

## Trend Spotlight

# The robots are here: what that means for insurers

### Have you read the news about robots lately?

It's hard to ignore the avalanche of headlines about the impact of transformative technology and robotics on business, industry, insurance, society and our personal lives. The onset of robotic capabilities and artificial intelligence (AI) is not a future issue, it is one to address now. In this paper, we will take a brief tour of the impact of these changes from the perspective of the insurance world.



#### The big picture

Collectively, we are facing a myriad of technological transformations, including the Internet of Things, smart homes, autonomous cars and, of course, robots. It has been estimated that “advanced robotics is going to thrust upon insurers a world that is extremely different from the one they sought to indemnify in the 20th century.”<sup>1</sup> Other commentators have stated that new technology, including AI, is going to “unleash a new industrial revolution [that] is likely to leave no stratum of society untouched.”<sup>2</sup> In response, roughly 30% of leading organizations will create a chief robotics officer role or a

similar role for their business in the next two years.<sup>3</sup> Ready or not: the robots are here and more are coming.

#### What lines of business are affected?

Really, which line isn't affected? More and more robots introduce new coverage and/or liability issues for nearly every line of business in insurance. Key examples include: Commercial General Liability, Product Liability, Employment Practices Liability, Technology Errors and Omissions, Workers' Compensation, Cyber Coverage, Professional Liability, and Directors and Officers Liability, and, of course, stand-alone robotics policies. Bundled or hybrid policies that include many component coverages are attractive as one-stop offerings because insureds often prefer broad coverages (vs. numerous stand-alone policies). Bundled offerings can simplify purchasing and help reduce an insured's risk of insurance gaps.

#### What do we mean when we talk about robots?

Presently, there are two key categories of robots: machine-based, non-collaborative robots, which often work in traditional industrial or retail settings (think of a modern-day car factory or an Amazon warehouse), and collaborative open robots (also called 'cobots'), which use AI and can learn and interact with humans. While most insurers are familiar with traditional industrial robots in the workplace, robots are advancing to work alongside humans — or on their own. Robots are being used to make deliveries and investment decisions, interview job candidates, administer medical care, and even run hotels.<sup>4</sup> A hotel in Tokyo now uses life-like

robots to check in guests and deliver room service. Robots are being programmed to detect cyber breaches (or cause cyber breaches). The wide scope of robots requires insurers to reconsider policy language that has not yet contemplated robotic exposures.

#### Definitions are critical

How do you define robot in an insurance policy? It's impossible to use a single definition — and definitions will vary widely depending on the type of robot, its function, the insurance product at issue, and the intended coverage. Examples from the marketplace demonstrate that definitions may include reference to what the robot can do (and by implication, what can go wrong). A real challenge will be deciding whether the introduction of complex automated functions may be considered robots for purposes of robotic coverage. For example, is an autonomous car, drone or other advanced device a robot? Is a complex industrial machine a robot — or, part of an automated process? The distinction between automation and robotics is murky, and will likely remain unclear. Policy language will be one of the first reference points for disputing parties to turn to for guidance about coverage. Moving forward, insurers do have an opportunity to shape the marketplace for robotic definition, intent and exposure.

Another concern is how multiple contributors to a robot (like manufacturers, software designers, operators, etc.) may be sued separately as liable entities. Contractual arrangements may clarify (or complicate) legal responsibilities.

Currently, the plaintiff's bar can be expected to file litigation in a wide swath in order to capture all potentially liable parties; this might include suing the manufacturer, the software developer, the robot owner or employer, the data-service provider, and technology and design professionals.<sup>5</sup> There will be increased coverage and liability litigation, and likely more defense costs.

### Standards and regulation may help

The introduction of standards and regulations may provide manufacturers and employers with protection from liability that could help in the defense of a robotic accident. A number of organizations are actively working on standards and guidelines regarding the use of robots. There are proposals from the International Standards Organization (ISO), as well as the American National Standards for Industrial Robots (ANSI) and the Robotic Industries Association (RIA). It remains to be seen what legal requirements and regulations will be promoted by governments at all levels.

### The current challenges

"Robots are the technology of the future, but the current legal system is incapable of handling them."<sup>6</sup> This emphatic statement highlights an active debate about how the law should treat robots. Should robots with AI be held responsible for their own actions? Experts, academics and legal theorists are weighing many liability concepts, including owner liability, agency theories, and corporate legal-entity theories.

