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Setting Course | Episode 10

Carrie Jaquith, Global Head of Digital Product, Abaxx Technologies

We close out our Setting Course series this week with Carrie Jaquith, Global Head of Digital Product at Abaxx Technologies. David Greely sits down with Carrie to discuss the course we'll likely take in integrating AI and large language models into our daily lives – and the gaps that will need to be bridged between us humans and our new technology.

Carrie Jaquith (00s):

These are very, very early days where we haven't seen the full scale of personal attacks with digital identity yet. And because we know that we can do things at scale, we want to start thinking about building that bridge, starting to get people into spaces where they can protect their identity in different ways with different tools.

Announcer (24s):

Welcome to SmarterMarkets, 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?

This episode is brought to you in part by Abaxx Exchange, bringing you better benchmarks, better technology, and better tools for risk management.

David Greely (01m 04s):

Welcome back to Setting Course 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 course we'll likely take in integrating AI and large language models into our daily lives and the gaps that will need to be bridged between us humans and our new technology. Hello Carrie. Welcome back to Smarter Markets.

Carrie Jaquith (01m 31s):

Hello, Dave. It's such an honor and pleasure to be back on Smarter Markets.

David Greely (01m 36s):

Well, it's so good to have you back here on the podcast. I always appreciate your insights into how we go about bridging the gap between technology and us humans. And as we set course this year, it's so important for each of us to understand how artificial intelligence, AI, large language models, will become increasingly integrated into our lives and will ultimately change how we live and I wonder if, because this new technology of LLMs interacts with us in such a natural human way with language replacing code that we may not think enough about what integrating these LLMs into our day-to-day lives will require of us and I was hoping we could start there. Are there gaps between this new technology and we humans that need to be bridged that most of us aren't really yet aware exist?

Carrie Jaquith (02m 31s):

Oh, for sure and part of that is just the outcome of this being really new tech. So there are always gaps in new technologies because you can't always know what the harms will be until you get into testing them. You can't always know how to secure them until you get into testing them. But on the bright side, you can't always know what new markets will open up and what new signals you'll have access to without getting your hands on them and so part of the fun and amazing work that happens around this technology is at the human computer interface level, it's the layer that the humans interact with and building out ways that make it easier for humans to understand what's happening when they paste text into a window, to generate an output, what's happening when they give permission to their data to a model. Like these are all things that are, are really important. They're an important part of design that goes into developing these things and for sure it's why there are lots of things for the humans to learn in this space.

David Greely (03m 40s):

Yeah, it's such a great thing and I kind of want to dwell on it a second, is that that interface between the humans and the technology, because often it appears to the user like a black box, but especially with these more sophisticated technologies, on the one hand we kind of want to know what it's doing at some level so that we can interact with it more appropriately. On the other, I love there was a thing about the ultimate goal of technology is to be like your toaster. You know, it's just very intuitive. You don't have to think about it, you just use it. How do you think about those, those two tensions of we want it to be simple and don't want to have to think about it, but if we're gonna interact with it, well, we need to understand it at some level.

Carrie Jaquith (04m 21s):

Oh, for sure. Great design is so smooth and so easy for the human that it doesn't need to be explained. Really great design gives the human a way to validate or audit or understand what went into what's happening under the hood. So when I've taught classes on designing products that sit on top of large data sets, what our classes always start with is how do we allow the human to get at all the data and then there's a second iteration where you say, okay, we're gonna extrapolate or abstract away what is too much for the human. That's gonna be too much, it's too hard for them to interact with. So your second version is always a little bit abstracted and then you abstract away again even more and ultimately what you wanna get to is just the action that a human wants to take or the action you want to help them take.

Carrie Jaquith (05m 17s):

You want to make it easy for them to ask the question that's hard to ask. You want to make it easy for them to get to the data that they want, that they need to get to. But if you've started with the approach of I need to provide a way for you to really understand what's going on and then give them that abstraction layer, then you've, you've really leveled up what you're bringing to the human because you're giving them both the speed and efficiency of the activity and you're giving them the security and safety of being able to drill into like, well, where did this come from? Am I even supposed to be able to see this.

