KPMG

The importance of Trusted AI in healthcare

Crafting the future of healthcare's relationship with technology

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Introduction

As healthcare leaders embed artificial intelligence (AI) ever more deeply into the fabric of their organizations, they can't afford to wait for regulators to provide guidelines and regulations for the safe, transparent, and trusted development and deployment of the transformative technology.

Hospitals, physician groups, payors, and other healthcare sectors are all grappling with how to approach AI and must act now despite the regulatory uncertainty. The need for immediate, self-regulated action is driven by the swift pace of AI innovation, ethical considerations related to adoption, and the competitive landscape. The benefits AI can deliver—including improved patient outcomes, fraud detection, risk management, development of new therapies, and streamlined healthcare operations—make it a necessity for organizations to keep pace with competitors.

Establishing an internal framework for the ethical use of AI allows organizations to collaboratively promote an internal understanding of permissible AI usage and establish guardrails. This, in turn, enables them to navigate related challenges and enhance trust among clinical care providers, administrators, and the public. These measures should be designed to maximize AI's effectiveness and address critical concerns, including transparency, data quality and privacy, algorithmic bias, and the need for effective human oversight.

Utilizing AI in healthcare is uniquely challenging

Healthcare organizations have been racing to integrate AI into their operations, and the arrival of generative AI has only increased the pace of innovation and adoption.

However, healthcare leaders face unique risks in transitioning to an AI-enabled future. Patient data, or protected health information (PHI), is crucial for developing custom AI systems. Yet, accessing, using, and disclosing PHI is tightly regulated globally. Navigating these regulatory frameworks complicates the creation of effective, diverse data sets, as meeting compliance requirements while maintaining data usability—such as through proper anonymization—presents significant challenges. Furthermore, it's essential to distinguish between the use of PHI in developing broader AI systems—which involves designing custom applications and potentially training models on proprietary data—and its use in training language learning models (LLMs), which should be limited and carefully considered within healthcare organizations. This approach mitigates risks, including internalized bias from training AI on narrowly selected datasets.

Barriers to AI adoption and stakeholder confidence

There is also the "black box" problem, which arises when the complex and often proprietary technology of AI is shielded from examination by users and regulators. In the field of radiology, which was an early adopter of AI models, AI algorithms have been trained on vast troves of patient images to read x-rays, CT scans, and other images. Studies have found these applications to be skilled at spotting anomalies on scans, sometimes detecting possible lesions that human radiologists miss. Such applications show great promise not only in improving diagnostic accuracy but also in handling time-consuming tasks such as tracing tumors and measuring fat and muscle in full-body scans. However, many radiologists are reluctant to fully adopt these AI applications because the decision-making process behind the technology lacks transparency.

The public, too, sees promise in AI applications for healthcare, but also has some reservations. In the 2024 KPMG American Perspectives Survey,[1] which assessed the views of 1,100 US-based adults, most were optimistic about the impact of generative AI on the health-consumer experience. Half said they expected increased efficiency in scheduling appointments and filling prescriptions, and about a third foresaw benefits to their health, including early detection of health issues, improved accuracy of diagnosis, and better access to care.

Yet concerns about the privacy and security of PHI are deeply rooted in the knowledge that it ranks among the most coveted data types on the black market. This fear is not unfounded—once PHI data is breached, the fallout is often severe, with the integrity of compromised information being difficult, if not impossible, to restore. Such a stark reality heightens the anxiety over safeguarding this sensitive data, highlighting an overarching concern for its defense against potential breaches.

[1] 2024 KPMG American Perspectives Survey

Healthcare companies face a maze of AI regulations and guidelines

The healthcare industry's use of generative AI, in particular, is expanding so rapidly that local, national, and global regulators have struggled to keep pace. Yet having an effective regulatory framework is essential for fostering innovation, promoting public trust, and ensuring the safe and ethical use of AI.

