By Shanique (Nikki) Hall, CIPR Manager

INTRODUCTION
The very nature of the business of insurance is transforming, driven by technological advancements and socio-economic trends. Emerging technologies—like big data, the Internet of Things (IoT), mobile technology, artificial intelligence (AI), wearable devices and blockchain—are revolutionizing the insurance industry and changing consumer expectations and preferences. Moreover, consumer habits are evolving rapidly. According to the U.S. Census Bureau, millennials (ages 18-34) now outnumber baby boomers (ages 51-69) as the largest living generation. 1 In 2015, there were more than 75 million millennials in the U.S. The millennials are well versed in new technologies and looking to take a more hands-on approach when it comes to managing their finances and purchasing insurance products.

Consequently, technology-enabled innovations in the insurance industry, or “InsurTechs,” have emerged to offer simpler products and streamlined customer experience, catering to a growing generational shift toward millennials. InsurTech was the industry buzzword in 2016 and will likely permeate almost every aspect of the U.S. industry in the foreseeable future. 2 The insurance industry has been slower to modernize than their counterparts of the financial services industry. This has created an opportunity for InsurTechs, which are leveraging new technology and a better understanding of consumer expectations to design new products that meet changing customer needs.

While the InsurTech industry is still in its infancy, there has been significant activity across North America and Western Europe as well as in emerging insurance markets such as China and Brazil. The sector is gaining momentum and garnering increased attention from venture capitalists (VCs), as well as established insurers. VCs are paying close attention to InsurTechs dedicated to the way people buy insurance and bringing solutions for new needs (e.g., the sharing economy). According to venture-capital researcher CB Insights, total funding to InsurTechs surpassed $1 billion for the second consecutive year in 2016. 3

Established insurers are also partnering with or investing in InsurTechs in an effort to improve customer experience, lower costs and make pricing and underwriting more efficient. Lemonade, a peer-to-peer InsurTech focused on renter’s and homeowners insurance, is backed by Sequoia Capital and with Warren Buffet’s Berkshire Hathaway, Inc. Other examples include CoverHound and PolicyGenius, which provide user-friendly platforms for fast comparison shopping. Both have received significant investments from major insurance companies. 4

This article will provide an overview of InsurTech and discuss how it is shaping the future of insurance. The NAIC Center for Insurance Policy and Research (CIPR), will host an innovation program as part of the NAIC Insurance Summit in May 2017 to further discuss the role innovation is playing in the insurance industry. The program will feature several keynote presentations with leading industry experts discussing the most innovative ideas in the insurance industry. In addition, there will be numerous sessions focused on innovation, including insurers’ use of AI, blockchain technology, autonomous vehicles as well as a “shark-tank” themed session with several InsurTechs pitching their innovative ideas to a panel.

Moreover, earlier this year, NAIC President and Wisconsin Insurance Commissioner Ted Nickel created the Innovation and Technology (EX) Task Force to help insurance regulators stay informed on key developments, including new products and services from startup companies, as well as established insurance industry players. This marks an important step in state insurance regulator efforts to increase engagement in new and innovative technologies.

INSURANCE TECHNOLOGY (“INSURTECH”)
Changing social and technological trends have created an opportunity for tech-savvy entrepreneurs. An increasing number of insurance startups, or InsurTechs, are leveraging new technology to address existing insurance challenges and opportunities. The term “InsurTech” can be described as the innovative use of technology in insurance. Technology is already modernizing the wider financial services world and is now starting to make its mark on insurance. InsurTech is a subset of “FinTech,” or financial technology. FinTech has transformed the banking world (e.g., Square, one of the most recognized FinTechs, offers mobile payments with innovative

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4 “Maximize the Potential and Avoid Pitfalls in developing and implement, InsurTech. PropertyCasualty 360.com, August 2016.”
smartphone card swiper technology) and now InsurTech is beginning to alter the business models and competitive landscape of the insurance industry.

InsurTech activity has increased significantly over the last few years and continues to attract increased attention. According to an insurance executive, the most exciting development last year was “the massive increase in the number of innovative companies focusing their efforts on insurance-related topics...this is the year in which InsurTech has reached a tipping point of mainstream awareness.”

