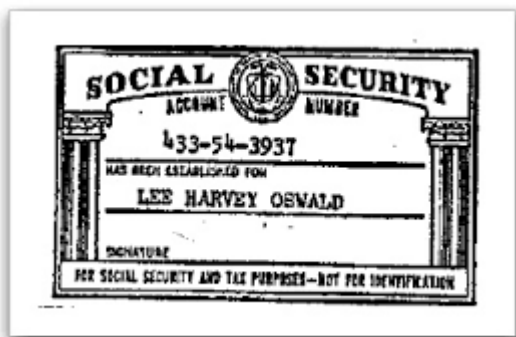


Data Breach Vulnerability Not Just Due to Technology

About 21.5 Americans' social security numbers and other sensitive personal information were compromised due to the hack of the U.S. Office of Personnel Management, according to an article posted today on cnn.com.

It seems data breaches have become so common that those unaffected are undocumented workers or Amish.

How did personally identifiable information become so vulnerable? The answer isn't limited to the technology.



Social Security Administration (public domain) via Wikimedia Commons

Our vulnerability is actually the result of a combination of historical, social and economic factors. To improve protection of personal information, it is important to consider how we got here.

A Little History

Before social security numbers were assigned to Americans, identity was simply a person's name. After spending decades on genealogical research, I can attest to the fact that before the 1900 census, the government asked very little personal information about Americans.

When President Franklin Delano Roosevelt began the Social Security program as a response to the Great Depression, social security numbers were only to be used for the program. Old social security cards indicate that the numbers are "not for identification." Just check out the Social Security card of Lee Harvey Oswald, who purportedly assassinated President John Fitzgerald Kennedy.

Over time, corporations got away with using social security numbers as identification for multiple purposes. It's been necessary for obtaining credit or health insurance purposes since at least the mid 1980s. When I started college in 1986, my identity number was my social security number.

I suspect that cell phone numbers will also become a necessary form of identification that will evolve into being used on a "mandatory" basis just like social security cards.

A Generational Divide

Socially, the culture of the United States has changed from one of valuing personal privacy to one of perpetual sharing. "It ain't none of your business," was a very common retort when I was growing up.

The vulnerability of Americans' personal information is not just due to technology getting ahead of us, but also to changing values of privacy.

Millennials and younger are less likely to believe privacy is a big deal. This group most fully embraces social media and "sharing" - including Too Much Information (TMI) sharing that was once considered socially impolite. The ramifications of Facebook's privacy policy might also surprise them. And honestly, I don't think the younger generations care even though nobody really knows who is "listening."

For Americans to begin caring about personal privacy again, enough might have to suffer the consequences of losing (or even sharing) private information. For example, if you knew anyone who suffered through the Great Depression, you might have observed how that generation saved everything "just in case." Because of the great suffering, Roosevelt got the support necessary to start social security.

But for now, Americans seem more engrossed in Caitlyn Jenner and gender identity issues rather than the ultimate identity issue: someone stealing yours and using it for criminal activity, extortion or even terrorism.

Some of this theft comes from information Americans willingly share on the Internet. Other important data, including financial and medical information, is being breached from the government and corporations. Combine that public information once stored on paper files and the opportunities for harm are endless.

We have already seen ISIS threaten individual military members and their families because Facebook can give a clue to their home and Google Maps will point the way there. Terrorists can certainly do the same to civilians as well.

As a Gen Exer, I was most influenced by the Baby Boomers. They were my younger professors who taught me women's studies, gay politics and civil liberties. They all stressed that American freedom includes the universal right to privacy for all Americans.

Baby boomer President William Jefferson Clinton, along with Congress, thought protecting personally identifiable health information was a big deal. He was instrumental in passing through the Health Insurance Portability and Accountability Act (HIPAA). (Interestingly, workers' compensation was excluded from the Act.)

