

Pulse

Winter 2018

Pennsylvania Association of Mutual Insurance Companies

How to Conquer the Biggest Issues Small Businesses Face

The Aging
Agent
Conundrum

Digital
Innovation:
A Smart Move
for Insurers

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Small business owners wear many different hats. Often, they play the lead role in many areas that larger companies have entire departments to manage. With so much individual responsibility, it's easy to get lost in daily duties and issues the organization faces — failing to recognize big-picture problems is an issue small businesses are facing across the board.

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Douglas L. Underwood
Windsor-Mount Joy Mutual
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The closing of the year allows us to reflect on the past and envision the future. On a day-to-day basis, it is easy to get caught up in the events of the day, but for those that can stay focused on their goals both personally and professionally, prosperity is almost certain.

Many of our organizations have thrived for decades, and in many cases for more than a century, because of excellent leadership, thoughtful direction,

and a defined purpose. The challenges of this business, however, are ever changing. As an association of mutual insurance companies, we must be grateful for the efforts that come out of this tremendous organization. From the leadership, the staff, to the volunteer committee members, and to all those that support PAMIC, we have an invaluable network of people that work towards the establishment of meaningful and timely educational programming, valuable networking opportunities and a well-established approach towards advocacy. Undoubtedly, these efforts have helped to perpetuate the thriving mutual industry in Pennsylvania in a constantly changing environment.

While each member company may be on a different path regarding the markets that they serve or the way in which they conduct business, ultimately, we have much in common that is supported through the efforts of PAMIC. That said, thank you to everyone both past and present that have helped to make this organization what it is today. For those thinking about how you can make a difference in PAMIC in 2018, I encourage you to ask how you can get involved.

May you look back on 2017 and be pleased with the trace that you have left behind, and may your planning efforts allow you to have much success in 2018.

Happy New Year!

Douglas L. Underwood, CPCU
Chairman



Ron Gallagher
PAMIC

“
What we call the beginning is often the end. And to make an end is to make a beginning. The end is where we start from.

— T.S. Eliot

Many of us know T.S. Eliot from his poems, but our introductions likely came at different times. The “Greatest Generation and the first wave of baby boomers were likely

exposed to his Nobel Prize winning work, “The Wasteland.” The second wave of baby boomers, Gen X’ers and Millennials would remember him for his book of poems, “Old Possum’s Book of Practical Cats.” T.S. Eliot knew how to “turn a phrase.” His inspiring quote above is as relevant today.

The end of 2017 according to our friend T.S., provides a chance to start a new beginning, a new year! With that in mind I want to share some new beginnings with you:

- In February at Mutual Insurance Day, you will be receiving information covering Corporate Governance, Exam Modernization, PID Transparency, Homeowner policy transitions, “Storm Chaser” consumer protections and Personal Umbrella.
- Your Human Resources Committee and Board are looking at innovative partnerships and opportunities to attract new talent to the mutual insurance industry including partnering with Gamma Iota Sigma and Bloomsburg University.
- PAMIC will be hosting a 1-day seminar in May 2018 covering critical facets of a successful HR program in your company.
- Our webinar offerings are exploding with topics covering Corporate Governance (3 episodes), InsurTech, and Business Continuity Planning.
- The Tri-State Convention is rebranded as the Mid-Atlantic Mutual Advantage Convention (MAMAC) and expanding its scope with Virginia, New Jersey, West Virginia, Maryland, and Pennsylvania coming together in Baltimore in August 2018. North Carolina and Tennessee are showing interest as well.

The future is exciting with great possibilities. Join PAMIC throughout the year to turn these possibilities into reality.

Ron Gallagher
President

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How to Conquer the Biggest Issues Small Businesses Face

By Doug Dvorak, Enquiron



OWNING AND OPERATING

a small business is incredibly rewarding — but it's not without its challenges. Small business owners wear many different hats. Often, they play the lead role in many areas that larger companies have entire departments to manage. With so much individual responsibility, it's easy to get lost in daily duties and issues the organization faces — failing to recognize big-picture problems is an issue small businesses are facing across the board.

In 2017, there were a variety of particular challenges that stopped some small businesses in their tracks. Learning to overcome them can help clear a pathway to success for 2018. We took a closer look at two of the most pervasive issues small businesses face today to shed some light on how to approach them in the new year effectively.

According to Wasp Barcode Technologies annual small business survey, the biggest challenge facing small businesses today is hiring employees — with 50% of respondents reporting hiring as their top challenge.¹ It makes sense — effective hiring can be the difference between growing a small business and going out of business. But recruiting and hiring top talent is easier said than done. With 29.6 million small businesses,



it's difficult to attract the right prospects.² While this is a challenge that larger businesses also face, small businesses are without the advantage of a big brand and extensive resources.

Implementing simple and effective HR practices can enhance the hiring process for small businesses. One easy way to improve hiring is to increase the number of qualified applicants. Without a substantial volume of candidates, small businesses forfeit their ability to choose, opening themselves up to the risk of counterproductive hiring. As a small business owner, it's helpful to be proactive and work on searching for and contacting potential applicants

through resume database searches and professional networks like LinkedIn.

Small businesses don't have all the time in the world to spend hiring, so it's important to use time invested in recruiting wisely — and it begins in the job posting. Small businesses need to harness the interest of people who are passionate about their company. Therefore, it's important that job postings are honest about what the business stands for and that the content is tailored toward an optimal candidate. Small business owners should use tools like Google Trends to learn about popular job titles and phrases. It's also helpful to peek around at similar job postings to pick up their strengths and weaknesses when creating a job description of your own. Spending time on the job posting can save small businesses precious time in the recruitment process.

Another major challenge pertinent to small businesses is cybersecurity — and it must be taken seriously. According to a report by Keeper Security and The Ponemon Institute, 50% of small businesses have been breached in the past year.³ Small businesses are a hacker's best friend — holding more digital assets than the individual consumer, but less security than a large company. The most common attacks against small businesses are web-based phishing when hackers collect sensitive information (think: login credentials, credit card info) through a legitimate-looking (but fraudulent) website, usually sent to unsuspecting individuals in an email.⁴

Preventing cybersecurity threats begins with proactive planning. Small businesses should initially create a disaster recovery plan — noting the answers to critical questions such as: *What data needs to be best protected? Which firewall resources should we use?* The plan should include details about what will be done in the event of a cybersecurity threat as well as best practices to avoid cyber-attacks. Creating this disaster recovery plan also gives small businesses the opportunity to map out how the company will react in the case of a fire, flood, or any other type of natural disaster.

The next step is to improve cybersecurity awareness within the organization. It's important to ensure employees are aware

of common phishing scams and how to avoid them, as well as the processes laid out in the disaster recovery plan.⁴ Taking the initiative to instill cybersecurity awareness can help protect a small business from the efforts of destructive hackers.

