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EP 192 | Customizing the Last Mile: AI, Innovation, and Mawer's Tech Evolution

[00:00] Andrew Johnson: Hi everyone. Today on the podcast, we're joined by Mawer's Chief Technology Officer, Justin Anderson. We dig into the build-in versus build-out tech framework, what it means, why it matters for business and investing, and how the use of AI and other tools are accelerating this shift. I really enjoyed this conversation and I hope you do too.

[00:23] Disclaimer: This podcast is for informational purposes only. Information relating to investment approaches or individual investments should not be construed as advice or endorsement. Any views expressed in this podcast are based upon the information available at the time and are subject to change.

[00:40] Andrew Johnson: Hey, Justin, how's it going?

Justin Anderson: I'm great. How are you doing, Andrew?

Andrew Johnson: I'm doing really great. Welcome back to the podcast. First of all, I know that we've had you on a few times over the years and I was thinking about the last time that we had you on and in between now and then what people may not be aware of is that while much of your background at Mawer has been very much in an investment capacity, spent several years as an equity analyst on the research team, contributed to multiple portfolios over that time frame. You founded the lab here at Mawer, which is all about using tech to help improve on the investment process, but these days you are Mawer's Chief Technology Officer and you're leading our tech strategy and really the overall digital infrastructure of the company. And we thought it would be great to have you on to get a feel for how you think about the role of technology at a company, whether that's here at Mawer or perhaps through an investor lens when you're looking at stocks or management teams. And you and I recently talked about this concept of build in versus build out within the context of business technology. But for those of us who are not as familiar, what does build in versus build out mean? And if you can also put your investor hat on, what does it mean for business strategy generally speaking?

[1:56] Justin Anderson: Well, thanks. Appreciate the introduction. It is nice to do a podcast with you. Andrew, I know in my past podcasts, I've always done them with Rob. So I feel a little bit like I'm cheating on him at the moment.

In terms of your question of build in versus build out, I think listeners should understand that this really connects to AI and LLMs. And we're going to tie that all in as well. I think those are really important topics right now for people and something that a lot of our investors are thinking a lot about. And it does start with this build in versus build out dichotomy.

I hope listeners will come with us on that journey because we want to really set the foundation about what build in build out means, how that ties into the LLMs and the AIs that we're starting to see. If I was going to tackle your

question of what is build in versus build out, what does that even mean? Probably listeners are familiar with the term buy versus build. If you're in a company, you often have these decisions on should I buy this piece of technology or should I build this piece of technology internally? That's a very common dichotomy that we hear. The idea of build in versus build out, which probably people are less familiar with, is it comes from challenging a bit of the premise of buy versus build. And the reason for challenging that premise is I use building a house example. If you're going to build a home, when you're debating whether or not you should build that home or you should buy a home, you're not really talking about, hey, should I go and chop the trees to build the house? Or should I go mine limestone to do that? It's sort of taken for granted that you're going to buy most of the things that you need. And really what you're discussing when you're talking about buy versus build is the design of the home. Let's say the final last mile part of what you want to do.

Do you want the home builder to take a generic design? Or maybe you want to really customize that design. And that's a very common decision that people make. And they're not talking about this massive difference between buying everything versus building everything. They're talking about that last mile decision. The challenge that we have in technology is analogous in that most decisions are buy decisions. We're buying the computers. We're buying the infrastructure. We're buying the platforms that we use. But the more interesting nuance discussions are what do you do about that last mile customization step? So you bought all these technologies and now you need to deliver a great marketing experience, or you need to deliver a great client experience or a research product. How do you solve that last part?

Setting that up as a build in versus a build out seems to make a lot of sense. So, what does that mean? Build in is really where you're saying, okay, we're going to take the vendor and the platform that the vendor provides to us. And we're going to use that to solve that last mile problem. Build out is to say, okay, we're actually going to try to keep the vendor out of the box as much as possible and build our own platform that sort of pulls the data from the vendor and solves that last mile problem on our side of the fence. So that's sort of the debate we're talking about when we say build in versus build out.

[4:54] Andrew Johnson: Since it's being framed as build in versus build out, what do you think is the better approach?

[5:01] Justin Anderson: Economics is the science of trade-offs. There's not necessarily one answer that this is better or this is better. They both have advantages and disadvantages.

The traditional trade-off is cost versus quality. Traditionally, if you build out, it means that you're going to have to hire a bunch of developers. You're going to have to support your own technology. So you tend to be spending more money. The advantage is that you get more quality, you get exactly that last mile experience analogous to the home builder. Again, you customize the home exactly the way you want it. Whereas traditionally with build in, you sort of compromise a little bit on the design. You get a cheaper outcome. What we saw in the last 20 years of technology development is that trade-off that a lot of people went with the build in.

