Actuaries Institute and UTS Human Technology Institute launch practical guidance for addressing AI risk management gap in financial services

The rapid adoption of AI in financial services is creating new and amplified risks for the sector, and governance and risk management practices have not kept pace, according to the Actuaries Institute and UTS Human Technology Institute (HTI).

To help close this gap, the Institutes have partnered to produce a practical guidance resource, *AI Risk Management in the Financial Services Sector,* including an easy to implement and readily adaptable framework for financial services organisations of all sizes to manage AI risk.

A recent survey by HTI found that while 93% of financial services organisations reported using AI, with the remainder planning to do so, less than half reported conducting risk assessments on their internal use of AI. Fewer than one in three respondents reported AI-specific items on their risk register.

“Despite the growing use and importance of AI, many financial services organisations are ill-equipped to manage the scale, complexity, and evolving risk profile of AI systems. Organisations that choose to do nothing in this space will be exposed to new risks they are not equipped to deal with,” says Actuaries Institute co-lead author Victor Bajanov.

Earlier this year in separate open letters to the industry, Australia’s peak financial services regulators, the Australian Prudential Regulation Authority (APRA) and the Australian Securities and Investments Commission (ASIC), both called on financial services organisations to significantly step up their governance and risk management of AI.

AI-amplified risks

Mr Bajanov says risks associated with previous technologies are largely driven by human behaviour and are well understood.

In contrast, frontier AI systems don’t follow rules and instead generate responses based on patterns learned from vast amounts of training data. This adds uncertainty to their behaviours and increases the need for effective oversight.

Agentic AI systems create more distance between the responsible humans and the AI system, narrowing the window for meaningful human intervention.

“The financial services sector has well-established processes for managing traditional risks, but AI creates a vastly different risk profile, meaning organisations need to go back to first principles when deciding how to manage AI risks and assign responsibility for oversight. Managing AI risk needs to be much more than a tick-box exercise,” says Mr Bajanov.

HTI Co-Director Professor Nicholas Davis says the essential role financial services plays in our society means organisations have a great responsibility to ensure risk controls are in place to maintain confidence and stability in the system.

“Financial services shapes how we save and spend, who receives credit or insurance and on what terms, and what retirement looks like. As AI becomes increasingly embedded in these decisions and services, effective risk management and governance are vital to maintaining trust and confidence in the sector. This collaboration between the Actuaries Institute and UTS HTI brings together deep expertise in financial risk management and human-centred AI governance to help the sector respond to the opportunities and risks presented by AI,” Professor Davis says.

The AI framework

The AI risk management framework is designed to integrate with existing enterprise risk management processes, rather than replace them. With the flexibility to remain valid as technology evolves, it is grounded in the sector’s regulatory architecture and informed by governance gaps identified by the Actuaries Institute and HTI.

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The framework provides practical guidance on how financial services organisations should address four fundamental questions on AI risks:

- Governance: How do we assign accountability for AI risks in our organisation?
- Classification: How should we classify AI risks in our organisation?
- Quantification: How might we quantify the risks?
- Controls: What controls are most appropriate for common AI use cases?

The framework includes a toolkit of resources to explain how it can be applied in financial services organisations with significant AI investments. It can also be adapted by smaller organisations, or those earlier in their AI journey, to suit their scale, complexity, and risk appetite.

“AI in this sector can offer significant benefits for institutions and customers alike, improving efficiency, speed, and quality of service. Yet failures in these systems risk significant harm. As experts in data-driven analysis, risk management, and long-term thinking, actuaries are well placed to support financial services organisations with decision making as they embed AI into their operations,” says Actuaries Institute Chief Executive Officer Elayne Grace.

“We’re proud to have worked together to develop this flexible framework that will help financial services organisations of all sizes to safely, responsibly and effectively unlock the benefits of AI to support innovation,” says Ms Grace at a launch event with industry.

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About the Actuaries Institute and the Profession
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Actuaries use data for good by harnessing the evidence to navigate into the future and make a positive impact. They think deeply about the issue at hand, whether it’s advising on commercial strategy, influencing policy, or designing new products. Actuaries are adept at balancing interests of stakeholders, clients and communities. They’re called upon to give insight on complex problems and they’ll look at the full picture. Actuaries analyse the data and model scenarios to form robust and outcome-centred advice.

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About UTS Human Technology Institute (HTI)
The Human Technology Institute at the University of Technology Sydney is an impact-oriented institute building human values into new technologies. Bringing together policy, legal, and technical experts, HTI provides independent expert advice, policy development, capability building, and data science solutions to support government, industry, and civil society.

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