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Systems at Risk | Episode 5

Carrie Jaquith, Global Head of Digital Product, Abaxx Technologies

The role of risk managers is rapidly expanding, requiring the need for integration across organizations and deeper relationships between risk, data, and digital product teams. Pursuing net zero targets, participation in new markets such as carbon and LNG, and digital transformation all generate new opportunities for risk — despite the great opportunities they present. Today, we sat down with Global Head of Digital Product at Abaxx Technologies, Carrie Jaquith, to explore how risk teams can balance risk and reward and what role data and product teams play in the process.

Carrie Jaquith (00s):

Imagine the piece of paper where you sprinkle sand on it and you run a little magnet underneath it and it pulls all the little metallic magnetized bits together. We have data sets that our risk teams get to use. Now that are structured in a way you can visually see behaviors around risk, actively like move and cluster together. Like you can see this bloom of clusterly risky or fraudulent behavior. That to me is the most amazing thing because it wasn't that long ago that you could not have imagined being able to see that let alone see it in real time. All you could see was a big flat field of dots.

Announcer (45s):

Welcome to Smarter Markets, a weekly podcast, featuring the icons and entrepreneurs of technology, commodities and finance ranting on the inadequacies of our systems and riffing on ideas for how to solve them. Together, we examine the questions, are we facing a crisis of information or a crisis of trust and will building smarter markets be the antidote?

David Greely (01m 10s):

Welcome back to systems at risk on Smarter Markets. I'm Dave Greely, Chief Economist at Abaxx Technologies. Our guest today is Carrie Jaquith, Global Head of Digital Product at Abaxx Technologies. We'll be discussing the role of digital product at the intersection of data and risk management. Hello, Carrie, welcome to Smarter Markets.

Carrie Jaquith (01m 29s):

Hello, Hello, David. It's so great to see you.

David Greely (01m 33s):

It's great to see you too. Now we know each other because you're the global head of digital product at Abaxx, a position that among many other things puts you at the intersection of risk management and data management and I was hoping you could start us off today by telling us a little about your role in digital product and the perspective that it gives you on the relationship between data and risk management.

Carrie Jaquith (01m 57s):

Oh, it's such a juicy topic and I am so thrilled to get to nerd out with you on it because digital product is this amazing, amazing space. We get to work at the intersections of design and engineering and the business questions and the risk and the governance questions. When you're working in digital product, you're orthogonally positioned at the center of all the things, digital product it is. It's so fun to talk about because it's a space that we all interact with in our day to day lives when digital product is done well, like we know that the product is amazing and makes our lives easy and we, we know that almost because it's invisible to us. When digital product is done terribly, like we know because we get an error message or because the thing we're trying to do doesn't work and, and when it's done really poorly and when digital product doesn't connect with risk, everyone knows, especially the lawyers. So, I'm super excited to talk with you about, about this space of digital product and data and risk. We could do many, many pods on this.

David Greely (03m 14s):

Fantastic and you know, for this one, I would love to start off. As you said, we're focused on risk and systematic risks in markets and when you look from your seat, what do you see that chief risk officers today need from digital product and what do chief data officers need from digital product as you're kind of sitting in between them and what do they need from each other?

Carrie Jaquith (03m 39s):

These are great, great questions. I'm one of those humans that is a collector of signals, a collector of themes and that always feeds back into the digital products that my teams are building will see these themes percolate around the people that we're working with, the humans that we're working with and I am one of those humans that is a connector of humans to solutions. So I love to collect the themes and I love to take those and make those into solutions for humans and when I think about the needs of both chief data officers and chief risk officers, the needs bubble up into needing to get access to single sources of truth, needing to get access to analytics platforms that give you a paint of glass, if you will, to be able to see into your data, to ask questions of it, and then more recently tools that are purpose built for listening.