Effective hiring and cybersecurity planning are only two key difficulties small businesses face. There is an infinite list of challenges plaguing small businesses every day. To deal with them most effectively, it's helpful to talk to an expert in business advisory services. Working with a knowledgeable partner can break down these issues and help push your business toward growth in the new year.

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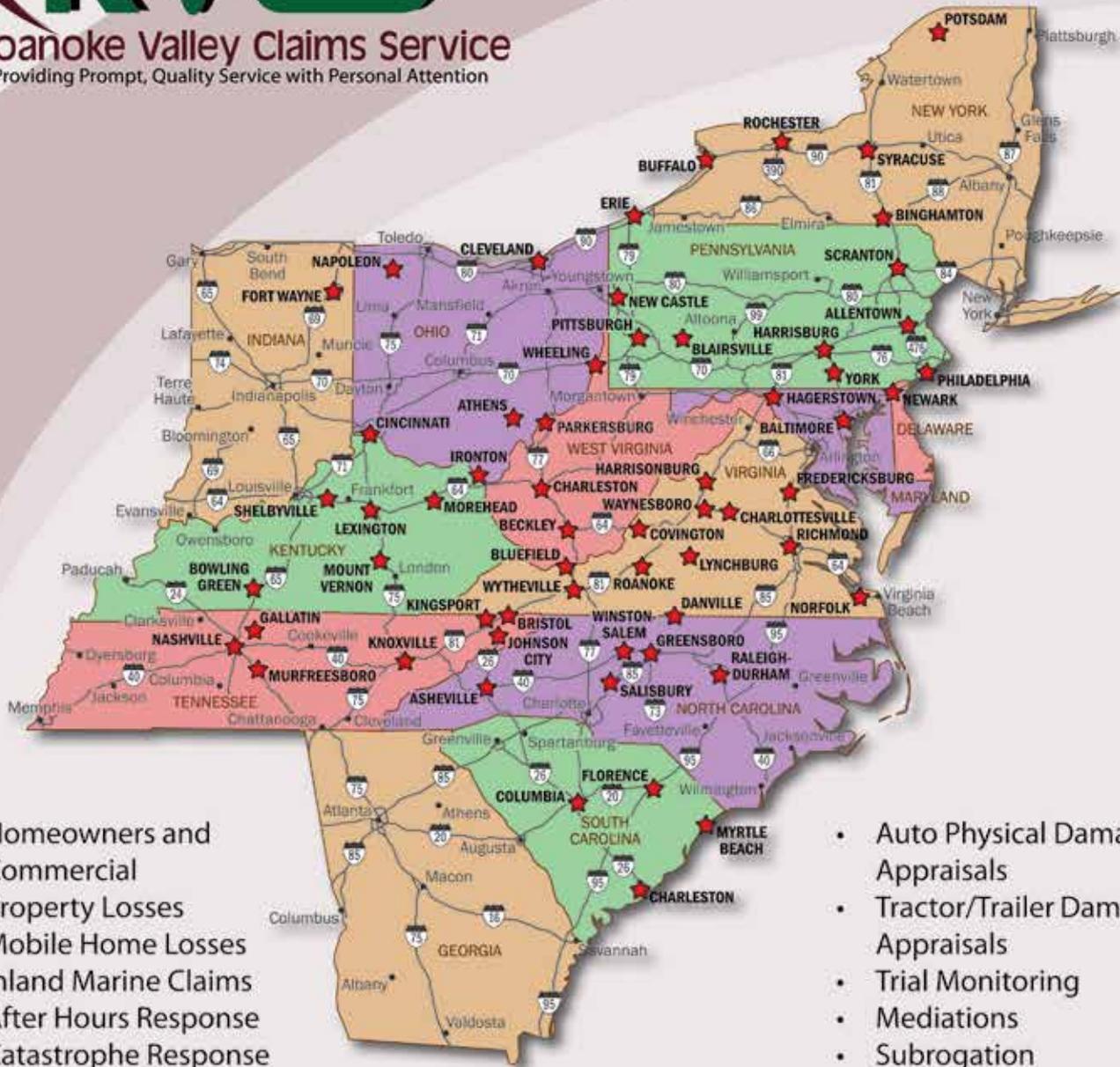
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THE AGING AGENT

CONUNDRUM

By Chuck Gomez, Novarica

I thought I would channel my inner Millennial this past weekend and replace my broker-sold homeowners insurance (underwritten by a reputable regional carrier) by purchasing a chatbot-sold policy online, but the price wasn't right—at least not for this Gen Xer. However, this experience got me thinking about recent conversations that I have had with executives from P/C carriers coast-to-coast and their real concerns about their aging agency force. Studies show that the average age of an insurance agent is 59.5; this presents some interesting challenges to insurance carriers.

For one, strong succession plans at appointed agencies are emerging as critical business continuity strategies for carriers. Some are seeing that key agencies led by older agents don't have adequate succession plans in place, which creates major risks to the agent's current book of business with that carrier. This concern is more relevant to carriers working with independent agencies than captive agencies. Captives generally create succession plans, incorporate training programs, and, when timely, convert books of business from one retiring agency to another with minimal impact to policyholders.

So, what are the options? Carriers can establish direct connections with policyholders through a digital strategy where the carrier provides direct value to their insureds in innovative ways. Insurance touches the very core of humans in every way, through the cars we drive, the homes we live in, and the jobs we have. How can insurance companies positively lay their footprint with policyholders in the core areas of their daily life? One innovative example can be found at Liberty Mutual. Homeowners are provided with a Nest

Learning Thermostat, installed at no cost. These smart thermostats can be controlled by a smartphone app and can automatically adjust based on recent usage. How efficient!

Studies show that the average age of an insurance agent is 59.5; this presents some interesting challenges to insurance carriers.

Another concern is how incentivized are increasingly influential Millennial buyers to purchase their insurance through the brick-and-mortar distribution channel, face-to-face with a Baby Boomer agent? Are technology-driven companies like Sure, Lemonade, and Metromile more appealing to Millennials? Maybe—insurance carriers may need to act creatively and consider the market dynamics and the evolving economics behind Millennial buyers. CUNA Mutual Group has come up with an interesting proposition for renters by partnering with SafetyNet, an InsurTech based in Madison, WI. Its renters policy provides a landlord with 1–3 months of rent in case of renters' job loss due to layoff, illness, or injury. This proposition directly considers the current economic conditions Millennials face while establishing a direct relationship with this group early in their careers. Smart!

Finally, agencies owned or led by these "aging agents," who may not be motivated to invest in technologies that increase efficiency or attract younger buyers, will risk losing a significant

portion of a carrier's book of business. The only options for these agencies may be getting purchased by larger agencies—as is commonly done due to inability or reluctance to invest in technology—or by the insurance carriers themselves. The carriers can then disperse their book (plus potential new customers) to stable agencies that are loyal to the carrier, as is commonly done in the general agency business. With either option, the buyer needs to ensure their E&O policy is reviewed appropriately to avoid any gaps in coverage for prior acts. Insurance brings peace of mind!

