

## **AI Governance and Frameworks: How to Manage AI Risks and Compliance <sup>1, 2</sup>**

**Rizwan Amin Sheikh, “Dr. Riz,” PMP, PhD**

Founder & CEO, Global AI Excellence

### **Abstract**

The rapid adoption of Artificial Intelligence (AI) across sectors inevitably calls for governance, risk management, and compliance for which most of the organizations around the world are often ill-prepared. This paper presents an in-depth discussion of AI governance approaches that explores the complexities and possibilities of AI technologies. As AI models get more complex and independent, the massive governance structures need to be put in place to counterbalance the gamut of risks and threats from deploying AI, including ethical issues, transparency challenges, and regulatory compliance failures.

The author presents a three-component adaptive governance framework comprising Risk Management, Compliance, and Ethical Considerations. It argues that because of these basic building blocks, strict standards and accountability framework need to be established to manage the increasingly capricious nature of AI-driven projects. The real-life case studies of industry leaders such as Google, Mastercard, and Anthropic are analyzed in this paper. These companies have deployed AI Governance frameworks and models that follow protocols like trustworthy and responsible AI that embrace safety, transparency, and sustainability in AI-based systems.

Additionally, the article analyzes growing trends and upcoming benchmarks of AI regulations and considers how organizations may adapt and align their practices with changing legal imperatives and social expectations. Special attention is given to the need for an interdisciplinary approach to AI governance, including participation from stakeholders such as technologists, business leaders, lawyers, and ethicists working together to create comprehensive AI governance strategies.

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By comprehending and integrating these models, project managers and corporate leaders can adopt AI governance frameworks that maximize AI benefits whilst minimizing its adverse effects.

### **Learning Objectives:**

1. Discuss the AI Governance frameworks that companies can adopt to mitigate AI risks, implement responsible AI, and fulfill regulatory compliance requirements.
2. Examine case studies of global companies, including Google and Mastercard, that have successfully implemented AI governance mechanisms that mitigate risk and compliance issues; the lessons learned can be generalized across industries.
3. Analyze the state of governance and regulation around AI technologies today and the way organizations might be balancing compliance requirements and innovation pursuit.
4. Provide guidance to project managers on incorporating ethical considerations into the actual implementation of AI so that AI systems are designed and executed in a manner that advances fairness, transparency, and accountability.

AI technologies have been developed by companies on a global scale: in a survey of US companies in 2021, 86% of respondents reported that AI would be a “mainstream technology” at their company that year, potentially contributing up to US\$15.7 trillion to the global economy by 2030<sup>6 7</sup> When companies deploy AI technologies they often do so through machine learning. Machine learning systems — which consist of a chain of algorithms — digest and train on enormous amounts of data to identify patterns and generate predictions.

By 2022 machine-learning AI influences virtually every facet of most workers’ professional and personal lives. It can be utilized in day-to-day applications from navigation when traveling to weather predictions. It can also be used to determine, for instance, who gets called for a job interview; what products are advertised to which consumers; who gets a loan; what communities are labeled as having high potential for crime; how COVID-19 patients in hospitals are prioritized for life-saving resources. It can assist individual decision-making in a more efficient and cost-effective way, while also encouraging a greater level of productivity and growth in the economy as a whole. Human sonal preferences, AI allows for more values being integrated with values according to step new possibilities and new opportunities. But the technology can also reflect human biases, generate discriminatory increases at scale and carry enormous risk to individuals and society.

In addition to social benefits and risks, there are sound business reasons to address ethical concerns in operationalizing AI principles. A 2018 Deloitte survey found that 32 percent of executives familiar with AI said the ethical risks of AI were one of their top three

AI-related concerns. Microsoft identified reputational harm or liability as a risk to its business from biased AI systems in a 2020 report to the US Securities and Exchange Commission. Meanwhile, employees have spoken up about several ethical concerns over AI research and development through walkouts, resignations, and new unions. Distributing responsibility elsewhere is not enough, and responsible AI is not just a big companies' game. Venture capitalists have encouraged start-ups to optimize their approach to responsible and ethical AI.