For the majority of Americans, HIPAA is now just part of the pile of papers they need to sign at the doctor's office. The law was enacted before the rise of Internet commerce and when Baby Boomers and older generations were the majority of the country. Complying with HIPAA only gets ting more difficult as paper medical records are being converted to electronic files.

Then Gen Exer President Barack Obama ushered in the Affordable Care Act, which throws medical privacy out the window. Now the federal government has access to your medical records because health insurers and medical providers are required to share them.

For Americans to begin caring about personal privacy again, enough might have to suffer the consequences of losing (or even sharing) private information.

Federal agencies are hardly safe custodians. Just ask the potential 9+ million past and present federal workers and our military whose data is now vulnerable to whoever hacked it.

Further, cyber incidents, including data breaches, are on the rise according to Verizon's "[2015 Data Breach Investigations Report](#)." Add to that 66 percent of accountable care organizations surveyed last year by the [Ponemon Institute](#), who believe patient privacy risk has grown and do not have great faith in data security.

Conclusion

The vulnerability of Americans' personal information is not only just due to technology getting ahead of us, but also to changing values of privacy. Looking back to history and considering past policy and social mores provides context for developing ways to promote privacy. I have a few ideas in mind and soon I will share them in a future blog.

Disruptive Technology, Actuaries and the Rest of Us

Disruptive technology — defined as a new technology that unexpectedly displaces the established one — will change most professions.



In the future, we will collaborate in the Cloud through mobile technology and intelligent interfaces while monitors track our vitals and aerobic activity. Big data will be fed into mega computers that will automate calculations and analysis. Insurance will be based more on the individual situations of people and companies.

Artificial intelligence is already disrupting the medical field when computers can more effectively diagnose than doctors. Lawyers' efforts to find precedents are already becoming automated and (sigh) computers can produce basic news articles.

Actuaries are not immune, as I explain in my article, [“Fast Forward: Emerging Technology and Actuarial Practice.”](#) Published in the American Academy of Actuaries' July/August issue of *Contingencies*, I believe it highlights disruptive technologies that will affect all of us both professionally and personally. I hope you will check out the article and enjoy seeing a glimpse into the future of the actuarial profession and the insurance industry.

In many ways, the article is a call to action for the actuarial profession, but it should also be a wake up call for the rest of us who also grow tired of the constant learning and adapting to technology that is necessary to maintain professional relevance.

“...the article is a call to action for the actuarial profession, but it should also be a wake up call for the rest of us...”

In summary, for actuaries to excel in the future, they will, both literally and symbolically, have to let go of their beloved Excel spreadsheets and other tools.

The fact is Excel is quite limited compared to what is becoming possible through technology and will likely go the way of the slide rule and calculator. Personal computers and laptops simply cannot hold the data or offer the processing power of GPGPU chips that come from the gaming graphics world, the article explains.

What do you think? Let the world know by commenting below.

Be the first to know. Follow my blog by clicking the “follow” button on the bottom right hand corner below.

[The Truth about Advanced Driver Assistance Systems \(ADAS\)](#)

Advanced driver assistance systems (ADAS) are helping drivers with reducing auto accidents and will impact the future of driverless cars, but there are limitations.

“My latest article in Actuarial Review is a must-read for consumers and the insurance industry that serves them. [Moving Parts: ADAS Go For a Ride](#) moves beyond the generalizations to help readers understand the advantages and the multiple limitations of automatic safety parts.



My article also provides a one-of-a-kind sidebar that provides at-a-glance information per ADAS feature based on multiple sources. Trust me, it was not easy to assemble, so do enjoy!

