The background is a complex, abstract digital visualization. It features a dense network of thin, white and light blue lines that radiate from various points, creating a sense of connectivity and data flow. Interspersed among these lines are clusters of small, glowing particles in shades of blue, purple, and orange. The overall color palette is dominated by deep blues and purples, with bright highlights from the glowing elements. The composition is dynamic and futuristic, suggesting a high-tech or data-driven environment.

**Digital transformation  
in underwriting:  
what it means and  
how to get there**

The EY logo consists of the letters 'EY' in a bold, white, sans-serif font. Above the 'Y' is a yellow chevron shape pointing to the right. The logo is positioned in the bottom right corner of the page, set against the abstract digital background.

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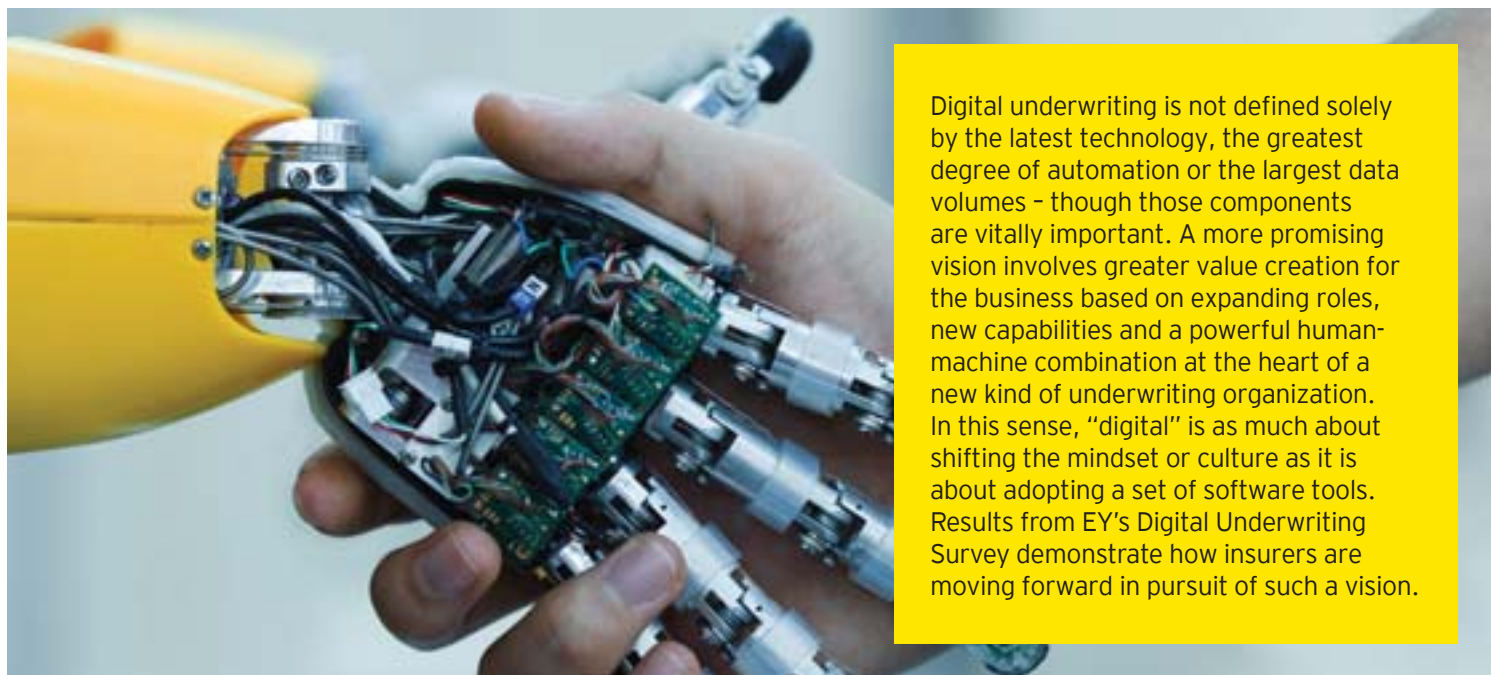
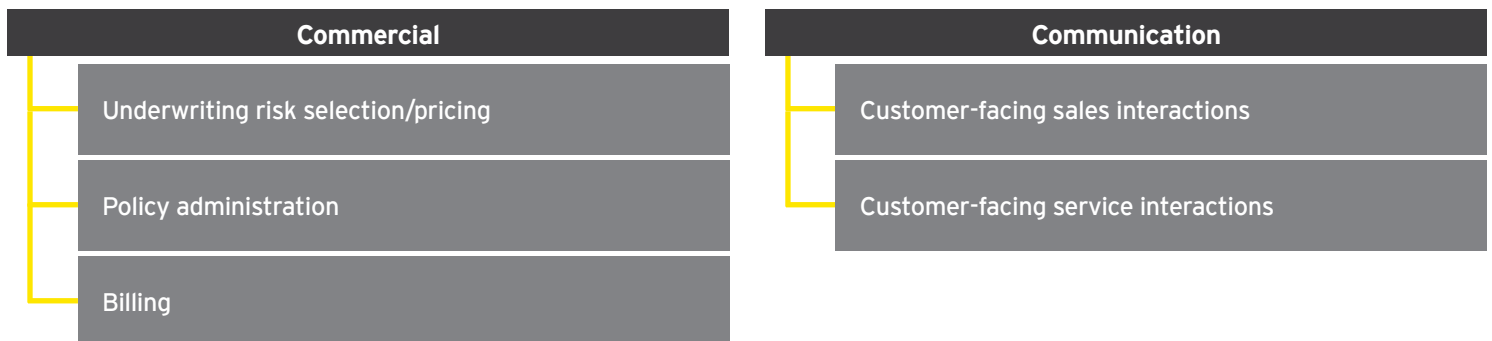


