Episode 13: Leveraging automation to improve P&C reserving processes

JAMIE MACKAY: What's your analytical vision? What methods do you want to be able to be using? What data do you think you should be leveraging? What diagnostic? What tools? What applications do you want to be using? And then really you need to look at that and then say, well, how do we leverage automation?

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SPEAKER 1: You're listening to, Rethinking Insurance, A podcast series from Willis Towers Watson where we discuss the issues facing P&C, life, and composite insurers around the globe, as well as exploring the latest tools, techniques, and innovations that will help you to rethink insurance.

JARRETT CABELL: Hello, everyone and welcome to Rethinking Insurance. I'm your host, Jarrett Cabell. Today, I'm really happy, really delighted to be joined by my guest, my colleague, Jamie Mackay.

Jamie is the regional product leader for reserving and reserving technology at Willis Towers Watson. In this role, he helps our clients by either leading a team and developing a reserve forecast as a consultant or also helping clients build their own efficient high functioning reserve team. Good afternoon, Jamie. How's it going today for you?

JAMIE MACKAY: It is going great. We're neck deep in the middle of this reserving season, so happy to be doing something other than actually reserving. It's good to speak to you.

JARRETT CABELL: Yeah. Stepped away for a couple of minutes here. So following up from our discussion with Joe Milicia and Tom Beasley a couple of weeks ago, who explored how insurers are deploying automation to meet rapidly increasing future business needs, simplify processes, and drive down costs. On our podcast today we'll take a more focused look at how this drive for increased automation is affecting or even inspiring reserving teams.

So Jamie, I know you've got extensive experience working and providing solutions in this space and definitely happy, definitely excited to be speaking with you today about all of this. Before we dive in into the discussion though, I did want to take a little time to find out a little bit more about you. So if I go to Google and type in your name, I see a couple of interesting things here. I see the founder of Wheelhouse, I see an accomplished author, writer, translator and critic based in Florence.

A lot of different things that I see here. Is that what you would hope? Is that what you would expect to see or would you like to see something else?

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JAMIE MACKAY: No, no. I'm very happy that they're some how successful. Jamie Mackay is out there.

[LAUGHTER]

I generally live in fear. It seems like these days you're more likely to be known for doing something stupid and getting into me on the internet. So I'm happy for other people to be out there.

JARRETT CABELL: Well, we've all got our strong suit. So I guess with the first question, with all the various trends that are taking up a lot of time, sucking up the attention of the reserving actuary, which we get pandemics massively affecting the way that customers and policy holders behave, winter storms in areas of the United States that traditionally don't know how to really winter winterize. Is automation even in the minds of reserving actuaries?

JAMIE MACKAY: Yeah. I mean, this is a really good question. I mean, like I said, we're all neck deep in and actually doing the reserves right now. And there's so many things that we need to be looking at and dealing with that taking that step back and looking at the process.

You lie. It does seem like it might not be the most important thing to be focusing on right now, but I think that's really missing the point. And I think one of the themes that Joe and Tom talked about is automation for automation's sake isn't the goal. Very rarely are we trying to do something simply for the case of just say, no. Hey, a robot did it or it's super quick. And that's the end in itself. And I'll come back to this theme a lot.

Whenever we think about automation, it's really trying to figure out more what we want to be doing irrespective of automation. What is it? What is our vision? What are the challenges that we want to overcome?

And once you figure out what that vision is, what you really want to be and already should be doing, automation is the thing that makes space for you to deal with those things. I mean, that's my view.

And speaking to clients, that's been a pretty consistent thing as well. We did a chief reserving actuary survey, two years ago now. And so it was before COVID, it was before there was a life changing event every blooming month.

But one of the things that we have learnt from clients was just there's a general dissatisfaction with the effectiveness of staff and the speed or timeliness of their analysis. And there's a perception that that's a team that's underperforming, but it's not. They're just doing the wrong things.