Businesses may find it difficult to realize the ROI of their AI projects and pilots. Yet even still, a global McKinsey survey from 2021 revealed that AI is making its mark on the bottom line: 27% of respondents said at least 5% of earnings before interest and taxes (EBIT) can be attributed to AI (a rise from 22% of respondents in 2020). In any case, risk management—including equity and fairness—continues to be a gap for A.I. efforts. Most companies acknowledge they have little developed capacity to respond to such risks. But companies reaping the biggest performance gains from AI are more likely to adopt risk prevention practices, such as addressing bias and ethics. According to the Economist Intelligence Unit's 2020 executive survey (commissioned by Google), 90% of respondents agreed that initial costs related to responsible AI were far outpaced by potential long-term benefits and cost savings, while 97% of respondents viewed ethical AI as essential for innovation. Eighty-six percent of the international panel of AI experts surveyed in 2022 by MIT Sloan Management Review and BCG said that responsible AI should be a top management priority.

## **Use Cases of AI That Triggered an Uproar**

According to the article titled "The Secret Bias Hidden in Mortgage-Approval Algorithms," one family in North Carolina viewed the American dream as buying a new four-bedroom house with a lawn, which included 2,700 square feet of living space for \$375,000. Crystal Marie and Eskias McDaniels saved slightly more than required for a down payment, had very good credit and easily prequalified for a mortgage. But on the day in August 2019 that they were set to sign the loan documents, their loan officer informed them that the deal would not close. He had sent it in no fewer than 15 times, he noted, and was informed that each one had been "rejected by an algorithm." Crystal Marie said that as a Black couple, "it would be really naive not consider that race played a role in the process." In an investigation published in 2019, lenders who controlled their own lending decisions, often using algorithms, were more likely to deny loans to people of color than to similar white applicants, even when adjusting for income and other financial factors that the mortgage industry points to as explains of racial disparities in lending.

In 2016, Microsoft released a Twitter bot that in less than a day was spewing racist, sexist, and other hateful language. Following this, Microsoft set up its AETHER (AI Ethics in Engineering & Research) committee—its research wing designed to drive responsible AI principles forward with experts in responsible AI, engineering leadership, as well as

representatives from its major divisions. AETHER built recommendations for AI innovation across Microsoft, working groups like “AI bias and fairness.” AETHER was part of the office of Responsible AI, which was established in 2019. This office developed policies and governance processes and aligned efforts across the company. It collaborated closely with AETHER, along with a third group, RAISE (Responsible AI Strategy in Engineering), which helped engineering teams put responsible AI practices in place. Microsoft also named some employees Champs to instill ethics across teams. Teams continued to struggle with the open-endedness of ethics, and the desire for more concrete practices and tools. So, the company made a point of making sure engineers solve problems on their own.

## **Advent of Responsible AI at Google**

Google had also recently made headlines because of a number of high-profile instances of harmful bias in its products. For instance, in 2013, a study by Harvard University Prof. Latanya Sweeney found that searching names associated with Black people would yield advertisements related to arrests on the Google Search platform more often than in searches for names associated with white people.

Then there was another study in which the UCLA Prof. Safiya Noble was horrified to find that typing “Black girls” into Google Search brought up wild porn and otherwise disturbing content in the top results. The first result page featured Black girls with arms, legs, back and belly as nouns. She noticed girls’ identities flitting past in search engine results, the commercialized or sexualized, no matter what their race.

In 2014, Jen Gennai, a manager on the Trust & Safety team at Google, started considering user feedback regarding how AI-based Google products would serve users differently — and how those products could work for everyone. In addition to amplifying users’ voices, Gennai’s work around diversity, equity, and inclusion (DEI) also encompassed leading the Women@ employee resource group. He added that DEI was not “just about hiring but products and decision processes.”

Gennai also knew that Google could — and must — be better. She started having an obsession with fairness and justice in AI. She was not alone in doing that: Other Google colleagues investigated fairness questions in machine learning, particularly after artificial intelligence became a larger focus for the company. Gennai helped found a product fairness testing team, ProFair, to run adversarial, socio-cultural tests of AI applications, and to help drive fairness in ML tools under the aegis of a grass-roots ML Fairness Initiative.

Google convened a working group for responsible AI and tasked it with attempting to articulate some sort of ethical charter for Google. Gennai jumped into landscape analysis of responsible AI, and then interview issues of interest to users. She explored science

fiction books and movies, speculating on possible future harms of the AI tools and what, under any circumstances, should not be built. Those principles were written and revised with internal and external input from ethicists, engineers and industry experts based on this research and other feedback from various internal and external stakeholders.

