# **Module 5 – Portfolio First Draft**

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Artificial Intelligence (AI) is a revolutionary technology that enables businesses to automate processes, analyze data efficiently, and reduce operational costs. As a consultant for a firm, this proposal examines the strategies for implementing AI within the insurance company to optimize customer interactions. In the insurance sector, AI can perform many tasks, it can predict risk, detect fraud, and improve underwriting. It can improve customer service, increasing customer satisfaction and loyalty. Additionally, it can reduce operational costs by improving and automating tasks. However, AI implementation within an insurance company comes with risks that need to be addressed, such as ethical issues, privacy concerns, and regulatory compliance challenges. Furthermore, to achieve a successful AI integration, it is essential to establish a clear AI implementation strategy, understand the data requirements and data management needs of the company, and estimate accurately the implementation costs and long-term savings. A successful AI implementation would give the company a substantial competitive edge within the insurance industry.

### Risks

While an AI implementation comes with potential benefits for the company, it is important to consider the risks the technology may introduce to the organization. These risks include ethical issues, privacy and security concerns, and regulatory compliance challenges. To mitigate these risks is crucial to implement solutions such as using ethical AI practices, an AI integration that safeguards customers' and company privacy, and a system that ensures that the AI implementation is regulatory compliant and secure.

## **Ethical Issues**

AI systems can develop biases and can be used to target or exclude specific groups. AI can be a double-edged sword, and without careful oversight, may result in unethical outcomes (Cheatham et al. 2019). This can occur unintentionally due to flawed training data or intentionally by design. AI can also be used to identify a pool of customers or potential customers and restrict their access to services, leading to denial of service that may be based on unethical criteria. These biases may be based on the customer's income, gender, sexual orientation, race, or ethnicity. However, in most cases, these biases are introduced unintentionally; nonetheless, they must be addressed as they can lead to potential legal issues, reputational damage, and a loss of customer trust.

To prevent potential ethical issues, such as an AI underwriting system or an employee using AI inadvertently discriminating against a particular demographic, the company needs to establish internal AI ethical guidelines that reflect the culture and goals of the organization and endure that AI underwriting system are aligned with the company ethical values. The following is a list of recommended guidelines and practices based on best AI practices from Google AI (n.d.).

- 1. Establish a company's internal AI ethical guidelines.
- 2. When training your own AI model from a foundation model, ensure it is fine-tuned on high-quality company data that is representative to minimize bias.
- 3. Train employees on ethical AI practices to prevent misuse.
- Test, test, and test the AI implementation regularly to detect and address biases or unintended consequences.

- Ensure that the AI implementation is transparent and well-understood within the company. This is important for understanding the potential biases of the system and mitigating them.
- 6. Ensure that the company has full governance over the AI implementation and that the AI system is aligned with the company ethical values. Do not defer AI's ethical responsibility to another party.

By following these guidelines and practices, the company can ensure that its AI implementation aligns with the company ethical values and minimizes unintentional biases and potential employees' unethical misuse.

# **Privacy Concerns and Regulatory Compliance**

AI systems rely heavily on data, including personal and sensitive information about customers. This "usage of big data creates potential privacy violations. Insurers may obtain information about potential policyholders from public sources that they cannot obtain directly from the insureds, either because they didn't have that ability before or because it is illegal for them to collect it" (Lior, 2022, p.478). Businesses need to be compliant with data protection regulations and safeguard sensitive data from potential breaches (YEC, 2023). Privacy concerns are a serious concern with AI implementation, as an AI system is capable of processing vast amounts of sensitive data that can be misused, invertedly collected, or leaked posing a risk of violating data protection laws such as the General Data Protection Regulation (GDPR) in Europe or the California Consumer Privacy Act (CCPA) in the US. For example, in the process of improving customer service or detecting insurance fraud, an AI system may require access to a large amount of customer data, including health records, financial information, and personal identifiers. This data can sometimes be illegally collected without the insurer's knowledge or

inadvertently leaked information, posing significant privacy and security risks that can result in potential legal issues, reputational damage, and a loss of customer trust. Thus, implementing best practices to ensure AI data privacy, adherence to regulations, and data security is crucial.

To address these data privacy, regulations, and data security issues, the company should understand how these concerns could impact AI implementation and then implement data privacy and security protocols that align with regulatory privacy and security requirements where the company operates, such as the GDPR in Europe and CCPA in California. Next, the company should establish a data governance framework to manage data privacy, regulatory compliance, and security effectively (Kuhn, 2024). This should be followed by the implementation of advanced security measures such as encryption, access controls, and continuous monitoring. Encrypted data ensures that it is unreadable without correct decryption keys, and it limits access and controls data access to only authorized personnel. Furthermore, to ensure ongoing compliance with data privacy, governmental regulations, and security standards, routine audits and assessments should be performed on the AI implementation. By Following these recommendations, the company can significantly reduce privacy risks and ensure regulation adherence and data security within its AI implementation.

## References

- Cheatham, B., Javanmardian K., & Samandari, H. (2019, April 2026). *Confronting the risks of artificial intelligence* [PDF]. McKinsey & Company.

  <a href="https://www.mckinsey.com/~/media/mckinsey/business%20functions/mckinsey%20ana">https://www.mckinsey.com/~/media/mckinsey/business%20functions/mckinsey%20ana</a>

  <a href="https://www.mckinsey.com/~/media/mckinsey/business%20functions/mckinsey%20ana">https://www.mckinsey.com/~/media/mckinsey/business%20functions/mckinsey%20ana</a>

  <a href="https://www.mckinsey.com/~/media/mckinsey/business%20functions/mckinsey%20ana">https://www.mckinsey.com/~/media/mckinsey/business%20functions/mckinsey%20ana</a>

  <a href="https://www.mckinsey.com/~/media/mckinsey/business%20functions/mckinsey%20ana">https://www.mckinsey.com/~/media/mckinsey/business%20functions/mckinsey%20ana</a>

  <a href="https://www.mckinsey.com/~/media/mckinsey/business%20of%20artificial%20intelligence">https://www.mckinsey.com/~/media/mckinsey/business%20of%20artificial%20intelligence</a>
- Google AI (n.d.). Responsible AI practices. Google.

  https://ai.google/responsibility/responsible-ai-practices/
- Kuhn, D. (2024, August 23). *AI in insurance: Mastering data privacy and security to stay ahead.*ValueMomentum. https://valuemomentum.com/blog/ai-in-insurance-mastering-data-privacy-and-security-to-stay-ahead/
- Lior, A. (2022). Insuring AI: The role of insurance in artificial intelligence regulation. *Harvard Journal of Law & Technology*, 35(2), 468-530, SSRN:

  https://ssrn.com/abstract=4266259
- YEC (2023, October 25). 10 Hurdles companies are facing when implementing AI (and how to overcome them). Forbes. <a href="https://www.forbes.com/councils/theyec/2023/10/25/10-hurdles-companies-are-facing-when-implementing-ai-and-how-to-overcome-them/">https://www.forbes.com/councils/theyec/2023/10/25/10-hurdles-companies-are-facing-when-implementing-ai-and-how-to-overcome-them/</a>