

Investing in Innovation: You Always Look Smart When You Prepare



CapTech Trends | Podcast | Episode 16



Vinnie

Hello and welcome to CapTech Trends, a place where we meet with thought leaders and subject matter experts to discuss emerging technology design and project methodology. I'm your host, Vinnie Schoenfelder, principal and CTO of CapTech Consulting. Today we're focusing on investing in innovation, and I have with me Bree Basham and Kevin Vaughn. Bree is a Principal at CapTech who leads our Customer Experience practice. And Kevin is a Senior Manager with deep expertise and developing innovative solutions. Bree, Kevin welcome. I should say actually, welcome back. You both have been on the podcast before, correct?

Kevin

Yeah, I'm glad to be back.

Bree

Great to be here. Thanks, Vinnie.

Vinnie

So, Bree, why don't you kick us off. You and I have been on a lot of different calls the first quarter of this year moving into the second quarter of this year, with companies seemingly coming out of COVID with a real focus on innovation. Can you talk about what your observations have been around that?

Bree

Yeah, absolutely. This has been a hot topic lately. We're excited to talk about it today. I think, you know, largely the playing field has changed right through COVID. It seems that businesses are identifying and are quickly addressing new opportunity areas that are being created by this changing landscape. So, we as a consulting firm are getting approached by companies that either need help getting their framework for innovation in place or need help with their strategy and prioritization efforts around innovation or help to execute, of course, on some of the individual innovation engagements.

Vinnie

Where I try to do that more on the demand side, and we can go into that more, but changing customer expectations, people who have been pushed into digital commerce, who maybe weren't that comfortable pre-COVID and found that they actually kind of like it and prefer it, so companies have to change that customer engagement and redefine what brand means to their customers. So, we can dig into that. On the other side, though, on the capability side, Kevin, I'm curious. I feel like the past year has been a proving ground that teams can be innovative working remote, you know, empowered agile teams, probably has helped companies get more comfortable with taking on innovation projects coming into this year. What are your thoughts on that?



Kevin

Yeah, I think, you know, historically, we've seen a large push back against remote work. And that's just part of the culture that ends up extending out into the work that's actually done. And so, with the shift to a mandated shift, really to remote work across the entire workforce, seeing productivity levels continue to at least stay the same. But if not rise, people working more hours even, I think that that just sets into your mindset, a little bit more agility, flexibility. And that's kind of the basis of operating for innovation, you know, you've got to be ready to ditch the past and things that haven't worked and move towards the next.

Bree

I see that too. I think two things that are causing the shift. The core business has changed, and that's what you mentioned, Kevin. Businesses just simply can't operate the way they have been in the past. And so, what made companies successful prior may not be possible any longer if, for example, maybe a channel has shifted to account for new needs, or new technology was created to bridge a gap. But I think also, in addition to the core business changing, people are doing a better job of looking ahead. So, businesses have adapted and are clearly preferring some of what's happening in the new environment with some of these shifts we've seen from companies that have been out there and have been disruptive. And I think what we're seeing is that clients are prioritizing that non-business as usual work in their organizations to be more prepared. They're seeing these opportunities that have emerged from the crisis, and they're trying to meet the challenges that they see coming and be a little bit more prepared.

Vinnie

Are you seeing it more as innovation as part of ongoing workstreams? Or are people actually taking a step back? And doing innovation workshops and ideation and prioritizing those and mapping them against, you know, future milestones and roadmaps?

Bree

Yeah, I'm hearing about it predominantly on the latter side of what you mentioned. So, we're hearing from customers that are either looking to define this process within their organization, build up a framework around it, and start to execute against a number of projects that may only be partly defined at this point, or looking hearing from folks that have determined maybe these efforts that they see as being kind of a three- to five-year out type workstream and they're looking to run that alongside of what they currently planned for the next year or two years.

Vinnie

So, what is some advice you could give that helps an organization have a successful innovation, facilitation ideation set of sessions, and prioritizing those outcomes? What works well, what drives success there? And what are some things people should avoid or be wary of?