Oxbow Partners estimates there are currently more than 1,500 InsurTech startups. According to CB Insights, total funding to insurance startups in 2016 hit $1.69 billion, the second consecutive year investment dollars topped $1 billion. In addition, deals to insurance tech startups rose 42% on a year-over-year basis in 2016 to hit 173 (Figure 1). Geographically, 59% of insurance tech deals in 2016 went to U.S.-headquartered startups. Germany, the United Kingdom (UK) and China all saw 5% or more of insurance tech deals in 2016. Venture capitalists are looking closely at startups dedicated to reinventing the way people buy insurance and bring solutions for new needs.

In addition, established insurers are increasingly starting to collaborate and engage by acquiring and partnering with InsurTechs, setting up internal venture capital funds to invest and establishing startup incubators to attract and support young entrepreneurs to insurance. Both Munich Re and Allianz have recently developed units for venture deals and partnerships as they seek new ways to deliver their services. Allianz, for example, started Allianz X, a division developing new InsurTech concepts and companies.

InsurTech innovation is occurring across the entire insurance value chain—from distribution and marketing, product design, underwriting, claims management and balance sheet management and across all lines of insurance—property and casualty, life and health. Distribution is the area of highest focus for InsurTechs (Figure 2 on the next page). InsurTechs are reaching new customers through new distribution mediums—addressing generational shifts in the way people communicate, access information and make decisions—while not disturbing traditional channels. For example, according to a Gallup poll, millennials are more than likely to purchase policies online instead of through an agent.

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InsurTechs are catering to these preferences by providing user-friendly platforms. For example, InsurTech startup Trov allows a consumer to insure their personal belongings using an app. Coverage can be swiped “on” or “off” if a consumer wants coverage or not. Another example is InsurTech startup Sure, which offers on-demand travel insurance lasting from take-off until landing. Consumers can apply for Sure coverage while waiting for the plane to board. Another InsurTech startup appealing to millennials is Cuvva, which provides on-demand car insurance. If several friends are on a road trip and one of them wants to take the wheel for a couple of hours, Cuvva will insure the temporary named driver on the car for a certain amount of time by an app.

Some InsurTechs combine digital ease with the human touch, often using technology such as AI, machine-learning and robotics. For example, Insurify is an AI-powered insurance agent enabling customers to start a car insurance quote by texting a photo of their license plate number. The virtual agent will respond by text message with the most affordable quotes and packages, based on your driving history, risk profile and specific needs. It uses natural language processing to respond to users in an accurate and engaging way.

Other InsurTechs are using wearables and monitors to provide usage-based products integrated with customers’ lives in a way not usually associated with insurance. For example, a Willis Towers Watson report noted millennials prefer usage-based insurance to traditional coverage and are willing to trade personal information for reduced rates.9

**INSURTECH CHALLENGES AND OPPORTUNITIES**

While InsurTech has become a rising star, it has not reached the large scale of the FinTech industry. One of the biggest hurdles facing InsurTechs is the challenge of bringing developments to market amid an insurance regulatory landscape that does not always provide the flexibility necessary to accommodate new concepts. “Innovation” and “insurance” are two words one would not normally expect to hear in the same sentence. The insurance industry is often seen as slow to change due to its complexity and relatively high barriers to entry.

InsurTechs have been coined as industry “disruptors” to the traditional insurance business model. However, they can be important players in the broader ecosystem that includes insurers, VCs, accelerators, 10 consultants and others. Most InsurTechs operate as enablers rather than disruptors, as they offer products and services that help insurers and reinsurers improve their processes and better serve customers.

**THE ROAD AHEAD:**

According to a PricewaterhouseCoopers (PwC) report, in order to embrace InsurTechs, incumbents should take concrete steps:

- **Exploration:** Savvy incumbents are actively monitoring new trends and innovations. Some of them are even establishing a presence in innovation hotspots (e.g., Silicon Valley) where they can learn about the latest developments directly and in real time.
- **Strategic partnerships:** Some incumbents partner with startups and build pilot solutions to test in the market. Ensuring a design environment (“sandbox”) will help boost creativity and also provide tools and resources for designing potential prototype solutions.
- **InsurTech environment:** Incumbents’ involvement in startup programs—such as incubators, mechanisms to fund companies and strategic acquisitions—may result in insurers’ readiness to address specific problems, especially those that otherwise might not be tackled in the short-term.
- **New product development:** Involvement in InsurTech could help incumbents discover emerging coverage needs and risk requiring new insurance products and services. Accordingly, they can refine—and even redefine—product portfolio strategy.