Carrie Jaquith (04m 37s):

So thinking about the kinds of tools that listen to our data on our behalf and then translate it for us. So if you've been hanging out with chief data officers, as I do, not everyone, not everyone probably takes joy from hanging out with chief data officers. They're some of my favorite people, deep, deep nerds, deep, deep data nerds and if you've gotten the opportunity, you should leap at it and be I think what you would see them talking about recently has been big efforts, wielded around building out data repositories that provide a single source of truth that leash together, disparate data sets that have grown up in the organizations, both intentionally and unintentionally, and then building these building platforms, digital products, really that sit on top of this data and these are really, really interesting needs, right. The need for digital products that sit on top of single source of truth data, because what you find in the field is there are all kinds of digital products you could slap on top of your data, but at the end of the day, if your data is dirty in a way that you didn't realize is structured in a way that doesn't let you permission it to the product that you're sitting on top of it in the way that you need to, then you're just burning millions and millions of dollars.

Carrie Jaquith (06m 09s):

And this happens in all kinds of companies where, where you have this goal of building this single source of truth, you hire people to help you do it and you get a year into the project only to find out that, that you didn't architect permissions high enough in the chain of the data life and you have to undo everything and go and redo it and sometimes that happens because you know, you inherited this data set, you inherited this ecosystem when you acquired a company and sometimes it happens because you just didn't get enough time and sometimes it happens because the tech changes and by the time your teams have started to build the tools have evolved, because this is a space that rolls really, really, really fast. Single sources of truth are really, really interesting. The truth changes depending on the audience. So you have this whole other aspect of like, what is David's truth versus what is Carrie's truth and just, just getting to an agreement upon what, what is the truth that is valuable for our purpose, like that is, that's a whole, that's a whole situation.

David Greely (07m 22s):

Yeah. I'd love to dig into this idea of the single source of truth. I think one aspect of it, I would imagine would be a decision maker in the organization, needs some information and there's lots of places you can go to get it probably within most companies. There's dozens of different people you could ask or databases maintained by different groups, or, you know, you could have an intern go out and Google it for you. So what is the role of the single source of truth in helping to mitigate some of the risks of having so many different places to get information that you're gonna make real decisions on?

Carrie Jaquith (07m 58s):

There are a couple of goals around single source of truth. One of them is you want to be able to bring data to bear that is generated in one area of your ecosystem that another area can use in any company and I should preface how I talk about data and product and risk with the fact that I've spent many years in highly regulated spaces. So working in digital product and investment banking in insurance and property and casualty insurance, and now at Abaxx and these are spaces that are super highly regulated. The implications of the work that we do have impact on economies and on human lives. So the purposes of bringing data to bear in these ecosystems runs the runs, the spectrum of needing to be able to bring to bear data that impacts decisions on actual human health and human life and bringing to bear data that impacts decisions and recommendations around what governments should do, what corporations should do and brings to bear beyond that driving revenue, like trying to bring data to the table so that you can present differentiating revenue, driving recommendations, drawn from data that without bringing it to a single source of truth into a governed space, you just can't get to it.

David Greely (09m 31s):

And so is, is the single source of truth. Is that like the data that's been vetted, that's been gathered that's been collected

Carrie Jaquith (09m 39s):

Historically yes and what is happening in the data space now is you've seen this evolution from highly hand, curated data, highly hand, fixed data, highly hand, clean data to sort of this hybrid human and machine clean data to data that is machine to machine clean. So there is an element of evolution around that that we see for sure, for sure.

David Greely (10m 08s):

And you had brought up another term I'd love to dig into a little bit, you call it the pane of glass or the sheet of glass.

Carrie Jaquith (10m 16s):

Yeah the idea of laying a sheet of glass on top of your data so that you, the human can ask questions of it that you can't ask in an Excel spreadsheet or that you can't ask in a two dimensional data space and being able to build tools we are at a place now where we've got honestly coming out of the video game space, visualization tools that allow us to look at our data in ways that we could not look at it in real time streaming and with a view or a lens or a visual model, a visual language that gives us the ability to see information that we just as humans like our human eyeballs could not have comprehended 20 years ago. This pane of glass paradigm is really interesting because it is super easy to give humans all of the data in the data set, right?