Bree

Yeah, I think even prior to getting together for a session, which we would typically define as a workshop, it's really looking at what those pieces are that need to be in place. First, in terms of understanding the current state in the intent of the ask, reviewing any research, right, that exists in developing a shared understanding of any work that's been done to date on concepts around vision. We've talked about things like how important it is to develop an intake form so that organizations can have a way for these types of efforts to be streamed through into their process. And then, of course, understanding from stakeholders and SMEs sort of what the goals are, from there, you know, looking at competitive and comparative for some of these ideas that are being looked at in terms of innovations. And then once there is sort of a handful of ideas in place, you know, what that looks like, you know, what the landscape looks like, what the goals within the organization are, and how you might go about putting some of that framework in place, then I think the main goal of a workshop is really around the prioritization of these types of efforts. And we see that a lot in terms of competing business units, competing priorities for which one comes first, second, third. There are a lot of ways we help our clients prioritize those, certainly, the level of effort is looked at, budgets are looked at, timing... But there are a number of other metrics that are custom that we use to weigh how it might make sense to go through those prioritization exercises and put all that into a strategic roadmap for those efforts to be executed against.

Vinnie

Gotcha. Kevin, I'm curious, your thoughts on the enablement side of that, like what's changed in the last couple of years that has enabled organizations to test and learn to get prototypes out quickly, fail fast, and learn to adapt, as opposed to taking months and months and months to try to figure out some of these innovative solutions?

Kevin

Yeah, we've got a lot of technology now that we can just operate from as a base, right? I mean, the whole cloud computing landscape changes everything, we don't have to worry about infrastructure anymore. We can scale up, we can add services, you know, plugging in, I think AWS has something like 175-180 services right now. So, you know, anything that we want to try to accomplish that may have been sort of a commodity before we don't have to think about that, as we go about just implementing what's the core piece of this thing that we're trying to build. I also think that there's a lot more cross-functional collaboration, right? You'll see technologists and customer experience folks working hand in hand much more closely than they did five years ago, 10 years ago. And that's really helping. I think, as companies, models have improved, become more agile, they've had better sort of product management, portfolio management. So, the type of activities that Bree was describing from a workshop perspective, and looking at what the intake is, you know, what ideas have come forward? And what are these going to provide? And looking at prioritization, what means a lot more to the company, what does, those are things that you really want to be doing rigorously with an innovation effort, right, you want to make sure that you're investing all of the money that you can, and the things that you think have potential and you want to get lessons learned quickly out of the things that don't and move on. And it takes a good amount of rigor to do that good amount of maturity in your processes.



Vinnie

Yeah, one of the things that struck a chord with me when you said it was the commodities are taken care of, you know, I often talk about data governance and data engineering as being 80% of your work. And the last 20% is the advanced analytics and machine learning, actionable insights part of it, right, the part that gets noticed. Similarly, the past five to eight years of building these cloud services, getting a stable foundation is allowing people to appear and actually be much more innovative now than they were five years ago because they don't have to worry about those things. Right. It's been taken care of for you and you're just doing the functional innovative bits on the end. You had a good example of that the other day talking about the vaccine Can you go into that a bit?

Kevin

Yeah, sure. So, I think that the COVID-19 vaccine is a good example of putting a lot of investment into innovation and going into places where people think are going to fail or don't have much chance of success anyways, and then just kind of sticking to it. Alright, so it looks like it's fast. But it's just a lot of work that's gone into it. So, the mRNA delivery mechanism for the Pfizer and Moderna vaccines hadn't been used for anything else yet that had been put into humans. It came about the early 90s or so, the constant failures, constantly just kind of put down shunned, shoved to the side. And so, then when you know, the need for this vaccine comes up, and you've got this mechanism in place that really hasn't actually even hit the shelves yet, in any form, has a lot of money invested into it from a lot of different areas. But I think it was, like 42 days after China had posted the genetic code. We had a vaccine. I mean, the formula that they came up with at that point, is what people are getting injected with. And this happened by February of last year. So, I think that the first confirmed cases were just happening in the United States, and it was already ready.

