



The Practitioner's Guide to AI

Fieldguide Strategic Series



Introduction: AI is now transforming the advisory and audit industry

The advisory and audit industry is experiencing a profound transformation through the integration of Artificial Intelligence (AI) technologies. This paradigm shift is revolutionizing the way firms operate, enabling them to embrace the future and achieve unprecedented levels of innovation.

For example, both EY and PwC have each committed to investing over \$1 billion in AI technology, exemplifying the industry's dedication to harnessing the potential of AI. Analysts like [Mordor Intelligence](#) estimate that the accounting industry is projected to witness an annual growth rate of 30% through 2027, emphasizing the vast opportunities that lie ahead. And in a [KPMG study](#), 77% of its business client respondents expected generative AI to have the largest impact on their businesses of all emerging technologies. However, 92% of them believe that implementing AI will introduce moderate to high-risk concerns.

With all these developments, AI stands out as a true game-changer. But what exactly is AI, and why does it matter in the context of advisory and audit? This Practitioner Guide will cut through the hype and anxiety that AI is creating and provide a practical view of what AI really is, how it works, and how it could impact the advisory and audit industry.

“Ten years from now, finance and accounting professionals will have a totally different set of skills than the experienced professional of today and will largely look more like data scientists and systems engineers.”

- Mark D. MacDonald, Senior Director, Gartner

What is AI?

AI refers to the simulation of human intelligence in machines, allowing them to perform tasks that typically require human intelligence, such as problem-solving, decision-making, and understanding natural language. AI systems are designed to analyze data, learn from it, and make decisions or predictions based on that data.

Some experts categorize AI into two broad categories: narrow AI and general AI.

- **Narrow AI** (sometimes called Weak AI) is designed for a specific task or a narrow range of tasks. It excels at what it's programmed to do but lacks general intelligence. Many AI applications in use today fall into this category, such as IBM Deep Blue, Siri, or Tesla's Autopilot.
- **General AI** (sometimes referred to as Strong AI) on the other hand, possesses more human-like intelligence. It can perform virtually any intellectual task that a human being can, like in the movies Blade Runner or Her. Strong AI remains theoretical and is yet to be realized, though today's innovations are getting us closer and closer.

There are three key components that make AI technology work:

- **Data:** Data is the lifeblood of AI. It provides the information necessary for AI systems to learn and make decisions. The more high-quality data an AI system has access to, the better it can perform.
- **Algorithms:** Algorithms are the sets of rules and instructions that govern how AI systems operate. They determine how data is processed and used to make predictions or decisions.
- **Computing Power:** The processing power of computers has increased exponentially, enabling AI systems to handle massive amounts of data quickly and efficiently. Recent advances in cloud computing, in particular, have played a significant role in making AI more accessible.

AI in the accounting industry is projected to grow at 30% through 2027

77% of business leaders expect AI to be the biggest technology impact

EY and PwC have each committed to investing over \$1 billion in AI

How does AI work?

AI's magic lies in its ability to learn and make decisions, much like a human being, but through a different mechanism. At the heart of AI is machine learning, a subset of AI that focuses on developing algorithms capable of learning from data. Here's how it works:

- **Training Data:** To teach a machine learning model, we start with a set of data called "training data." This data contains examples that the model can learn from. For instance, if we want to build a model to recognize cats in images, the training data would consist of various images of cats.
- **Neural Networks:** Machine learning models use artificial neural networks inspired by the human brain. These networks consist of layers of interconnected nodes, or neurons. Each neuron processes information and passes it to the next layer.
- **Learning through Iteration:** The model processes the training data in a series of iterations, adjusting its internal parameters to improve its ability to make better predictions. It's a bit like how humans learn from practice and experience.
- **Making Predictions:** Once the model has been trained on the data, it can be used to make predictions or classifications. For example, it can identify if a new image contains a cat.

Machine learning is not a one-size-fits-all concept. There are several types of machine learning:

- **Supervised Learning:** In supervised learning, the model is provided with labeled training data, meaning it knows the correct answer for each example. The model learns to map input data to the correct output.
- **Unsupervised Learning:** Unsupervised learning deals with unlabeled data. The model must discover patterns and structures in the data on its own, often used for clustering or dimensionality reduction.
- **Reinforcement Learning:** Reinforcement learning is like teaching a model through reward and punishment. The model learns to make a sequence of decisions by receiving feedback in the form of rewards or penalties.
- **Deep Learning:** Deep learning is a subset of machine learning that involves neural networks with many layers, often referred to as deep neural networks.