And I think a lot of reserving teams will speak to this as well, if you ask a team, what are you doing most of? What are you spending your time doing during analysis? There's too much time spent on just stupid things like inserting more rows, and not enough time actually engaging with the data and coming up with indications, and that kind of thing.

And I think with COVID, it has become more important to get stuff done quickly. And I think there's two challenges with I think, the pandemic. And I speak about this through the lens of someone who looks at a lot of personal auto stuff.

Now, there's two challenges. Like it does weird stuff with the data that we've got to be able to do new approaches, do new things with. Things are happening in our triangles that we haven't seen before. So we need to do more, we can't just change that and walk away.

And then secondly, what's become apparent is a quarter is a long time to not be looking at your data. Things are changing incredibly quickly. And again, this, example is in personal auto. But when things changed or started slowing down and in terms of mobility and the policyholder's actually being on the freeway, when things changed at the end of March last year, things developed very quickly.

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It swung one way, started creeping back again. And so when we got to the end of Q1, looking ahead to June, that was a long time to be thinking, OK, we're not going to think about doing this again and we're not going to look at the data or find out what's happening. People want to know what's happening in more real-- not real time, but closer to real time. And that moving from, say, a quarterly or half annual analysis down to maybe a monthly one, you can't do that if you're doing stuff inefficiently.

If you're not able to turn around your analysis in a couple of weeks, you can't do a monthly analysis. So I think that's one of the things that just makes all of this that much more pertinent in spite of all the other stuff that we've got to deal with. Because we won't have time to look at that.

JARRETT CABELL: A misplaced focus, I guess. No automation can help.

JAMIE MACKAY: Yeah. I think it just makes space. It gives them a bit of leeway and a bit of breathing room to deal with this stuff and adapt to it outside of their normal quarterly routine.

JARRETT CABELL: That makes sense. That's a good segue way. So I guess, what exactly are reserving teams attempting to automate or are already automating?

JAMIE MACKAY: Well, a super lazy answer would be go and listen to Tom and Joe here. Because they did a really good job of talking about how to approach automation from a general standpoint, like when you're looking at big complex processes. I think they laid out some really good observations with how to approach that. And fix and shift and shift and fix and identifying what parts of that process really could benefit most from that automation. And so again, I come back to that point of, what is it actually really need to be doing.

And when you define that, what's your vision, what's your analytical vision? What methods do you want to be able to be using? What data do you think you should be leveraging? What diagnostic? What tools? What applications do you want to be using?

And then really you need to look at that and then say, well, how do we leverage automation to do everything that not those things. But also, when you sit down and think about, am I using the right tool for this job? We need to think about the transfer of data between all those different sets of applications.

So I always think about automation as trying to-- developing it with a view to adding value in three components. So the first one is just the manual stuff. So just going back to that thing that we talked about earlier, what is the manual stuff that you just want to get off of your plate? So things like data loading, the validation things.

All that time where the actuary who are very smart people who companies are probably paying a lot of money, how do we get them to spend more time focusing their brainpower on doing the analysis not inserting rows, manipulating data and that kind of thing. And normally, that sits on the beginning and the back end of the process. So the data preparation, the cleaning, the validation, and the loading, all of that is liked for automation.

At the end of a quarter or end of a month, there's a fear that the data is available and then it's prepared ready for the actuaries to start making decisions and to the extent that you can crunch that time down to a smaller time frame as possible, the better because that means, A, you can innovate quicker and, B, you've got more time left to actually do the analysis.

So that's the first thing that we look at as almost not low hanging fruit, because it can be incredibly complex dealing with all the different data sources and that kind of thing. But there's the most value there, like how do we string together. There might be also the existing automation that does some of this stuff. And a lot of the times when we look at the bigger process, we're really just starting to link those strings or processes together as well.

And then on the back end again, there's the things that happen after the actuary has come up with their final decision, like all the downstream accounting downstream systems things, all of that propagating of the actuary's conclusions into financial information. All of that is also pretty ripe for automation as well. So that's the top in the tail of it basically.

