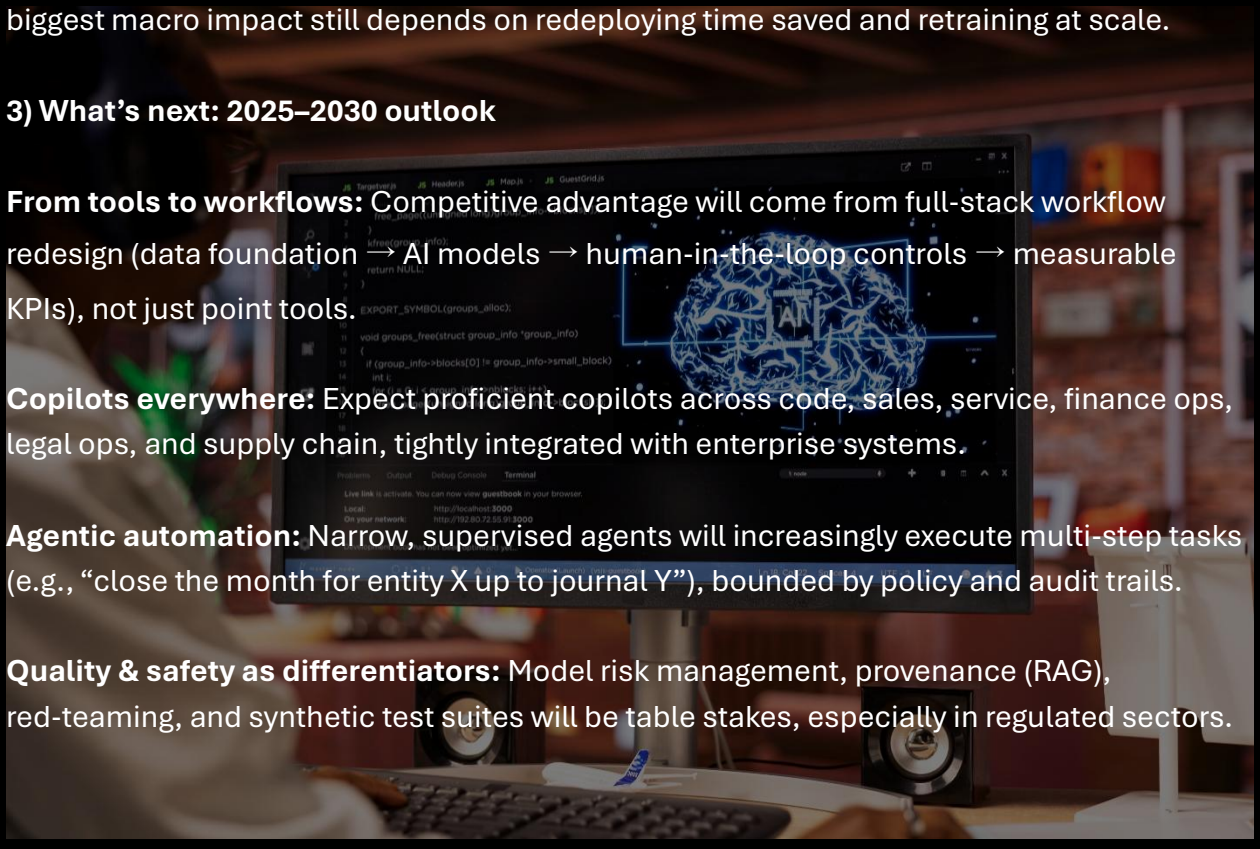
Measured productivity impacts:
• **Customer support:** ~14% higher issues/hour after deploying an AI assistant; >30% for novices.
• **Software development:** ~55.8% faster on a standard programming task with an AI pair-programmer in a controlled study.
• **Worker sentiment:** 4 in 5 workers using AI report improved performance; 3 in 5 report higher enjoyment (OECD surveys).

Healthcare scale-up:
• 1000+ U.S. FDA authorizations of AI/ML-enabled medical devices through 2024, dominated by imaging applications, with continued monthly additions in 2025.

Finance deployment:
• **Central-bank compendia and regulator surveys:** majority of financial firms employ AI in fraud, risk, and liquidity functions; specialized case studies report large fraud-loss reductions with mature ML systems.

Labor-market effects & outlook:
• 1 in 4 jobs globally show material exposure to GenAI (ILO/NASK 2025).
• 170 million net new jobs could be created this decade due to macro trends including AI (WEF Future of Jobs 2025).
• **Exposure is uneven:** routine cognitive and entry-level roles are most at risk of displacement; augmentation tends to boost the productivity and earnings of experienced workers.

