AI Viewpoint Service

Part of the AI and Intelligent Automation Service Area Package

A broad yet insightful view of the AI market, providing high-level data on revenues from AI hardware, software and services. This is complemented by strategic analysis on key AI verticals and the enabling technologies. Ideal for clients in adjacent industries monitoring AI developments, startups, and policymakers.
AI Viewpoints is a taste of Omdia’s cutting-edge research into the 21st century’s first new general-purpose technology, across hardware, software, and applications.

Natalia Modjeska
Research Director – AI & Intelligent Automation
AI Viewpoint Service

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Designed to help stakeholders across the AI landscape understand a complex market in transition.

HOW OMDIA HELPS YOU

- High-level conclusions from Omdia AI forecasts and data products
- Analyst insights from our team of industry experts
- Dedicated thematic coverage for the Viewpoint Service

KEY QUESTIONS ADDRESSED

What applications and use cases are driving enterprise adoption of AI?

How are enterprises and policymakers tackling the challenges of responsible AI?

What impact is AI having on the market for semiconductors? What chipset types are selling, at the edge and in the data center?
AI Viewpoint: Thematic Packages

AI Viewpoint Deliverables are organized into Thematic Packages

- Each package headlined by a special summary report
- New packages bi-monthly
- Packages will include a variety of analyst insights, reports, forecasts, tracker and briefings.

Example Theme #1: A World of Skills: AI Software

- Reports:
  - AI for Customer Experience
  - RPA Vertical Markets Report
  - Improving AI Outcomes with AutoML
- Analyst Insights
- Analyst Access
- Summary Report
- Analyst Insights
- Analyst Access
- AI Applications Quarterly Briefing
- AI Apps TTW

Example Theme #2: Exotic Technologies - HPC, Quantum, and More...

- Reports:
  - Quantum Computing Market Forecast
  - Quantum Market Radar
  - Edge Accelerators Market Radar
- Analyst Insights
- Analyst Access
- Summary Report
- Analyst Insights
- Analyst Access
- Advanced Computing Q4 Briefing & TTW
- What’s happening to Microsoft’s FPGA strategy for AI hardware?
AI Viewpoint Service: Research Team

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AI & Intelligent Automation

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Senior Analyst  
Advanced Computing
AI Viewpoint: Deliverables

**TRACKERS AND BRIEFINGS**
- Trends to Watch from Advanced Computing, AI Applications, and Analytics and Data Management
- Quarterly Briefings

**REPORTS & SURVEYS**
—2023 Editions—
- AI Processors for the Edge
- AI Processors for Cloud and Datacenter
- AI Skills Tracker
- Modern Data Analytics Platform
- Evolution of Machine Learning Frameworks
- AI Ecosystem Database

**ANALYST INSIGHTS**
—Ongoing—
Includes all our analyst commentary on market shifts, technology and regional developments, vendors, events, and more.

**ANALYST ACCESS**
—Ongoing—
For prompt responses to urgent and unique questions.
AI Viewpoint: Reports and Analysis

Best Practices in AI Governance and Ethics
If AI is to mature and grow as a business-critical asset, a bond of assurance must be forged between creator and user that a given AI outcome is safe, inclusive, fair, secure/private, transparent, understandable, and above all, accountable.

RPA: Now More than Ever
As robotic process automation (RPA) solutions gain mindshare across the enterprise IT landscape, many organizations are actively adopting or considering the technology, particularly as a response to the COVID-19 pandemic, which has disrupted the way companies do business.

Fundamentals of MLOps
An exploration of the emerging marketplace for operationalized machine learning in the enterprise. This report will evaluate the state of the enterprise MLOps platforms market, exploiting current technology trends, provider approaches, and future requirements.

AI Chipsets for the Edge
Global market analysis and forecasts covering edge-based AI chipsets and accelerators for mobile phones, smart speakers, HMDs, automotive, PCs/tablets, drones, security cameras, robots, edge servers, and machine vision.

AI Edge Appliances: Healthcare
A market forecast for AI edge appliances in healthcare, based on a survey and Omdia modelling. Omdia forecasts a revenue TAM of $1.2bn by 2025, mostly in imaging. Covers user adoption of AI, attitudes to product types, key user groups, and strategic implications.

AI Chipsets for Cloud and Datacenter
This report examines the AI applications in business, consumer, and government that are driving requirements in AI infrastructure, especially the compute, storage, and networking functions in cloud and enterprise data centers. Market forecasts include infrastructure hardware spend from 2019 to 2026 segmented by region, function, chipset, delivery model, and enterprise vertical.