Key ADAS Take-Aways

- As evolving features, the safety-encouraging parts are not perfect. There are a few situations when they can cause accidents.
- Vehicles with ADAS features are unaffordable for the majority of Americans. The cost of a new car, never mind the ADAS features, is more than half the average American family's income. Used cars average \$20,000.
- It will take several years, if not more than a decade, for ADAS to be commonplace on American roads. Why? Americans are keeping their older cars longer than ever because they are well-built and car payment free.
- Repair costs are expensive and technicians can be hard to find.
- Unless insurers see a marketing opportunity, do not expect discounts for having ADAS in your vehicle. The safety features can help prevent accidents, but repairs are costly.
- Due to a lack of data, insurers are still getting up to speed on the impact of ADAS, which varies by vehicle make and model.
- Manufacturers know the most about their ADAS systems but they are not sharing data with insurers. Tesla's executives believe there is adequate data to offer competitive auto insurance, but its introduction has been a bumpy ride.

ADAS and Driverless Cars

The article also offers a more realistic consideration of the future of driverless car safety. The evolution of safety technology for conventional vehicles is not much different than for driverless

cars.

This is a big deal. For the past five years, driverless car enthusiasts have stressed the future safety advantages of automated vehicles. It was backed up with faulty logic presuming that since most accidents are caused by humans, another misnomer, driverless cars would make the roads safer. (Please read [my award-winning article](#) about driverless cars for further explanation.)

It would have been better if driverless car advocates empathized convenience rather than safety. But here again, as both conventional vehicles and driverless cars evolve, their differences will probably be few over time. There is also a growing acknowledgment that drive-free cars might never come to fruition, requiring drivers as the final safety, ironically, when technology finds its limits.

The Bottom Line

ADAS is showing its mettle for preventing accidents. Any automation should be viewed as *tools for drivers*, rather than the *replacement of drivers*. After all, humans do not just cause accidents. They prevent accidents too.

[Baribeau Recognized for Actuarial Review Award](#)

Annmarie Geddes Baribeau was recognized June 25 for her thought-provoking editorial content published in [Actuarial Review](#). Her article, [Driverless Utopia](#), won an Excel Award by [Association Media & Publishing](#) (AM&P).



There's no proof that driverless cars will be safer than mere human beings.

Entered in competition by the [Casualty Actuarial Society](#) (CAS), the article was the cover story for the May-June 2018 issue of Actuarial Review. It was also the most viewed issue of the year on the publication's website.

“Written by frequent contributor [Annmarie Geddes Baribeau](#), the article combines engaging graphic elements with thought-provoking editorial content to examine a world caught between available technology and public perception,” according to a [CAS announcement](#).

Although the [bronze-awarded](#) article was published about a year ago, its relevance endures amid the push of driverless cars. The piece questions the all-too-common assumption that some 90% of accidents are caused by people. Baribeau's article also demonstrates that driverless cars are not proven to be safer and autonomous vehicles introduce new risks on the road. Her blog, [Driverless Cars Not Proven To Be Safer](#), offers a personal take on driverless cars.

“I thank the editor of Actuarial Review, Elizabeth Smith, and the Casualty Actuarial Society,” Baribeau says. “It has been an honor to write the publication's cover stories.” She is also grateful to the Association Media & Publishing, which serves the needs of association and nonprofit publishing teams. To read her latest articles about marijuana, commercial auto, climate change, cyber risk and security and more, please click [here](#). To see other articles and marketing samples, please contact annmarie@insurancecommunicators.com.

[Cyber Risk and Insurance Continue to Grow](#)

Cyber risk and insurance continue to gain momentum. More companies realize they need it. And insurers are expanding coverage - and enjoying profitability. That said, cyber insurance continues to be an especially risky insurance line.

This is part of what I discuss in my recently published article, [“Expansive Variance.”](#) Published in *Actuarial Review*, I titled the article very deliberately. The variance of risk expands in new ways every time I investigate cyber risk and insurance.

And frankly, the more I learn about cyber risk, the more concerned I become.



Cyber risk and insurance are expanding.

My article digs into the reasons behind the growing risk and new tools for actuaries and underwriters. Two particular trends stick out. First, Internet of Things technologies continue to introduce vulnerability to cyber attacks and personal privacy. Perhaps the best example of hacking through via app is last year's [Facebook data breach](#).