The US has reacted to the emerging difficulties and possibilities of AI by issuing an Executive Order on AI,[2] urging bodies like the National Institute of Standards and Technology (NIST) to establish standards for AI's ethical use, especially in healthcare. This approach signifies the commitment of the US to a structured yet flexible regulatory framework. In contrast, the European Union has embarked on a more formal legislative journey with its AI Act, which goes into effect in 2026 and aims to protect citizens' rights and safety comprehensively. Despite their differences, both initiatives are integral components of a wider global conversation, striving to balance innovation with ethical considerations.

Currently, a fragmented landscape of AI regulatory efforts is emerging. So far most of these point to the need for regulation and discuss likely areas of focus while leaving specific rules to be set sometime in the near future. A World Health Organization (WHO) publication in October 2023 stressed the need for regulations that would ensure the transparency of AI systems, address privacy and data protection, and provide a commitment to data quality. The US Executive Order on AI calls for federal officials, including in NIST, to set standards for the development and regulation of AI in healthcare. The US Food and Drug Administration, meanwhile, is providing guidelines and frameworks for AI-based medical devices and software.

[2] "Maintaining American Leadership in Artificial Intelligence," White House, February 11, 2019

Legislative landscape

- US – Executive Orders on Safe, Secure, and Trustworthy Development and Use of AI issued in 2023, Executive Order on Maintaining American Leadership in AI issued in 2019
- US – NIST involved in development efforts that touch on the ethical use of AI
- US – Food and Drug Administration provides guidelines and frameworks for AI-based medical devices and software
- European Union – Passed AI Act to take effect in 2026

Guardians of compliance

The risks of AI in healthcare may create enormous challenges for professionals charged with compliance, internal audit, and other risk functions, but it also has great potential to increase the depth and breadth of an organization's ability to manage and mitigate risk with a broader reach. AI can help risk professionals be more targeted and focused in areas that require human intervention and drive efficiencies in various ways, such as supporting with the summarization of case notes, development of investigation or audit reports, and the comparison of policies across business units and vendor contracts. In addition, it can support more wide-ranging auditing and monitoring initiatives by increasing the efficiency of testing and enabling a larger volume of transactions to be included in the sampling population. In addition, AI can also be instrumental in ranking third-party vendors based upon their underlying contract terms, responses to questionnaires, or identified control frameworks.

Assessing readiness and adoption

KPMG LLP (KPMG) recognizes that organizations will be at different levels of AI adoption and governance. We help healthcare organizations benchmark their current AI capabilities against industry standards, and gauge their strategy, culture, and technical and functional capability for AI adoption and readiness to implement AI applications and systems.

We can help identify the organization's strengths and areas for improvement in AI usage, facilitating a strategic approach to leveraging AI for business value and social impact. With our Trusted AI approach, we help ensure that AI systems not only comply with regulatory standards but also align with ethical considerations and operational best practices to enhance patient outcomes, improve access to care, and reduce operational costs.

There is a need for a systematic and measured approach to adopting AI technologies, ensuring that organizations can handle the complexities of AI integration in healthcare responsibly and effectively.

A responsible framework to enhance trust in AI

The KPMG Trusted AI Framework can help organizations understand the AI systems they are using or considering, how they will be classified and governed in the emerging regulatory environment, and how to enhance risk management and compliance. We help organizations to embed trust in every step—from establishing AI steering committees and strategies and evaluating the risk-versus-value of each system to enabling ongoing iterations and improvements. Our framework is based on overarching principles that promote integrity, fairness, and effectiveness.

> **These principles point toward concrete actions and benefits that can help healthcare organizations realize trusted AI solutions**

1 Enabling data quality and safety

AI applications are only as good as the underlying data. Earning trust requires first ensuring there is enough high-quality, representative data for AI models to learn effectively, and that these models are tested and trained for accuracy. At times, this may include upgrading data infrastructure for more secure storage or converting fragmented data into more accessible and interoperable formats. Additionally, companies must implement robust security measures to ensure sensitive patient data remains private and safe from cyberthreats. These measures should include establishing clear access and usage controls, conducting employee training, performing penetration testing, and setting up escalation procedures for when risks arise.

