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AI / ML enabled consumer devices globally by 2022

28%

of AI capable devices will rely on edge AI engines by 2022

AI technologies are moving fast into new areas, including machine learning, deep learning and augmented intelligence. Developments in these areas are opening new opportunities across different market sectors and use cases. ABI Research's AI and Machine Learning (ML) market intelligence service assesses the market opportunity created by AI related technology, while at the same time providing thought leadership for the industry. Our extensive coverage of these areas includes data, trends, forecast, benchmark and analysis reports, that assess the key technical and business factors that are essential for shaping AI and ML market activity and business models — including ML as a service, technology and platform as a service, software licensing, edge AI hardware and applications. We aim to provide technology implementers with visionary and authoritative insight into the various AI and ML applications and use cases they should leverage to best streamline industrial and business processes as AI technology becomes accessible. Our approach to market coverage is use-case centric as it looks at technology implementation for each use case studied. Aside from verticals that have existing AI implementation, such as consumer electronics and robotics, we also track AI and ML deployment in retail, manufacturing, energy, automotive, public safety and telecommunications. Special attention is dedicated to AI edge solutions.

TOP QUESTIONS WE RECEIVE FROM INDUSTRY INNOVATORS

Technology Suppliers

- How are the different ML hardware and algorithms mapped against requirements of the different use cases addressed?
- What are the key verticals that will drive AI and ML applications?
- Should I create my own AI frameworks and solutions or should I adopt existing open frameworks?
- Who are competitors I should watch and who are those I should partner with?
- What emerging verticals should my organization target? How big is the revenue opportunity?
- What major challenges will the industry face when managing a myriad of data generated by billions of connected devices?
- Who are the companies and organizations my company should partner with to create adequate solutions for the verticals are targeting?
- Where does my company fit in the AI/ML competitive landscape?
- How can my organization productize open source code? How can we stream value from it?
- What are the most successful open-source communities and frameworks for my company to rely on?
- Do I have any benefit from contributing and using open source and what are the risks?
- What are the most invested in AI R&D projects and frameworks?
- What impact will the move from cloud-based to edge based have on the market dynamics and supplier positioning?

Implementers

- How can I implement AI in my current business activities?
- How will AI create new market opportunities in my sector?
- What is the realistic time to maturity of different AI components?
- What is the best approach for integrating AI into my company's ecosystem?
- What criteria should I consider when choosing an AI partner?
- What advanced analytics techniques should my company consider adopting?
- What are the main types of algorithms used in ML today and how this is going to evolve in the future?
- How can my company utilize AI to simplify our business and operation processes?
- What is the difference between predictive and prescriptive analytics, and what is the best course of action for my company to take to effectively keep tabs on all our generated data?
- What can my company discern from our generated data through advanced analytics?
- Are there any security concerns my company should be made aware of when relying on advanced analytics?
- How can my company protect our data and our customers' data?
- What is the value of edge computing versus cloud computing?
- Should I be using an open-source AI framework to develop models, and which one would suit my needs?

COVERAGE AREAS

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| <ul style="list-style-type: none"> • Machine learning • Artificial intelligence • Augmented Intelligence • Deep Learning • Data analytics • Predictive analytics • Prescriptive analytics • Algorithms and hardware technologies segmentation • Analysis of AI Tools and SDKs | <ul style="list-style-type: none"> • AI and ML hot technology innovators • Edge AI and ML • Market segmentation and taxonomy of AI and ML use cases and applications • Different implementation approaches of AI and ML • AI and ML business models • AI and ML use cases in the | <ul style="list-style-type: none"> telecoms industry • AI and ML use cases in the manufacturing industry • AI and ML use cases in the consumer market • AI and ML use cases in the IoT market • The role of open source in shaping new applications and business models | <ul style="list-style-type: none"> • Emerging trends in speech and image recognition, machine vision, natural language processing, touch/haptics, Generative and Creative Adversarial Networks, automated reasoning and security applications • Analysis of edge AI versus cloud AI |
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KEYWORDS

- Machine learning
- Artificial Intelligence
- Assisted Intelligence
- Augmented Intelligence
- Autonomous Intelligence
- Automated Reasoning
- Inference
- Training
- Convolutional Neural Networks (CNNs)
- Recurrent Neural Networks (RNN)
- Generative Adversarial Network (GAN)
- Creative Adversarial Network (CAN)
- Meta-learning
- Self-learning
- Deep Learning
- Collective Intelligence
- Ambient Intelligence
- Natural Language Processing (NLP)
- Data training
- Supervised learning
- Unsupervised learning
- Rule-based learning
- Edge Artificial Intelligence
- Cloud based Artificial Intelligence
- Distributed Artificial Intelligence
- Data Analytics
- Advanced analytics
- Predictive analytics
- Prescriptive analytics
- Preventive analytics
- Platform as a service
- Technology as a service
- Solution as a Service
- Software licensing
- AI Algorithms
- AI and ML processors
- Parallel processing
- Neural processing
- Cognitive computing
- Open source
- Crowdsourcing
- Speech recognition
- Machine vision
- Voice recognition
- Virtual Digital Assistant
- Vector-based data processing
- Haptics/Touch recognition
- Intelligent User Interfaces
- Automation
- Robotics
- Digital Transformation
- FPGA
- NPU
- ASICs
- GPU
- CPU
- DPU
- DSP
- AI Graphs