Carrie Jaquith (11m 18s):

Like that is the easiest thing in the world. What's really hard. From a digital data product perspective is finding the right way to aggregate, distill and filter the data so that the human sees what the human needs to see. I was at this machine learning conference recently in one of the heads of fraud and risk from, I think it was Equifax was presenting on some work they were doing around machine to machine learning models and how they, how they were able to visualize the behavior of risk in credit fraud in a way that maybe, you know, five or six years ago, you wouldn't have been able to do and it almost looked like, imagine the piece of paper where you sprinkle sand on it and you run a little magnet underneath it and it pulls all the little metallic magnetized bits together.

Carrie Jaquith (12m 15s):

We have data sets that our risk teams get to use now that are structured in a way that when looked at through this kind of pane of glass, you can visually see behaviors around risk, actively like move and cluster together and you can see it, like you can see these little this bloom of clustery risky or fraudulent behavior and that to me is the most amazing thing because it wasn't that long ago that you could not have imagined being able to see that let alone see it in real time. All you could see was a big flat field of dots.

David Greely (12m 56s):

And I'm glad you said it. It's not that long ago because you know, I've been around long enough to remember when the big source of risk and the big problem was not having enough information and not having enough data and now the problem is that there's more information available, more data available than many of us can meaningfully make sense of on our own and it seems like that's one of the big roles of digital product is making this information accessible to a human risk manager and I was wondering maybe you know, given some great examples, are there some other examples of ways in which different digital products are being developed to make that information accessible?

Carrie Jaquith (13m 40s):

Oh, for sure. Yeah. I mean, this is such a fascinating space because we are able to leash in data that streams in from sensors at this point, for instance, in the property and casualty space, you are able to enhance how you model risk based on data feeds that you're getting from moisture sensors on construction sites and just two generations in with that tech you're going from data that was super unstructured and super noisy and super hard to understand to the hardware getting optimized so that it's kicking out cleaner data and you're able to bring that data together and in turn, as you gather, as you say, we've gone from operating in spaces where scarce data was a problem and my teams have worked on projects where scarce data has been a problem that has driven us to need to devise and build synthetic data to augment our scarce data and be able to be able to model and ask questions of that data without exposing because of the scarcity of data, because it was so small, you can imagine to explain this on the audio, there are scenarios where like I've got so few data points that I can tell Dave is Dave, because the data is so small.

Carrie Jaquith (15m 06s):

If there's only one person that kind of is Dave shaped. If the scarce data is scarce enough, I'm gonna be able to figure out that it's Dave, even if I changed the name. So we've gone from this problem of like having two little data where we were generating synthetic data to obfuscate the things that we need to make sure don't come out to having tons and tons of data and when you're talking about sensor data flowing in and very large streams of data, you have these problems of big data and with risk teams, you need to be able to understand the risk associated with this volume and pipeline of data that's flowing through your ecosystem. So there's this really cool space and also really terrifying space around listening tools or digital products that are designed to sit on top of systems and listen. There's a suite of digital products, focused around process mining, where you're listening for you've got this software that's I'm using air quotes here, listening to the activity in your ecosystem to make recommendations to you around what you could do better.

Carrie Jaquith (16:21):

You've got listening tools that are listening for things like servers that should be asleep, but at four in the morning, they're not asleep when they should be and they're kicking data out which is an indication of a breach. We've got listening tools that are listening for our voiceover IP in some scenarios this is something that you want because you've got highly regulated conversations that need to be audited and auditable. So you'll have tools listening to conversations to understand whether or not something like maybe insider trading is happening and then you've also got kind of the creepy listening where you're listening to customer service calls and converting them from speech to text and then parsing to see, you know, was the customer given good support, were they not, these kinds of listening tools are wielded both by risk teams and they inform risk teams. It's a super, super interesting space.