Interpretation: The data points are consistent: measured gains are real but domain-specific; adoption is widespread; risk and benefit distribution is uneven; and the biggest macro impact still depends on redeploying time saved and retraining at scale.



3) What's next: 2025–2030 outlook

From tools to workflows: Competitive advantage will come from full-stack workflow redesign (data foundation → AI models → human-in-the-loop controls → measurable KPIs), not just point tools.

Copilots everywhere: Expect proficient copilots across code, sales, service, finance ops, legal ops, and supply chain, tightly integrated with enterprise systems.

Agentic automation: Narrow, supervised agents will increasingly execute multi-step tasks (e.g., "close the month for entity X up to journal Y"), bounded by policy and audit trails.

Quality & safety as differentiators: Model risk management, provenance (RAG), red-teaming, and synthetic test suites will be table stakes, especially in regulated sectors.

Skills recombination: Demand rises for domain experts + AI fluency (prompting, evaluation, data hygiene), while pure routine roles shrink.

Governance & compliance: Expect clearer rules on data use, watermarking, copyright, bias/fairness, and sector-specific validations (e.g., clinical, financial).

4) Practical playbook for business leaders

Pick the right work, not just the right model. Target "thin-slice" tasks with structured inputs/outputs and clear acceptance criteria (e.g., L1 ticket triage, invoice coding, product copy variants).

Establish measurement up front. Define productivity/quality KPIs (e.g., issues/hour, first-contact resolution, time-to-PR merge) and run A/B rollouts.

Design for human-in-the-loop. Humans review/approve in high-risk steps; AI handles drafting, retrieval, and rote transformations.

Build a trustworthy data layer. Govern PII/PHI, implement retrieval-augmented generation (RAG), logging, and prompt/content filters.

Invest in skills. Offer AI-with-your-job training pathways; create apprentice roles where entry-level tasks have shrunk.

Communicate a people strategy. Pair automation with upskilling and internal mobility to avoid eroding morale and tacit knowledge.

Pilot → scale → standardize. Move beyond sandbox demos to standard operating procedures and shared toolchains with security reviews.

5) Risks and limitations to watch

Productivity paradox (timing): Enterprise-level ROI may lag due to integration costs, process debt, and learning curves, even as task-level gains are measured.

Bias & fairness: Model drift and biased data create legal and reputational exposure; require continuous monitoring and governance.

Security & privacy: Prompt injection, data leakage, insider misuse, and supply-chain risks necessitate robust access controls, red-teaming, and layered security.

Hallucinations & reliability: Generative systems can fabricate facts or misclassify in edge cases. Use retrieval-augmented generation, tool calling, and validation pipelines in high-stakes contexts.

Labor-market transitions: Entry-level roles may narrow, weakening traditional career ladders. Apprenticeships, internal mobility, and job redesign are critical to talent pipelines.

Regulatory flux: Global frameworks for AI (EU AI Act, US sectoral rules, China's algorithm laws) are evolving; compliance costs and operational uncertainty may rise in the near term.

Environmental cost: Training and deploying large models requires significant compute and energy; pressure will mount for greener AI practices.

6) Methodology note

This report synthesizes peer-reviewed studies, regulator databases, multilateral organization reports, and leading industry analyses from 2023–2025. Where numbers vary across sources, we report conservative ranges and cite the most recent primary source available.

Here are the headline facts (with sources) reflected in the report:

Adoption is mainstream: 78% of organizations reported using AI in 2024 (global sample). Stanford HAI Hai Production

Measured productivity gains: In a Fortune 500 support center, an AI assistant lifted agent productivity by ~14% on average, with >30% gains for novices. In a controlled programming task, GitHub Copilot users finished ~55.8% faster. NBER arXiv

Healthcare at scale: FDA-authorized AI/ML medical devices surpassed ~1,000 by late 2024, with imaging a major share. Nature U.S. Food and Drug Administration

Finance already runs on AI: Surveys compiled by the BIS show 70% of financial firms use AI for cash-flow, liquidity, credit, and fraud functions. Bank for International Settlements

What AI has “taken” so far: Sub-tasks inside jobs—drafting replies, summarizing, code scaffolding, document extraction, first-pass anomaly detection—rather than whole roles. Evidence shows the biggest measured gains in routine, high-volume cognitive work. NBER arXiv