Vinnie

Yeah, I was listening to a state governor, I won't say what state it was. But basically, saying they needed help to get things, more vaccines similar to J&J, the single injection to help their communities. And the quote was something along the lines of I'm paraphrasing, our scientific community got this vaccine together in less than a year, they can do it again with these new approaches. And that ignores the two decades before that. Right. So, it is frustrating to hear people say, Oh, we developed a vaccine in less than a year. No, we developed a vaccine in 20 years. Because of all that hard work and investment that was done ahead of time, and you don't show up at the last minute, and then all of a sudden have these great ideas and innovation, it's something that you have has got to be part of your journey, not a destination, right? It's something that you're always doing, always investing in always thinking that way. And then it pays those unexpected dividends.

Kevin

And it layers on itself, right. So, 30 or 20 years ago, they weren't looking at this as we can do vaccines with us, right? They were looking at this as we can manipulate DNA, and we can do things. At one point, the focus on the use was to develop stem cells, right, and avoid some of the



morality of arguments that are made there. And so, this was really a pivot, right? This is stuff that existed in a variety of forms and had evolved over time and said, Okay, well, actually, we can use it for this. And this would be a great use case that, you know, traditionally, vaccines are not an area where pharmaceutical companies have made a lot of money. And so, it's not an area that they've been significantly investing in either. So, to have this and be able to pivot and get this vaccine out to save millions of lives easily.

Vinnie

It's a good story; I often bristle at the fail fast phrase, because it's not about failing, it's about learning and evolving and moving to the next step, right? And I realize you have to fail to do that. But like, in this case, it was a pivot, it was a shift. And there are so many client stories that we've seen, where they are working down one workstream, and they bump into something else. You know, one example was a machine learning project our client had no, actually it was machine learning plus natural language processing. And it ended up not working the way they wanted it to. But all their DevOps processes and some of their Agile processes that they did in that one-off innovation team were highly successful. And the rest of the organization adopted that and have improved because of it. And velocity on every project now is better. So sometimes it's not even a pivot. It's a side effect success of just investing in innovation.

Bree

We're seeing those investments. I think specifically in certain areas of the modern technologies like we're seeing a lot of augmented reality through COVID of course prior to but then used to augment those experiences in an additional way. So, for example, the furniture visualization tools that IKEA is using or the glasses-wearing visualization tool that Warby Parker created.

Vinnie

Yeah, absolutely. And yeah, with the AR built into it, you're getting actual accurate representations of rooms, physical distances, that type of stuff. So, what started as a sort of a surprise and delight feature, was kind of cool to see, and experience has now changed into something that's a useful, functional feature on the phone.

Bree

One of the things we've heard is that consumers are embracing the use of technology to make a purchase. In fact, that came out of the consumer preferences study that CapTech executed a couple of months back. And we learned that over three-quarters of consumers are interested in using technology to make a purchase. So, when you think about those examples of the augmented reality that we just gave that lines right up to that.

Kevin

There were more digital wallet purchases last year than there were cash purchases. So, this is like your Venmo, your NFC, the apple tap, taking up your phone and tapping it.



Vinnie

Yeah, you know, I didn't think about that. But I wonder if that includes online e-commerce purchases as well because people weren't leaving their homes. Did you know if it was e-commerce as well? Or are you talking about even out and about it was it was more digital wealth, and then cash?

Kevin

I doubt it was cash online. But I think that when they were looking at digital wallets, they were looking at things that were not your standard banking. So online purchases that were not done with your credit card with you got the information.

Vinnie

I understand. Yeah, that's interesting. One of the things that you and I have talked about a bit, Kevin is this dynamic between augmented reality and virtual reality. You know, you and I are both big fans of virtual reality. And we have clients that have stepped into using it, when they can control the hardware, looking at buildings before they're built, looking at other locations around the world that they own, and touring those using photogrammetry, for instance. But it hasn't taken off the way AR has, and it's long been our position that that would be the case because everyone, most people have a smartphone capable of augmented reality, whereas virtual reality has very different hardware requirements. What are you both seeing in terms of taking that augmented reality to the virtual reality stage? Do people want to see their shoes on in virtual reality and looking at a full-length mirror? Or is that still a couple of years out? And we're going to fully invest in AR before we even start tipping into VR? I'm curious what your thoughts are?