David Greely (17m 24s):

Yeah and I wanna get back to some of the creepier aspects of the listing technology, but before we do that, you know, it, it's interesting right there's aspects where we're able to collect more and more types of data and levels of data and feed that into our risk management process and then I imagine part of what digital product is building layers of technology between the data collection point where it's all kind of raw and the human being who has to look at it and say, now I can make a decision and I'm curious about like what some of those levels of technology that are between the raw data that's getting amassed and the human being who has limited ability to comprehend it and needs that distilled down into, you know, maybe the half dozen conceptual variables that they're gonna take into account when they make their decision.

Carrie Jaquith (18m 16s):

Yeah. The data pipeline is super, super interesting, and it is utterly invisible. Like you only know that it matters when it breaks. You only, only ever know that it matters when, when something in the data pipeline breaks. So with data right now, the data pipelines that my teams get to work with, there's raw data that's collected by humans in some cases, in some cases it's collected by machines. It is either hand cleaned or machine cleaned. It's structured by someone who's known as the data modeler. It sits in different kinds of storage devices like cloud servers and it is sometimes transformed on its way in it's sometimes transformed as it leaves and heads to a digital product where the human actually sees. In between there are humans that are designing out the user experience and user interface. They're making sure that what you see is understandable for you. What you see, you can ask questions of, you can visualize and use to make decisions they're in turn taking how you're using these products and taking data on how you're using these products and feeding it back into the data that's driving the products. It's quite an engine.

David Greely (19m 47s):

And what are, you know, some of the more exciting digital tools and technologies that you see on the horizon that are gonna be under the hood of this race car for risk managers to help it run better?

Carrie Jaquith (19m 59s):

Well, again, video games are probably gonna eat the world. Everything that's happening in compute and rendering in video games, precedes what's happening in the enterprise by about six years. So the way in which you navigate your data is just going to get more and more immersive and more and more interactive and you are going to feed the data as a human in ways that you do not expect right now in both good and bad ways. Like this is, this is definitely the Spider-Man with great power comes great responsibility situation.

David Greely (20m 38s):

So which video game of my kids, should I be playing if I wanna get a view of the future?

Carrie Jaquith (20m 44s):

I think if you're gonna play with them right now, you'd better be taking a look at Roblox, Minecraft and Fortnite. Those three, Epic is probably gonna eat the world, but one of those three will get, you will get you a view into where, where data's headed.

David Greely (21m 05s):

A sense of where this is going.

Carrie Jaquith (21:09):

Yep.

David Greely (21m 10s):

That's cool. Well, I'm familiar with all of those and so I'm curious with, as you said earlier, you know, the, the change comes so rapidly. What's available both in terms of data and technology is so much more and improved and different than it was just a few years ago. What is the biggest obstacle that organizations face in incorporating these new technologies into their risk management practice?

Carrie Jaquith (21m 29s):

That's a really good question. I think there are three obstacles that come to mind, fluency, timing, resources, those three themes come up a lot with, with this face, fluency meaning your teams need to be fluent enough to build configure for purpose and deploy new products and while they're working full time, it can be hard for your teams to be free enough, to learn up, to be able to do the new thing, right, timing can be a real gotcha in big organizations, because if you just leased servers for five years, if a brand new really high value tool comes out, you may not actually be able to use it until your leases are up and your software licenses cycle over. So, so just capital expenditure cycles can be a real gotcha for this space. In terms of fluency and timing there's this piece around rules and government regulations that are actively changing.

Carrie Jaquith (22m 39s):

So your teams to be able to build digital data products and run them compliantly in your organization, you have to be actively working with your risk team because we're looking at what are we four years into GDPR. We're four years into California's Consumer Privacy Act and I think we just was it this month, Illinois passed a rule around AI bias, I think it's clear view AI and the ACLU have come to an agreement around how their data tools will be wielded. So there's this really, really interesting challenge in working in this space, because you have to, you are constantly learning, just constantly keeping your fluency up, constantly looking to keep up with regulatory changes. What you may go to market with today may be illegal to sell tomorrow. Like you can find out that your business model is blown up within 24 hours and on the ground.

