



By Tammy McInturff Appel

EMBRACING TECHNOLOGY: Change and Innovation

Technology and innovation are critical to helping insurers succeed in our changing marketplace. Top industry analysts discuss major technology trends and how you can build a culture of innovation in your company.

Insurers are faced with many challenges today, including low interest rates, new regulations and changing customer and employee expectations. The accelerated pace of technology change is disrupting our business, but at the same time it holds a lot of promise for the future.

At the recent LOMA Tech conference, Mark Breeding, Partner, Strategy Meets Action, and Colleen Risk, Senior Analyst Life, Annuity and Health, Celent, discussed some of the major technology trends and issues that are facing the industry today.

Big Data

Big data holds a lot of potential for the insurance industry. Not only can it change how insurers do business, it can be a competitive differentiator for those who are able to leverage it successfully. Breeding and Risk discussed the overall impact of big data and analytics and the critical success factors that must be in place for this initiative to be effective.

“Analytics in general in our industry have tended to be risk-centric and there is a shift now towards more customer-centric analytics,” said Breeding. “I think that is going to be applicable to big data as well as a lot of other analytics and BI capabilities. There is a lot of potential in this whole arena when you think about how we are focusing more on customer experience and our producers and how we can gain new insights to understand what products to build and where to locate producers and how we might segment the marketplace. It is interesting and exciting to think about new big data opportunities like the unstructured data that is in the social media universe, however there is so much low-hanging fruit in terms of structured data that we already have from both internal and external sources about customers and risks. There is so much that we can already do that many companies just need to get the basic business intelligence in place to better understand their operations. After that is in place, you can begin to move toward more sophisticated analytics like predictive models and then eventually on to big data. Big data is going to change the industry, but don’t lose sight of the opportunities in front of you that are a little bit easier to tackle right away.”

Risk said she had industry experience running a transformation project and discussed some of the challenges. “One of the biggest challenges that we had in running a transformation project was getting our data cleaned up within our own walls. We had multiple legacy systems which had been converted time after time. Sometimes the data was converted correctly, sometimes it was not, so when the data was moved as part of our CRM project, we found that what we had done had just propagated our problems.”

Risk also agreed with Breeding that big data has a lot of potential for the industry. “I think big data is going to change the industry, but the first thing that we have to focus on is what the data looks like within our own walls and learn how to utilize that data first.” She said another issue some companies deal with is understanding how to use the data to provide insights. Speaking from experience, Risk said, “When we would ask business users, ‘how do you want to use the data that we have in our walls today,’ they weren’t sure. If you only know what you are doing today, it is difficult to think outside those parameters. First, we have to talk about how to get people ready for big data. That means helping them to understand what analytics are possible. Once they know that, then you can start thinking about how to bring in the unstructured data from the Internet to augment what is already in the organization. If I’m going to do a big data project this is definitely how I would start: look at how to utilize the in-house data. Can it give you one consistent view of your customer across systems? Then consider what you can use from the big data world to improve the view of the customer and evaluate how you can get the information into a structure that can be used. When we are looking at this type of project one of the things that we have to remember is that we will need to see a return on our investment and sometimes the ROI has to come in a very short period of time. Look at the steps that you can take first to gain value from the data within your organization and then bring outside data in that will add value by reducing underwriting risk, for example, which will validate the business case for unstructured data.”

Breeding cautioned companies about believing the argument that data quality is not important with big data. “The argument is floating out there that with big data you don’t have to worry as much about data quality, data can be fuzzy, you don’t have to go through all this data modeling and data transformation processes to ensure that it is cleansed and organized,” he said. “There is some truth to that if you are talking about doing broad-based analysis of what is out there on social media to pick up some big trend. But most of what we are going to be doing is using our own proprietary data, using data that we want to rely on. What it really comes down to, especially in our industry, if you are going to make

any decisions that affect your investment portfolio or your products, the data better be really good. You can't just use "dirty" data for that. There are some vendors that will tell you that big data is a big advantage and you don't have to worry about cleansing the data—just buy the tools and you get the insights."