I think on that last part, one of the big things that we want to identify even beginning to end to the process, is we want to identify the critical path. Why? The critical path includes that loading of the data and it does the downstream stuff, but it also is the critical path through the analysis.

And where we always start is, what is that critical path? Then the data being made available, getting it in front of the actuaries, getting it up the other way and getting it back into the financial systems, what is that critical path that data needs to take through the decision making process? And that's the first thing that we attack.

The second thing is, once we've got everything done as quickly as possible, how do we get more out of what we already do? And that's a pretty vague definition. Basically, converts itself into just getting better diagnostics.

I'm a big believer in new fancy methodologies and new approaches, but I also think that there's a lot of information in what we already do that is either under leveraged or miscommunicated. And I think, I mean, go back 20 years when I started this and even 10 years, and there's even some people in our firm still doing this now. You've got a triangle of numbers and they're been printed out and you're comparing numbers on a page. And that's great. I admire people who can consume tables of numbers and convert that in their heads, but there's a challenge to that because that's not an easily transferable skill, not a lot of people have that. And it's also really difficult to convert that skill into usable management information.

And so when I think about getting more of what we already do or better diagnostics, I try to think of how do we convert these insights and that ability to spot trends into better meaningful, actionable information. So I think there's a lot of stuff that even in our existing methodologies that we need to be able to communicate or understand better. The question about that is, where does automation come in? And really automation there comes in with, it should be easy to generate that stuff.

If I'm making decisions, I shouldn't then have to start thinking creatively about in the middle of a reserving cycle, I shouldn't be having to think of how am I going to communicate this, I don't need to be copying and pasting stuff out to PowerPoint or whatever. So I need some free built tools are designed intelligently that allow me to better tell a story through my data, through the graphics and interactive graphics that can help me tell a narrative. So I think that's a big part of automation as well is getting the data, converting into an information that makes them more compelling and consumable.

The third part is that more aspirational part. So if we look at the first two things, the first one was, get what you already do, done more quickly. The second one is, get more information out of it and communicate that stuff better.

The third is, now, we can start to supplement our analysis. What are the things that we want to be doing to add analytically to our reserving muscle power, So an example is, do we want to be leveraging individual claims data? Do we want to be using more advanced techniques, GLM methods or whatever.

That's why we're looking to supplant our cool process with more advanced methods. And again, the question is, where does automation come in with that? And automation really is coming in there in a sense of, it's not getting stuff done necessarily efficiently, but it's orchestrating the passing of information between different tools.

Gone are the days where we just had Excel, and everything we did in Excel you could do that. We want to be able to put our data into the right tool for the job and get it back into our core system. And all of that means, whenever there's a handoff like that, that makes people nervous. So automation comes in there with just the orchestration of data and assumptions

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between multiple different complicated applications. So they're the three things I always start to look at. Firstly, let's get the existing stuff done quickly then we can think about leveraging it more and then after that, then we can think about supplementing our analysis with advanced stuff.

JARRETT CABELL: That all makes sense. And we know with the reserving team, now, how would they get started?

JAMIE MACKAY: That's another good question as well. I mean, it is challenging. I think Joe made the point again in the previous podcast about just start doing something. And I think as you find a lot of the time that reserving teams have started, we tried to use fancy ways to define automation with robotic automation, intelligent automation. Whatever the end goal is, some of those skills and some of these concepts have already been implemented within teams.

And so for example, look if you're using VBA macros to do stuff, that's automation. Because it's something that is familiar to a lot of people, it doesn't mean that it's not down that road to what we think of as this big aspirational goal of intelligent automation and robots making decisions. That vision doesn't exist, I mean, I don't have this vision of this fear that robots are going to come along making selections and finally an opinion. But I do want to use that muscle power to add value to what I want to do. So that's the skill side of it.

The other thing is just having a sense of being able to define what you're aspirational goals for your reserving team is. But it is important to figure out where you want your team to be in a year or two years time. Because not having that goal, if you just start automating stuff for the sake of it, you end up with just a patchwork quilt of things that are maybe not well designed, but happening quickly. And that's not really where you want to be.