Carrie Jaquith (23m 46s):

That's a reality right now that the regulatory requirements are just changing as soon as people get fluent with how data's getting used. Regs are getting stood up to put up guardrails to make sure that those that data's not abused. In terms of resources, getting the right people in the right room at the right time is so, so important with risk in data products, because you can unintentionally introduce vectors of risk exposure if you're trying to build these things up in a vacuum and you don't have collaboration and you don't have diversity of view, an example of this from real life was my data science team was working on a project to use machine learning to make recommendations for a nonprofit. This recommendation engine was to recommend children's coat sizes for a nonprofit and the team was very young. None of them had children and they were all one gender.

Carrie Jaquith (24m 54s):

So you had, you had a group of data scientists who were all one gender, none of them have children tuning, collecting data to make a recommendation on a child's coat size and then building the machine learning model around that data and because it was on first cut, a super narrow and slightly biased group of humans building this model and collecting this data. The first version of the output of this model was like not that great because it didn't account for kids in real life who are much bigger than the statistics that the data sets that are commonly used are pulling from, which are like from the 80s or the 70s and it didn't afford for, their model didn't afford for kids who might be one gender, but want a different gender of code and it didn't afford for region. It didn't afford for geography.

Carrie Jaquith (25m 53s):

Like there were just, there were just data points that because the group was coming at this problem from a very specific background, like they just, they couldn't imagine. So when you're building digital products and data, it's super, super critical to have team members

from your risk team directly in the room to have your data governance people and your data privacy people directly in the room and to have domain experts plus, plus like plus some, because that's where you'll surface the like, oh, hey, you know, in practice we all think that the word Dave, in this dataset means Dave, but in the right set of hands, Dave does not mean Dave. Dave is coded language for chocolate cupcakes. So having the right people in the room is, is like super critical.

David Greely (26m 47s):

And it seems like we've learned, and we should have always known that just because it's an algorithm and just because it's produced by a computer doesn't mean it's objective, doesn't mean that it hasn't inherited the biases of its creator or the data sets it was trained upon and like, I think there's, you know, the more we become reliant on data and data where there's more levels between the collection of the data and the use of the data, we are gonna have more unintended consequences come out and you make the great point of you need somebody with experience at the end of that line, to be able to say whether the answer coming out of the box is stupid or reasonable. Like I think the code example is a great one of how this can happen and I'm curious, you know, as we use the technology and data to better manage our risks, what other new risks are we unintentionally creating?

Carrie Jaquith (27m 41s):

We introduce risk into data unintentionally and into, into technology unintentionally every time a new generation of tooling comes out, like humans are very predictable. We invent the thing. We make cat memes with the thing, we figure out a way to turn the cat meme into a business model. We make amazing businesses with the thing. We realize that we break something with the thing and we very quickly in best case scenarios, we very quickly respond and we write governance and guardrails around the thing. I think it was just, I think Carnegie Mellon stood up its department focused on computer science and ethics. I think it was only like five or six years ago. Like historically we haven't had ethics programs within our computer science programs. We've had them in medicine. I think we are at scale seeing a need to embed ethics governance risk earlier in academia than we might have historically, because we're seeing the tools that we're building wielded in ways that we didn't anticipate whether that's from being wielded around really thorny, thorny, horrific use cases that our data science and our data product people couldn't have imagined when they were building the product to, there were also just these completely unintended consequences where humans just don't realize what will happen until they get the product in the hands of humans.

Carrie Jaquith (29m 26s):

And humans are really good at breaking things and using them as not intended. There is another unintended consequence around risk that I like that I'm personally fascinated by and I was chatting with a data scientist friend of mine, Zoe, about this last weekend, the idea that we have set up listening tools to listen for risk and we've set up these tools to listen for signals in language around risk. So there's this whole area of digital product that listens to tweets that listens to Facebook, to LinkedIn, that scrapes earnings reports that scrapes CEO keynotes and listens for words to surface signals around the value of a company that truthfulness of the human that's talking in some cases, the risk associated with that company because of the language that's used. So, so there's this digital product space that is like a giant microphone pointing at all of the data that's sitting out in public spaces and is listening for things like risk.