Mobile Technology

Today, customers and employees not only *want* to be able to conduct business on their mobile device, they *expect* to be able to do business on their mobile device. While many insurers have been actively improving their mobile presence over the last few years, some still have a way to go. Insurers are still trying to balance using mobile technology tools to enhance productivity while at the same time providing the kind of personal customer interactions that their policyholders need and want. The analysts discussed the maturing use of mobile in the insurance industry.

"People are now using their mobile devices more than they are using laptops and as insurers we have to be ready for that," Risk said. She said that the maturing use of mobile also further validates the need for making sure our internal data is in good order and that all of our channels are providing and sharing consistent information. "Customers are going to be using their mobile devices more and more to communicate with insurers," she said. "We need to make that as easy as possible to do. Mobile is definitely a developing area. I think we are all in the process of getting to where we want to be, but we aren't yet able to do much more than put data on an app for people to view. We need to allow customers to update, quote and change the data. Moving forward, this is something that most insurers will be working toward. We need to get to a point that our apps are truly interactive."

According to Breeding, there are three different constituencies that you need to consider when thinking about mobile capabilities—the policy owner, the producers and your employees. "Each of these constituencies has different demands, needs and opportunities related to mobile. From a policy owner or a prospect standpoint, the research that we have shows that the top focus area right now for life insurers is getting e-signature capability and web self-service. For policy owners on the producers' side it is also e-signature but illustrations is right at the top. Illustrations is really the killer app in life for tablet-based mobile capabilities for producers. Everybody wants that, as they are out there sitting across the kitchen table with their prospect. For employees, I think that we are hopefully getting beyond the days of just talking about having a BYOD policy. We are recognizing that this is the way we live now with our mobile devices. We need to not just allow them to use their mobile devices but be thinking about how we can incorporate that into their

normal daily job so they don't have to go and do something different like log on to different systems in order to do their jobs and to service customers."

"I just recently released a research report where we talked to 17 carriers about e-delivery and e-signature," Risk added. "When we start looking at who is actually doing it compared to who wants to do it, it was interesting. Less than 25 percent of the carriers interviewed now have the capability to do e-delivery. So if you have a mobile app and a prospect that applies for insurance on that app, you end the interaction by sending a policy contract in the mail. I don't think that people are expecting that to be the customer experience. They are expecting the policy to be emailed or sent via SMS when they are approved for the insurance. We have a long way to go. E-delivery is definitely something that is in the future. There are things that have to be transformed in order to make that possible. A lot of carriers are still printing the application and manually adding it to the policy contract. Until the system can create a PDF of the policy packet, you can't even begin to think e-delivery. Along with PDF, implementing e-signature is essential before e-delivery can be a reality. These are stepping stones to getting to where we want to be. I found it really interesting that out of the insurers doing e-delivery, only 25% were e-delivering policy packets. The most common use of e-delivery is to send missing or incomplete forms in the new business packet to the agents to complete. However, everyone I talked to was looking at how to get an e-delivery initiative into a 2016 or 2017 budget. So it is definitely coming."

Cloud

Over the last few years, insurers have become much more comfortable with the cloud. Many are now using cloud-based environments, be it public or private cloud. The analysts were asked their thoughts on the implications and future of the cloud in the financial services industry.

Breeding said that insurers now have a better understanding of how the cloud can bring real value to their business and many are more comfortable with it. "Three or four years ago there was a lot of trepidation about the cloud in the industry. At that time, insurers understood that the cloud was useful but they did not want to put any mission critical information or customer data in the cloud. Now we are progressing pretty rapidly to the point where folks realize that there is significant scalability, flexibility, and cost advantages to the cloud in general. One of the things that I have been saying for several years is when you think about security, the cloud environment is going to be more secure than if you are managing it on your own premise. Any of the large cloud providers are always going to be leading edge with the top experts and most current technology. Unless you are a tier one insurer, you are probably not going to want to build all of that. The large cloud

"Big data is going to change the industry, but don't lose sight of the opportunities in front of you."

providers are going to be tracking everything that is going on in the world in that domain. More and more insurers are embracing the cloud. We are seeing core systems, and other mission critical systems and data being put in the cloud as well."