Meanwhile, the bad guys, who have the creativity to walk the gauntlet of cyber protections, are quite innovative. Last year's Equifax breach, the largest in United States history, is a case in point. Despite tight cybersecurity, the breach pulled the personal data of more than 145 million Americans in a seven-week period. Another attack, less widely known to consumers, turned off factories and interfered with commerce all over the world.

The bad actors are also discovering ways to deploy artificial intelligence to mask coding to reach directly into personal computers. And for the less innovative, the old-fashioned and tried-and-true attack methods, such as email phishing, remain effective. Many companies still need to get religion on cybersecurity. Hackers are sometimes getting away with their dirty deeds because companies do not keep up with security patches.

These breaches serve as warnings of what could come. Everyone who knows about cyber risk and insurance fear "big one" — that cataclysmic breach that could put the world on its knees. Insurers are also very concerned about it, spreading risk across individual industries to reduce exposure.

Cyber Risk and Insurance

The article also describes the unique challenges insurers are facing beyond cyber risk itself. Currently, cyber insurance is generally profitable. The market is so competitive that it is sometimes underpriced. Executives of non-cyber insurance lines are also concerned that their coverages are picking up cyber loss.

Insurers have very different philosophies on covering cyber risk. For Warren Buffett, chairman of Berkshire Hathaway, Inc., cyber risk and insurance just too risky. He believes that each year carries a 2% chance of a super catastrophe costing \$400 billion or more in insured losses. Not surprisingly, his insurance group is mostly staying away from covering cyber risk.

But there's plenty of insurers - about 170 depending on classification - which are happy to offer cyber insurance. AIG and Chubb are two examples. Insurers also have more insurance scores for cyber risk than ever before. Depending on the product, such cyber scores can evaluate risk potential by company and can watch how the risk changes.

Privacy Regulations and Laws

Consumers have little remedy when personal data breaches occur. Cyber insurance covers cybersecurity protections for a limited amount of time, say two years or so. However, there is nothing that can be done to get the information back. The bad guys have it forever. Thankfully, cyber insurance for individuals is just starting to become available.

Last week I attended a seminar on protecting personal privacy sponsored by the [Atlantic magazine](#) and [Salesforce](#).

Speakers discussed a social contract, which presumes entities collecting our data will protect it. However, this social contract has little law to support it. One privacy attorney says that [the Facebook breach](#), while unethical, is not illegal.

***The bad guys,
who have the creativity to walk
the gauntlet of cyber protections,
are quite innovative.***

Americans assume the government is making sure our data is respected and kept private. But in truth, our public policymakers are behind the curve. As someone at the seminar joked, "Europeans regulate what Americans innovate." Legislative remedies are being considered by Congress. During the seminar, Senator Mark Warner (D-VA) mentioned a recent hearing where the nation's largest search engine's representatives were notably absent. The company, however, is showing up to help China with their internet although its employees are [protesting](#) and [some have quit](#). This is the country that is [following every move of their citizens](#) to determine their "trustfulness" and is also blamed for particular cyber breaches.

[My article](#) describes new regulations from the European Union that affect American companies. California also passed an aggressive law to protect consumers. It goes into effect January 1, 2020. Not surprisingly, technology companies are fighting the restrictions the new law will impose. After all, they need personal data to sell ads. The European and California laws have potential ramifications for cyber insurers, but those details are yet to come.

Note: [My last article](#) about cyber insurance discusses particular challenges for actuaries. To see more of my cyber articles, just enter "cyber" in the search bar below.

Driverless Cars Not Proven To Be Safer

There is no proof that driverless cars will be safer than human drivers.

I found myself saying that aloud to a radio ad yesterday. In explaining his support for driverless car experimentation in Michigan, Governor Rick Snyder notes that 94% of accidents are caused by human error. The implied assumption is that driverless cars will be safer.



There's no proof that driverless cars will be safer than mere human beings.