## **Seven Principles of AI at Google**

As stated in the case study “Responsible A.I.: Tackling Tech’s Largest Corporate Governance Challenges,” in June 2018, Pichai announced seven principles “to govern our research and product development and impact our business decisions.” The principles outlined that AI should:

- (1) Be socially beneficial
- (2) Avoid creating or reinforcing unfair bias
- (3) Be built and tested for safety
- (4) Be accountable to people
- (5) Incorporate privacy design principles
- (6) Uphold high standards of scientific excellence
- (7) Be made available for uses that accord with these principles

The announcement also included applications that Google would not explore, such as: (1) Technologies that have caused or are likely to cause overall harm, with this caveat, “Where there is a material risk of harm, we will only move forward if we believe that the benefits considerably outweigh the risks, and will embed appropriate safety limitations.”, (2) Weapons or other technology whose primary function or use is to injure people or cause other types of harm, (3) The technologies that collect or use information through surveillance that violates standards of international consensus, (4) Technologies more coercive in intent in contravention of internationally accepted law and human rights.

The AI Principles working group understood that principles alone were not sufficient. With other members of the AI Principles working group, Gennai created a proposal on how to implement the principles what Google needed for governance. In late 2018, Gennai was instrumental in formalizing the Responsible Innovation team with her as its Founder and Director. The mission of the team was to help implement the AI principles throughout Google. As a result, Google created a “Three-Tiered Internal AI Principles Ecosystem” framework (**Exhibit A**) that was implemented and followed internally across the company.

## **A Golden Opportunity for Google**

The Google Cloud enterprise customers were seeking AI-based lending decision solutions for access to some tools that will leverage machine learning to assess borrower creditworthiness based on nontraditional data. The team set out to apply the AI principles to see whether such a product could be developed in a fair and responsible manner.

After extensive discussions and customer interest that indicated demand, the Google Cloud team conducted a Responsible AI review with the issues relating to using AI for credit scoring, having previously deliberated the opportunities and benefits related to deploying AI in credit scoring use cases. After the initial process, they identified some fairness issues and opted not to pursue the creation of an AI credit scoring tool at that stage.

In 2020, demand for a tool to automatically assess creditworthiness reached a point where the Google Cloud team, working with Responsible Innovation, performed a second Deep Review on the product. Before diving into the review, the team and partnered with Google's Civil and Human Rights teams to orchestrate a five-day sprint for research insights. The AI Principles provided a framework for the implications of building the tool during the sprint. Google had external experts and internal team members with diverse backgrounds, cultures, and identities represented at multiple levels of the organization from across product functions represented in the Sprint. This sprint was US-focused and covered everything from wealth inequality, redlining and predatory lending, financial inclusion and exclusion, and more. They investigated past US systematic injustice in financial systems potentially reflected in data on which AI tools could train. As Cloud Responsible AI Strategy and Programs Manager Melissa Davison put it, this is a process of "leaving no stone unturned" and considering every potential benefit and consequence along the way. The AI Principles are a product-facing framework, and therefore need to be guided by a variety of perspectives.

The sprint showed the high-level view of the landscape, its opportunities, and perils. It discovered that wealth inequities (across identities such as race and gender) were fundamental and ingrained in finance. Such inequities would be captured in data and thus given to machine learning based AI tools trained on such data with a chance of replicating those inequities. Nevertheless, these tools, could also help consumers who previously were unable to get access to loans, due to a lack of credit history or other type of requirements for traditional loans (e.g., collateral). AI lending tool could level the playing field by enhancing the entry of finance. The market for those kinds of tools was huge. With the global financial technology market value predicted to exceed over \$300 billion by the year 2026 and growing over 25% per year between 2022 and 2026, the alternative lending industry, which includes AI tools to assess creditworthiness, was at once a key component of this market and a growing and attractive industry. Organizations across the US and globally had already begun to develop tools in this space, including start-ups Tala, Branch and Upstart.