If technology wasn't core to your company, then you would say, look, rather than creating all this technology capability within my company, I'm just going to leverage my vendor. I'm going to do the build-in and save a bunch of money and focus on what's important to my business. That's traditionally how a lot of the businesses have been structured and set up, including ours.

But I think what's happening over the last 10 years is there's a lot of pressure that's starting to make the build out option. All things equal, more competitive, more interesting. And some of those things that we're seeing is just the development of libraries, of technologies. LLMs are really putting this into hyperdrive about how much cheaper it's becoming to do that build out option. So, the customization option used to be expensive. Turns out it's not necessarily expensive anymore. And in some cases, it might actually be cheaper to build and maintain than trying to maintain legacy vendor products and platforms that are out of date, have a lot of tech debt with them, and are unable to leverage the latest technology developments that are available. The reality is, in the past, a lot of developments have been built in, and yet the current optimal equilibrium point is shifting more and more towards build-out, in our opinion. So that was part of the challenge that we faced for the first year when I joined the technology team, how to shift us more towards that build out direction.

[6:56] Andrew Johnson: Since I do have the chief technology officer here, you just mentioned some of those here at Mawer. Do you have some illustrative examples of that build out mentality that you've applied with your team?

[7:06] Justin Anderson: The poster child example would be we have a trading system called Trade and Mawer, and that is a system that is classic build out in the sense that we have a great vendor platform that manages our client accounting and our trading systems, and it's built mostly for the institutional world. And we've developed a platform that sits on top of that called Trade and Mawer, which really helps to manage that last mile from the perspective of a Canadian investment manager focused on mutual fund trading and the different bespoke requirements that come from that incremental requirement that the vendor platform wasn't tuned out of the box for. We've done the build out for that.

It's been very successful. It's saved us a lot of money. In addition to that, it's been something that has really improved the quality of our product and what we can deliver to the client facing team. So that would be an example of build out at Mawer.

[7:59] Andrew Johnson: What about I'm thinking more on the investment process side of things.

[8:03] Justin Anderson: Our investment process is very core to what we do at Mawer. And so, the question then becomes, well, do you rely on a vendor for that? Or do you manage it ourselves? And so, our belief is again, you buy most of things, which is you buy the data, the Bloomberg's, the Xpressfeed's, the different data sets that we require to do our research. But then for that last part, where we have to really put that all together, our management meetings, how we rate companies, how we do our assessments, all of that is something that we've built out a system called M42, which really drives that build out vision as well.

[8:33] Andrew Johnson: We have a certain tendency to name things with letters and numbers here at Mawer. So we have a client facing version of that too, called I-99. And you're hitting it because it's not only helping from a business standpoint, but from a user standpoint as an individual who does use some of these build-out technologies and interfaces. It's made my life a lot easier. And at the end of the day, that makes the client's experience much better as well. You mentioned LLMs earlier, when I think about those in AI generally, the way that these models are being adopted and integrated really into everyday life at this point in business, it feels pretty aligned with a build out mindset.

How do you see LLMs and AI shaping the economics of that build in versus build out?

[9:15] Justin Anderson: It's interesting because we were going down this build out strategy and then come along February 2025, I open up the latest Anthropic LLM model called Claude 3.7 and started using it to do some coding. I was blown away. I was like, this model is building code. It's definitely beating a junior developer. It's doing a very good job of writing code. And that was a bit of a shocker.

Now obviously, there's a lot of caveats to that. You certainly can't manage a full code base at the moment. But it was a bit of a shocker to me of just how far along the LLMs have come and what their capabilities are.
So, we started from February until April of this year. It was a bit of a chaotic time in our group in that we were trying to really understand what's next. What does this mean for build out? What does this mean for our company more generally? And so, we just started a lot of tinkering. We had hackathons and we started playing with these technologies and seeing what they were capable of. We deployed a first version of our own internal AI called Chuck. And we've just released the second version of that a couple of weeks ago. So, it's been a time of a huge amount of experimentation internally. And we're getting to the point where we're starting to finally wrap our heads around it, I would say, in terms of at least this first phase potential of what it can do for us. And a big part of that is really realizing that traditional technology has been a bit of, in a sense, a blocker or a friction point between what the business wants and trying to execute that desire because you're limited on resources or you're limited on knowledge on how to use that technology. So, it can often slow us down in our ability to drive our business ends, whether it's research or client service or whatever it is that we're doing.

And my story is that these technologies really helped to unlock that and are going to make it much easier for our business users to accomplish their business ends faster without those traditional resource constraints. But a big part of that is realizing that the onus for this is on everybody. It's not just a technology driven thing.
It's really about getting the entire firm on board and helping to build out this specific set of LLMs to help them with their jobs where our role will be more in a support role to enable them to build those agents and technologies that they need.