Risk agreed with Breeding that the industry has progressed in their perception and adoption of the cloud. "I agree, the security that you can get in the cloud is probably much better than what the insurer can provide unless you are a tier one or tier two insurer," she said. "I think the cloud is a game changer in that it can put a mid-tier insurer on par with a tier one insurer because you have the capabilities that allow you to do quick and agile development at a variable cost. You can use as much computing power as you need at a point in time and turn it on and off as needed. I'm not sure a private cloud necessarily is a game changer, but I agree that the public cloud is. The fact that we are seeing vendors who are selling policy admin systems in the cloud is an indication of the level of acceptance and insurers are seeing it as something that they are willing to invest in. I think that in the future we will see more and more insurers going to the cloud with their data."

Wearables

Wearables have the potential to be a very disruptive technology for the insurance industry. Wearable devices today are capable of collecting a variety of data on an individual's behavior. Everything from driving, eating, sleeping, exercise and other habits can all now be collected and communicated over computers and smartphones. The analysts discussed the future of wearable technology and the types of benefits that are possible with its adoption.

Risk said that wearables are a major gamechanger. "It totally changes the conversation around life insurance," she said. "We are not talking about people dying anymore instead the conversation is about how you are going to live



your life and how healthily you can live your life. The ability to gather this information from wearable technology and to be able to reward people for leading a healthy lifestyle with lower premiums is huge. If I was selling life insurance policies, I would much rather have a conversion about living a better quality of life with a buyer. This technology will provide benefits for both the insurer and the insured."

Breeding agreed adding that it is not just about wearables, there is a whole new set of 'ibles' that will change how we live. "There is a whole set of categories beyond just wearables; there are ingestibles, implantables, hearables, anything and everything that you can put on or in your body. When you start to consider all of those ways not just to monitor your health but proactively intervene these are game changers. There is even the Thync device now that you can put on your forehead to alter your moods. There are all kinds of potential wearables that can really improve quality of life and extend life. The key implication for the life insurance industry is that we are going to move from the way we have always done things which is based on actuarial science—looking at morbidity and mortality based on historic trends, to now considering behavioral science. How do we use all of these devices to influence behavior, improve health and improve the quality of life? We have to understand how that is going to affect our tables. How is that going to affect how we build our products and price our products? What kind of alternate services can we offer to customers? I think wearables are going to create an interesting shift in our industry."

Retaining Talent

Getting and retaining top IT talent remains a hot topic in the industry. Just as customer expectations continue to change so do employee expectations. Employees, especially millennials, are attracted to companies that are innovative, flexible and that allow them to feel empowered. The analysts discussed what methods can be successful in attracting and retaining top IT talent in the industry.

"Attracting top IT talent isn't easy," said Risk. "People who are coming out of school with IT degrees and data scientists get snapped up quickly. The insurance industry may not have the salaries or the whiz bang products to compete for the best resources. However, what we can offer is stability. We can do a better job of offering flexibility and work from home opportunities. We need to learn from our friends in Silicon Valley about what attracts and maintains talent. I would suggest partnering with a university or technical colleges to provide internships and co-ops, giving people the opportunity to work

“We need to get to a point that our apps are truly interactive.”

in an insurance company and learn what we do. I’m sitting here because I love life insurance. It brings aspects of just about every other business: finance, operations, accounting, risk, sales and marketing into an environment where I can make a difference for people. I found in my own experience that if my work makes a difference, I am fulfilled. So, my best advice is to be flexible and find partnerships with colleges and universities to get access to people while they are still in school and invest in them so they become interested in what you are doing and the possibilities for stability and personal fulfillment that it provides.”