While carriers need to find strategies to address risks where there is a significant book of business held by aging agents, they also need to be innovative and identify new value when selling insurance to the growing number of Millennial buyers. Without this innovation, carriers will never appeal to Generation Z.



Chuck Gomez is a Vice President of Research and Consulting at Novarica with over 25 years of insurance technology experience in senior roles at insurers, reinsurers, brokers, consulting firms, and software companies. His expertise spans strategic planning,

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Conversational Interfaces

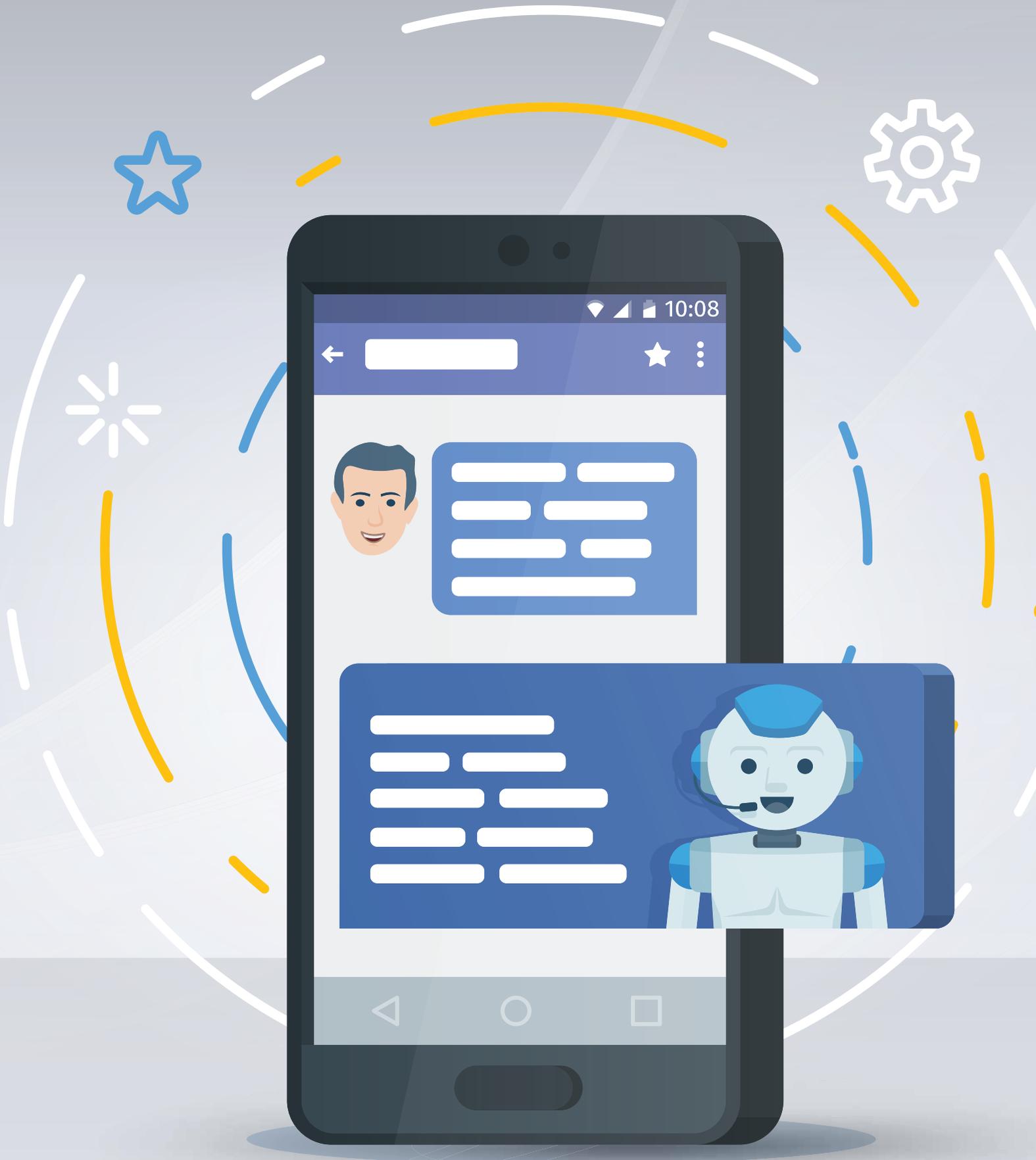
& Chatbots

By Bala Kumar, Jarus Technologies

Long gone are the days ...

when a user would use the manual dial on a car's navigation system to compose the destination address in a cumbersome manner by selecting one character at a time. Even now, many smartphone users resort to a multi-step process involving enabling the location services, launching the map application, entering the destination, and then selecting the suggested route before even putting the car in drive. Voice-based interactions, however, are quickly becoming a game changer by reducing this minor setup time to just a spoken phrase.

Continued on page 12



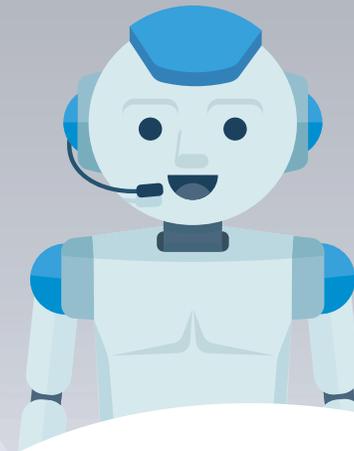
"Navigate to Costco" — just by uttering this natural choice of words to the Google Assistant on a smartphone presents the user with turn-by-turn instructions to the nearest Costco in a matter of seconds.

Such powerful capabilities are made possible by significant advances in natural language understanding and language processing, along with the convergence of a host of other technologies. The ability to interact with computing platforms in this manner, via voice or text modalities, are referred to as conversational user interfaces (CUI). CUI is the next disruptive technology that is growing across many verticals.

How is This Interaction Different?

As a society, we have been interacting with computers for a long time via text commands. But those commands follow a very strict syntax that has been pre-defined and requires the user to possess specific skills. Though graphical user interfaces simplified the interaction, often they just act as wrappers built on top of those underlying text commands.

With CUI, users can talk to the system in the most natural form. The system tries to mimic the conversation as if the user is talking to a real human. Further, it is the responsibility of the system to handle some level of ambiguity that is part of natural human communications and to adapt and understand what the user wants to accomplish.



Chatbots can be designed in a way such that the conversational support can be switched between a human and digital assistant seamlessly.

Evolution of UI Platforms



The good news is that the capabilities that are driving voice assistants like Apple Siri, Google Home, Amazon Echo, and Microsoft Cortana, are readily available as building blocks for others to create custom automated intelligent agents targeted to their specific applications.

These custom agents in the form of Chatbots can handle hands-free and screen-free environments that deliver information to the users with speed and ease, ultimately resulting in a friction-free experience.