David Greely (05m 53s):

And where do you think we are on that approach when it comes to AI because it feels like it's very easy, right, like, hey, just type in your prompt and you get a response. Like what are we missing here?

Carrie Jaquith (06m 07s):

So when I get to mentor startups at a, an incubator, which is the most incredible, incredible opportunity because these founders are so, so brilliant, they're building products that are super smart and I got to see a demo of, of a wrapper that sits on top of a chat GPT style interface. And in the very first interaction of that demo, the human demoing dropped a copyrighted piece of data right into the prompt. So they fed, they took copyrighted data, they put it where the copyright prohibits you from putting it just in that interaction. So just very, these are, these are very, very early days where teams are still building out guardrails around giving the humans the cue of like, Hey, looks like you're gonna drop something in. Are you allowed to do that, do you need to get permission to do that?

Carrie Jaquith (07m 02s):

Looks like you're hooking up to a data set. So what, it's early, early, early, early days, but this is a normal stage. Like this new tech always starts with like, can we do the thing and then you figure out, oh, we could do the thing and then you want to absolutely do the thing faster and more efficiently. That's the second step and then you follow up with like, oh, does the thing do a thing? We don't want it to do the humans do things we didn't intend them to do and do we actually need to write rules and governance around this thing?

David Greely (07m 36s):

Yeah and I really wanted to dig into that with you in that you said like there's this, there's this kind of path, this pattern of how these innovations go and the technology folks ask, can we do it. The regulatory folks ask, should we do it and I guess, you know, the rest of us ride along trying to figure that all out. So maybe we could talk about how this is progressing through that pattern in different parts. Like maybe we could start with the tech world. What are the issues that you think are currently being wrestled with and worked on in the tech world to integrate AI into our lives.

Carrie Jaquith (08m 11s):

In the tech world one of the areas that I find really, really interesting is in the space of generative AI. So if we could focus on that just for a second, because that's such a net new feeling experience for humans and such a new piece of tech and tech stack for lawyers and compliance officers to deal with. That's a really interesting space, right. We have had data governance in companies for many years

where you'll have a team and that team's job is to set the rules for getting into data for their organization or for the public and with generative, you've got data that's going into the model that hopefully was governed before it went into it. It may persist in data sets that continue to train the model and that needs to be governed and then you've got outputs that need to be governed.

Carrie Jaquith (09m 12s):

So you have, you sort of have these spaces where the teams that have to figure out the legal regulations around the tooling and the data, the teams that have to answer to the authorities or regulators on it, they have these new spaces that they have to navigate. It's a really interesting and fund space to be a part of right now, particularly because legal teams tend to want to help. Like your compliance teams. Rarely have I worked with compliance teams who don't want you to bring new tech in. Like they really want to help you and with this area of tech you have to educate while you're doing it because it's so, so new. One interesting thing about this space right now that came up for me recently was a founder referred to themselves as a generative AI native startup. So a gen AI native company, which just pause for a moment and think about the fact we are living in a, we are, we are part of what will be the first generations of companies that consider themselves to be gen AI native. How cool is that?

David Greely (10m 26s):

My first question is what does that mean what does it mean to be gen AI native?

Carrie Jaquith (10m 31s):

I think it means that you're, in the same way that there has been a generation of companies that consider themselves to be cloud native, they didn't go out and buy 500 servers and put them in a server room and hook them all up. They went to a provider and they rented those servers. This is the first generation of companies that will build their tools and their tech stack around the premise that the interactions will have a generative component and that's just really neat to be a part of cycle to be a part of that cycle of any, big tech cycle is really exciting. I was in a law office recently with a bunch of lawyers and compliance folks from big consulting companies that you would know of and some of your, your peers from your alma mater talking about the implications of generative AI on copyright and on IP.