Carrie Jaquith (30m 35s):

And this giant microphone is wielded by risk teams. In some cases, it's also wielded by asset managers to surface signals that will guide whether or not they invest or don't invest and this giant microphone that's listening to these signals has been identified by the humans that are talking. So what you have happened with this space that is super, super interesting. Once the humans figure out that they're being listened to for specific keywords, like um an aha and they hack how they talk and they hack what they say in public spaces and they will actually introduce signal noise, they'll introduce signal skewers. Like they will introduce keyword into their keynote that will skew the giant microphone and so they end up, this is so, so interesting. They end up bending the signal that the microphone is picking up and bending how the algorithm runs and the, the data scientists designing the algorithm have to tune the algorithm for the aspirational skew that comes in from the humans. So it's a really, really interesting space of like, there's this unintended consequence that is the result of a tool being stood up to do one thing to assess risk through signals and then it's totally hacked by the humans.

David Greely (32m 10s):

This, this may be wrong of me, but on a gut level, I'm really rooting for the humans in this matchup.

Carrie Jaquith (32m 15s):

It's kinda like a, it is really interesting there's yeah, it's the topic for another pod, but yes, it is super, super fun and super fascinating to watch.

David Greely (32m 28s):

And, and we really have to get to talking about privacy because like I remember the, the early days of web scraping, you know, it was in my own work and commodities it was, you know, trying to get gas pipeline data by scraping websites of the regulated utilities. But with web scraping, it was information that someone had to choose to put into the public domain and so you were just going out and aggregating all this information that someone had said, yes, I'm going to make it public, maybe because they were regulated and were forced to, but they made that choice, but this feels different. It feels more like an invasion of privacy in a way it's people picking up data that you didn't really wanna put out there.

Carrie Jaquith (33m 09s):

It's picking up data that, and Web 2 was very, was one of the traits of Web 2 is that it is a curated, it's a curated space in a lot of ways, like so much of what's in Web 2 is intentionally placed in Web 2. Either someone is putting that data out there on your behalf, or you're putting your data there on your behalf and the key differentiator this introduces huge risk in Web 3 is that you are generating the web in real time through behavior in a lot of ways versus hitting a published button or hitting a post button. One of the core traits of Web 3 is that it is like, it, it is actively being built in real time by the humans and the machines that are interacting in it and that from a privacy perspective is a completely different paradigm.

Carrie Jaquith (34m 09s):

There's just a really big mind shift to go from, oh, the, the data about me is put in Web 2 by me or by someone on my behalf, or maybe observed by me. But there's some level of like, there's some level of control around that and with Web 3, there is more of an embedding of live creation, that's going to take a few years. There's gonna be a few years of learning around that and when I look at the bleeding edge of tech right now, and the emergent spaces around tech, there's this huge opportunity and also this really interesting risk and huge amount of education that has to come out around innovations, having to do with things like decentralized autonomous organizations and decentralized identity. When you think about the way you and I consider ourselves as humans in the world right now, we think of our identities as existing in physically bound artifacts.

Carrie Jaquith (35m 20s):

We think of our identities as existing in our passport. We think of our identities online as kind of a username and password like that's maybe it's an avatar, maybe it's our Twitter avatar, but there is a calming evolution around how identity is handled in digital space and with, it will be both this huge opportunity because it will equip there's the potential for decentralized identity to equip you David and me, Carrie, with having data about myself, that I have the keys to that right now, I do not have the keys to that right now, sit with very large organizations in buckets of human data that I can't really control. Those buckets are fed by third parties and they're held by third parties. So there's this really interesting future state around what will happen with decentralized identity and what will happen if I have a mechanism to hold more information about myself, I mean, that means that I could potentially sell that information, right?