A key concern for insurers is the lack of legal precedents with respect to how robotic liability will be handled by courts. This places even more pressure on insurers to identify what they intend to cover (or what they don't intend to cover) through policy language. Outside of the US, Europe has discussed whether robots should be considered 'electronic persons,' whether robots should be required to be insured, and whether they should even be possibly taxed.<sup>7</sup> These discussions recognize that unilateral robotic actions fall into uncharted legal territory.

### What can we learn from existing robotics cases?

There are a handful of legal cases involving robotics. Many of these are in the industrial and medical arenas. In one case, a worker died in an Alabama auto parts manufacturing plant, where "[t]he robot restarted abruptly, crushing the young woman inside the machine," according to the Occupational Safety and Health Administration.<sup>8</sup> The worker had entered the robotic station to clear a sensor fault that had stopped an assembly line; the robot should have been programmed not to start if a person was inside the station, according to the case's argument. The manufacturing plant, as well as the designer, manufacturer, marketer and seller of the robot, have been named as defendants.

A common liability inquiry is whether an employee put himself or herself in the way of harm — creating a fault argument against the employee. Another liability question is whether the employer correctly followed instructions for the installation and operation of a robot.

These are areas where workers' compensation policies have traditionally been available to address workplace injuries. But products liability claims may be filed in instances where there are allegations that a robot was defective in terms of design or operation. Consistent with traditional workplace exposures, Employer's Liability claims might also be filed where there is a failure to address workplace safety.

### Are we paying enough attention to the impact of disruptive technology?

One concern about the onset of advanced robotics may be the lack of attention to the technology risk. 55% of organizations have not conducted risk assessments to understand the impact of disruptive technologies, according to a Marsh/RIMS 2017 study.<sup>9</sup> This is unsettling because it shows many companies haven't thought about disruptive technology, much less begun to deal with it. For these disruptive technologies, there is often little, if any, experience or loss information to provide guidance about traditional underwriting,

pricing and claims-handling models. It will be imperative for insurers to devote time and resources to the assessment of risk issues presented by new technology. Insurers also need to consider the possible lack of risk assessment within their insureds' operations. Existing insurance policy terms and conditions may be outdated and inadequate because they don't contemplate robotic risks and exposures. As robotics and AI become pervasive, insurers have the opportunity to take a lead role in steering coverage through definitions.

### Conclusion

Whether enough consideration is given to this topic can be debated. But insurers do recognize the gravity of the expected impact of AI and robotics: "75% of insurance executives believe that AI will either significantly alter or completely transform the overall insurance industry within the next three years."<sup>10</sup> Insurers must ask themselves if they want to be innovators or followers with respect to robotic coverages.

Assessments of robotic risk should include understanding insureds' current and future use of robots, and engaging in dialogue with insureds regarding safety, responsibility, supervision protocols and loss. Insurers need to pay attention to the current state of technology, and emerging case law and regulations.

A dedicated and iterative commitment will lead interested insurers to more successful underwriting and claims management. Insurers will need to revise policy language to keep up with evolving exposure and coverage issues. The rapid expansion of robots will force insurers to be agile in their recognition of the impact of new technology — and to thoughtfully assess and control risk on a line-by-line basis.

<sup>1</sup> <http://insurancethoughtleadership.com/what-liabilities-do-robots-create/>

<sup>2</sup> <http://www.bbc.com/news/technology-38583360>

<sup>3</sup> <http://www.zdnet.com/article/the-future-of-robotics/>

<sup>4</sup> [www.asahi.com/ajw/articles/AJ201608050036.html](http://www.asahi.com/ajw/articles/AJ201608050036.html)

<sup>5</sup> <https://blog.svlg.com/2017/01/06/stephen-wu-speak-global-artificial-intelligence-conference/>

<sup>6</sup> <http://robohub.org/the-legal-issues-of-robotics/>

<sup>7</sup> <http://money.cnn.com/2016/06/22/technology/europe-robots-taxes-jobs/index.html>

<sup>8</sup> <http://nationalpost.com/news/world/alabama-factory-worker-dies-two-weeks-before-her-wedding-after-being-crushed-to-death-by-robot>

<sup>9</sup> <https://www.marsh.com/us/insights/research/excellence-in-risk-management-xiv.html>

<sup>10</sup> <https://www.accenture.com/us-en/insight-insurance-technology-vision-2017>; <https://www.marsh.com/content/dam/marsh/Documents/PDF/US-en/Excellence%20in%20Risk%20Management%20XIV-04-2017.pdf>