

Title

Actuarial Judgement in the Age of AI: What Should Never Be Automated?

Speaker/Company

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Abstract

Artificial intelligence is rapidly transforming actuarial work, from pricing and reserving to risk management and portfolio steering. While much attention is given to what can be automated, far less is said about what should not be automated — and why this question matters deeply for the actuarial profession.

This presentation argues that, in an AI-driven environment, actuarial judgement does not disappear but becomes more critical than ever. It explores the evolving role of actuaries as “AI translators”: professionals who bridge advanced data science models, business decision-making, and regulatory and ethical expectations. Rather than focusing on algorithms themselves, the session highlights the human responsibilities that remain essential, such as framing the right questions, challenging assumptions, interpreting model outputs, assessing limitations, and ensuring responsible use.

Drawing on practical experience from insurance use cases, the presentation identifies key areas where automation reaches its limits, including model validation, explainability, fairness assessment, and strategic interpretation. It shows how actuaries can add value by translating complex AI outputs into insights that management, regulators, and other stakeholders can trust and act upon.

By reframing AI as a tool that augments — rather than replaces — actuarial judgement, this session provides a clear blueprint for how actuaries can position themselves at the centre of AI governance and decision-making with particular attention to fairness, non-discrimination and professional accountability. It offers concrete perspectives on how the profession can maintain its relevance, credibility, and actively shape the future of responsible AI in insurance

Biography

Xavier Maréchal is the CEO and one of the founders of Reacfin, a spin-off of the UCLouvain (Belgium) active in actuarial science, quantitative finance and data science. He is an engineer (applied mathematics), an actuary (fellow of the Institute of Actuaries in Belgium) and holds a Master in Management Science. Xavier is working for 20 years mainly in non-life and health insurance (pricing, reserving, DFA models) with a specific interest in data science for many years. He regularly gives training on these topics for Reacfin’s clients or for actuarial associations across Europe (and even further).