The Google Cloud review committee (comprised of legal, policy, PR, UX, product engineering, human rights, and social impact) deliberated over the opportunities and risks: Should Google move into this high-growth space and build the lending tool? In addressing this, the committee debated a series of questions related to the product and use case, stakeholders, societal context, data, testing and beyond (**Exhibit B**). Voices in

the room varied. Although the sprint uncovered ethical issues and different start-ups in the space, other committee members felt that Google was in a better position to solve the problems and exploit the opportunities given its immense resources and developed approach to inclusion.

## **AI Governance at Mastercard**

Mastercard's annual revenue was around \$28.17 billion for the year 2024. The global workforce of the company is about 35,300 employees. Simply put, Mastercard acts primarily as a payment network serving merchants, lenders, and buyers. Although it does not issue cards or manage accounts, it offers the technology and infrastructure for credit, debit, and prepaid card payment processing.

### **Mastercard's AI Governance Framework**

AI Governance is paramount at Mastercard, so it has come up with an AI Governance Framework (Figure 1) for the organization globally. The six components of the framework are described below.

1. **Purpose Evaluation** - Determining whether the specific AI use case aligns with Mastercard's values to protect individuals and improve efficiency and accuracy.
2. **Data Evaluation** - Establishing whether the data is appropriate in terms of availability and quality.
3. **Use Case Evaluation and Data Model Design** - Evaluating data for the specific purpose and designing parameters, with focus on eliminating bias.
4. **Model Risk Scoring** - Assessing risks after identifying factors and implementing bias elimination methodologies.
5. **Model Build and Impact Assessment** - Testing the model and evaluating results in context.
6. **Monitoring and Audit** - Assessing AI performance in the longer term through regular testing and monitoring.

**Figure 1: Mastercard's AI Governance Framework**

*Source: Mastercard; Case Study on Mastercard's Ethical Approach to Governing AI, IMD, March 17, 2022*

## NIST AI Risk Management Framework (RMF)

The AI Risk Management Framework (RMF) is a national and voluntary framework developed by the U.S. National Institute of Standards and Technology (NIST) designed to support the idea of addressing, assessing, and managing risk related to artificial intelligence systems. Announced on January 26, 2023, the framework was developed through a consensus-driven, collaborative process to complement existing approaches to AI risk management. Figure 2 depicts the four primary components of the NIST AI RMF listed below:

**GOVERN:** A scalable and organization-wide function throughout the lifecycle of AI risk management that ensures the integration of organizational values and principles with the technical components of AI system design and development

**MAP:** This function maps the risks to an AI, Generative, or ML system.

**MEASURE:** This is a function to assess, quantify and consider the risks of AIs.

**MANAGE:** This function ensures that AI systems are monitored throughout their entire lifecycle, risks are reviewed continually, and mitigation plans are implemented.

**Figure 2: NIST AI Risk Management Framework (RMF)**



Source: NIST

It advocates the need to develop AI systems that are valid and reliable, safe, secure, and resilient, and fair, accountable, transparent, and explainable – namely, trustworthy AI systems that embody the seven characteristics underlying the Framework.

Like previous NIST frameworks such as the Cybersecurity Framework (2014) and Privacy Framework (2020), the AI RMF is designed to be applicable to multiple sectors and a variety of actors. Required by the National Artificial Intelligence Initiative Act, which was included in the 2020 national defense authorization,

NIST has published supplementary resources such as the AI RMF Playbook, Roadmap, Crosswalks, and, more recently in July 2024, a Generative AI Profile to tackle specific risks from generative AI technologies.

## AI GRC Assessment Model

The AI Governance, Risk, and Compliance (GRC) Assessment Model presented by the author and his research team for this article can be used by any organization to evaluate organizational and compliance risks for AI, Generative AI, and ML systems deployed within the organization. This model can be integrated with any AI/ML system or deployed stand-alone to evaluate and mitigate risks from these AI systems. In some small measure, it is a universal model, meaning a type of system- and platform-agnostic model that can be used within any industry including all sectors of the economy and all institutions — from financial services, insurance, healthcare, and pharmaceuticals to entertainment and manufacturing to the public sector.

**Exhibit C** shows a partial view of the AI GRC Assessment Model. The framework is linked to an AI system that can execute a comprehensive risk analysis and generate a report highlighting AI risks, compliance deficiencies, and weaknesses in enterprise systems and processes. In addition, it provides recommendations and a remediation plan to rectify compliance issues and the risks arising from AI/ML systems. A free online demo version can be accessed at [www.gaix.ai](http://www.gaix.ai).