Carrie Jaquith (11m 34s):

And what's really interesting is there are questions around things as simple as, well what do you do if a generative model kicks out a billion images that you would make the claim that you would like to copyright like that you would like to, you would like to copyright these billion individual images. They're each unique, you built a model that kicked them out and how do you go and make the application with a regulatory agency to copyright them. What does that look like and what's really interesting is you hear lawyers ask the question aloud, well you can't because you don't have enough humans to process that in a regulatory office right and what's super cool about that is about that comment in question of like, well we don't have enough humans to process the thing that this new technology is making is the humans will get to navigate the space of potentially building a machine that can process those applications and have a human that manages that machine. That is a super, super interesting. It's just a window in how lawyers are thinking and how big the legal tech market is gonna be in this space over the next 20 years.

David Greely (12m 48s):

Absolutely because you know, I wanted to ask you about the legal and regulatory world because. We hear about the concerns that the large language models are just voraciously taking in copy written material in their training models and then, okay, is it coming back out you know, and not that terribly altered a form, but there is this really interesting piece, right. There's how do we extend our existing regulations and legal, our law legal precedents to this new technology that, you know, wasn't really entertained when these laws were written or these regulations but then also how does it change our legal system itself like how does the AI change how we do law and regulation. Which of those do you think is the first on the mind. It sounds like they're starting to think about both.

Carrie Jaquith (13m 38s):

I think they are thinking about both. There's both the evolution that the law has to learn how to evolve around. There's the mapping of this is how we regulated an automobile, so this is how, this is how we think we will have to map this piece of tech. But it has to be collaborative because there's such a learning curve that it takes time to really understand what's going into these tools and what's coming out of them and what can be done with them at scale.

David Greely (14m 14s):

It's always scale, right?

Carrie Jaquith (14m 16s):

It always, it's one thing for it to be one data point that gets misused or breached on one laptop, it's another for it to just bloom all over the planet in a way that no one anticipates. I'm following how companies like Adobe just released a piece on how their team is approaching governing generative image creation within their platforms and they're, they're one of the biggest footprints of generative imaging. So seeing major companies, major domain specific companies make public how their teams are approaching governing and meeting what they think the regulatory requirements are going to be because some of those requirements are going to get written later. How we govern internally will inform how we educate governors externally and regulators, which then in turn will inform the rules that get written.

David Greely (15m 17s):

That's really interesting that the practices and standards will likely be developed by the industry and the customers over time and then they'll eventually get codified in law is probably more the way it'll go than top down seems likely because there's just so much to learn and so much to understand. That's fascinating. Well I also wanted to ask you, 'cause there's another big world that's important to us, which is the financial world and the world of markets and I'm curious, how are financial institutions approaching bringing AI into their systems and their businesses?

Carrie Jaquith (15m 51s):

So financial institutions are really, really a fun space to work on this kind of tech with because they've got lots of structured data. That data historically has been structured in centralized repositories and we've got generations of sort of on-premise data sets and, and internal cloud but premise, gated, premise walled, how can I put this. It's sort of like you would've had your data all in your own computers in your financial services company server room. That data is now probably in an Amazon or an Azure, a Microsoft server room but it's still sort of protected. It's still protected and walled up for your company's use. When you open the door to tools like generative, the first wave of generative is all sitting on someone else's cloud in someone else's virtual server room and so financial services has tended to tread very carefully.

Carrie Jaquith (16m 56s):

So if you're a big company, you've built your own generative models inside your own, you have enough resource at hand to build your own thing inside your own walls. In some cases and this is as recent as a week or two ago in chatting with the head of innovation for one of one of the bigger banks. So a bank that you or someone you know, has an account with isn't doing anything with generative yet in-house because they just, they don't feel comfortable giving their data to a third party because they don't have a way yet to safely secure the data as it travels through the pipes to that model and then back. So, you're seeing a mix, you're seeing a mix of either something that's completely in-house and very, very controlled with those in-house builds. I'm seeing they control how you input a question into asking the model a question so that you only ask questions that they are comfortable with you asking because they haven't yet built out, they haven't yet built out the model in a way that lets them protect you from asking questions you shouldn't ask. So instead they just give you like a quick pick question one, two, or three. Definitely I'm seeing in Finserv models that do data cleaning, a layer of data cleaning that you might have trained a model to do, but you can use newer models to do with less training and that's like, that's a huge time saver very, very cool.