AI Software Market Forecast
This Omdia report provides a quantitative assessment of the market opportunity for AI software. To assess the COVID-19 impact, Omdia outlines four forecast scenarios through 2025. The study includes market sizing, segmentation, and forecasts for 340 AI use cases, including more than 200 unique use cases.
# AI and Intelligent Automation – 2023 Research Themes

<table>
<thead>
<tr>
<th>Theme</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>AI vs. the World, aka AI in the age of resilience</strong></td>
<td>Macro societal and economic trends are impacting market progressions of all kinds in ways not seen in the last 40 years. COVID's impact on labor, supply chain, global inflation as well as wars, growing global power friction, and climate change issues will shape every aspect of AI technology markets in 2023 and beyond. How will the AI ecosystem navigate these risks and help companies use AI to do the same?</td>
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<td><strong>AI processor Cambrian explosion</strong></td>
<td>The computational demands of state-of-the-art AI are transforming the semiconductor market. Having shifted from CPU to GPU computing, the industry is now shifting towards dedicated AI acceleration and from merchant to custom silicon, in a so-called Makimoto wave transition. Starting in 2023-2024, the x86 ecosystem is likely to catch up with Apple's lead as AI acceleration becomes a standard CPU feature, while at the same time, customization drains value from the ecosystem itself. Omdia can help you monitor, understand, and respond to this disruption, whether you are a user of AI hardware, an OEM customer for AI processors, or a semiconductor vendor.</td>
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<td><strong>Data Taking Center Stage</strong></td>
<td>As data volume and variety rise, and as it moves more freely between premises, cloud, and multiple-clouds, new ways are emerging to manage and exchange data. Increasingly, “data-centric AI” methodology means that data sets, software, systems, and semiconductors are developed together, in a response to the sustainability and governance issues of giant data sets. Metadata repositories (data catalogs), data fabrics (data as an API service), and data exchanges/marketplaces will take center stage, helping companies do away with data silos, fragile data pipelines, and uneven security/privacy policies, all without disrupting existing infrastructure investments.</td>
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<td><strong>AI rubber hits the road, aka Operationalizing AI</strong></td>
<td>AI market adoption has reached critical mass, with the number of deployments likely to double in the next 2-3 years. These early majority buyers still need to overcome many internal challenges to adopt and scale AI successfully, including budgets, literacy, organizational structure, KPIs, sustainability, risk and lifecycle management, etc. Technology vendors are building solutions for AI responsibility (privacy, transparency, bias, etc.), repeatability, delivery, and governance. Best practices are also emerging from early the adopters. Furthermore, new consumption models such as AI as a service, pre-built AI, and embedded AI will help to not just operationalize AI but to do so rapidly and at scale across the business.</td>
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<td><strong>Democratization foreshadows oncoming AI ubiquity</strong></td>
<td>High demand for AI and advanced analytics in the enterprise has revealed a significant technological skills gap, one that may never be filled through human talent alone. Yet companies are beginning to glimpse the far side of this chasm through a rapidly evolving set of technologies and practices laser focused on democratizing AI. New AI-driven automated workflows and low/no-code AI development tools, along with large-scale pre-trained AI models, embedded AI business apps, and even end-to-end AI solutions spanning software to silicon, all promise to turn AI into a more readily consumable enterprise resource with far fewer specialist skills requirements. And yet, many questions remain unanswered. Can AI be trusted to build responsible AI outcomes? Will AI specialization vanish beneath a few, massive, vertically integrated platforms?</td>
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<td><strong>AI is growing up and learning accountability, aka Responsible AI</strong></td>
<td>With AI having gone mainstream, its dark side is increasingly clear and worrisome: from bias and discrimination to deep fakes and nudging. Business leaders and governments have all recognized that the only way to obtain sustainable and equitable benefits is by doing AI responsibly. Globally, this means regulations, standards, audits and certifications. And within enterprises deploying AI, active governance. Best practices and tooling are emerging to support ethical AI use, explainability, assurance, and proactive disclosure. A whole new ecosystem is quickly growing, and we’ll be covering it in depth over the next 12-24 months.</td>
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AI Applications: Research Methodology

- **Supply Side**
  - Primary Research: Industry Interviews, Vendor Briefings, Product Evaluations, End-User Surveys

- **Demand Side**
  - End-User Focus Groups

- **Market Research**
  - Primary Research: Industry Interviews, Vendor Briefings, Product Evaluations, End-User Surveys

- **Market Analysis**
  - Qualitative Analysis: Company Analysis, Business Models, Competitive Landscape, Technology Assessment, Applications & Use Cases
  - Quantitative Analysis: Market Sizing, Market Segmentation, Market Forecasts, Market Share Analysis, Scenario Analysis
About Omdia’s AI & Intelligent Automation Research

The AI & Intelligent Automation research area provides a full-stack view of AI across applications, software, hardware and services. There is coverage across a wide variety of companies from AI startups, hyperscalers, chipset vendors, cloud providers, OEMs, IT vendors, AI platform vendors, AI and IT services companies, as well as several end user companies deploying AI across different vertical markets.

AI is beginning to move from proof of concept (PoC) into a stage of industrialization, with vendors and end users looking to understanding the business of AI. Omdia’s AI Enterprise Insights is aimed at bridging the gap between the technology and the economic value of AI, giving clients a range of tools to benchmark, measure and plan around the commercialization of AI.

To complete the circle, AI & Intelligent Automation also covers the impact of AI and automation from the perspective of AI hardware for cloud and edge, autonomous machines and the next-generation compute stack from quantum computing to HPC that is emerging to support new applications and services.
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• Sanity-check your own findings
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