Some examples of machine learning include:

- **Email Spam Filters:** Email providers use machine learning to classify emails as spam or not. The model learns to recognize spam patterns from labeled examples.
- **Recommendation Systems:** Platforms like Netflix and Amazon use machine learning to recommend movies or products based on past interactions.
- **Language Translation:** Machine learning powers language translation services like Google Translate. It learns to map words and phrases between languages.
- **Self-Driving Cars:** Autonomous vehicles rely on machine learning to navigate and make real-time decisions based on sensor data.

In essence, machine learning is the cornerstone of AI, enabling systems to process data, learn from it, and make predictions or decisions. However, as anyone who has used email spam filters or Tesla's autopilot knows, machine learning is good but not perfect.

“Technology could ease the pain of the deepening shortage of these positions by enabling more work to be offloaded to AI. This will let accountants take on greater responsibility and decision-making authority than in the past, making the profession more attractive to recent college graduates.”

- Daniel Street, Assistant Professor of Accounting and Financial Management, Bucknell University

The current state of AI

The current generation of AI has seen remarkable advancements and has become an integral part of numerous industries, transforming the way we work, live, and interact with technology. AI is a field that is in a constant state of evolution, with notable advancements continually pushing the boundaries of what's possible. Among these advancements are the emergence of sophisticated large language models (LLM), including ChatGPT, which has created a tidal wave of excitement, hype, and fear in the advisory and audit industry.

- **ChatGPT 3:** ChatGPT 3 represented a significant leap in AI language models. It is capable of understanding and generating human-like text at an unprecedented scale. With 175 billion parameters, it has been used in a wide range of applications, from chatbots and content generation to language translation and more. ChatGPT 3's contextual understanding and ability to provide coherent responses have set a new standard in AI-driven text generation.
- **ChatGPT 4:** Building upon the success of ChatGPT 3, ChatGPT 4 takes AI language models to the next level. With even more parameters and improved training techniques, ChatGPT 4 demonstrates enhanced performance in understanding context, generating natural language text, and producing coherent and contextually relevant responses. It further refines the user experience and expands the possibilities for AI in various industries.
- **Other AI technologies:** There are a variety of AI technologies which can take text inputs and create artificially generated images, video, or even voice. However, these have not yet had a direct impact on the advisory and audit industry.

When compared to past AI technologies, such as rule-based systems and earlier generations of language models, today's AI has several key differences:

- **Scale:** One of the most apparent distinctions is the scale of these models. They utilize significantly more parameters, allowing it to understand and generate text with more context and nuance.
- **Generalization:** Today's AI excels at generalization, meaning it can handle a wider range of tasks and contexts, making AI highly versatile in real-world applications.

- **Few-Shot and Zero-Shot Learning:** Many AI technologies can perform tasks with minimal training data, a capability that earlier AI systems struggled to achieve.
- **Natural Language Understanding:** The current generation of AI models exhibit substantial improvements in natural language understanding, enabling more coherent and context-aware interactions.
- **Broader Applicability:** These models find applications in various fields, from customer service and content generation to complex data analysis and even aiding in creative writing.

While ChatGPT represents the pinnacle of current AI language models, it's important to acknowledge that AI continues to evolve rapidly. The use of such models in advisory and audit has the potential to enhance communication, data analysis, and document processing, leading to more efficient and accurate services.

AI's impact & challenges

AI has already made a significant impact across various industries:

- **Healthcare:** AI assists in diagnosing diseases, drug discovery, and improving patient care.
- **Retail:** AI-driven recommendation systems personalize shopping experiences.
- **Manufacturing:** AI enhances quality control, predictive maintenance, and process optimization.
- **Customer Service:** Chatbots and virtual assistants are improving customer interactions.

The current generation of AI is marked by incredible achievements and possibilities, but it's also a time when society is grappling with how to harness this technology responsibly. With all its potential, AI also presents a set of challenges:

- **Ethical Concerns:** The use of AI raises ethical questions, such as biases in AI algorithms and concerns about privacy and surveillance.
- **Job Displacement:** The automation potential of AI has led to concerns about job displacement. However, it's important to remember that AI can also create new job opportunities.
- **Data Privacy and Security:** As AI relies on data, securing that data and ensuring privacy is a significant concern.

AI in advisory and audit

In the world of advisory and audit, the potential applications of AI are both transformative and promising. Used correctly, AI can help bring efficiency, accuracy, and valuable insights to firms.