“Part of creating a culture of innovation is really trying to engage millennials and younger people and give them the right authority to experiment, fail and to try new things and allow them to have their voices heard,” said Breading. “One of the best examples I’ve seen of this was at a P&C insurer a few years ago, where the company decided they were going to implement a telematics program. They put together a cross-functional team of people to think through every aspect of the product from building the product to selling it and servicing it. It was a 12-person team and all the members were under the age of 25. They had a more seasoned person that was kind of a mentor to the team that guided them, but to me that is pretty revolutionary thinking for our industry. I also agree with the idea of partnering with universities and I agree that it is important that we have flexible work environments as well. I have seen insurers that have been innovative and created a lot of work at home opportunities as well as flexible spaces in their offices. But there are still insurers who are not open to the idea of letting employees work remotely. I don’t think you are going to attract talented young people if you don’t provide some flexibility.”

The Future

The analysts discussed the types of changes in technology we can expect in the future as it relates to business models and infrastructure and how customers are serviced and how products are delivered.

“We are moving from a fixed-cost environment to a variable-cost environment,” said Risk. “We have the cloud and infrastructure as a service that are going to allow us to go to that variable cost environment. I also think that the fiduciary responsibility that the Department of Labor regulation is mandating will result in changes in how we operate not just from an operations standpoint but from a technology standpoint. How are we going to compensate agents? How are we going to know that people are acting properly? Product simplification is an emerging trend that will create the ability to provide point of sale decisions and straight through processing.”

“From a product standpoint there are going to be more wellness components,” said Breading. “There is going to be more partnering with our policy owners. We are going to shift more towards blending actuarial and behavioral science. As that happens, we need to look for new revenue streams besides just the insurance component. If you are going to be interacting with customers regularly and changing the customer experience by using all of these devices that we communicate with, are there other adjacent services that are of value that customers are willing to pay for? It may just be an added component to that policy or it may be something totally separate. In any case, there is potential there for the industry to find different ways to make money. The big problem that we have is demand for our products. If we really are focused on improving quality of life and health and interacting with our customers and giving them ways to be proactive for their own benefit, then that is a different image for the industry. That gives us the potential to go after some different segments and think differently about how we generate demand.”

Creating a Culture of Innovation

With all the changes and challenges in the industry today, innovation is more important than ever. At LOMA’s Tech Conference, PJ Guinan, associate professor, of management and information systems, Babson College, discussed what it takes to create and sustain a culture of IT innovation. “Innovation is the single largest differentiator for business today,” she said. “The one sustainable competitive advantage is innovation.” Guinan said that innovation is a big part of what makes companies like Google, Apple and Amazon so successful.

As we shift to an economy that is driven by innovation, IT professionals are beginning to play a different role in the company. Information technology’s role is beginning to shift towards one of building innovative systems and business solutions rather than one of maintaining and supporting users



on legacy systems. “Our processes are broken,” said Guinan. “Today we need to be able to do things faster and to be more agile, which is not easy.” She said that as everything continues to speed up, some insurers are having a hard time keeping up because of legacy system constraints. “Our demographics are changing and so are our customer expectations,” Guinan said. “Customers today want personalization, simplified processes, mobile processes and immediate gratification.”

Culture Trumps Process

There are three levels of IT innovation—incremental, breakthrough and transformational. “You are most likely going to have certain groups working on innovation at each of these three levels,” Guinan said. Several insurers now have innovation labs just as many of the most innovative companies in the world do. Guinan said these labs are important in helping drive innovation within the company but she also argued that innovation is everyone’s job.

Guinan discussed some of the characteristic that innovative companies share. She said that an innovative culture encourages cross-functional play. “This means having your marketing folks and your IT folks and different groups within your company spending time together to see what they can come up with. Another element of an innovative culture is that it cultivates diversity of thought. Diversity of thought is having people with different backgrounds, genders, ages and cultural experiences represented in your company. We have to be able to design systems and experiences to the people that we are selling to.”

According to Guinan, innovative cultures also allow a healthy degree of risk-taking. “Insurance firms are paid not to take risks,” she said. “However, you have to take some risks for innovation. Companies need to do a small pilot, establish a business case and examine cost verses value. You have to be very deliberate about the risk that you are going to take, keep it to the pilot and learn from your mistakes.” Guinan also said that innovative cultures have ubiquity of weak ties. “This means you need to talk to people outside of your industry,” she said. “This can help you see the world differently. You want to have people within your company that bring different experiences. If you don’t you are limiting your creativity to only the set of perspectives that you have in the room.”

