# The dual challenge of innovation and compliance in AI for regulated industries



Artificial intelligence (AI) is steadily reshaping operations within regulated industries such as healthcare, finance, and legal services. This transformation requires navigating the intricate balance between innovation and compliance, a task that is increasingly crucial as businesses seek to harness AI's potential while adhering to strict regulatory frameworks.

In the healthcare sector, AI-driven diagnostic tools are making significant strides. A study published in *JAMA* reveals that these tools have improved breast cancer detection rates by 9.4% compared to standard human radiologists. Such advancements highlight AI's role in enhancing patient outcomes, potentially revolutionising the way medical professionals diagnose and treat health conditions.

Financial institutions are also reaping the benefits of AI technology. The Commonwealth Bank of Australia reported a remarkable 50% reduction in losses related to scams, illustrating the financial efficacy of implementing AI solutions. Similarly, in the legal domain, AI is transforming traditional practices — as noted by Thomson Reuters, legal teams are now able to conduct faster document reviews and case predictions thanks to the capabilities of AI systems.

However, the integration of AI in these regulated sectors is not without its challenges. Compliance emerges as a critical concern, as product managers are tasked with ensuring that AI innovations align with established legal standards, including those laid out by the Health Insurance Portability and Accountability Act (HIPAA) in healthcare, and the General Data Protection Regulation (GDPR) in Europe. These regulations entail requirements for data collection and usage, while also demanding transparency in AI system decision-making processes. Notably, updates to HIPAA have set specific compliance deadlines, with significant changes anticipated by December 23, 2024.

Compounding the scenario are international regulatory frameworks such as the European Union’s upcoming Artificial Intelligence Act, which, effective August 2024, categorises AI applications based on risk levels and imposes stricter guidelines for high-risk applications, particularly in critical infrastructures like healthcare and finance. As regulations continue to evolve, product managers must adopt a comprehensive perspective that addresses both local laws and international developments.

Furthermore, ethical concerns surrounding AI, particularly regarding bias and transparency, must be addressed to foster responsible implementations. The American Bar Association highlights the risks of unchecked bias in AI systems, which can lead to discriminatory outcomes in critical areas like loan approvals and medical diagnoses. Additionally, the complex nature of AI models often results in "black box" systems where outputs are difficult to decipher. This lack of explainability is particularly problematic in highly regulated sectors where understanding decision-making processes is paramount.

The repercussions of failing to tackle these issues can be significant. Under GDPR, non-compliance can incur fines that reach up to €20 million or 4% of a company’s global annual revenue. Companies like Apple have faced substantial scrutiny regarding their AI systems; a Bloomberg investigation revealed that gender biases in the Apple Card’s credit decision-making process led to public backlash and heightened regulatory interest.

In light of these challenges, product managers play a vital role in ensuring that AI systems remain both innovative and compliant. Strategies include prioritising compliance from the product development outset, designing systems for transparency, proactively managing risks, fostering interdisciplinary collaboration, and keeping abreast of regulatory changes.

Illustrations of successful integration of compliance in AI development can be observed at JPMorgan Chase, where its AI-powered Contract Intelligence (COIN) platform demonstrates the benefits of compliance-first strategies, enhancing operational efficiency without compromising adherence to regulations. Conversely, the issues faced by Apple regarding algorithmic bias serve as a cautionary tale about the importance of incorporating ethical considerations into product design.

As the landscape for AI regulation continues to shift, the dual responsibilities of product managers become even more critical. By adopting strategies that prioritise compliance and ethical standards, businesses can not only achieve operational efficiencies but also set a precedent for responsible AI development. In doing so, they are not only improving their products but also contributing to the broader framework that governs crucial regulated industries moving forward.

Source: [Noah Wire Services](https://www.noahwire.com)

## References

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* <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2824353> - This study published in JAMA Network Open details how AI tools can improve breast cancer detection rates and estimate future breast cancer risk based on mammography screenings.
* <https://jamanetwork.com/journals/jama/article-abstract/2760710> - This article from JAMA discusses a study where an AI system outperformed radiologists in breast cancer screening, highlighting AI's role in enhancing patient outcomes.
* <https://www.pymnts.com/artificial-intelligence-2/2024/global-ai-regulation-efforts-heat-up/> - This article covers the evolving regulatory landscape for AI, including the European Union’s Artificial Intelligence Act and its impact on high-risk applications in healthcare and finance.
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* <https://www.hhs.gov/hipaa/for-professionals/compliance-enforcement/index.html> - This link to the U.S. Department of Health and Human Services explains the Health Insurance Portability and Accountability Act (HIPAA) and its compliance requirements, which are crucial for AI in healthcare.
* <https://ec.europa.eu/info/law/law-topic/data-protection/reform/what-does-general-data-protection-regulation-gdpr-en> - This page from the European Commission explains the General Data Protection Regulation (GDPR) and its requirements for data collection and usage, as well as transparency in AI decision-making processes.
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* <https://www.bloomberg.com/news/articles/2020-11-07/apple-card-gender-bias-probe-finds-no-violations> - This Bloomberg article details the investigation into gender biases in the Apple Card’s credit decision-making process, highlighting the public backlash and regulatory scrutiny.
* <https://www.jpmorganchase.com/news-stories/jpmc-coin-platform> - This link to JPMorgan Chase's website explains their AI-powered Contract Intelligence (COIN) platform, which demonstrates successful integration of compliance in AI development.
* <https://ec.europa.eu/info/law/law-topic/data-protection/reform/what-does-general-data-protection-regulation-gdpr-en#penalties> - This section of the European Commission's GDPR page explains the potential fines for non-compliance under GDPR, which can reach up to €20 million or 4% of a company’s global annual revenue.
* <https://localcoonrapidsnews.com/business/why-product-managers-hold-the-key-to-ethical-ai-success/> - Please view link - unable to able to access data