- **Automation of Repetitive Tasks:** One of the most immediate benefits of AI in advisory and audit is the automation of repetitive and time-consuming tasks. AI can handle data entry, document sorting, and routine data analysis, freeing up professionals to focus on more complex, strategic, and client-facing activities.
- **Data Analysis and Risk Assessment:** AI's data-crunching capabilities are particularly useful in risk assessment and data analysis. In audit, AI can quickly process vast datasets to identify anomalies or exceptions. It can also help auditors analyze financial statements and reports more efficiently.
- **Document Review and Analysis:** AI-driven document review and analysis tools can extract critical information from client documents, contracts, agreements, and legal documents. This is invaluable for both advisory services, where it can speed up due diligence processes, and audit services, where it can assist in compliance review.
- **Fraud Detection and Prevention:** Detecting fraud is a critical aspect of audit work. AI can analyze financial transactions, invoices, and other financial data to identify irregularities, inconsistencies, or suspicious patterns, aiding in fraud prevention and early detection.
- **Compliance Monitoring:** AI systems can be programmed to monitor and ensure compliance with industry regulations and standards. They can alert professionals to any deviations or potential non-compliance issues, helping firms maintain regulatory integrity.
- **Predictive Analytics:** AI excels in predictive analytics, which is valuable for both advisory and audit. Predictive models can forecast future trends, identify potential business risks, and help companies make data-driven decisions.
- **Process Optimization:** In advisory, AI can optimize processes by analyzing client data and financial records. This can lead to cost savings, improved operational efficiency, and better resource allocation.

Real-world examples are the best way to understand the impact of AI. These use cases exemplify how AI can augment the capabilities of professionals in advisory and audit, improving both the quality and efficiency of services:

- **KPMG's AI-Powered Risk Assessment:** KPMG has developed an AI-based tool that analyzes vast amounts of financial data to enhance risk assessment and improve audit quality.
- **Deloitte's Cognitive Audit:** Deloitte employs AI and natural language processing to extract insights from documents and contracts for their audit and advisory services, streamlining their operations.
- **Fieldguide AI:** Fieldguide has created an AI tailored specifically for advisory and audit firms, allowing them to easily analyze client documents, generate test procedures, and submit requests to clients.

“Companies’ AI poses data, bias and other risks that auditors need to consider in their assessments. As auditors, we need to understand where AI has been deployed and the context in which that risk has been identified and managed.”

- Wes Bricker, Vice Chair, PwC

AI benefits for advisory and audit firms

AI isn't just a technological buzzword; it's a transformative force in the advisory and audit industry. There are a myriad of benefits that AI brings to the table, from improving efficiency to making more accurate decisions and enhancing the value delivered to clients.

1. **Efficiency:** AI's ability to automate repetitive tasks and analyze large datasets means that professionals can focus their time and expertise on higher-value activities.
2. **Accuracy:** AI systems don't get tired or make errors due to fatigue. They can process data consistently and accurately, reducing the risk of human error, especially in tasks that require meticulous attention to detail.
3. **Consistency:** AI can help firms be more consistent across engagements and teams, especially if any work is outsourced or offshored.
4. **Decision-Making:** AI provides professionals with valuable insights and predictions based on data analysis. This enables data-driven decision-making, allowing firms to make more informed choices, mitigate risks, and seize opportunities.
5. **Scalability:** AI systems can easily scale to handle more complex tasks as a firm's needs grow. This is especially beneficial for firms with limited resources or those trying to expand to new markets or types of engagements.
6. **Engagement Quality:** AI enhances audit quality by conducting more thorough and comprehensive analysis. It can identify exceptions or data anomalies that might be overlooked by human auditors.
7. **Client Service:** With the help of AI, advisory firms can provide more tailored and responsive services to their clients. AI-driven recommendations and insights can help clients make informed decisions.
8. **Competitive Advantage:** AI can help position firms as more advanced than competitors, while helping deliver higher-quality services and lower costs.
9. **Recruiting and Talent Retention:** By embracing AI, advisory and audit firms position themselves at the forefront of technological innovation, making them more attractive to practitioners who want to work at an innovative firm that is helping them grow their skillset.
10. **Professional Development:** AI doesn't replace professionals but augments their capabilities. It offers an opportunity for professionals to develop new skills, particularly in data analytics and AI technologies, furthering their career growth.

- 1. Greater efficiency**
- 2. Higher accuracy**
- 3. Improved consistency**
- 4. Data-driven decisions**
- 5. Greater scalability**
- 6. Engagement quality**
- 7. Better client service**
- 8. Competitive differentiation**
- 9. Recruiting and retention**
- 10. Professional development**

An AI framework for your firm

Integrating AI into advisory and audit practices is a significant undertaking that requires careful planning and a structured approach. This practical framework provides six steps that practitioners can follow as they embark on their AI journey.

Step 1: Assess AI Readiness

Before diving into AI implementation, it's essential to evaluate your firm's readiness for AI adoption. Consider the following factors:

- **Strategic Alignment:** Ensure that AI aligns with your firm's strategic goals and objectives.
- **Skills and Knowledge:** Evaluate your team's skills and knowledge. Identify gaps that may need to be filled through training or hiring.
- **Budget and Resources:** Determine the financial resources available for AI implementation, including initial investments and ongoing maintenance.