## Conclusion and Key Takeaways

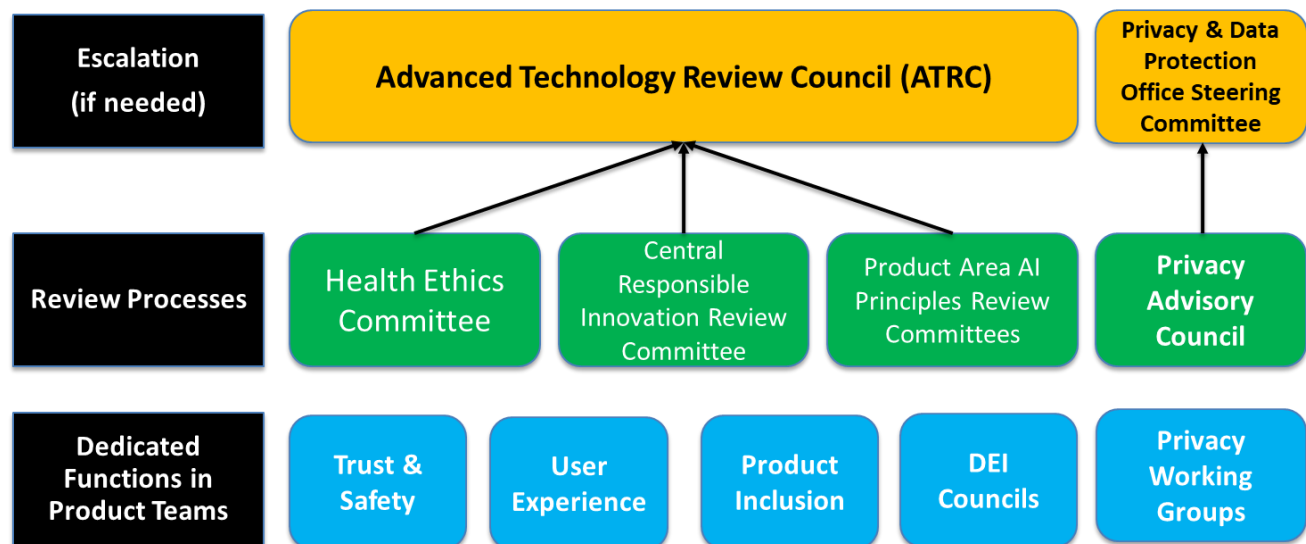
Organizations and project managers worldwide can take advantage of these AI frameworks and tools for AI Governance to outpace change. These AI frameworks empower organizations to not only meet the mandates of new AI regulations today, but also anticipate evolving trends and challenges around AI. With this proactive measure, we can come up with better strategies to mitigate AI risks while allowing room for innovation and maintaining ethical boundaries.

- 1. Google's Three-tiered AI Principles Ecosystem Framework:** Google developed an ecosystem framework for its AI principles into three tiers: ethical values, technical norm, and availability to society. This method also highlights how humans should align AI systems with values to provide responsible use of AI. Through the implementation of this framework, organizations can lay the groundwork for responsibly implementing their AI technologies which stimulate innovation while also prioritizing user privacy, promoting fairness, and adhering to legal and regulatory standards.
- 2. Mastercard's AI Governance Framework:** A framework providing organizations operating in various fields help in navigating the complexities of AI governance. It centers around accountability, transparency and the risk involved in deploying AI. It sets out a roadmap for integrating ethics into the models and decisions formed by artificial intelligence, allowing an organization to manage the funds towards AI in a way that eliminates risk elements while simultaneously promoting trust within consumers and stakeholders.
- 3. NIST AI Risk Management Framework:** Developed by the National Institute of Standards and Technology, the NIST AI Risk Management Framework is a blueprint for how to approach AI tech risk. It provides a systematic framework for identifying risks related to AI and outlines best practices for addressing those risks throughout the life cycle of AI development and deployment. This framework enables organizations to evaluate the reliability, safety, and regulatory compliance of their AI systems and ultimately trust in AI systems better.