That statistic bandied about by driverless car advocates has nothing to do with automated vehicle safety. It derives from 2005 to 2007 data in a study released a decade ago – *before* driverless cars were “a thing.”

This is just one of the critical issues concerning driverless cars I discuss in my most recent article, [Driverless Utopia](#). Besides delving into driverless car safety, the piece also cites new risks driverless cars can introduce, such as vehicular hackability as well as liability issues. As the cover story for the May/June issue of the [Casualty Actuarial Society's Actuarial Review](#), it offers the critical perspective of actuaries. Their rubber-hits-the-road view deserves more attention because actuaries anticipate risk potential when determining insurance rates.

Actuaries who looked into the 93% statistic, which is based on a 2008 National Highway Traffic Safety Administration (NHTSA) study, conclude that 78% of accidents – *not* 93% — are due to human

error. The article dives into the actuarial analysis even more.

Driverless Reality

We don't know how safe driverless cars are — for several reasons. These are:

- **There is no national clearinghouse tracking data regarding driverless car safety.** Basic information, such as fatalities and accidents related to automated technology, is not publically available in one place. Actuaries want driverless car manufacturers to share data so insurers can anticipate the risk insurers cover. That is not happening.
- **The lack of apples-to-apples comparisons between driverless cars and human-driven conventional vehicles in similar scenarios.** Existing research considers different issues. And the conclusions vary. Further, driverless car experiments are taking place in near perfect driving conditions where accidents are less likely anyway. Also, since automated cars cannot handle inclement weather or a quick Bambi crossing, imperfect humans who take the wheel can still be at fault.
- **The pass off risk between automated systems and human drivers is huge for determining safety and liability.** That point of transition, when automated vehicular technology senses danger and mere humans have to take control is fraught with problems. The first automated vehicle technology fatality in the United States took place in 2016 when a Tesla hit a truck moving across a highway. It appears the driver did not take control of the vehicle soon enough. Getting to the why not only reveals the complexity of fault but the difficulty in determining it. The National Transportation Safety Board and NHTSA conducted separate investigations. One emphasized that the technology did not alert the driver in time. The other stressed that the driver was not responsive enough. (See [my article](#) for more details.) (A similar fatality took place last month in [California](#).) [A fatality in March](#) reportedly occurred because the Uber-affiliated car did not detect the female pedestrian walking at night in Tempe, Arizona. It also appears the back-up driver was distracted. Still under investigation, the video is available [here](#). (Warning: it's quite graphic.)
- **Driverless cars might decide who dies.** [One study](#) shows the cars favor saving younger people rather than the elderly.

Finally, as [my first driverless car article](#) notes, if driverless cars are safer than human drivers, it is likely because the car will be programmed to follow traffic laws - to the letter. Lower the speed and the accidents decline, even when people are driving.

Parting Thoughts

I'm not against driverless cars. However, I am troubled by rhetoric that presumes driverless cars will be safer without sufficient proof. The logic that driverless cars will be safer because human error is the primary cause of accidents is faulty and misleading.

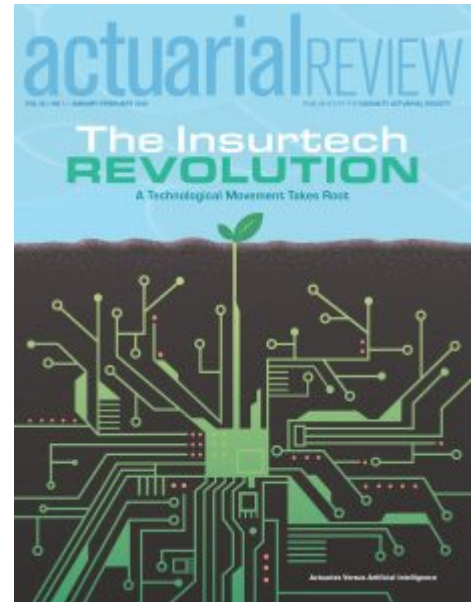
The safety issue might not matter anyway. In the next 10 to 15 years, I believe the average consumer will be depending on taxi-like automated vehicles, figuring that cars are risky no matter who - or what - is driving them.