[11: 29] Andrew Johnson: It's all really exciting and it's clear just how dramatic this shift is currently. And then the mind starts to race as to where it could be going. And you just touched on how you're approaching it from a CTO perspective. But maybe you can elaborate a little bit more. Where does this build out strategy go from here? What does that next phase look like? How are you going to incorporate and like you said, bring along everybody in the business with it?

[11:53] Justin Anderson: The framework I use to think about this is traditional applications. If you're a business, why do you buy an application? Well, you buy it because you're trying to be more productive somehow.
You can break down every application into three buckets. There's the database that comes with that application. There's a bunch of workflows that you're trying to accomplish with the application. And then there's reporting layer, which is you're trying to get information out of that application so that you can make decisions like an M42. We're trying to get information out so we can make investment decisions as an example. And I think the impact of the LLM phase, it's going to start most heavily on that last bucket on that reporting side. And that's where we're putting a lot of our focus right now. So who in our firm is doing the most of that? Well, a ton of that is essentially the research team because in a sense, when they're writing research reports and they're doing investments, a lot of that is fundamentally reporting.

They're creating reports. That is a kind of reporting. You're gathering data, generating reports. There's a ton of potential use over there. And that is one area that we're spending a lot of time. I think the other early phase is very much on the software development side, internal to BT, where the coding capability of the LLMs is leading other industry uses.

And so we're going to focus there initially. The next phase of this is really about the agentic AI, which is you go from building these agents that are able to solve, like I just said, a research report problem or helping you to write code into the next phase, which is now they can start to talk to each other. And they can start to communicate. This really starts to tackle that second pillar I outlined, which is workflows. So we talked about reporting. Workflows is traditionally something that you've heard of processes like robotic process automation and tools like that that try to streamline workflows, but they often run into this friction with interfaces between, okay, this system talking to that system or this human trying to trigger that process.

And those interfaces are difficult to overcome. And they often are the bane of the RPA solutions. What LLMs do is they provide another capability, which is this human interface, this language interface, because a lot of our interfaces with these different systems and workflows do come down to humans making decisions and communicating through language.

And so if you give them that extra tool in the toolkit, it unlocks this huge potential on solving some of these workflow problems that traditionally have been difficult to solve. So I think that's the next phase of this is starting to think about, okay, how do we leverage these things not just for the reporting side, but starting to leverage them for the workflow side. And there's a ton of work that goes into that we're all in right now and trying to build out that fundamental infrastructure for that transition and setting up for it.

[14:24] Andrew Johnson: Even very early on, obviously, a lot of action, a lot of change. And like I said, really exciting if you're participating and anticipating the end uses of this technology. If I can get you to put your equity analyst hat back on for a moment, when you're analyzing a company as an investor, how do you think about the impact of things like legacy systems or technical debt you mentioned earlier?

How do you think about that in terms of the valuation of a business or the future outlook?

[14:52] Justin Anderson: My work loves in my life are equity research and technology. And so it's always fun to be able to dribble between those two worlds and it seems like increasingly, that's the case. So yeah, let's put that hat back on and think about it.

So some of the investment implications, it's a classic problem of trying to predict the future. We like to say prepare, don't predict a lot at Mawer. What it really means is be robust to the future as opposed to try to think you know what the future is and plan your life accordingly. What's the robust strategy here from an investment perspective? I'm a bit of, we call it yellow energy guy. I really do believe in the potential and I tend to be very positive. So I think listeners should take that into account when they hear what I could say. But I do believe very much that this can be extremely positive for the world in the sense of creating a lot more productivity. And productivity is the most fundamental thing that has created wealth for humans since we invented the wheel.

It's like how do we do more with less? Everything else is in some sense kind of noise around that core engine of

productivity. And so I think this has the potential to really drive productivity at rates that we used to see in the early 1900s when electricity was invented and you started to see these new technologies that really drove productivity high. And it's been slowing down over the last few decades. I think this could supercharge it. And that could be very positive for markets. It could be very positive for consumers. It might be tricky for us to sort out how does that distribute exactly between say consumer surplus and producer surplus and economic terms. So there's a lot of studying to do there. But I do think there'll be a lot of surplus, at least in the aggregate. If I'm zooming down more specifically on the traditional sort of who loses, who wins, very difficult to say. I think I outlined on the loser side a bit of a model. The way I would think about that question is start with the reporting layer, companies, SaaS products that are really focused on just reporting. Yeah, be careful there because there's going to be a lot of disruption. Workflows would be next.