Near-term automation potential: Current gen-AI plus “classic” AI could automate 60–70% of today’s work activities (not jobs); by 2030, up to ~30% of hours in mature economies may be automated in baseline scenarios. McKinsey & Company

Jobs outlook: The ILO estimates about 1 in 4 jobs globally are materially exposed to GenAI (transformation more than outright replacement), while WEF’s 2025 report projects ~170 million net new jobs this decade from broader macro trends (AI included). International Labor organization World Economic Forum Reports World Economic Forum

Appendix A - Industry-by-industry quick facts (2023–2025)

Software engineering: ~56% faster task completion in controlled AI pair programming experiments.
Customer support: ~14% higher issues resolved/hour with AI assistants; >30% gains for novices.
Healthcare: 1,000+ FDA-authorized AI/ML-enabled devices through 2024; concentrated in imaging/diagnostics.
Finance: Majority of firms report AI adoption in fraud, credit, and liquidity; reduced fraud losses.
Retail/CPG: Double-digit forecast-error reductions; heavy investment in gen-AI for content & personalization.

About this report

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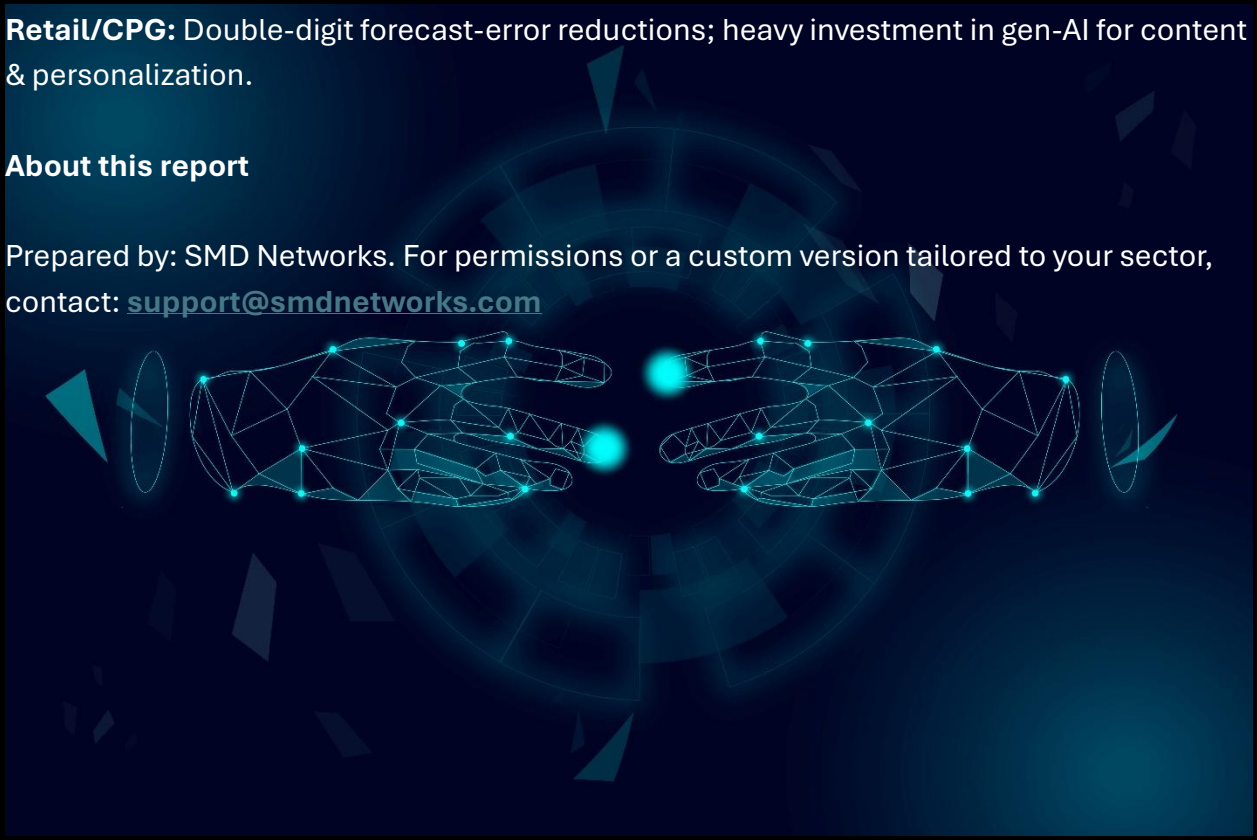

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