Opportunity: The transformation of the actuarial profession

AI. Automation. Machine learning. The rise of technology is rapidly creating a new future of work. And it’s gathering speed, redefining jobs and transforming entire professions by enabling humans and machines to work together side-by-side. As this exciting future unfolds, the actuarial professional is changing dramatically – opening opportunities for actuaries to take on dynamic, new business roles.

In addition, global and local regulatory requirements such as the International Financial Reporting Standards (IFRS) promise fundamental change. These collective forces are revolutionizing not just how actuaries work, but the value they deliver to their organizations.

Deloitte believes actuaries now face a unique opportunity to play a more central, strategic role in their organizations – what we call the Exponential Actuary.

The Exponential Actuary will leverage the power of automation to move beyond the role of data steward and model builder. Actuaries have the opportunity to spend more time as business strategists and offer critical voices on C-suite issues. They will influence how a company optimizes shareholder returns. Shape how a company maximizes return on capital. And harness data to influence core strategic questions like which products to sell, what markets to enter, and how to better manage inforce business.

Blending technical expertise and business knowledge, the Exponential Actuary will become a catalyst for strategic decision-making at the highest levels of the company.

Emerging technologies and trends

The rapid emergence of new technologies is at the core of the Exponential Actuary. Computing tools are automating a wider range of actuarial tasks, empowering actuaries to shift their focus to higher value activities. This pivot towards more advanced strategic analysis – requiring sophisticated cognitive ability, communications savvy, and business knowledge – is the engine driving the rise of the Exponential Actuary.

These new technologies are transforming actuarial tasks in fundamental ways:

- **Facilitating data gathering and preparation** – Technologies efficiently prepare data for analysis, including finding, cleaning, organizing, and parsing data. In the future, actuaries will spend less time on these manual process tasks and more time generating insights that drive business performance.

- **Performing analysis and computation** – Technologies are programmed to perform rote calculations that, while complicated, require lower cognitive skills. This area has seen the most automation to date, and the use of these powerful, brute force computing tools will only become more powerful as models are consolidated, refined, span a wider spectrum of actuarial processes, and are shared across user groups.

- **Improving reporting and analytics** – Technologies can automate actuarial reporting based on rule sets, machine learning, and natural language generation capabilities. This will enable actuaries to focus on fine-turning reports, developing insights from data, and communicating these insights to business leaders.
Even as new technologies proliferate, actuaries face other major shifts, such as the rollout of global and local regulatory requirements. For example, the IFRS global insurance accounting framework will fundamentally change the “language” global insurance companies use and require re-thinking a variety of business processes, from data preparation through the booking of results to the ledger. This means that the IFRS rollout can act as a catalyst for transforming how the actuarial function operates within an organization.

Defining the Exponential Actuary

While some express uncertainty about these shifts, Deloitte sees a once-in-a-lifetime opportunity. Actuaries who embrace this change will elevate their capabilities and strengthen their value to their organizations.

It starts with a shift in mindset from data steward to business strategist. Rather than simply producing numbers, actuaries must learn how to harness data to generate business insights, serving as the organization’s bridge between technology and strategy.

To make this jump, actuaries must augment their fluency with numbers with a deeper understanding of the business. This means applying actuarial skills not simply to traditional tasks such as compliance and risk management, but to broader, C-suite challenges:

- Analyzing the **market challenges** their organizations face.
- Helping organizations **decide what products to sell** and the **best channels** to distribute products.
- Providing **insights about profitability, maximizing returns for shareholders**, and entering the **right markets at the right prices**.

By working in the context of business issues and problems to drive the technical analysis performed, the Exponential Actuary will create unique actuarial insights to drive strategic decisions.

Actuaries who embrace this change will elevate their capabilities and strengthen their value to their organizations.

By working in the context of business issues and problems to drive the technical analysis performed, the Exponential Actuary will create unique actuarial insights to drive strategic decisions.
How to accelerate the transformation

Many organizations have yet to embrace the potential of the Exponential Actuary. For companies seeking a competitive edge, Deloitte has identified the key steps to accelerate the transformation:

**Actuarial teams**

- **Building business skills** – Learning about a range of functions and business areas can enable actuaries to find new applications for their technical skills. Rotations and cross-training, cross-functional collaborations, and simple conversations can help actuaries understand the wider business landscape.

- **Exploring new questions and capabilities** – Actuaries can look beyond their traditional role to find new strategic levers and sources of value. Solutions will begin by defining how actuarial capabilities can answer important business questions.

- **Focusing on higher value-added tasks** – The future of actuarial work will be the activities that add value beyond data computations and other automatable tasks, such as developing new insights, informing strategic decisions, and communicating with a diverse set of leaders and teams.

- **Developing new skills and trainings** – Many actuaries will need to learn new skills and capabilities before they can effectively perform higher value activities. This requires learning technology skills outside of traditional actuarial software platforms. Organizations can work internally or with external vendors to equip their actuarial teams for the new demands and opportunities of the profession.

**Organizations and business leaders**

- **Building C-suite consensus on actuaries’ potential** – A Chief Actuary can demonstrate leadership and build support for modernizing actuarial processes. Many CEOs and CFOs already believe that actuarial functions can provide greater strategic value, but need help implementing the operational changes to deliver on this potential.

- **Capitalizing on new platforms** – Instead of a single, daunting technology change, businesses can find manageable actuarial tools for well-defined needs that deliver value more quickly. Companies that partner with the right technology experts can ensure they are using the right platforms.

- **Rethinking processes and delivery approaches** – Organizations can develop and adopt a strategic future-state vision and roadmap. This will help produce integrated and collaborative solutions that work across the business, including IT, finance, and actuarial teams.
Navigating the future of Actuaries

As the future of work emerges, the Exponential Actuary will play a central role. But only if actuaries and businesses make the needed commitments and evolve to meet new demands.

Simply adopting new technologies or developing new processes is not enough. Instead, actuarial leaders must fundamentally reframe the focus of the profession. Actuarial teams need to shift their roles to support strategic decision-making and offer clear communication on central business questions. At the same time, businesses must provide the resources and training that will catalyze this evolution.

The Exponential Actuary is poised to deliver unprecedented results in the future of work. For both actuaries and businesses, the time for change is now.