Why Such a Sudden Interest?

There are several factors contributing to the accelerated growth of Chatbots, including:

1. Ubiquity of smartphones.
2. Advances in AI.
3. Growth of messaging platforms.
4. User acceptance.
5. Significant reduction in development costs.

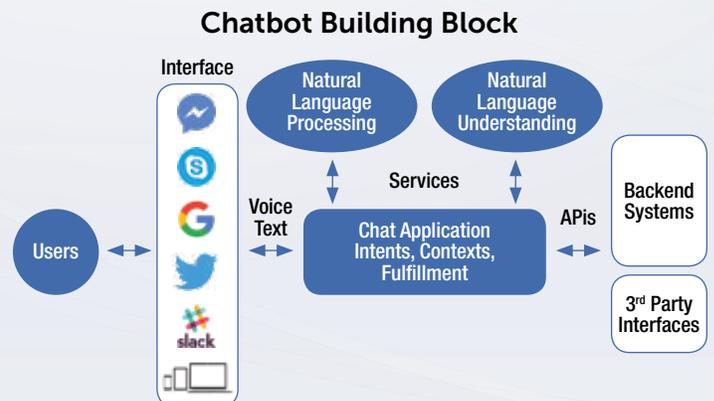
For example, Facebook Messenger is used by more than 1.2 billion users worldwide.¹ Other such services like *Whatsapp*, *Line*, *WeChat*, and *Kik* are growing rapidly as well. Chatbots supporting these types of messaging platforms gain an instant reach and accessibility.

User acceptance of this modality is highlighted by the fact that 20% of all Google search queries on mobile and Android devices are already voice-based.² In another study, Gartner predicts that by 2020, customers will manage 85% of their relationships with enterprises without interacting with a human.³

Compared to web and mobile applications, Chatbots are essentially server-side applications, and they are relatively easy to develop, deploy and maintain.

Chatbot Building Blocks

Key modules of a typical chatbot application are represented in the diagram below. Users interact with a Chatbot through various messaging applications such as Facebook, Twitter, Skype, and Google. The input voice and text commands are then parsed using the natural language processing (NLP) and natural language understanding (NLU) services.





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During this process, the context of the conversation, the intent of the user and other relevant parameters are extracted from the user's input. Then, the fulfillment service takes the appropriate action to fetch the required information from the backend system and 3rd party services. The Chatbot also manages the dialogue and keeps track of the context for continuity in subsequent conversations.

On certain supported platforms, rich user interfaces involving interactive buttons, images, and menus are weaved nicely between the text interactions. Chatbots can also be designed in a way such that the conversational support can be switched between a human and digital assistant seamlessly.

Chatbots for Insurance and Development Approach

When it comes to Insurance, many self-service features can be easily supported using CUI. Policy summary and billing inquiries are natural choices to be implemented first. Quick quotes, roadside assistance, accident help, first notice of loss, user alerts and notifications are a few of the features that can be considered as a second phase implementation.

Chatbots can be developed in an agile and cost-effective manner. The key steps to implement the Chatbots include:

1. Identify the development platform

2. Identify a small, well-defined set of tasks to implement first
3. Deploy, train, and fine-tune the features over a period of time
4. Add additional functionality on an incremental basis

With a simpler interface and easier discovery, CUI offers friction-free transactional capabilities resulting in increased customer satisfaction and retention.

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The Restatement of Law

LIABILITY INSURANCE PART II

Reserving Rights for the Unknown Insured

By C. Scott Rybny, Esq. and Andrea Procton, Esq., Timoney Knox

This is the second installment of our review of the American Law Institute's ALI Restatement of Law, Liability Insurance. These short articles are not intended to address all 51 sections of the proposed Restatement. They are instead intended to focus on select portions of the Restatement that may have the greatest effect on both liability and property insurance adjusters. In the Fall 2017 edition of the PAMIC Pulse, we discussed the conflict between the Restatement's position on insurance policy interpretation and Pennsylvania law. This article focuses on the Restatement's position on reservations of rights.

To recap, the ALI's Restatement of the Law on Liability Insurance is a project six years in the making. Its stated objective is to "cover the law of contracts in the liability insurance context, liability insurance coverage and the management of insured liabilities."¹ Critics of the Restatement point to statements by its authors that suggest an alternate purpose: to incentivize insurers to defend and settle more cases.²

Section 15 of the Restatement addresses an insurer's reservation of rights to contest coverage, including timing the required content. The authors identify four specific principles they believe to be necessary for an insurer to reserve its right to contest coverage. Those are as follows:

- 1 An insurer that undertakes the defense of a legal action may later contest coverage for that action only if it provides timely notice to the insured, before undertaking the defense, of any ground for contesting coverage of which it knows or should know.
- 2 If an insurer already defending a legal action learns of information that provides a ground for contesting coverage for that action, the insurer must give notice of that ground to the insured within a reasonable time frame to reserve the right to contest coverage for the action on that ground.
- 3 Notice to the insured of ground for contesting coverage must include a written explanation of the ground, including the specific insurance policy terms and facts upon which the potential ground for contesting coverage is based, in language that is understandable by a reasonable person in the position of the insured.
- 4 When an insurer reasonably cannot complete its investigation before undertaking the defense of a legal action, the insurer may temporarily reserve its right to contest coverage for the action by providing to the insured an initial, general notice of reservation of rights, in language that is understandable by a reasonable

person in the position of the insured, but to preserve that reservation of rights the insurer must pursue that investigation with reasonable diligence and must provide the detailed notice stated in subsection three within a reasonable time.

The Restatement's proposed approach to reservations of rights differs in several significant aspects of existing Pennsylvania law. For decades, Pennsylvania's courts provided clear and straightforward guidance concerning reservations of rights. To be effective, a reservation of rights must clearly communicate the insurance carrier's coverage position to the insured, and be timely. Courts viewed this as an objective standard. The "reasonable person" standard only applied where an ambiguity existed in the writing. Even where Pennsylvania courts looked to the reasonable person, they considered that person to be of reasonable intelligence and a member of the general populace.

The Restatement takes a different view. The authors believe that insurance

carriers must write reservations of rights in accordance with a “reasonable person in the position of the insured” standard. There are several dangers with this approach. First, it is too general to serve as a guide for insurers. Second, it is highly subjective in comparison to Pennsylvania’s objective standard. The Restatement offers little insight into what renders a reservation of rights deficient. Must an insurance carrier explain the connection between the facts and the policy language, or is a recitation of the facts within the letter sufficient?