Every part of the insurance industry is talking about “digital transformation.” Underwriting, the traditional heart of the insurance enterprise, is no exception. Because this idea is discussed so frequently, it’s worth defining specifically what it means to be a digital insurer and what digital underwriting looks like, as well as describing what it takes to realize the vision. At the enterprise level, digital transformation is best defined as capitalizing on the power of technology to upgrade business and operating models, acquire and service customers across diverse channels and create essential user experiences.

For most underwriting groups, becoming digital is a two-step journey:

- 1** Modernizing core processing systems to establish a foundation for increased automation, rules-based decision-making, stronger analytics and more effective use of data.
- 2** Enabling the efficient transactions, continual insight generation, personalized communications and richer experiences that are associated with digital leaders in insurance and other sectors.

To become truly digital in this view, insurers must address both the commercial and communication elements of their business:



Digital underwriting is not defined solely by the latest technology, the greatest degree of automation or the largest data volumes - though those components are vitally important. A more promising vision involves greater value creation for the business based on expanding roles, new capabilities and a powerful human-machine combination at the heart of a new kind of underwriting organization. In this sense, “digital” is as much about shifting the mindset or culture as it is about adopting a set of software tools. Results from EY’s Digital Underwriting Survey demonstrate how insurers are moving forward in pursuit of such a vision.

## Accelerating technology-enabled transformation

Executives pursuing a digital vision and shaping the business case for investment must be aware of a few big ideas.

- ▶ Advanced capabilities such as real-time quoting and issuance require modern architectures and data feeds. The same is true for portals and mobile apps for customers, agents and partners. Typically, that means replacing legacy systems.
- ▶ More sophisticated integrations are also necessary to becoming digital. Optimally, internal and external data can be shared in a cohesive manner across a host of applications and toolsets, from underwriting desktops, rules and modeling solutions and policy administration systems, to CRM, billing and claims systems, to data warehouses, analytics applications and reporting software.

These core system upgrades and data integrations are foundational and enable the use of next-generation technologies, such as machine learning and robotic process automation (RPA), which are responsible for much market buzz.