And since the cars will be in a constant state of technological improvement for at least the next couple decades, they will be too costly for average consumers to own, insure, maintain and repair. Already, minor fixes, such as replacing a driver's side mirror, cost more than the typical \$500 insurance deductible due to all the connecting sensors.

My hope is Americans and public policy makers will demand greater transparency from technology companies. Automated vehicle technology is just one more area where consumers should know more.

Insurtech Revolution Will Transform the Business of Insurance

The Insurtech Revolution is here.



The Insurtech revolution is here.

My most recent [Actuarial Review](#) article, “The Insurtech Revolution,” cuts through the buzz and highlights areas where insurtech is likely to transform the insurance industry.

Insurtech is like any quickly emerging development. There is a lot of activity, confusion and a dash of hype.

That’s why my first question to most sources was this: “What is the difference between technological innovation and insurtech?” They agreed it was a good question. The evolving broad definition of insurtech risks becoming too general to be useful. The article includes an important sidebar that further defines the term. I hope will encourage more informed insurtech conversations.

This is certain: insurtech is not a Reese’s Peanut Butter Cup. Insurtech does not merely stuff new technology into insurance. Rather, insurtech is a cottage industry coming into its own. At its best, insurtech challenges insurers to re-think what insurance could look like and how it should be delivered and serviced in a digital economy.

My concern is that the most cautious insurance professionals among us will be too quick to write off insurtech as a fad. Or even worse, they will choose denial or ignore it to their peril. Insurance professionals must pay attention to insurtech because it will affect their jobs.

Make no mistake: insurtech will be transformative. It is not just about technology, but new concepts that make sense in a digital world. For example, the insurtech approach means *out* with reactionary customer service and *in* with initiative-driven customer experience. (To learn the difference, click [here](#).)

***“...insurtech is not a Reese’s Peanut Butter Cup
...(it) does not merely stuff new technology into insurance.”***

Meanwhile, its emphasis on artificial intelligence and other smart technologies will change and eliminate jobs. Insurtech companies offering insurance can, for example, prefill personal information through an Application Programming Interface (API), simplifying the application process practically

down to a few digital taps.

By programming a rules engine, artificial intelligence is already performing critical functions, such as statistical calculations and ensuring accurate and meaningful customer information.

Insurtech Revolution: Annmarie's Take

After watching technology change the insurance industry for 30 years, here are some personal observations about The Insurtech Revolution:

- 1) **Insurtech companies risk operating under false assumptions.** A technological improvement in one industry is not necessarily easily translatable to the insurance domain. The transactions, responsibilities and public accountability differ from banking, as an example.
- 2) **Insurtech companies are in love with their beloved technology, but insurers love real results.** Understand the real problems the insurance industry is facing. Offer solutions using insurance industry lingo. Save that technological deep dive for those who want to go there.
- 3) **Insurance companies are not threatened by insurtech competitors**, also known as “disruptors,” which have garnered an overabundance of media attention. Peel back the artificial intelligence, APIs and novel approaches to coverage – and you have the excitement and struggles of a new insurance company. In three years or less, Flo, the gecko and/or other insurers will be using the insurtech bells and whistles that make sense. And they will be doing it better. By that time, we'll also know if the “disruptors” are profitable.

The Insurtech Revolution is here. Please check out [my article](#) and offer comments below.

[Actuaries Applying Advanced Analytics in Non-Traditional Roles](#)

Actuaries applying advanced analytics in non-traditional insurance roles are deploying their acumen to solve business problems.



Actuaries applying advanced analytics provide a window into the profession's future.

As demonstrated in [Part II of my Actuarial Review](#) series about “the others,” actuaries applying advanced analytics are working in various industries. (“The others” are members of the [Casualty Actuarial Society](#) who *not* working in traditional insurance industry actuarial roles.)