“There are all kinds of potential wearables that can really improve quality of life and extend life.”



“Having an innovative culture also means retaining highly motivated individuals for their passion,” said Guinan. “You don’t want your employees to get stifled or to disengage. Innovative cultures also have an organization-wide ability to look long term and a tolerance for ambiguity and failure. You have to be able to fail fast because innovation is always about how can I do it faster than the next person.”

Disruption

Insurers cannot afford to continue to do things as they have always done. “Change is opportunity,” said Guinan. “Insurers have a face-to-face culture, core products that are hard to differentiate and very similar processes which are all reasons why insurance is ripe for disruption,” she said. “Also, insurers have non-traditional providers gaining traction in the industry. Customers today expect tailored experiences and product offerings.”

Because there is so much disruption on the horizon, Guinan said there are certain innovation imperatives for insurance. One of the innovation imperatives for the insurance industry is combining data and digital. “Many insurers are already playing with cognitive computing. Digital technology and integration into business objectives are your greatest growth opportunities. To truly be innovative you have to start making bigger changes whether it is new products or new ways to interact with your customers or new channels. I would argue that you need to look at all of these.”

Business Strategy

Guinan's research was done in cooperation with Dan Roberts, CEO and president, Ouellette & Associates and Salvatore Parise, associate professor of Information Systems, Babson College. The research included 100 interviews with 60 companies across 10 industries. The goal of the research was to find the factors which enable an innovative IT culture. "We did in-depth field visits at selected sites. Three raters analyzed the data for patterns and insights and recurring themes," said Guinan. She said her research found that there are three major levers to developing an innovative IT culture—business strategy, entrepreneurial processes and talent management.

Creating a culture of innovation starts with your business strategy. "To have an innovative IT culture framework you have to be good at anticipating the needs of the business," said Guinan. "Your strategy drives your structure, not your structure drives your strategy. That may mean adding new roles and responsibilities for your team. For years we have said that business drives technology and they have to be aligned. Today you need to anticipate need too. You want people at the table who are so knowledgeable about technology and your processes that they are anticipating need. That is a big change in your culture." Guinan said that this also requires changes in your IT governance structure. "Traditionally IT governance structures have slowed us down," she added. "Today when we talk about what the business wants, the business wants innovation because they don't have a choice."

"Customers today want personalization, simplified processes, mobile processes and immediate gratification."

"We really are moving from the model of top down, 'do it right and do it my way' to servant leadership," Guinan said. "If you want your employees to be innovative you cannot over control. Innovation says, if we over control, we don't empower. You have to encourage creativity and reward them for taking risks. When people own the solutions, they are invested and a solution that has true investment from your employees tends to work."

Today having innovation hubs, centers of excellence, and ad-hoc innovation teams are things your IT governance should involve. You have to ensure that the portfolio is balanced to better anticipate disruptive business models.

People and Structure

Companies who want to be innovative need to consider creating new roles and responsibilities within the organization. Guinan said one new role that some innovative companies have is an Idea Scout or a digital innovator. "Idea Scouts are people on your team that are constantly looking for ideas," she said. "Another strategy some companies are using are customer advisory councils or crowd-sourcing. Creating an innovative culture in your company may also require structural changes."

"Companies should also find ways to incorporate incubators with marketing and new product development teams," she added. "It might be an innovation lab or just an area where you have couches and a coffee machine that fosters collaboration."

The Entrepreneurial Process

Guinan discussed how entrepreneurial thinking can help companies be more innovative. "Entrepreneurial thinking is not just for the start-ups—it is for every organization who wants to think and act differently, to become more innovative in their approaches to work, and to become more customer-focused," she said. "We somehow think that entrepreneurial thinking is just about the startup and that couldn't be further from the case. Entrepreneurial thinking is opportunity obsession, fearless failure and passion and commitment."