David Greely (18m 37s):

Very cool and I just wanted to clarify when you said, you know, some of the, the banks are worried about data security, their data is really our data. So are we talking about like transactions, history, bank balances?

Carrie Jaquith (18m 52s):

Yeah all of the data, so that's everything from your credit history with the bank to your private data to maybe you've put a payment to a hospital on your bank account that all the, the consumer banking and commercial, the banking for consumers, banking for businesses have access to data that probably most of your listeners would want to have a say in whether or not that goes not just from like they've already given it to their bank but for their bank to give it to a second party and then a third party that they probably would not like that and there are governments that also would very much not like that. So there are things that have to be considered.

David Greely (19m 38s):

Yeah especially if you consider like the notion that it could leak out and then start showing up in other people's LLM searches and prompts, you know

Carrie Jaquith (19m 46s):

Exactly.

David Greely (19m 48s):

Yeah. What is Dave's credit score? Oh it's, that wouldn't be great. Maybe switching topics you know, I feel like when we've spoken about this in the past, you know, and even a little bit earlier today, you've put AI in the context in terms of other waves of generational change in technology and I was curious, how are you thinking about AI in that context. What are some of the other generational changes that preceded it that maybe we could learn something from?

Carrie Jaquith (20m 19s):

Well, one of the generational changes that is part of why I'm so excited to come work at Abaxx is related to the ID plus protocol protocols for the less nerdy of the audience. You use protocols all the time, they've been abstracted away from you. So they're behind, they're like five layers behind what you do in your day to day, right but you right now use some really, really common protocols that handle your email. Your email goes through a very specific protocol. It was designed to send and receive messages. It has behaviors, it has traits to it. You send and receive files sometimes using a file transfer protocol or FTP, which if, if you are of a certain age you might remember from sharing certain music files. So there, there are these protocols that are very common, right and you use them every day.

Carrie Jaquith (21m 17s):

ID ++ is an identity protocol and what's unique and what I'm excited about to, to work on with regard to it is it's designed to work with identity as the thing as the data that it's handling. So we've got protocols that let us hook in and send data for specific purposes. ID ++ lets you work with data that's related to identity and that can be human identity or that can be thing identity. A lot of the way our protocols historically have been used have been used around data that is known by its location. So it's data that's like on Dave's computer and the location is Dave's computer. If you've worked in a company, you've probably been given access to a, a shared drive or a team's drive, some departmental drive, like your access to that data, all of the data and it was like all different kinds of data was in that drive but you got into that whole bucket of data because that data was in the location of Dave's team's drive. What's really, really exciting about working with something like ID ++ is we can attach what the data is to the data in addition to where the data is. And once you can get to the, what you can start to identify Dave as Dave's data, you can start to permission Dave's data apart from just that Dave's data is in this Dave's team's shared drive. That is a transformational bridge to think about.

David Greely (22m 58s):

Yeah, and I would love to dive into that some more because I think much like earlier in the conversation we talked about kind of knowing what happens behind the interface. Most of us don't think about it, right, like I go and I click my team's drive and I go in and I access what I want to access and I don't know if it's on my hard drive right here it could be on a cloud server somewhere else. But when you think about the current structure of how we store data, how we access it, even the current structure of the internet. Do AI and LLMs make that current structure, that current, you know, just having a team drive, does it make it problematic in some way that makes this decentralized identity where you're attaching it to the individual pieces of data, not just helpful but necessary?

Carrie Jaquith (23m 48s):

For sure and these kinds of transformational moments are not a flip of the switch. They are like the energy transition. When you and your guests talk about the energy transition being a very long bridge, you can't just shut off entire generation plants like 50 of them at once. You can't just shut off 50 plants and flip a switch and turn on 50 solar panels. That is not a realistic transition. Data transitions are similar in that you, you don't often just flip a switch. You often have to figure out how you can migrate in the least disruptive manner because you've got anywhere from, unless, unless you're gen AI native, you've got generations of identity data, product data, all kinds of your company data floating around your ecosystem and that data has been hooked into lots of systems that are using existing protocols. So when you introduce a new protocol, you have to introduce it in a way that it is, it can be as interoperable as possible so that you can hook it into the existing systems and start to build those migration bridges.