Part II features four actuaries applying advanced analytics in very exciting ways. It provides a window into the future of the actuarial profession. Increasingly, actuaries will be serving in roles beyond pricing and reserving. As technology moves forward, advanced analytics and artificial intelligence will become more commonplace, offering new potential roles to actuaries.

The article features:

Kevin Kuo, Software Engineer, RStudio After serving as a life actuary, Kuo applied predictive analytics for direct mail credit card acquisitions for Citibank. He’s now working to enhance “R” software to offer big data and deep learning capabilities.

Aaron Fezatte, Strategy Manager, Expedia. Beginning his career as a P&C actuary for Liberty Mutual, he secured a job with Expedia to develop new ways to price and offer travel insurance.

Cathine Lam, Data Scientist, Economics & Actuarial Team, Metabiota. The former Milliman Inc. consultant works to track infectious diseases around the world and supports her company’s software product. Insurance companies and government entities are key clients.

Frank Chang, Director of Insurance and Safety Analytics, Uber. Chang wrote for *The Motley Fool* and handled pricing for Esurance before working for Google and then joining a team at Uber. His multifold role includes applying analytics to encourage risk management and insure Uber drivers.

[The first article about “the others,”](#) published in the September/October edition of *Actuarial Review*, was highly popular, attracting hundreds of visitors. This second and final article is a **must read** because it showcases how actuaries applying advanced analytics and forging new pathways for the profession.

During the past few years, I've written several articles about advanced analytics and the actuarial profession. If you would like to check them out, please visit the [actuarial section](#) of this blog. My next [Actuarial Review](#) article covers insurtech. Slated for early January, it explains how and why insurtech will be changing the insurance value chain - forever.

Claim Closure Can Enhance Customer Experience, Branding

Claim closure can set a positive tone that bolsters overall customer experience and an insurer's brand. How insurance companies finish off the claim process can leave an overall impression that can affect customer retention and loyalty.

It's really quite simple, isn't it? When someone is happy with their insurance company, they recommend it to friends either in person or online. Conversely, unsatisfactory claim experiences can lead to negative social media posts that harm an insurer's brand.

Claim closure gives both customers and claims professionals that wonderful feeling of finality. There is just something about being able to check something off the to-do list! For insurers, it's also an important way to make that final positive impression on customers.



Claim closure should enhance customer experience and an insurer's brand.

Historically, insurers send a letter via snail mail – thereby delaying that positive feeling of resolution. In addition to those letters, however, insurance companies should seriously consider the role technology can play in leaving a *timely* positive impression at the end of the claims process.

As I wrote in a blog for [SPLICE Software](#), technology offers a means to accomplish just for personal lines insurers. Reaching customers quickly is important for boosting customer experience, which in and of itself, is brand enhancing.

Claim Closure Messaging

The message's language is also critical. The "it was a pleasure to serve you" type wording has become so ubiquitous that insurers need to consider messaging that uniquely reinforces an insurer's brand.

That's why I believe an insurer's marketing, communications, claims and customer service leadership should work together to send brand reinforcing messages available through omnichannel technology.

How insurers handle claims can make or break their relationship with their customers. Going the extra mile to provide timely and brand-enforcing messages throughout the claims process, including claim closure, just makes sense.

Eventually, using the omnichannel approach to communicate with insurance customers will become an insurance industry best practice. In the meantime, insurance companies already leading the charge should reap customer loyalty-building results.

Sending Omnichannel Appointment Reminders Offers Multifold Benefits



Appointment reminders are a customer experience enhancing opportunity.

Sending omnichannel appointment reminders can help personal lines insurers save money, encourage efficiency and improve customer experience.

Using omnichannel tools is a more effective approach than traditional methods. That's because claimants can decide how they want to receive and respond to notifications.

To find out how technology is improving the transmission of appointment reminders, please check out my [blog](#) for SPLICE Software.