InsurTechs are targeting the industry with new approaches to industry problems. They are designing new products meeting changing customer needs and delivering new forms of data and risk insight which aim to improve underwriting accuracy and loss prediction. The CEO of a major insurer recently noted “We know that our industry is ripe for disruption, and that the customer experience in buying life insurance is not what it could and should be...That is why we are working with a diverse community of partners to create and develop tools, data, products and digital platforms to scale.”11

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10 Both incubator (defined and discussed earlier) and accelerator programs help young companies to better define themselves and improve the odds of a start-ups success. www.naic.org/documents/cisp_events_fall_2016_glossary.pdf

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However, new entrants to the insurance market often find the regulatory environment confusing and difficult to navigate. In an effort to overcome these hurdles, a number of countries have developed an approach called a “regulatory sandbox” as a safe space for InsurTechs to seek regulatory guidance, test their ideas and experiment with innovative products or services in the marketplace. The goal is simple: to lower the barriers for testing new ideas, and to ensure the risks are not transferred from businesses to consumers. A regulatory sandbox creates a consistent and open dialogue with insurance regulators and will allow them to stay current with the changing insurance environment.  

Given the enabling role InsurTechs can play, as well as the challenges facing the established insurance sector and the barriers to entry for new businesses, collaboration for mutual benefit—and the benefit of the insurer consumer—should be a goal of traditional insurers and InsurTechs. In addition, it may be appropriate to reach out to state insurance regulators to gauge their reaction to ideas and to prevent unwelcome surprises.

**InsurTech’s Impact**

The global insurance industry is estimated to be worth nearly $5 trillion. Some say insurers are at risk of losing a share of this market to new entrants like InsurTechs. However, InsurTechs may not have the disruptive impact on the traditional insurance model some predict. Instead, they are expected to complement insurers’ offerings rather than replace them. As Standard & Poor’s (S&P) noted in a recent report, “We do not expect traditional business to be fully replaced by InsurTech companies, as the insurance sector is highly regulated and capital-intensive, with barriers to entry.” Instead, S&P is seeing larger established insurers actively investing in setting up InsurTech joint ventures through which they can take advantage of their propriety data, rather than outsourcing to pure technology-based entrants.

InsurTechs have not developed stand-alone business models. Rather, they occupy profitable niches and value-added services instead of assuming heavily regulated and capital-intensive underwriting risk ownership responsibilities. Two exceptions include insurance carriers Lemonade and Oscar. Lemonade launched in 2016 in a single state (New York) and has been licensed as a “full stack insurer.” Lemonade, whose entire process happens with a mobile app, expects to expand quickly across the country. S&P adds InsurTech is “both a long-term challenge and an opportunity, with material effects that may only start to emerge in 10 years’ time.”

**Summary**

InsurTechs are expected to bring fundamental change to the insurance industry. How much change they will bring is unclear. However, what is clear is many policyholders—especially millennials—are interested in new business models. The NAIC Innovation and Technology (EX) Task Force will provide a central point for insurers, consumers, industry and state insurance regulators to monitor innovative activities.

As more insurers begin to engage with InsurTechs—whether defensively or offensively—investment in InsurTech are expected to grow even more dramatically over the medium to long-term. However, due to the speed of social and technology developments, non-insurance specific trends such as self-driving cars and robotics, have the potential to ‘disrupt’ the market faster than expected. In order to be ready for tomorrow’s trends, insurers may need to become familiar with the implications of innovations and understand how they can respond to them.

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**About the Author**

Shanique (Nikki) Hall is the manager of the NAIC Center for Insurance Policy and Research (CIPR). She joined the NAIC in 2000 and currently oversees the CIPR’s primary work streams, including: the CIPR Newsletter; studies; events; webinars and website. Ms. Hall has extensive capital markets and insurance expertise and has authored copious articles on major insurance regulatory and public policy matters. She began her career at J.P. Morgan Securities as a research analyst in the Global Economic Research Division. At J.P. Morgan, Ms. Hall analyzed regional economic conditions and worked closely with the chief economist to publish research on the principal forces shaping the economy and financial markets. Ms. Hall has a bachelor’s degree in economics from Albany State University and an MBA in financial services from St. John’s University. She also studied abroad at the London School of Economics.

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