The consequences proposed by the Restatement on insurance carriers who fail to adhere to its standards are dire. Under the Restatement, an insurer that fails to follow its standards automatically waives its coverage defenses. This draconian approach is inconsistent with Pennsylvania law. Where insureds challenged an insurer’s Reservation of Rights, Pennsylvania law is equally clear. Courts’ required clear, precise and unequivocal evidence that an insurance carrier waived its right to rely on a particular coverage part. That analysis involved a three-step process:

- 1 An inducement whether by act, representation or silence, that causes an insured to believe the existence of certain facts.
- 2 Justifiable reliance on the inducement.
- 3 Prejudice to the insured. Stated differently, Pennsylvania historically required more than an insured’s subjective interpretation of the insurer’s reservation of rights to find a waiver.

The ALI is still slated to vote on the final draft of this Restatement during its May 2018 meeting. That vote aside, there are at least seven instances where courts looked to this Restatement as authoritative. In states like Pennsylvania where insurance law is well developed, insurers should continue to follow the law as it currently exists. Pennsylvania requires both liability and property insurers presently to provide clearly communicated coverage issues to the insured as soon as reasonable. That said, the Restatement is not something that insurers should ignore, particularly in those parts of the state that historically favor policyholders over insurance carriers.

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A Coverage Package for Small Businesses: Understanding the BOP

By Sue Quimby, MSO

Small businesses are the mainstay of the United States economy. It is, therefore, no wonder that the Businessowners Policy (BOP), specifically designed for small to midsized businesses, is growing in popularity. The BOP is, in fact, estimated to be the most common form of insurance for small businesses.¹ It is the ideal vehicle for main street type businesses. Similar to the Homeowners in Personal Lines, the BOP was designed to cover classes of businesses that are similar in risk and loss exposures to each other. Agents like the BOP because it is quick and easy to rate. Companies like it for the same reasons.

As of 2012, U.S. Census Bureau statistics indicate that there was a total of 28 million small businesses in the United States. A small business is considered one with less than 500 employees. "Nonemployer businesses" — those that have no paid employees but are subject to federal tax, such as sole proprietorships, make up the vast majority of businesses in the United States: 23 million in 2013. "Employer businesses" are those with paid employees. There were 5.73 million employer businesses in 2012. 97.9% of all small businesses, including both "employer" and "nonemployer," had less than 20 employees.² Small businesses are estimated to account for \$58 billion in premium, approximately 20% of the total commercial property/casualty insurance market premium written.²

One advantage of the BOP, and a reason why the product is so popular, is its ease of use for the agent and the company. The Businessowners program is a package policy combining property and liability coverages, with one set of terms and conditions. In addition to potentially being easier to understand than multiple policies, the BOP can often be more

cost-effective for the insured than purchasing separate policies. Not only are the coverage provisions combined in a package type policy, but a composite rating system for property and liability is often utilized. Agents may have the ability to quote, bind and even issue a policy to eligible businesses electronically.

Property coverage under the BOP is available for buildings and personal property owned by the business, as well as the property of others in the business's care, custody, and control. Some programs offer specialized coverage for computer equipment and other inland marine exposures, as well as crime coverage.

Coverage for loss of Business Income, including loss of rent and extra expense, is also available. Although "actual loss sustained for a twelve-month period" coverage is often offered for business income, some carriers use dollar limitations. These limitations may apply to a class of business, such as warehouses, or to the entire book of business. Regardless of the coverage provisions, this is not "free money" nor is the amount unlimited. The insured is required to prove the loss of income that would have occurred. Loss of income for up to twelve months after the loss is provided, and it is not limited by the expiration of the policy. In addition, there may be an extended period of indemnity, usually 30 days, available.

Originally designed for small main street type operations such as retail stores and offices, the eligibility and coverages have expanded to encompass higher risk exposures, such as restaurants and pizzerias. The BOP is not intended for the unique or more hazardous risks, which are more properly handled under a commercial property and liability, or

STATISTICS

Census Bureau, 2012

28

There were 28 million small businesses in the United States in 2012

500

A small business is considered one with less than 500 employees

97.9%

Percentage of all small business had less than 20 employees

\$58B

Small businesses are estimated to account for \$58 billion in premium

5.73

There were 5.73 million employer businesses in 2012

commercial package policy. Eligibility for a BOP is generally limited by class of business, property values, square footage of the business, and/or revenue. Coverage options are not as flexible under the BOP as they are under the traditional Commercial Package.

Examples of BOP eligibility criteria include: revenues of less than \$5 million in sales and no more than 100 employees, or building size less than 25,000 square feet. In addition, businesses whose operations are mainly off premises (such as contractors), are generally not insured under a BOP.

Property coverage under a Business-owners policy is usually offered on either a Named Perils or Open Perils (formerly known as "All Risk") basis. With Named Perils, only the listed perils are covered causes of loss. With Open Perils, all causes of loss are covered, other than those that are excluded. The essential difference is that with Named Perils, the burden is on the insured to prove that the loss was caused by a "named" peril. Under the Open Perils, the burden shifts

to the insurer to prove that the cause of loss was not covered.

Due to the nature of the policy, the BOP offers less flexibility than a stand-alone Commercial Property or Liability policy or Commercial Package (CPP or CMP). The range of coverage options may be more restrictive under the BOP, with fewer options to customize the policy. Insurers may offer niche BOP programs, including coverage enhancements targeted to a specific class of business, such as bed & breakfasts, breweries or self-storage operations. Many companies also offer endorsements with expanded coverage or increased limits of liability.

Coverages generally not available under the BOP include professional liability, liquor liability, Workers' Compensation, and Employee Benefits Liability. While automobile liability is generally not included, many BOP's offer the option for Hired and Nonowned Auto Liability.

The BOP is the ideal coverage vehicle for the small to mid-sized "main street" business. It's combined package of

coverages is also suitable for specialty programs addressing the needs of niche markets, such as pet groomers, craft breweries and self-storage businesses. It is not the answer for all risks, as unique or high hazard exposures require more tailored policies.

Parts of this article were originally published in the Insurance Advocate

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Digital Innovation

A SMART MOVE FOR INSURERS

By Abhijeet Jhaveri, ValueMomentum

The world is changing rapidly for the property and casualty insurance industry. Tectonic shifts are occurring for the nature of risk, the complexity of exposures and evolution of insurance distribution. Accompanying these shifts are powerful digital forces, including mobile computing, the Internet of Things, data and analytics and social media. Insurers have a choice to make; they can embrace a growth strategy of digital innovation or strive to catch up to competitors that are already harnessing these forces.

Digital innovators in sectors from retail to telecommunications are reshaping consumer behaviors. Agents, brokers and mutual insurance companies should take note: consumers are growing accustomed to digital offerings and are recalibrating their expectations of service providers. This phenomenon is not limited to personal consumption; commercial buyers also are increasingly seeking more responsiveness and better digital experiences. Such trends are driving growth opportunities for insurers and the entire distribution channel.

ROAD BENDS AHEAD

Navigating bends in the road requires drivers to anticipate where those are and adapt to the terrain. For insurers, the road ahead is bending in distinctive ways. The insurance industry is witnessing a change in the nature of risk, as new technologies develop; risk exposure, assessment, and pricing, as data allows usage-based policies and new revenue streams; and distribution.