- 4. AI GRC Assessment Model:** The model developed by the author of this paper can be leveraged for GRC across various industries, including financial services, healthcare, pharma, manufacturing, and the public sector. The AI GRC assessment tool can help organizations to assess current AI practices, identify gaps in AI policies and procedures, pinpoint compliance deficiencies, and suggest enhancements to align AI undertakings with an organization's compliance needs and business requirements. As mentioned above, a free demo of the AI GRC Assessment Model can be accessed through Global AI Excellence at [www.gaix.ai](http://www.gaix.ai).

### Exhibit A

#### Google's Three-Tiered Internal AI Principles Ecosystem Framework



Google operationalizes responsible innovative practices via a three-tiered internal AI principles ecosystem

**Source:** Google; Case Study on Responsible A.I.: Tackling Tech's Largest Corporate Governance Challenges, Berkley Haas Case Series, October 1, 2022.

## **Exhibit B**

### **Sample Questions Identified by the Google Cloud Review for Credit Lending Assessment**

#### **Product description and use case**

- What is the intended use, limitations, user journey, go-to-market plans, and product vision for the credit lending solution? What problems will the machine learning model solve?
- What happens before and after the model in a customer's end to end workflow?
- Are there uses of this solution that (1) we don't intend (2) can foresee if the product is made generally available and (3) would be considered problematic?

#### **Stakeholders**

- Who are the intended users? What other groups may be impacted? What groups are invisible today? Who benefits from the status quo? Who does not?
- Do we have input, first-hand or documented, from stakeholders to ensure their voices are incorporated into our evaluation?

#### **Societal Context**

- What are the historical and contemporary social, political, economic, emotional, and attitudinal factors important and relevant to credit lending and the FinServ industry?
- Is there potential to perpetuate or exacerbate exclusion in FinServ with automation?
- As the technology provider, what is Google's scope of responsibility to address potential risks and harms identified across the credit lending industry? Where do we have direct control within the product, and where can we influence or educate stakeholders in control to make informed decisions?

#### **Data, Testing, and Tooling**

- How might we define fairness and equity with a credit lending solution?
- How was the training data collected, sampled, and labeled?
- How was the model tested and validated? What are plans or recommendations to customers for ongoing testing and monitoring in deployment?

#### **Solution Design**

- Are there technical criteria critical to developing a credit solution responsibly?

### **Opportunities**

- Are there opportunities with a credit lending AI solution to reduce exclusionary practices in FinServ today?
- Are there external experts or parties in this space we would consider partnering with? To what benefit?
- What educational materials are important to provide customers to help ensure responsible and intended use of the solution?

**Source:** Google; Case Study on Responsible A.I.: Tackling Tech's Largest Corporate Governance Challenges, Berkley Haas Case Series, October 1, 2022.