Values-driven

We implement AI as guided by our values. They are our differentiator and shape a culture that is open and inclusive and operates to the highest ethical standards. Our values inform our day-to-day behaviors and help us navigate emerging opportunities and challenges.

Human-centric

We prioritize human impact as we deploy AI and recognize the needs of our clients and our people. We are embracing this technology to empower and augment human capabilities—to unleash creativity and improve productivity in a way that allows people to reimagine how they spend their days.

Trustworthy

We will adhere to our principles and the ethical pillars that guide how and why we use AI across its lifecycle. We will strive to ensure our data acquisition, governance, and usage practices uphold ethical standards and comply with applicable privacy and data protection regulations, as well as any confidentiality requirements.

2 Enhancing ethics and compliance

Regulations and stakeholder expectations around AI are complex and rapidly evolving. Healthcare organizations will need to deeply embed ethics and compliance in their systems and governance. These include implementing compliance-by-design solutions—such as stringently testing models to root out bias and discrimination before they become problems—as well as regular compliance monitoring, audits, and risk assessments. In doing so, healthcare organizations can enhance their reputation for integrity and fairness and be better prepared for future AI regulations and guidelines.

3 Promoting transparency and accountability

To be trusted, AI solutions cannot be a "black box." Instead, building trust requires a strong emphasis on openness about how AI systems operate and reach decisions. Trusted AI applications provide appropriate disclosures to stakeholders and easily explain how outputs were created. Moreover, there must be clear human oversight and responsibility to help ensure that problems are surfaced and addressed. These steps can help providers, patients, and other stakeholders gain confidence in AI applications to encourage uptake and utilization.

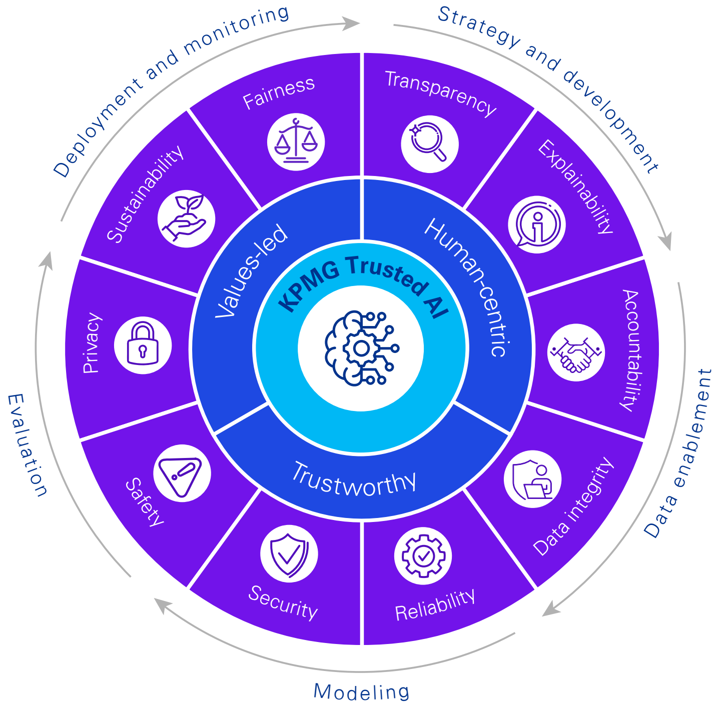
4 Driving continuous refinement

Building trusted AI applications—that are adapted to real-world challenges in healthcare—is an iterative process. For example, it is vital to regularly engage with providers and patients to understand how they utilize AI on the ground and seek feedback on any problems to address. An iterative approach not only helps improve algorithms for accuracy and fairness but also enhances interfaces and the technology's value in patient care. This approach can both improve trust and help deliver more personalized, effective healthcare.

Elevating healthcare with Trusted AI

Implementing AI in a setting as complex as healthcare requires overarching principles to guide organizations, as well as meticulous attention to detail. Our Trusted AI guidelines provide a thorough roadmap, equipping organizations to not only meet but also exceed the evolving standards of responsible AI use.