Kevin

I think VR is a far way off from being able to do the things that you can do with AR and vice versa. And I think it just ends up being different use cases, right? I don't know why I would want to go into VR to see what shoes would look like on my legs when now I've got this whole virtual disconnect from my body to my legs. I think, right? That's just a use case for AR. Similarly, I don't want to have to spin around looking all over through the portal, that is my phone screen, trying to find the object across the room, or somebody that's speaking to me, on a video conference, I want to be able to just see them. So, VR would make more sense in that perspective.

Bree

You touched on the equipment there. I think that's a point to consider as well, right? It is that everybody has now in their hand the equipment they need to enable AR versus having to obtain that equipment for a VR fit.



Vinnie

Yeah, I don't want to drift too much into the fun tech stuff. So, to get back to the - I mean, I do - but we want to get back to investing in innovation. Bree, one of the things that I was thinking of, and I think you put the seed in my mind was, again, we're seeing a lot of companies spin up innovation projects for innovation's sake, not tied to other workstreams. And you'd mentioned something about it being related to optimism, and our economy and in our society, because people feel safer now the vaccine is being rolled out. Can you talk a bit about how that optimism is playing into these innovation decisions?

Bree

Yeah, I mean, this is just my opinion. But I think timing-wise, I've been trying to put my finger on why we're hearing about this in such a large influx of requests right now. Right. This has always been something as a company that we've prioritized and there are asks, we've responded to certainly on a regular basis over the years, but there seems to be heavier activity than usual. And, you know, I believe it's a combination of things, right? We're recording this in the spring. It's a regress season, the numbers are down. Vaccines are in arms and there is a feeling of optimism out there. And back to kind of the two things we talked about at the beginning, either your core business has changed, or you're looking ahead to determine how you can change in the future. And I think companies are seeing opportunity come out of crisis, and they're trying to meet the challenge of that they're trying to evolve, they know that. If they're not pivoting, then they're being left behind at this point,

Kevin

Right, I think the past year has given a lot of these companies some time for self-reflection, they may have been doing some investment than the years prior, but a lot of the larger innovation was coming out of either start-ups or companies that were just wholly focused on innovating, as built into their culture. So, you see this retraction that happens last year, as people kind of reel back and say, Okay, well, you know, we need to cut costs, we need to just kind of see where the world is headed, figure out where our places are. Now, to Bree's point about optimism, these companies have also been sitting around seeing other companies continue to be successful through the pandemic, and looking and saying, 'Well, what are they doing?' and every single one of them is innovating in some way, shape, or form. And so, they get inspired.

Vinnie

Where are we seeing these requests coming from? Are they coming from the IT side? From like, an R&D perspective? Are we seeing it from, the CX side? Are we seeing it from the business side? Because I know they have to adjust to their end-users. Or is it cross-functional? Where do we see the interest in innovation originating right now?

Bree



Yeah, I can take a stab at that. I think let me address it from even a larger perspective, just across the industry, too. So, we're seeing this recently in a variety of industries, from healthcare to insurance to manufacturing, even. And then, of course, in the various forms of retail in the consumer product space, and in terms of within those organizations, I think it is a cross-functional ask, one where we're working with business leaders, and with leaders in the customer experience space, or product specific product owners, or people that are in innovation or strategic roles within organizations.

Vinnie

Well, Kevin brought up a good point just before that, which has me curious, because a lot of the verticals that we work in, you know, they're not known as innovation companies, right? There's a lot of business-as-usual functions that have to happen. So, I'm thinking more about the culture of those companies? What has that culture been changed over the last year? How do you start to become more innovative in a culture like that? Is it hiring new key leaders into those roles? Is it moving people who may be on the innovation side into more visible roles? How do you see companies succeeding in that culture change?