## Exhibit C

## Dr. Riz AI GRC Assessment Model (Sample)

Dr. Riz AI Governance, Risk, and Compliance (GRC) Assessment Model		Strongly Agree (1)	Agree (2)	Neutral (3)	Disagree (4)	Strongly Disagree (5)
<b>1.1: LEGAL COMPLIANCE</b>						
ID	Question					
Q1	Our organization's AI, Generative AI (Gen AI), and Machine Learning (ML) development and use align with applicable laws and regulations, including those related to data privacy, consumer protection, and industry-specific compliance requirements such as the Federal Trade Commission (FTC) guidelines on AI, sector-specific regulatory frameworks, General Data Protection Regulation (GDPR), California Consumer Privacy Act (CCPA), and other relevant state and international data protection laws. If not sure, you can Select 4 (Disagree).					
Q2	We have implemented technical safeguards and audit mechanisms to monitor AI, Gen AI, and ML systems for compliance with cross-industry regulations such as the Fair Credit Reporting Act (FCRA) when applicable to automated decisions, Americans with Disabilities Act (ADA) for digital accessibility, industry-specific security standards, and relevant federal and state laws governing automated systems that impact consumers or employees. If not sure, you can Select 4 (Disagree).					
<b>1.2: DATA PRIVACY, INFORMATION SECURITY, AND INTELLECTUAL PROPERTY</b>		Strongly Agree (1)	Agree (2)	Neutral (3)	Disagree (4)	Strongly Disagree (5)
ID	Question					
Q3	We have implemented transparency policies and procedures to document the source and history of training data and generated data for AI, Generative AI, and machine learning applications. This aims to promote digital content transparency while also considering the proprietary aspects of our training methods.					
Q4	We have implemented policies to assess the risk-related capabilities of AI, Generative AI, and machine learning systems, as well as the effectiveness of safety measures. This evaluation occurs both before deployment and continuously thereafter, utilizing both internal and external assessments.					
<b>1.3: INFORMATION INTEGRITY AND RISK TOLERANCE</b>		Strongly Agree (1)	Agree (2)	Neutral (3)	Disagree (4)	Strongly Disagree (5)
ID	Question					
Q5	When updating or defining risk tiers for AI, Generative AI, and machine learning systems, we have taken into account several factors, including potential abuses and effects on information integrity, interdependencies among AI, Generative AI, machine learning, and other IT or data systems, risks to fundamental rights or public safety, psychological impacts on individuals, and the potential for malicious use.					
Q6	We have set minimum standards for performance and assurance criteria, which are evaluated as part of our deployment approval ("go/no-go") policies, procedures, and processes. These reviewed processes and approval thresholds are designed to assess the capabilities and risks associated with AI, Generative AI, and machine learning systems.					
<b>1.4: TRANSPARENCY AND RISK MANAGEMENT PROCESSES</b>		Strongly Agree (1)	Agree (2)	Neutral (3)	Disagree (4)	Strongly Disagree (5)
ID	Question					
Q7	We have implemented policies and mechanisms to ensure that AI, Generative AI, and machine learning systems do not produce content that contravenes the law.					
Q8	We have implemented clear acceptable use policies for AI, Generative AI, and machine learning systems that specifically prohibit illegal uses or applications of these technologies.					
<b>1.5: ONGOING MONITORING AND RISK MANAGEMENT</b>		Strongly Agree (1)	Agree (2)	Neutral (3)	Disagree (4)	Strongly Disagree (5)
ID	Question					
Q9	We have outlined the organizational responsibilities for regularly reviewing content provenance and monitoring incidents related to AI, Generative AI, and machine learning systems. Content provenance entails the process of determining and validating the origin, authenticity, and history of digital content.					
Q10	We have implemented a document retention policy to preserve historical records for testing, evaluation, validation, and verification (TEVV), as well as for methods ensuring digital content transparency related to AI, Generative AI, and machine learning.					

## Sources

1. 2025. [https://wef-ai.s3.amazonaws.com/WEF\\_Empowering-AI-Leadership\\_Ethics.pdf](https://wef-ai.s3.amazonaws.com/WEF_Empowering-AI-Leadership_Ethics.pdf). Retrieved on April 22, 2025.
2. 2024. How Companies Can Take a Global Approach to AI Ethics. Harvard Business Review.
3. 2024. Anthropic: Building Safe AI, Harvard Business Review.
4. 2023. Rethinking Governance for Digital Innovation. MIT Sloan Management Review.
5. 2022. Mastercard's Ethical Approach to Governing AI. IMD. March 17, 2022.
6. 2022. Responsible A.I.: Tackling Tech's Largest Corporate Governance Challenges, Berkley Haas Case Series. October 1, 2022.
7. 2022. Renieris, E., & Kiron, D. Why top management should focus on responsible AI. MIT Sloan Management Review.
8. 2021. Davenport, T. & Zhang, R. Achieving return on AI projects. MIT Sloan Management Review.
9. 2021. The state of AI in 2021. McKinsey & Company.
10. 2021. Machine learning, explained. MIT Sloan Management Review. Retrieved from <https://mitsloan.mit.edu/ideas-made-to-matter/machine-learning-explained>
11. 2021. The secret bias hidden in mortgage-approval algorithms. [https://apnews.com/article/lifestyle-technology-business-race-and-ethnicity-racial-injustice-b920d945a6a13db1e1aee44d91475205?\\_gl=1\\*1oxz5nr\\*\\_gcl\\_au\\*MTAyMjcZnzk4NC4xNzM3ODczMzAzLjExNDgxNjAzNC4xNzQ1MzgzMDE4LjE3NDUzODMwMTc.\\*\\_ga\\*MjAzOTkyMDcyMy4xNzM3ODczMzA0\\*\\_ga\\_MBTGG7KX5Y\\*MTc0NTM4MzAwMC4xOC4xLjE3NDUzODQwMjUuNjAuMC4xODI3NTYxMjU](https://apnews.com/article/lifestyle-technology-business-race-and-ethnicity-racial-injustice-b920d945a6a13db1e1aee44d91475205?_gl=1*1oxz5nr*_gcl_au*MTAyMjcZnzk4NC4xNzM3ODczMzAzLjExNDgxNjAzNC4xNzQ1MzgzMDE4LjE3NDUzODMwMTc.*_ga*MjAzOTkyMDcyMy4xNzM3ODczMzA0*_ga_MBTGG7KX5Y*MTc0NTM4MzAwMC4xOC4xLjE3NDUzODQwMjUuNjAuMC4xODI3NTYxMjU).
12. 2020 from [https://www.sec.gov/Archives/edgar/data/789019/000156459019001392/msft-10q\\_20181231.htm](https://www.sec.gov/Archives/edgar/data/789019/000156459019001392/msft-10q_20181231.htm).
13. 2020: Smith, G. & Rustagi, I. Mitigating bias in artificial intelligence. Berkeley Haas EGAL.
14. 2020. Staying ahead of the curve - The business case for responsible AI. The Economist Intelligence Unit. (2020, October). Retrieved from <https://pages.eiu.com/rs/753-RIQ-438/images/EIUStayingAheadOfTheCurve.pdf>.
15. 2018. State of AI in the enterprise, 2nd Edition. Deloitte Insights.
16. 2019. Council, J. Investors urge AI startups to inject healthy dose of ethics. Wall Street Journal.