Carrie Jaquith (25m 10s):

And you always want to ask why, why do we even need the transition, like why do we need an extra bridge out of these spaces and this is where I think you touch on this point of do these AI systems create such a risk in that if you point them at these huge repos, they have access to everything, they create a front door that if unguarded anyone can ask anything of the system, they can kick out inferences. So

even if you don't have direct access to the data that you've locked down, maybe there's enough secondary and tertiary data that if you ask your question of the system, right, it's gonna give you its best guess, which is very probably true which I want to come back to you in a second 'cause that's, that opens a really, really interesting problem. If you can start to build the bridges where you can better secure your data down to smaller elements of the data, well now you can create a safer way to run big models against your data because you can de permission certain elements by default.

Carrie Jaquith (26m 17s):

You can allow the system to crawl elements of the data that are really meaningful and that don't have to be locked down and you can give Dave Dave's keys to Dave's personal data on the other side of the bridge and set up the system so that it asks Dave for permission to use Dave's data. Right now I can't do that just because we haven't architected in that way yet and we haven't completed the bridge for people and we haven't given them the keys yet but that's what's really exciting about working on, on the decentralized identity piece of this, both for the humans because you open up the bridge for the humans to take ownership of their own data and for the things because you create the way for a commodity to be tagged and tracked and accessed in a way that you can't when it's a lump of data in a big repository. I'm trying to speak very, very broadly to a very broad audience here.

David Greely (27m 21s):

No, I appreciate it you, you've got me thinking, you know, when you talk about moving from data kind of secured by physical location, which is kind of a weird concept, right. We kind of took a very real world concept and way of approaching things and imported into this virtual world and in the beginning it probably made sense because we had standalone computers and blah, blah, blah. But you know, now we have a very virtual internet, but we still have physical location as like this concept in our heads, which is increasingly not relevant, but you kind of make me think of, it's like a, a silly example of like when your child's going off to summer camp, right you go from hey, this is their T-shirt and their shorts and their socks and their bathing suit because it's in the drawer of their dresser in their room and that way I know it's not their brother or sisters, but then you go to summer camp and suddenly you're like writing on every piece of clothing, Dave shirt, Dave socks, Dave's like, is that kind of the world we're living in where like each thing has to be tagged with the identity of the owner because it location doesn't matter anymore.

Carrie Jaquith (28m 27s):

Yeah, and the first, I guarantee you the first response of most data teams is to cringe because they think, oh my gosh, we have to manually label everything <laugh>. We have to go.

David Greely (28m 39s):

Back. I always cringe the night before camp writing all those names.

Carrie Jaquith (28m 43s):

Yeah, yeah. It's an over, it's a potentially overwhelming task, right, re-architecting how you've structured data sets and how you've, how you've designed your systems for a paradigm where Dave's data was a very small data set that could fit on a very small drive that never really left Dave's ecosystem because it was constrained by, by dial up speed, like it was cons, there were all these constraints and to take the leap forward and start to map how do you re how do you add in layers of protection for people. What do you re-architect, where do you change your architectural design knowing that changing architectural design is a big lift for anyone. It's a big lift for a company. It's a big lift for a human. You have to think about it as, as a transition and the bright side is you can potentially leverage machines to help you. So it's one of those scenarios where like you need to modify how you do things because the machines and you're gonna need the machines to help you do the thing because the machines

David Greely (29m 57s):

Yeah, it's, it's amazing, right because It's not like it's not a one-to-one, it's not, oh, the machine will now help me do this. Like we need the machine to help us run the machine.

Carrie Jaquith (30m 05s):

Oh yeah and that's where like that fear that the machines will take over. That's where that gets mitigated because you think, oh, well no, I still need a human to figure out how the machine is going to help me do this really thorny thing because it's gonna be complex like it, it's not an easy thing. It's the energy transition is not easy. Technology transitions are rarely easy.