## Technology and data in action

Combining technologies and new sources of data in business solutions can generate breakthrough performance gains. Consider how automobile insurers can capture data from on-vehicle telematics sensors and drivers' wearable devices and map that to information about road and weather conditions. By applying machine learning and AI techniques to that data set, insurers can gain a more precise view of their risk exposure, as well as valuable behavioral insights about groups of insureds.

Within homeowner and commercial lines, data from GIS, drones, sensors and satellites can strengthen risk selection and account servicing. Again, advanced analytics techniques supported by both core processing and digital technologies are critical to identifying patterns and generating insights that can lead to business value in the form of, say, better risk selection, positive outreach (warning insureds about damage to their buildings and equipment, for example) and higher sales (identifying prospects who look like current profitable customers).

As you can see from these examples, tailoring combinations of technologies to the unique needs and risk complexities of distinct market segments is important to success. Small commercial carriers, for instance, should focus on seizing the benefits from no-touch underwriting and straight-through processing fueled by sophisticated rules and models that are automated by business rules engines. Multinational commercial carriers, with their more complex risks, will likely need sophisticated data-sharing and collaboration capabilities to support risk assessment and servicing across a complicated range of customer operations, brokers and risk management partners, supply chain partners and capital providers.

Simplicity of risk does not necessarily equate to simplicity of solution. In fact, the higher levels of decision automation and intuitive user experience expected for personal lines and smaller commercial risks require high levels of sophistication in underwriting rules automation, use of predictive pricing and buyer behavior models, and generation of real-time analytical insights. In contrast, the more "guided" underwriting typical of middle market and larger commercial business requires substantially more data but less decision and process automation. As such, the digital underwriting transformation must align with the operating model needs of each segment.

EY's Digital Underwriting Survey looked at 12 different technologies and revealed that many insurers remain in the early stages of their transformation journeys. While great strides have been made with mature technologies, most solutions involving emerging technologies are in the pilot or proof-of-concept phase.

### Technology investments:

#### Mature technologies



Predictive analytics



Big data capabilities



Underwriting trading platforms



RPA



GIS



Automated portfolio management

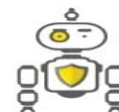
#### Emerging technologies



Sensor-based



Blockchain



Artificial Intelligence (AI)



Machine learning



Semantic web



Image and video analysis

## The powerful human-machine combination

Digital underwriting does not equate to human-free underwriting. As counterintuitive as this may sound, talent will be more important than ever. The best underwriting organizations will harness equally the power of technology and talent. With machines providing process automation and decision support, experienced underwriters will expand on their multifaceted roles to increase their market relevance, individual brands and innovative leadership.

The digital age will require underwriters to understand and create solutions for new forms of risk, while also enabling underwriters to work more effectively and efficiently in their jobs.

### Underwriter of the future

EY's survey with the Chartered Property Casualty Underwriter (CPCU) Society clarifies how the new roles of the underwriter will require new skills. Talent acquisition and management will move up the strategic agenda of senior leaders, because human capital will be more important than ever in taking advantage of new technologies and data.

|                            |  |
|----------------------------|--|
| <b>Sales executives:</b>   | growing the book of business, increasing retention rates, building relationships, lead generation and prospecting  |
| <b>Data scientists:</b>    | data-driven decision-making at the account and portfolio levels, risk insight, profitability analysis, predictive modeling for pricing and risk evaluation               |
| <b>Customer advocates:</b> | improving the customer and agent experience, coordinating account services (loss control, claims, education) to strengthen customer loyalty and improve risk performance |
| <b>Innovators:</b>         | creative problem solving, new product and service development  |

## A future for underwriting is now

Successful digital underwriting transformation starts with a well-defined road map to navigate critical milestones, including legacy system modernization, integration of digital data sets, deployment of both mature and emerging digital technologies and new thinking about talent. EY's underwriting research confirms that many insurers are starting to take bold steps to "futuraize" this essential function and are recognizing that choosing the path of inaction will be a decision of consequence.

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