Changing Nature of Risk

The nature of risk itself is shifting as ride sharing, home sharing, autonomous vehicles, connected homes and the on-demand economy continue to grow.

Ride sharing and home sharing, for example, are innovative ways that a property owner can use personal assets to earn income by providing a service. From an insurance perspective, ride sharing and home sharing blend personal and commercial lines risks. Cars and homes are suddenly no longer purely one or the other; now they can be both at times of the owner's choosing.

Autonomous vehicle technology is still evolving, but it's clear that automated driver assistance creates new product liability risks for manufacturers and may mitigate auto liability for the driver. Similarly, the on-demand economy and the ability of nearly anyone to deliver professional services from remote locations are creating new classes of professional liability risks.

Changing nature of Risk Exposure, Assessment & Pricing

Telematics is changing how insurers think about risk exposure and how they assess and price the risks presented by, for example, a personal automobile owner who drives occasionally versus one who drives extensively. Similarly, connected homes, or "smart" homes, add cyber exposure to the list of physical risks that can cause loss.

New ways to distribute products and engage insureds and agents

These digital trends are not merely manifesting as new forms of risks and risk exposures. They also manifest as

new ways for insurers, agents and brokers to reach their customers. Over the past several years, digital agencies have emerged with regular frequency. These include CoverWallet, Insureon, BizInsure and many others. They see an opportunity to more seamlessly connect agents and insureds – individuals and small business owners alike – to digitally engage them throughout their buying journey. Which means offering up ways for insurers to:

- Reach insureds and agents anytime from any device
- Engage with them by personalizing their experiences
- Provide seamless transactions – with minimal keystrokes using data and analytics widely available
- Interact in ways that suit their preferences – voice, chat, video chat and other means

INSURTECHS CAPITALIZING ON THE OPPORTUNITY

These shifts are being capitalized on, and digital forces are being harnessed by well-capitalized InsurTech companies that are entering the marketplace in growing numbers. According to Aon Benfield's "Global Insurance Marketplace Opportunities, 2017 Insurance Risk Study," \$14 billion has been invested into more than 550 InsurTech startups since 2012. The pace of InsurTech investment has only been accelerating, with about \$9 billion invested in 2016 and 2017. Notably, Aon Benfield's report says more than 55% of startups are focused on improving customer interactions with insurance companies.¹

Disruption of traditional insurance is occurring across different dimensions, such as:

- Product innovation (Metromile, Trov, Slice, Bunker)
- Distribution (The Zebra, Lemonade, Coverhound)
- Underwriting and claims (the Internet of Things, ADT, Leakbot, drones, telematics and other “smart” assets)

SO WHAT'S NEXT?

With change comes great opportunities. Insurers can harness the powerful digital forces to adapt to the bends in the road ahead. Opportunities abound, especially as the industry is still early in the journey. Change also means threats from disruptive and innovative forces.

Trusted Advisors

Insurers that distribute through independent agents can help their agents become more valuable trusted advisors while reducing clerical tasks. Insurers can embrace omni-channel distribution, which emphasizes cohesive experiences across touchpoints. In addition, insurers can infuse these experiences by enriching them with elements such as insights, alerts, and guidance. Such experiences, when delivered to agents – whether it be for quoting or service – can help agents focus on being trusted advisors, rather than efficient processors of applications.

Partnering with Insureds

By the same token, greater connectivity also offers insurers an opportunity to emphasize loss prevention.

Consider this example: using technology such as Nest, a homeowner can connect various systems – appliances, lighting, perimeter security, heating and air conditioning, and more – to create a “smart” home that makes more efficient use of energy, can activate systems remotely from a mobile app, learns the homeowner’s preferences and can issue alerts about equipment maintenance and conditions in the home. The homeowner gains peace of mind, expense savings, convenience and information that makes

homeownership easier. An insurer can ask itself, “Can we use these connected or “smart” devices and the data they capture, to add value to insureds in new ways?”

The short answer is, insurers can. State Farm is among insurers that have partnered with providers of home automation and monitoring products, such as ADT, Canary, and Generac. This kind of program benefits the insurance company and its distribution channel in multiple ways. Customers receive personalized service, an enhanced experience and perceive their insurance provider as more than a collector of premium and a payer of claims.

ADVANTAGES FOR INSURERS

Increase loyalty

In addition to instilling in customers a strong perception of value, digital innovation by insurers can grow engagement by increasing the number of touchpoints with customers. Most personal lines and many small-commercial lines policyholders typically interact with their insurers in two situations: claims and policy renewals.

Insurers’ ability to be in touch with customers not just when a loss occurs or when it’s time to renew coverage but frequently during the policy period offers significant advantages. Insurers can shift from focusing on assisting with loss recovery to improving loss prevention. Greater connectivity offers insurers the opportunity to get closer to the assets they insure.

Drive Product Innovation

Product development is another area where insurers can derive advantages. Better insight and interaction with customers through apps and analytics enable insurers to customize and add value to existing products and to develop entirely new ones, in both personal and commercial lines, to meet evolving needs. Clearer insights into customer behavior also empower improved service and stronger distribution channel relationships.

Improve Profitability

Not least among the advantages is the opportunity for greater profitability in the current portfolio and growth in underserved and emerging market niches. Better data, when harnessed and applied to underwriting processes, can lead to more profitable accounts. The ability to identify emerging opportunities, such as offering time-element insurance for homeowners who rent out their properties or drivers who give rides, can open unexpected growth areas. With insights gleaned from data, segmentation of customers also can pave the way for significant cross-selling and upselling.

Insurers are doing business in an era of digital innovation. Harnessing the digital forces that are shaping consumers’ actions and expectations are already paying off for innovators in other industries. What embracing digital means is applying new thinking, tools, and analytics to improve existing products and speed up processes, creating a richer experience and providing information to make customers’ lives easier. For insurers, implementing a robust digital strategy offers better customer engagement and profitable growth. What companies today can afford to forgo those advantages?

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with support for ISO, NCCI, AAIS and proprietary rate plans and extend these to agents, customers and employees with ValueMomentum’s BizDynamics Digital Experience Solution and App2Data ACORD forms processing Solution. 



Leveraging the Power of Smart Home Technology

By Karsten Rimestad & Charles Marshall, Swiss Re

Technology is disrupting traditional ways of doing business and our traditional way of life. Although it's natural to perceive any disruption as a threat, we choose to focus on the opportunity: We believe a "disruptive arbitrage" is available (a chance to take advantage of disruption and gain market share) by engaging insurance customers through smart-home technology.

A smart device is similar to traditional devices (smoke alarms, thermostats, etc.) but is connected to the internet and therefore able to alert users, allow homeowners to take action while away from home, and generate large quantities of data. Smart-home devices are growing in popularity while becoming cheaper. As the smart-home market jumps from roughly \$37 billion in 2016 to about \$112 billion by 2020 (including services), our industry has a unique opportunity to capitalize on where devices and consumer behavior merge with insurance.¹

WHY SMART HOMES?