You want to be have a vision of what the optimal system is and design your way to or build your way to getting there. So I think just having that vision and having a clear sense of what it is you want to do, allows us to fill in the negative space there, if you feel what I mean, with the automation. That's the stuff that we look at around it.

So again, just having a clear view of vision I think is important. And on the resourcing thing, I don't know, I found just the realization that we do have those skills is a big deal. I mean, I've got a [INAUDIBLE] actually. It's not a concept of a [INAUDIBLE], I still have a [INAUDIBLE] who normally sits a few feet away. And it's funny.

What I found is this is a great enabler. He's a pretty junior guy, very, very smart. But I found myself in a situation where he was building this stuff and I was thinking in my head looking at all the reserving we're doing and I'm thinking, there's a lot of data here. I wonder, what if we had something that would just go and harvest all that and pull it together for me.

And he'd be, yeah, I can do that. And he'd go off and do it. And not only would he do it, but it would be repeatable. Now, once you have those coding skills, you're not dependent on thinking about a process and being able to replicate it, because he coded it all out.

And so just being able to leverage some the skills of the people that are newer to our profession I think is a massive accelerator. So I can't say to everyone, just go and hire a [INAUDIBLE] as it were, but I do think there's a lot of value in some of these skills that a lot of people coming into the industry have but are maybe being underutilized right now.

JARRETT CABELL: So the skill sets are going to have shifted I guess, emphasis on different skills, be it software skills, coding skills definitely seem to have been a shift over the past two years probably it's for the better. Certainly, when it comes to trying to help automate and like you said earlier, really focus the time on the work that actuaries should be doing and not just 70, 80% of time just cleaning up the data for the triangle. I guess, thinking about clients who have started embarking on automation or thinking about what challenges have you heard the clients run into or you yourself?

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JAMIE MACKAY: Well, the first one is probably pretty obvious. But just having the time to do it. Reserving, it doesn't stop happening. As I say, we're neck deep in reserving season now, we're likely going to think, Oh, we've finished reserving, we'll put our feet up and noodle around for the summer. That just doesn't exist.

And that's really the challenge is, how do we make space in that quarterly cycle to get away and actually build something and replace it and make it new? So that's the main challenge, is really just making the space to redesign this thing going forward. And that probably is the biggest challenge.

The other challenge that I was thinking just as we're talking about the previous question was that skill set. Although, there are other people who are very good at coding and stuff like, it needs to be done intelligently. So it does need a lot of all the things that I've talked about that we talk about in automation is new skills like being able to code stuff for the automation, passing of information between different applications and doing all within the framework of delivering information to diagnostics that to an actuary are meaningful, that involves a lot of different skill sets. That involves the actuarial expertise the reserving expertise to figure out what is the most important thing to do, what is the most important thing to show, how do I guide my stakeholders through my numbers.

But it also includes that coding skill. That coding skill like I say is pretty prevalent, but is a bit more challenging that we've run into is, once you start moving stuff around a system, once you start moving data and automating data, you've got to think about just the infrastructure. So how do you work with other teams within the IT department, how do you get the right people to get on board with making that transition of data as you've laid out can actually happen. How to set that infrastructure? And that the minute you get IT involved that becomes something of a challenge.

So it can be more complex. And so just having a team that has these multidisciplinary skills is necessary to make sure, A, it's a good plan, it's a good process. It's working with the right system, the systems aren't going to get in the way, you're going to be able to send notifications and engage people where they need to be engaged in the process and then also just the designing of this thing. Just making sure it's all very well trying to think of anticipate all the things that you should be looking at.

But one of the fear of reserving people is, well, what about the things that I don't know to look for, what are the things that could sneak up on me. Like if I say, well, look at these three things, what are the other 100 things that could go wrong that I need to monitor as well? And so just having a broad vision I think and the skills to deploy is one of the challenges.