Step 2: Set Clear Goals

Define clear, achievable goals for your AI initiatives. These goals should be specific, measurable, and aligned with your firm's strategic objectives. Establish key performance indicators (KPIs) and reporting mechanisms to evaluate the impact of AI on your advisory and audit activities. Continuously measure the progress and outcomes against your defined goals.

Examples of AI goals in advisory and audit include:

- Automating data entry to reduce time and cost
- Improving risk assessment and fraud detection accuracy
- Enhancing compliance monitoring to reduce regulatory risks
- Providing more personalized and data-driven advisory services to clients

Step 3: Select the Right AI Tools

Choose AI tools and technologies that align with your defined goals and the specific needs of your firm. Consider factors such as:

- The type of AI (machine learning, natural language processing, computer vision, etc.) most suited to your goals.
- The availability of pre-built AI solutions and platforms that can streamline implementation.
- Compatibility with your existing technology stack and data sources.

Step 4: Pilot and Test

Before full-scale implementation, your firm may want to conduct a pilot project or a series of tests to assess the performance of your AI system. This step allows you to identify any issues and make necessary adjustments.

Step 5: Rollout and Integration

Once you are satisfied with the results from your pilot or testing phase, proceed with the rollout and integration of AI into your advisory and audit processes. Ensure that your team is adequately trained in using AI tools and understands their role in the process.

Step 6: Continuous Monitoring and Improvement

AI systems require ongoing monitoring and maintenance. Regularly assess the performance of your AI tools, refine algorithms, and update data as needed to ensure that your AI solutions remain effective. Also, as technology and AI continue to evolve, be prepared to adapt and grow with it. Stay informed about the latest AI developments and adjust your AI strategies accordingly to remain competitive.

By following this framework, advisory and audit professionals can navigate the complexities of AI implementation, maximize its benefits, and overcome the challenges associated with AI integration.

“There’s always going to be roles for accountants. It’s definitely a discipline and a skill set that is vital.”

- Ken Tanji, CFO, Prudential Financial

Next steps and additional resources

As you embark on your journey to explore AI's vast potential in the advisory and audit industry, it's essential to have access to valuable resources for in-depth learning and staying updated with the latest developments. Following is a list of books, websites, and courses that can help you dive deeper into AI in the context of advisory and audit.

Books

- The Age of AI and Our Human Future by Henry Kissinger & Eric Schmidt
- AI 2041: Ten Visions for Our Future by Kai-Fu Lee
- Competing in the Age of AI by Marco Iansiti

Online Courses

- [AICPA: AI for Accounting and Finance Professionals](#)
- [Udemy: AI for Accountants I](#)
- [CPA Academy: ChatGPT and AI Courses](#)
- [MIT: AI Implications for Business Strategy](#)
- [London Business School: The Business of AI](#)

Associations

- [AICPA resources on AI](#)
- [CPA Practice Advisor AI news & resources](#)
- [AccountingToday AI news and resources](#)

By exploring these resources, you can keep yourself updated on AI trends and expand your knowledge and skills in the realm of AI as it relates to advisory and audit. The world of AI is ever-evolving, and continuous learning is essential to harness its full potential in your professional journey.

About us

Fieldguide Powers the Future of Trust

Built by and for practitioners, Fieldguide is the category-defining and comprehensive AI Advisory and Audit Cloud that makes it amazingly easy for firms to automate the entire lifecycle of any type of engagement. Our cloud-based software helps firms take advantage of the increasing demand for advisory and audit services by addressing the challenges of scarce talent, remote collaboration, and modern client expectations.

Fieldguide provides end-to-end visibility across all engagements, streamlined collaboration with distributed clients and teams, and unparalleled staff productivity for any engagement, including SOC 1 & SOC 2, HITRUST, PCI DSS, HIPAA, and many more. Instead of juggling siloed legacy tools, practitioners can rely on Fieldguide as a single source of truth, with all the capabilities that they need to run engagements from kickoff to completion. Streamlined requests, collaborative document management, intelligent framework mapping, and one-click reports are just some of the unique Fieldguide features that help firms drive greater visibility across all engagements, while delivering a first-class client experience. Leading firms like Wipfli, Mazars, Aprio, and BerryDunn trust Fieldguide to increase revenue, boost client satisfaction, and improve profits.

Fieldguide has received multiple awards from industry associations, and the company is backed by top venture capital firms, including 8VC, Y Combinator, and Floodgate.

For more information or to schedule a free product demo, visit
fieldguide.io