David Greely (30m 31s):

And we know the, the transition to the identity transitions not going to be easy. Maybe could you tell us why it's necessary. Like what happens if we don't make an identity transition, what problems do we face then?

Carrie Jaquith (30m 48s):

I think if you, if we can't make an effective identity transition, we lose control of the humans lose control of their presence in digital space. They lose ways of behaving in digital space that are only possible if you've got the keys to your identity, the harm that can be inflicted on humans who don't have some degree of autonomy that's what goes wrong. Like what goes wrong is the outside impact of malicious behaviors in digital space that are aided by the scale of compute. This wouldn't, like you wouldn't be subject to some of these harms if all of your data was, was on a laptop and people couldn't exploit it and they couldn't make fake Daves and they couldn't chase Dave around with malicious fake Daves like there, there are just lots of ways that the scale and speed of our compute make exerting harm very, very easy and automatable not just like easy for me to make Dave's life miserable.

Carrie Jaquith (32m 06s):

I can make a whole population's life miserable at scale. Like that's where thinking about in it's early days still you, we haven't seen the full scale of personal attacks with digital identity yet and because we know that we can do things at scale, we want to start thinking about building that bridge, starting to get people into spaces where they can protect their identity in different ways with different tools at scale. What happens if we can't add mechanisms to augment how we handle thing data by giving it an identity we can't give it a quality grade in the same way. We can't trace its provenance in the same way. We can't say this piece of data originated in this point in time is tied to this pebble that came out of a mine that was mixed with these two other pieces of metal that was poured into this mold that was shipped in this shipping container. We lose, we lose the ability to augment how we work with data that we use every day in the markets that would unlock new markets.

David Greely (33m 21s):

This is sounding familiar. We need to do something. It's a hard thing to do. How do we create the incentives to get people to do the hard thing, how do we create the incentives to support this identity transition?

Carrie Jaquith (33m 34s):

I always think about incentives through, through both the, like, what happens, what happens if you don't and the risk of not acting is an incentivizer, like, there are things that go wrong if you don't. There are ways to manipulate data that doesn't have great identity attached to it. There are ways to create false data sets when you don't have rigorous identity tied to the dataset and the risk to the market is you potentially run into scenarios where the market is harmed through false data. Humans harmed through false maliciously messed with data. That's the sort of incentive through pain. It is painful to find out that the data you thought was true is not true and you've invested in that data thinking it was true and it's not true. There is pain in finding out that there are 5,000 fake Daves doing things that Dave would not approve of in virtual space. That's not great on the incentive for good side. There are so many opportunities that open up when you've got data that you can put more trust in, that's higher quality that can meet the emerging regulatory requirements around data that you know are gonna come and being able to take care of your personal identity in digital space in a way that you are comfortable with. That's a good thing. So that those are like the positive incentives.

David Greely (35m 18s):

Okay every time we talk I feel like you give me so many interesting ideas and I just want to keep asking you more and more questions, but I need to let you get back to your job here, but thank you so much for spending the time. I wanted to ask you one more thing before we go because we have covered a lot of ground and so I wanted to just kind of take a moment as we wrap up to maybe put a little bit of a, a bow around it in that when you look at it, what are like the big challenges and opportunities that have you the most excited to be working on when you think about managing data and identity in this new world that we're moving into?

Carrie Jaquith (35m 56s):

Oh, I'm most excited to work on these pieces of invisible tech. I mean this will ultimately be invisible, right. Humans won't see this. Humans will get to do things that they can't do right now because this is, this is running under the hood because some of this protocol is built into Abaxx Exchange because it's built into verifier. Humans will be able to do things that they can't do without it and that getting to work on that is just, it's pure gold.

David Greely (36m 31s):

Thanks again to Carrie Jaquith, Global Head of Digital product at Abaxx Technologies. We hope you enjoyed the episode. This concludes our series on setting course. We'll be back next week with our new podcast series, Carbon Frontiers 2024. We hope you'll join us.

Announcer (36m 49s):

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Announcer (37m 38s):

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