And then I think, the third challenge would be just the consistency over time. There's a big fear of change. And the minute you bring up automation, it sends shivers down people's spine. Like I said, there's this fear that robots will be taking over, and that's just not going to happen.

The whole concept of this is, not how can we get a robot to replace you as a reserving person. It's how can we get robots to do a bunch of dirty work. So it's a case of just getting people excited about, again, what the end vision is, about what you're going to be doing with all of this.

So that's the other challenge as well. It's just reassuring people that hey, what we're going to do with this automated process is make your job more engaging. We're going to give you better tools, you're going to be able to communicate your stuff better.

And also in the long run, this process is going to work to your benefit. You're going to be able to better communicate trends because you have more confidence in the process and also you're going to be able to improve it as well. We don't think about automating something and then walking away and saying, job done. I've got the perfect reserving process. We know things are going to change, we know that more data is going to be available. So designing a process that you can supplement over time as well is something that's important to get in people's head.

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JARRETT CABELL: And this automation is not, these robots, they're are meant to replace. Where they're meant to improve the current process, make more efficient, and ultimately help evolve.

JAMIE MACKAY: Exactly. I think Joe made the point. I think one of the things he said at the beginning was, what if you had an extra two hours of inactivity, what if you had an extra 10 analyst students? What if you have had an extra 100, what would you get them to do?

And that's the thought process that I always think. Like, OK, you might be a team of four or five people in your reserving department, but what if, if I could give you 50 super cheap analysts, what would you get them doing? Don't worry about their happiness, their job happiness because it's a robot that we're thinking of.

If you remove yourself and just say, purely, if you had 50 bodies to at something, what would you have them to do to make your life better. And that help is going to focus what we want to be able to leverage in this team of robots as it were to do.

JARRETT CABELL: Definitely, makes sense. Hey, Jamie, this has been helpful. I guess the last question I had for you, what one or two pieces of advice would you give to someone thinking about embarking on an automation project, an automation initiative.

JAMIE MACKAY: Again, I'd probably point to that. Just get a clear idea with your goals. Figure out what is it that you really need at your disposal to do your job and to improve your process. Do you want to be moving it to a monthly basis? Do you really want to be adding or leveraging more granular data? Do you want to be using more sophisticated methods?

And like I say, I mean, once you understand that, it's pretty easy to then to look at everything else, and say, well, how do we make all this stuff not go away, but how do we subcontract it to a robot. And that's the main thing. And then secondly, is just making a commitment to actually do it.

There's never a good time to change the process, it's ongoing. But just making a commitment to redesign it and have that clear view that this, a well designed process you can continue to improve on over the next few years is really critical. There's never going to be a good time to do it, there's never going to be a quiet quarter as we're finding out. Like -- [LAUGHING] -- reality just isn't going to give you that space. And so just making a commitment and realizing that if you don't do it now, you're not going to be doing it in the future. And I think just as a really good opportunity to innovate and engage staff, I think one of the things that I think is compelling as well is, there's a lot of really cool stuff that we can do in the reserving space.

And I don't know, I just making a commitment to not only improve our processes but to get our analytical staff doing more engaging, more complicated things I think is really important. It's a really good motivator. Because we don't want to be losing staff to go off and do more on the face of it, sexy things in other teams. So I don't know, I think it's a really good time to get people engaged and excited about innovating these processes.

We've got the tools that are available to do it. An engaged, excited, challenged people is only good for reserving because it gets people closer to the data, closer to the process, closer to the numbers which is just all over good thing.

JARRETT CABELL: That was excellent. Thank you so much Jamie for your time. I think this is a really engaging discussion. I really appreciate you being on today.

JAMIE MACKAY: No, I appreciate it. As you probably know, I'll take any opportunity to talk about reserving to anyone. So I appreciate this opportunity today. It's been a fun conversation.

JARRETT CABELL: I definitely agree. And to those listening, thank you for joining this episode and we look forward to you listening to us again on (Re)thinking Insurance.

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