One of the ways that the companies Guinan surveyed were working to become more entrepreneurial was by changing their approach to designing and delivering projects. "A lot of companies we surveyed were using Agile based design. In fact, over 90% of the companies that we surveyed used some form of Agile methods," Guinan said. "To be innovative you need be using the Agile and Scrum at least so some extent. So much of the innovation is built into Scrum and Agile if you are doing it but not if you are not doing it the right way. To get the most out of Agile and Scrum you have to follow a process and you have to provide training. This has to be a culture change. Your metrics should always be driven by the business."

Guinan also added that using human centered design techniques or design thinking can help minimize your risk taking. She identified some of these techniques as—user centered personas, ideation techniques, observation, prototyping and experimentation. "Using these techniques helps ensure that we are not overinvesting because when you are overinvesting you use systems that don't work," she said.

Talent Management

Talent Management is another best practice of designing an innovative culture. "You have to hire and develop people who can be innovative anticipators," Guinan said. "They are the ones that want to be on the cutting edge and this is not age specific. They can be any age; they just need to be curious. They need to want to change and make the insurance agency better. They have to have a different set of skills. They have to be able to both create and predict."

"Innovative companies hire differently," Guinan said. "They ask behavior based questions. They ask people in different ways what they like to do and they create cross-functional teams. Creating cross-functional teams brings a new diversity of thought to the group. Experiential learning is also important; this is training via the immersion experience. You can also do a co-op approach."

Transformational Leadership

Creating an innovative culture requires a very different leadership structure. "You have to provide a vision and proactive engagement in problem-solving," said Guinan. "If you want to be innovative you can't micromanage. If your leaders micromanage you fail. In innovative cultures there is a heavy encouragement of self-management and a willingness to take calculated risks and learn from mistakes. Your leaders need to be able to listen and entertain new ideas, even the new ideas that you have heard a million times that you want to sit back and say, 'it is not going to work.' Be open-minded because it might work this time." ❖

Other Tech Resources

Improving IT Performance Report

The need to improve IT performance is a top challenge for insurer CIOs in 2016. As a result, IT organizations are increasing their adoption of new practices and disciplines in order to boost delivery and responsiveness. In its most recent survey report, strategic advisory and research firm Novarica examined adoption rates of five key IT management practices: agile development, enterprise architecture, MDM, Bimodal or FAST/CORE IT, and UX Program/Human Factors Engineering.

"To go faster, sometimes you have to go slower," said Chuck Ruzicka, Vice President of Research and Consulting at Novarica and lead author of the report. "Carriers without sound data management practices and enterprise architectures are recognizing the importance of these fundamental capabilities and are working to put them in place or expand them in 2016. All IT practices are under review with proven methods being expanded and experimental programs being initiated. 2016 will be a significant change for IT delivery."

The report, available at <http://novarica.com/insurance-it-practices-and-disciplines/>, is based on a survey of over 100 insurer CIO members of the Novarica Insurance Technology Research Council. Key findings include:

- Optimizing IT Organizations is the top challenge for CIOs in 2016, even more than budgets or legacy systems
- Between one-half and two-thirds of insurers are expanding capabilities in agile development, enterprise architecture, and master data management

LOMA Research Briefs on Technology

LOMA's Information Center regularly publishes Research Briefs on the subject of technology.

One recent Brief looked at "Tech Innovation: Some Examples within Life Insurer IT Operations."

The Brief said advances in technology wait for no industry, and that reality may be true now more than ever, as new developments—wearable devices, biotechnologies, advanced robotics, etc.—explode onto the scene at an ever-increasing pace.

The risk-and-regulation-sensitive insurance industry has not traditionally been a bleeding-edge adopter of new technologies and other innovations, but rising consumer expectations—and customer experiences with digitally advanced and integrated companies in other industries (Amazon, Google)—are pushing insurers to examine and reconsider their approaches to innovation.

For more information, contact the LOMA Information Center at 1-800-ASK-LOMA or visit the LOMA website at www.loma.org.