## About the Author



### **Rizwan Amin Sheikh, “Dr. Riz,” PMP, PhD**

Texas, USA



Dr. Riz is the Founder and CEO of Global AI Excellence (GAIX). He is an AI governance leader, AI strategist, technologist, professor, author, and serial entrepreneur with over 30 years of experience specializing in business and AI strategy, IT, digital transformations, AI governance, risk management, compliance, and AI/ML solutions. His expertise extends to project management, leadership development, and executive education at prestigious institutions, including Harvard, MIT, and the University of Cambridge. As a former Deloitte executive and management consultant, Dr. Riz has empowered the public sector and Fortune 500 companies—including PepsiCo, AT&T, Merrill Lynch, Progressive Insurance, the German Hospitals Group, STERIS (life sciences and biotech), PARCO (Oil & Gas), and Eaton Corporation—to transform their visions into reality.

He has held leadership positions, including CEO, Chairman of the IT Board, Senior Executive at Deloitte, and President of the Project Management Institute (PMI) chapter. Dr. Riz has been a keynote speaker and regularly presents at conferences, including those organized by PMI and Intel. He has taught AI strategy, leadership, project management, and entrepreneurship in executive education programs at Harvard, MIT, LUMS, KSBL, and the University of Cambridge (UK).

In the last 10 years, Dr. Riz's impactful work with the public sector and large-scale companies has led to cost savings of over \$300 million for clients through IT/AI governance, risk management, compliance, program management, and operational efficiencies. Dr. Riz has helped global companies achieve an average of 25% year-over-year revenue increases by formulating and executing business and AI strategies, implementing AI/ML solutions, re-engineering business processes, enhancing business acumen, fostering an entrepreneurial culture, and executing digital transformations. He has enabled organizations to adopt responsible AI while managing risks and complying with applicable laws and regulations.

Dr. Riz has received the "Microsoft Award for Innovative Vision and Dynamic Leadership." He has authored articles on "AI Governance Framework: How to Manage AI Risks and Compliance" and "Managing Projects Successfully through AI and ChatGPT." He is also the author of "Blue Shark Team-Building: Leading High-Performance Teams during a Crisis," a seminal work offering insights into navigating challenges like COVID-19.

He holds a Ph.D. from SKEMA Business School, an MBA from Cleveland State University, and a B.Sc. in Information Systems from Ohio State University. Moreover, he holds professional certifications, including AWS Certified AI Practitioner, Project Management Professional (PMP), PMI-ACP (Agile Certified Practitioner), and Certified Scrum Master (CSM). Dr. Riz can be contacted at [rsheikh75@gmail.com](mailto:rsheikh75@gmail.com)

Learn more at [www.gaix.ai](http://www.gaix.ai)