This commitment to a holistic approach—where every procedural step and compliance requirement is as vital as the broader ethical principles—will define the next frontier of AI in healthcare, setting a benchmark for responsibility and helping to realize this technology's extraordinary and life-saving potential.



How KPMG can help

Our experience in regulation, tax transparency, audit innovation, risk, security, privacy, and other critical areas can be beneficial in the fast-emerging space of trusted AI. As client-zero, our multibillion-dollar investment in AI capabilities positions us to harness the advantages of AI, amplifying the quality of KPMG member firms' client engagements and enhancing our employee experience in a way that is responsible, trustworthy, and safe.

- KPMG Trusted AI services can help with designing, building, deploying, and using AI technology solutions in a responsible and ethical manner, seeking to accelerate value with confidence.
- Analysts recognize that KPMG is an industry leader in AI, machine learning, data analytics, cybersecurity and risk.
- KPMG professionals have industry and domain experience that can help you understand where and how risks specific to your business can emerge.
- Our global network of strategic alliances and investments helps give KPMG firms enterprise depth with boutique agility.
- As an early access partner for Microsoft 365 Copilot and Azure OpenAI Service, KPMG professionals pilot the technologies with select business groups across the global organization, bringing together the increased capabilities of these tools with their experience, insights, and sector knowledge to enhance client engagements and accelerate digital solution development.

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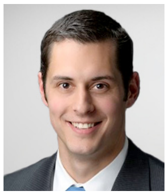

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Recommended reading:

Generative AI is poised to transform healthcare.

Is healthcare ready?

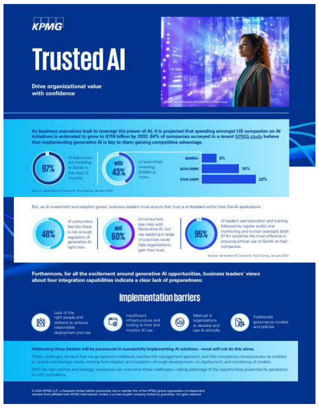
GenAI is poised to transform healthcare. Is healthcare ready?

The KPMG Trusted AI approach

Accelerating the value of AI with confidence.

December 2023

The KPMG Trusted AI approach



Trusted AI

Drive organizational value with confidence

GenAI was utilized in the creation of this image

As business executives look to leverage the power of AI, it is projected that spending amongst US companies on AI initiatives is estimated to grow to $118 billion by 2032. 64% of companies surveyed in a recent KPMG study believe that implementing generative AI is key to them gaining competitive advantage.

97% of executives are investing in GenAI in the next 12 months.

with 43% of executives investing $100M or more.

$500M+ 6%
$250-499M 15%
$100-249M 22%

Source: Generative AI Consumer Trust Survey, January 2024

But, as AI investment and adoption grows, business leaders must ensure that trust is embedded within their GenAI applications.

48% of consumers feel like there is not enough regulation of generative AI right now.

and 60% of consumers see risks with Generative AI, but say applying a range of practices could help organizations gain their trust.

95% of leaders said education and training, followed by regular audits and monitoring and human oversight (both 91%) would be the most effective in ensuring ethical use of GenAI at their companies.

Source: Generative AI Consumer Trust Survey, January 2024

Furthermore, for all the excitement around generative AI opportunities, business leaders' views about four integration capabilities indicate a clear lack of preparedness:

Implementation barriers

Lack of the right people and skillsets to enforce responsible deployment and use

Insufficient infrastrucuture and tooling to host and monitor AI use

Mistrust in organizations to develop and use AI ethically

Inadequate governance models and policies

Addressing these barriers will be paramount in successfully implementing AI solutions—most will not do this alone.

These challenges demand that we go beyond a traditional reactive risk management approach, and that compliance consciousness be enabled at tactical and strategic levels, starting from ideation and inception—through development—to deployment, and monitoring of models.

With the right partner and strategy, companies can overcome these challenges—taking advantage of the opportunities presented by generative AI with confidence.

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DASD-2024-15980