Carrie Jaquith (36m 26s):

It has, if I'm the owner of it, it takes on value. It changes my relationship with some really big companies and it also introduces risk because there is a risk around like, what if I blow up my own decentralized ID data, is it possible for me to delete myself from the metaverse, I don't know, maybe like we haven't, it's such an early space. I think the risk cases haven't fully been baked out yet and with things like emergent, decentralized autonomous organizations, or Dows, we have frameworks from a digital product perspective and from a risk perspective, we have frameworks for working within organizations where there's kind of this known pattern. There's like an HR department and there's a data privacy person, and there's a legal person and there's the sales team and there's the marketing team you've got like these known ecosystems within big organizations and when you look at Dows, you're potentially looking at a future state where the structure, the organizational design that many of us have navigated within for many years gets atomized and exists as unconnected smart, contracted relationships, where the relationship between departments flows through code, it flows through a coded contract, a computer coded contract that from a risk perspective is a really, really interesting problem, right, like how do I measure the risk associated with contracts that are designed to be automated human hands free and just happen in the background until they don't

David Greely (38m 21s):

It's enough of a struggle to navigate people working remotely for many companies let alone replacing the traditional corporate structure with a network. Yeah. It's a whole another level.

Carrie Jaquith (38m 32s):

It's a whole it, and it's coming, just get ready.

David Greely (38m 36s):

Well, I'm glad you had brought up another issue because, you know, when we talked a little bit about some of the creepy aspects of listening and, you know, the issues of privacy and identity, and, you know, I want to get back into some of these unintended consequences because for a long time, I think human beings have known that the, the road to hell is paved with good intentions and I feel like we're at this, you know, bit of a fork in the road where we have access to all this information and that can help us better measure and manage risk, but it does raise a very important issue of privacy and is the loss of that privacy too high a cost to pay for the benefits of better risk management and, you know, do we go down a path where it feels to me very Orwellian where, you know, we're basically naked in the Metaverse and you know, everything about us is known and taken and sold for profit, or do we have a way to protect our privacy while still being able to collect enough information and use it to manage risk better and, and I hope the answer of can we protect our privacy and manage risk better is yes and if so, you know, how can we do that?

Carrie Jaquith (39m 51s):

So there are a couple of areas that I keep an eye on in this space and that product teams that I get to work with actively work on. So obfuscation and encryption are that, that is a space that every digital product, every data team is working around. Like how do we ensure that we are encrypting what we should be encrypting from the right start point to the right end point, how are we ensuring that we're only disclosing what people need to see what Dave needs to see, because at the end of the day, Dave probably doesn't need to see all the data. Dave needs to see just the view of the data that is legal and allows Dave to do an amazing job. I'm really, really fascinated by the work that's happening around zero knowledge proofs and around homomorphic encryption. Some of my favorite humans are working on homomorphic encryption tools with the goal of encrypting data in ways that allows you to take maybe PII or your, your health data from one place encrypted using homomorphic encryption, pair it with someone else's health data run models against it, and then bring it back down.

Carrie Jaquith (41m 11s):

And that's a really interesting space because you can also do that with financial data. You could imagine potentially taking the model that you've built to measure risk around a book of trading data that, you know, you can't really take over the wall and that you can't even take over the desk wall like desks to desk. You can imagine that being able to encrypt in a way that allows you to bring that data over the desk wall or over the wall-wall, it could be really, really powerful and there is an active effort across financial services, healthcare, anywhere where you've got highly regulated data, private data that you really need to look after. You've got data teams and digital product teams actively working on making sure that the right, that the data that the humans are interacting with is obfuscated where required is redacted, where required.

Carrie Jaquith (42m 15s):

And then in the past few years, we've actually seen the rise of the great deletion. Like there is, there's this huge wave of like some of the biggest bins in the last two years have been redeployed and clawed back from building to deleting and that is a super interesting space because we've, we've built all of these machine learning tools and these web scrapers to go out and crawl and gather data and bring it together and now we've, we've got teams that are realizing, oh, we actually have new rules that govern this big bucket of data and we have to use the budget that we were going to use to build stuff, to go back and delete data, which is super interesting and will create an opportunity in the market for probably some really smart data scientists to build data deletion tools.