I think a lot of the workflow companies might be able to benefit from this stuff. So we'll see how they adapt and they're able to leverage it. And then probably the database companies or if a company's really managing your database, they're probably going to be facing the least risk, but they could over time as well. So that maybe it's on the loser side, on the winner side. The frame here is very difficult, but I use the classic picks and shovels idea of you want to be providing the infrastructure, you want to be helping companies through this transition. A lot of the big tech companies come to mind and the infrastructure businesses. But I do think there's a caveat to it, unlike some of the classic themes, this one might be a little harder to play in a traditional thematic way in the sense that I think a lot of benefit is going to be distributed to individual companies who adopted or not and regardless of industry. So, it might cut across industry and really be about the groups and the companies that see the opportunity and are able to pivot their culture and their organization to take advantage of it versus the ones that stay stuck in the past. And that might show up very uniquely across industry as a trend.

[17:45] Andrew Johnson: So as with most things, there's going to be a lot of company specific variation. Keep that hat on for a second. What should I be looking for to tell if a company or even a team or individuals within it are approaching technology in a future ready forward-thinking way? And I'm especially thinking about how much importance we place on assessing management teams with the companies that we invest in. Because as you've pointed to, a lot of this is going to be behavioral at the decision-making level and setting the whole company up to be able to take advantage of these sorts of opportunities.

[18:19] Justin Anderson: Even more so than so many questions is really about the management teams and the leadership and which direction they're taking their company. What kind of things can investors explore? There's a few things is like try to push them into the weeds, the AI weeds, as I like to say, see if they understand it. If they're talking at a high level, bring them down and see if they can understand it. Because everybody in the organization should be tinkering with it. And if they're not, you'll know right away because they can't go down. Another one I like to say is AI security. It's a very important topic. We could have a whole podcast about AI security.

Ask them about that and see if all they talk about is high level, boilerplate type stuff. Or do they get into the weeds of the balance between, yes, you need AI security here specifically how we're dealing with AI security. But you also got to not take that too far in terms of driving your organization to be too risk averse and not actually explore these. See how they grapple with that balance as opposed to just giving generic responses. I think it's just the sincerity of how much they're actually pivoting their organization to tackle these questions is how I'd be interviewing managers myself.

[19:23] Andrew Johnson: Was there anything else that you wanted to share before we sign off?

[19:26] Justin Anderson: I've got a lot of empathy for people right now. There's a lot going on in the world. This AI, these LLMs are really scrambling our brains a little bit and as humans, we don't love necessarily uncertainty and we like understanding what's next and there's a lot of not understanding what's next with what's happening with this. So I feel for people that are in the industries that are going to be most impacted by this. I'm thinking of software developers and research analysts and how they have to really pivot how they do software development and how they do research. That's hard because you've trained your whole life to do it in a certain way and all of a sudden you're saying, look, there's a better way.

I think those jobs are still critical. I just think that they have to really pivot how they do their jobs and that's going to be hard on people. It's hard to change habits, especially as you know, Andrew, as we get older habit changing can be difficult. Maybe the last piece would just be humble in our last town hall. We talked about how it's very reasonable for people to debate these things. I'm obviously coming across as someone who really believes in the potential of this. There's a lot of people who still think this is just a fad and this is just like crypto and all these other things. It's a fad. I think reasonable people can have different opinions on these topics.

I think we've got to just be very kind to each other when we're debating these things and understanding that there are reasonable differences. In our team, we've made the decision to act as if this is a major revolution because we think the payoff of it is massive and we think the cost of it isn't nearly as bad. So that's a faith decision that we're making. So far it seems to be playing out correctly but have a lot of humility carry yourself with kindness with your colleagues. And then the last one would be just curiosity. This is a time to be curious and experiment and get your hands dirty.

We're in the sandbox guys. Get in there, make a mess.

[21:10] Andrew Johnson: I've said it a couple of times. I'm excited about it. You also just highlighted something that's really important to us here at Mawer's diversity of thought. You're bringing the yellow. We're going to need the blue, the green, the red to bring us forward in a prudent way. Thanks again, Justin. These were really great insights today. It was fun to connect the tech strategy with investing or the two hats that you like to wear. I don't guarantee a lot of things but I can guarantee that this isn't the last of our conversations on this topic.

I really appreciate you joining us and looking forward to the next time that we get to do this.

[21:41] Justin Anderson: Yeah, thanks, Andrew. Thanks for inviting me. It was a lot of fun.

[21:44] Andrew Johnson: Hey, everyone, Andrew here again. To subscribe to the Art of Boring podcast, go to Mawer.com. That's M-A-W-E-R dot com forward slash podcast or wherever you download your podcasts.
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