Risk Mitigation and Prevention

It is estimated that the average household will have 8.7 smart devices by 2020.² This growth offers the serious potential to gain insight into consumer behavior and risk profiles. Although it is

still too early to definitively conclude, the consensus is many of these devices will reduce the severity of claims. It's not difficult to envision a scenario where a smart device automatically alerts a homeowner when danger first arises, thereby minimizing the severity of loss. Consider a smart smoke alarm that alerts homeowners via phone that smoke has been detected in the home or a water-leak detector that provides a similar notification. These devices also can alert local emergency services to a situation or notify a utility provider to shut off gas/water.

Risk prevention is also a significant benefit of smart-home devices. Smart thermostats enable homeowners to control the temperature of their houses remotely and can help avoid frozen pipes when they are away. Smart bulbs can be switched on and off remotely to deter intruders by making it seem someone is home. Simple additions of smart devices can make a material difference.

Customer Experience

Engaging with the smart-home industry can not only generate new consumer insight but also boost your image as a progressive insurance company. NTT research found that 2 in 3 of surveyed home-insurer customers would switch providers if they could get a discount for their devices.³ Aside from retaining or gaining technology-savvy customers, we predict that the increasing interplay between insurance and smart-home devices will result in a more seamless customer experience. This trend also offers a unique opportunity to educate insureds about risk mitigation.

Insurance companies who embrace smart-home technology may play a leading role in explaining to friends and colleagues how these devices can help reduce claims and ultimately benefit customers through lower premiums. Along with reducing premiums, insurance companies are considering leveraging preventative services to add value and increase premiums. If consumers understand how actions can lower insurance cost, we think they may change their behaviors accordingly.

HOW CAN YOU BECOME INVOLVED?

Through our research on this trend, we have identified two strategic focus areas that early-adopting insurance companies have in common. First, they actively engage in the digital ecosystem through partnerships or equity investments in InsurTech companies (who are most commonly device manufacturers). Second, they drive customer take-up rates by offering discounts; this is to pursue more connection with the end user to gather data.

PARTNERING

Partnering with InsurTech companies can be an effective way to gain access to innovative technology. That said, there are many InsurTech startups, and it can be challenging to find the right partner. Common types of partnerships are:

- Partnerships with niche smart-home device startup companies. This type of partnership often provides some exclusivity for the insurer in return for market access.

- Partnerships with tech giants. The consumer insight and large customer base of tech giants can help build greater reach more quickly. However, tech giants may not provide exclusive relationships.
- Partnerships with energy/utility companies. Many energy/utility companies are also heavily investing in smart homes. A partnership between a utility and an insurance company can provide an opportunity to leverage an expansive customer base and share costs to push adoption rates.

INVESTING, AND/OR ACQUIRING INSURTECH STARTUPS

Direct investments in multiple InsurTech startups provide more exclusivity and allow capital-rich insurers to hedge against placing their bets on the “wrong” technology. A few large incumbent carriers have taken the plunge and created corporate venture funds to pursue this strategy. This is a riskier strategy with unclear returns but is an avenue that is being pursued by a few companies in the smart-home space.

TAKING STOCK OF DISCOUNTS

Customer discounts are being offered for using smart-home devices. The strategy behind offering discounts is to gain end-user access to data to improve the smart-home value proposition. These incentives are typically small, and there isn't much information about their impact on claims. However, any discount demonstrates a commitment to rewarding consumers for risk-prevention measures. Devices tied to security, fire protection, and water-leak prevention are the most frequently offered discounts. Discounts are a short-term solution for insurers, but this is an avenue to engage with consumers now.

Type of discounts include:

- Offering a free smart-home device to policyholders
- Providing discounts on devices from partner companies
- Giving an insurance premium discount of up to 5% for using a device

WHAT NOW?

In a commoditized homeowners market, going digital and enhancing consumer

experience is a way to differentiate. Many companies believe they can differentiate via service and speed of claims for example, but this provides another way for companies to set themselves apart. Smart homes may be the perfect place to double down and drive your company's competitive advantage in a society that embraces technology and seeks ultimate convenience.

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Karsten Rimestad

joined Swiss Re in 2014 as part of the Graduates Program. Prior to Swiss Re he graduated from The University of Wisconsin-Madison with a BBA in Finance and Risk Management & Insurance. In his 3 years with Swiss Re, Karsten has served in treaty pricing and underwriting roles, working closely with U.S. Regional clients. In addition to treaty underwriting, Karsten has spent time with property facultative underwriting and property claims. He is currently researching the Smart Homes realm and its potential implications on the insurance industry.



Charles Marshall joined Swiss Re in 2007 after graduating from Colorado State University with a Bachelors in Mathematics/Actuarial Sciences and a minor in Statistics. In his 10 years with Swiss Re, Charles has served in treaty Actuarial and Underwriting roles,

working closely with U.S. Regional clients. Charles allocates part of his time towards working with Swiss Re's Structured Solutions team. He is currently exploring the Smart Homes realm, and the impacts the devices may have on the insurance industry.

In 2014, Charles obtained his Fellowship of the Casualty Actuarial Society designation, and also received his CPCU in 2016. Charles is based in Swiss Re's Schaumburg IL office. 

Hurricane Irma

Post Damage Survey Observations

By Prasad Gunturi, Willis Re

The ninth named storm of the 2017 Atlantic hurricane season, Hurricane Irma, first made landfall on Cudjoe Key, Florida as a Category 4, and then made a second landfall on Marco Island, Florida as a Category 3 storm. Soon after the first landfall in October, our Willis Re team conducted a damage reconnaissance survey of properties to assess Irma's damage. We reviewed many examples of property damage due to the wind and identified how well various property elements performed in resisting hurricane wind forces. Our team traveled nearly 900 miles covering various properties exposed to the storm in many Florida cities.

During our survey, we observed direct wind damage to insured properties ranging from minor to significant. The damage to surveyed buildings included damage to: roof cover, roof deck, wall siding, attached structures such as carports, pool enclosures, and utility sheds.¹

Our key findings from surveying Irma damage:

- 1 Newer buildings and newer roofs performed better than older buildings.
- 2 Metal roofs performed much better than shingles and tiles.
- 3 Gas station canopies supported by a single row of columns sustained major damage.
- 4 Across the surveyed areas, mitigation measures such as strong storm shutters, seem to be effective.
- 5 Although many buildings exhibited minor direct wind damage, insurance claim payouts for these could still be significant due to costs associated with workmanship, challenges associated with repairs and repairs relating solely to cosmetic effects.

Similar to what we did for Irma, we performed a damage reconnaissance survey following Superstorm Sandy to see how it impacted homes. While Irma and Sandy are not directly comparable, the Northeast, which suffered through Sandy, can benefit from lessons learned during Irma on the performance of buildings to hurricane force winds. Throughout this article, while discussing the damage observations from Irma, similarities are also highlighted between Sandy and Irma damage observations.