David Greely (43m 08s):

So it sounds like part of it is, as you said, like the, the obfuscation, the ability to, you know perhaps make the individual data transparent to the algorithm, transparent to the machine and to the calculations, but then not to people, you know, this, the results of the calculation become available at a level of aggregation and processing that protects our privacy a little bit better. That's one aspect, I guess.

Carrie Jaquith (43m 34s):

Yeah. Yeah. It's, it's really, it, it's a really thorny problem even on the ground in building. So you're, I mean, we are sometimes working with data that our own engineers can't see, and shouldn't see, and like, and that's imagine trying to build a house in a blindfold in the absence of having good synthetic data and in the absence of having really well obfuscated data, you have huge risks for your teams and this is a problem like you see this kind of problem crop up with companies that have been fined for having S3 buckets of test data

sitting out in the open web. Like those engineers probably went in with really good intentions, and were just trying to build, were just trying to get the data that would allow them to build the digital product that would be useful and would drive revenue.

Carrie Jaquith (44m 45s):

Most people don't leave data lying around because they're malicious and, and sort of literatures of data. There were not many years ago, great ways for teens to rapidly generate synthetic data. There weren't great ways to rapidly obfuscate there. Weren't great ways to govern and it takes, it takes some big mistakes for humans to figure out big fixes.

David Greely (45m 11s):

Well, I understand now why you said at the start of the podcast that we could do three or four of these. There's so many, so many aspects to this, but, you know, before I let you go today, you know, I was just curious when you look forward and you know, how do you see the digital products transforming the day to day practice of risk management in the coming years and do you think it'll be more of an evolution or a revolution?

Carrie Jaquith (45m 37s):

I think you'll continue to see an evolution of how risk managers are able to quantify the value of the things that they need to assign a value to so that they can assign a risk score to the thing of value. Like we've gone from, for instance in property and casualty spaces, we've gone from having very simple models for how we assign the value of a pack of Lamas and the value of a painting and the value of a human and across the board with risk. Like there, we have data that now allows us to more richly measure what we're measuring and view what we are trying to measure with new ways. So I think we'll absolutely see a continued evolution in how we create scores and bundles of scores around risk and those portfolios or bundles of scores can in turn be leveraged beyond risk.

Carrie Jaquith (46m 48s):

Like those are those in some cases are business differentiating when you start to drill into them. So I think we'll totally see that continue to happen. I'm on a think tank at NYU and the think tank is filled with it with a number of humans that work in the genomic space and we're members of the teams that map the human genome the first time and so the topic of risk comes up there quite a lot around like, well, what happens if we, if we edit the genes of humans and we turn ourselves into monsters, this is a concern, you know and I'm reminded that with regard to evolution versus revolution, Dr. Mishra often says in that space, like, you know, we're always afraid that we, our machine learning models and our edits will cha alter humanity and in practice it's we operate in spaces that are more like a, so we, our models will like change the course of the river for a period of time, but then evolution sort of moves it back towards it's original. Like it, it finds its own course.

Carrie Jaquith (47m 55s):

So when I think about bud and, and he how he describes the human interventions with genomics and how we, we think that we will revolutionize, but in practice, sometimes our revolution turns into an evolution where we build a big dam and then the river rolls through the big dam and changes our course and we have to modify how we're doing things as we learn how those things in the field change themselves. I think evolution and revolution will, we will see both, like, ultimately we'll see both of these in, in the risk space and my goal and the goal of my teams is certainly to minimize the destruction that comes with revolution to maximize the growth that comes with evolution and to leave things just better than you find them. Like, ultimately that is the goal to leave things better than you find them to help the humans get to the data, help people building the data, get to the humans that that's the goal anyway.

David Greely (49m 03s): Thanks again to Carrie Jaquith, Global Head of Digital Product at Abaxx Technology. We hope you enjoyed the episode. Join us next week with our guest Andy Home, Senior Metals Columnist at Thompson Reuters. We'll be discussing the turmoil in the LME nickel market this year and what it may mean for the broader metals markets and the energy transition

Announcer (49m 25s):

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from investment decisions based on informational viewpoints presented on Smarter Markets. Thank you for listening and please join us again next week.