Kevin

I think it's got to be driven from the top down, something like innovation where you've got to have this, this appetite for something new, right? You don't know what that is, you might have some very high ambitions. But you know, what do those look like? I don't know, right? And so, to do that, then you need money, you need people. If you need these processes, you need the support across the organization so that they don't get pulled back into the sort of same old way of operating. And if you don't have that kind of support from the top-down, typically, that just ends up getting mired. And it doesn't see forward. So, you're looking at like, I think last year at CES was where Delta did a presentation showing screens that you could see two different things, right? I could be standing and looking at a screen and seeing one thing, you're standing two feet to my side, you're looking at the same screen, you're seeing something entirely different. And that's obviously major innovation there happening from a consumer display perspective. But what went into making that, right? You have to have top-down support to have that sort of freedom to say, well, let's change how people see.

Vinnie

Right.

Bree

Yeah, I think it's creating the space internally for people to be able to focus on these projects, whether or not they're the execution team or the strategy owner behind the roadmap. They've got to be made a priority and give people the room to be able to run with those efforts.

Vinnie



We've talked about this before on an earlier podcast, I believe, but there's innovation within your current workstreams, right, and there's innovation that exists outside and can feed into those workstreams. So, space has to be made for both of those, right? You can't be so time-constrained on your sprints and delivery, that you can't innovate that you can only right stay on course. But what I've seen as a negative side effect of those two divisions, is that there's a perception that there's a small group of people, you know, 20 to 40 people who are doing truly innovative work and Innovation Lab somewhere, and then everybody else is doing traditional businesses as usual projects. So, I think there needs to be a more holistic change of how companies are viewing innovation so that there isn't that separation between the few who get to play with the cool toys, and everybody else who has to write, you know, logic code all day, right?

Kevin

I think that's a scale and ambition comparison. Really, right? Like, I'm not going to be able to do massive innovation on something that I need to keep running, need to keep updated on a daily basis. And, you know, when I am able to innovate, it's going to be fairly small in nature. I'm going to be taking steps to the left and the right, I'm not going to radically change my product from underneath from just within this one particular little product team. I'm going to need something larger and sweeping to do that. And with those efforts, it's harder to do those in that sort of sprint-based approach.

Vinnie

Great. So, before we wrap up, if this brings us to head, right, so we're seeing that, through COVID, customer expectations have changed, and we don't think they're changing back. We've seen power teams accelerate delivery. We've seen companies pump the brakes on innovation, and now because of optimism, they are hitting the accelerator and coming out to try to take advantage of that optimism and changing end user expectations. Bree would you add anything to that? Maybe give a couple of points on what companies should be doing now to make sure they're taking advantage of this or getting in that game?

Bree

You know, I think one piece of advice I would give is, and we touched on a little bit, is on the prototype, test, and iterate. It doesn't have to be a big lift, defining what is a great MVP and testing an idea through a design sprint or a lightweight prototype that can be shared with users where you get some feedback and some insights from that can often validate the need for a full-blown effort, right. And so, I think I would encourage people that are maybe considering getting into the space to look at those accelerator options, look at design sprints, look at workshopping as options to dip their toe into the space, and really figure out whether these new lanes are viable ones for them.

Vinnie

Great. Thank you, Kevin, any closing thoughts?



Kevin

Yeah, I think you've got to keep aware of a deep awareness of what technology is capable of. Right now, what is already available to you that you can pick up and use out-of-the box to just help get you there faster? I mean, we talked about the cloud services a little bit before machine learning you touched on, briefly, but that's a big one, right? That's underpinning a ton of the major innovations that are happening right now in all the industries that we've been talking about and doing more and more. So, there were studies done, I think January was published where they could predict, with 75% accuracy, your political leaning purely by looking at your face and not knowing anything more about you. That is mind-blowing. In the open AI project last year, people were just describing what they would want a program to do. And then it was generating the code and the user interface in order to enable that without a developer ever having touched any of the code or anything in that regard. So, we try to think even further outside of the box than what you might normally do. If you're having a question about how do I learn this, maybe try to think how can the computer learn this and see what hints it can get instead? Probably it's going to be more detailed.

Vinnie

Right and build on the strong foundation of the last 20 years, just like the vaccine manufacturers did to take advantage of that. Exactly. Well, Bree, Kevin, thank you for joining me today. Sure, everyone who's listening, thanks for joining us as well. And if you enjoy these, please subscribe and give us a rating. Thank you.

Bree

Thank you. Thanks, Vinnie.

Vinnie

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