DAMAGE TO SINGLE-FAMILY DWELLINGS AND LOW-RISE BUILDINGS

We observed minor-to-significant damage to single-family dwellings and low-rise commercial buildings from Irma's winds. Damage varied according to the age of construction; newer buildings showed less damage than older buildings. For instance, in newer buildings, direct wind damage to single family dwellings and low-rise commercial buildings was limited to only partial roof cover. But in older buildings (over 15 years old), there was a significant loss of roof shingles as well as minor siding damage. Newer roofs

likely performed better because there was relatively less degradation of physical properties of shingles. And we attribute that to two things: the limited weathering time and improvements to how newer products are made, such as greater bond-strength of self-seal adhesives and adhesive surface areas.

We observed much damage to tiled roofs. In some cases, the damaged tiles acted as flying debris, falling on neighboring tiles and causing additional damage. Also, we noted that relatively older tiled roofs suffered more damage compared to newer roofs. We observed that metal roofs performed relatively better than tiled and shingle roofs in the surveyed areas. A large portion metal roofs that were surveyed are located in Key West.

In addition to roof cover damage, minor-to-moderate roof deck damage was observed in relatively high intense wind exposed areas along the coast of Naples, Marco Island and the Florida Keys.

We also observed direct wind damage to manufactured homes, but that was largely limited to loss of shingles and siding damage. We saw major damage only to their add-on structures such as carports, screen enclosures, and utility sheds. Interestingly enough, in most observed cases, the add-on structures did not inflict additional damage to the main structure. In the cases where there was additional damage, add-on structures caused minimal additional damage to the main structure. No damage to mobile home tie-downs or foundations was observed.

Irma's peak sustained wind speed (V_{max}) at Cudjoe Key, FL, and Marco Island, FL landfall points was estimated to be 130 mph and 115 mph respectively. Relative to Irma, Superstorm Sandy was less intense with estimated 80 mph peak sustained wind speed at landfall. Though Sandy's wind speeds were lower, the building damage due to storm surge was a bigger factor during Sandy, where none-to-minor wind damage was observed (except in few localized areas). A common theme emerged out of comparing Irma and Sandy building damage patterns, and that was,

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understandably, the poor performance of older construction compared to newer construction.²

DAMAGE TO MID- TO HIGH-RISE BUILDINGS

We observed damage to mid- to high-rise condominiums and commercial buildings, including: damaged window panes, architectural awnings and overhangs and loss of roof tiles and wall stucco/plaster. We didn't see any major structural damage. In fact, most of the mid-high rise buildings performed very well to Irma's winds.

All of the surveyed buildings were in the 2010 Florida Building Code (FBC 2010) windborne debris region. Unsurprisingly, almost all of the surveyed buildings' glass openings (windows and balcony sliding doors) were protected by storm shutters which appeared to be effective in limiting wind damage.

Though the physical damage to most structures was minor, the cost of repairing some buildings will likely be quite expensive because of required workmanship and its associated challenges.

MISCELLANEOUS STRUCTURE

Extensive damage to gas station canopies, which included damage to the soffit, fascia, framing, foundation and complete collapse, was observed. In general, gas station canopies supported by two rows of columns performed far better.

We observed that the damage to boats and warehouses, in marinas along the coast, was primarily due to storm surge and related flooding. Boats were pushed on to streets and docks. We did see some roof damage to warehouse structures storing boats in the marina. However, we did not observe any significant damage to boats stored in warehouses.

Continued on next page



Damage to single-family dwellings (left to right): Roof damage to 2005–2006 built residential single-family dwelling and pre 1998 built home.

Damage to low-rise buildings (left to right): Tiled roof residential single-family dwelling, and two-story commercial building.



Damage to mid- to high-rise buildings (left to right): Roof tile damage to 20+ story building in Fort Myers, and roof damage to a 10-story building in Marco Island.

Miscellaneous Structure (left to right): Collapsed gas station canopy supported by single row of columns in Fort Myers, and Naples.

**ASCE 7-10
Mean Recurrence Interval wind speed vs estimated Irma wind speed
for select surveyed locations**

Location	10-Year	25-Year	50-Year	100-Year	Estimated Irma wind speed (mph)
Bonita Springs, FL	85 mph	103 mph	117 mph	129 mph	90–100 mph
Marco Island, FL	86 mph	107 mph	124 mph	136 mph	115–125 mph
Key West, FL	90 mph	115 mph	130 mph	150 mph	125–135 mph

**ASCE 7-10
Mean Recurrence Interval wind speed vs estimated Irma/Sandy wind speed
for select surveyed locations**

Location	10-Year	25-Year	50-Year	100-Year	Estimated Sandy wind speed (mph)
Atlantic City, NJ	77 mph	88 mph	95 mph	102 mph	70–80 mph
Cape May, NJ	77 mph	87 mph	94 mph	99 mph	60–70 mph

CONCLUSIONS

Hurricane Irma’s direct wind damage to insured properties ranged from minor to significant in the surveyed areas. Observed damage to surveyed buildings included: loss of roof cover, partial roof deck, wall siding, damage to attached structures such as carports, pool enclosures, and utility sheds.

In many areas, Irma’s estimated wind speeds were below the American Society of Civil Engineers’ ASCE 7-10 50 year mean recurrence level wind speeds and further below the minimum design wind speed level (100-year).³ We also saw that in many of the surveyed areas, homeowner-installed hurricane shutters minimized the impact. The same held true for strong hurricane shutters installed on small commercial and large condominiums. The minor damage observed in some of the Irma-impacted areas in Florida highlighted the effectiveness of mitigation measures, code compliance and historical experience of homeowners dealing with hurricanes. Hurricane shutters work!

Superstorm Sandy’s estimated wind speeds along New Jersey, and New York coasts were below the ASCE’s 25 year mean recurrence level wind speeds and further, significantly below the minimum design wind speed level (100-year)³. However, as we observed during the Sandy damage survey conducted in 2012, homeowners in New York and New Jersey were understandably less prepared regarding taking damage mitigation measures. Florida residents are far more practiced for hurricane emergencies than residents in the tri-state area.

Further comparisons: Given the size of Sandy, had its wind speeds on the ground been as intense as the 1938 New England Hurricane (a.k.a. Long Island Express), we might have witnessed even more damage; the impact on the insured portfolios could’ve been far worse. According to our 2013 study, a Sandy-like storm with the 1938 hurricane intensity in the northeast would have caused \$45–\$60 billion insured loss to the industry today.⁴

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Prasad is a civil engineer by education and holds a Master of Engineering degree in Structural Dynamics (Earthquake engineering) from the Indian Institute of Technology, Roorkee, India. He received the prestigious University Medal and Indian Service Engineers prize for Standing First Rank in his master’s program. 



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