### GenAl Enterprise Adoption: Tools, Use Cases, and Missteps

#### **Recording Transcripts**

#### **Creating PowerPoint Presentations with Generative AI - Loyd Thompson**

Lara Hill: But with that said, I would love to turn it over to Lloyd to introduce himself and get into his presentation. Are you ready, Lloyd?

Loyd Thompson: I am. I am ready. I'm gonna

Loyd Thompson: share my screen.

Loyd Thompson: And can you see my screen.

David Mantica -- Co-host!!!: Because.

Lara Hill: Your screen.

Loyd Thompson: Okay.

David Mantica--Co-host!!!: Now, if you

David Mantica--Co-host!!!: you're if you hit presentation play, I think it looked better.

Loyd Thompson: Well.

Loyd Thompson: okay. I wanted. I wanted to be able to do a few things on the side, but.

David Mantica--Co-host!!!: Okay. No, no, that's fine. To go back to where you're at. That was great. Go for it. Go back.

Loyd Thompson: We will.

Loyd Thompson: So this is my second time to present a little bit of my background.

Loyd Thompson: I got started in tech back in the Ibm card Punch days.

Loyd Thompson: I am so thrilled to have had a career that involved tech to this point where  ${\tt AI}$ 

Loyd Thompson: is starting to deliver on its promise.

Loyd Thompson: I'm going to took a little bit of a different approach for this morning's presentation to to kind of kick things off, and I think it represents the flexibility and power that AI and things like creating Powerpoint presentations represent.

Loyd Thompson: I had created a standard Powerpoint presentation.

Loyd Thompson: had a few discussions with some of my colleagues, and decided that there was a maybe a better way. And I'm looking forward to your feedback today after I go through this presentation.

Loyd Thompson: So if you'd like to. And this is part of the new

Loyd Thompson: while we're kind of getting started. If you would go to the Https Gamma App website, you can get a free account. There's a click free. Try button in the upper right.

Loyd Thompson: and follow along with some of the things that we do.

Loyd Thompson: I'm aware that there are many Youtube videos out there that walk you through how to use applications like Gamma and Gamma specifically.

Loyd Thompson: But today we're going to share with you some of the tips and tricks that we have found in using this in some of our contracts to help things be a little smoother in production, a little quicker in production, and maybe even a little more consistent in what we present.

Loyd Thompson: There's also a ton of applications out there, or or services out there for doing this. And one of the things that I'm going to show you, and we're going to start right here is just how powerful and quick

Loyd Thompson: the AI can do and change things as you go along.

Loyd Thompson: So beautiful. AI, Tome and Slidebean are some of the examples of popular ais that create Powerpoint presentations. You can see that I have just a normal text slide here.

Loyd Thompson: but if I wanted to make it just a little different.

Loyd Thompson: I can come here and say, make it more visual.

Loyd Thompson: And here you go.

Loyd Thompson: It's added the the visuals to it

Loyd Thompson: And depending on how you deep you want it to go. It can also add definitions and look up, go dynamically to the web and look up tome and beautiful AI and Slidebeam, and put information about them.

Loyd Thompson: End the slide with it.

Loyd Thompson: Now.

Loyd Thompson: one of the things that I want you to remember when you're working with these tools

Loyd Thompson: is most of the rules that apply to prompting.

Loyd Thompson: Also apply

Loyd Thompson: when you're working to create Powerpoint and using whether it's a AI graphics oriented tool that's creating pictures or videos or whether it's something like Powerpoint. You still need to remember some of the basics that go along with creating AI prompts.

Loyd Thompson: So context is still very important. It's what is determining what you're, you know is going to be on your slides.

Loyd Thompson: The constraints around it, including like, How long do you want your presentation to be?

Loyd Thompson: What kind of word, tone, or temperature do you want it to have? And then even things like avoiding bias in your presentation.

Loyd Thompson: all of those things that are part of good prompts are part of creating good presentations.

David Mantica--Co-host!!!: Hey!

Loyd Thompson: Same.

David Mantica--Co-host!!!: Lloyd Neely asks, can you add, speaker notes in a similar way.

Loyd Thompson: You know I've not ever tried to add speaker notes I will. I will be happy to work on that and find out research it and and try it myself to give an answer. But I've never tried to do speaker notes.

David Mantica--Co-host!!!: Great. If you come back later on, jump on in and let us know. Otherwise. Keep keep rocking, man.

Loyd Thompson: As soon as I'm as soon as I'm done I'll work on it, and I'll come back in and share what I find.

Loyd Thompson: So one of the other things that I would encourage you to do. And this is the prompt. So I tried to create like an end to end experience for you today.

Loyd Thompson: So I typically use Chat Gpt as my preferred large language model.

Loyd Thompson: And here is the prompt that I started off with today and included in my prompt. I included the blurb from the program for today.

Loyd Thompson: And I thought it. You know.

Loyd Thompson: this is my experience. My talk is 30 min long. What topics were most likely to engage the audience and cover things they would want to know.

Loyd Thompson: And here's the information it gave back to me.

Loyd Thompson: So then, when I came here.

Loyd Thompson: and I wanted to start working on it.

Loyd Thompson: I came up.

Loyd Thompson: and

Loyd Thompson: I wanted to show you

Loyd Thompson: how that

Loyd Thompson: became the basis for the presentation that you're

seeing.

Loyd Thompson: So this is literally a copy and paste

Loyd Thompson: from Chat gpt into the tool.

Loyd Thompson: And then I can set some parameters over here, and these parameters are incredibly important, depending on what you're doing.

Loyd Thompson: If you're doing just a 1 time

Loyd Thompson: presentation.

Loyd Thompson: then this button is not necessarily that important. But in this tool, when you're doing many presentations, say, for a course or

Loyd Thompson: certification program, or maybe even a series of business presentations

Loyd Thompson: preserve

Loyd Thompson: would keep the content that you have put together, and maybe it's directly from the AI. Maybe you've already proved it developed it, improved it, and you have exactly what you want to say.

Loyd Thompson: preserve allows you to lock that so that the AI isn't constantly, or

Loyd Thompson: maybe unintendedly, making changes to it that you don't want, or that changes the context or content of your presentation.

Loyd Thompson: You can have it in my case. I used it to generate the slides based on this. Input

Loyd Thompson: I can tell it how much of information that I want? I can make it very, very detailed

Loyd Thompson: or very brief in my case. I chose brief for today's presentation, and then I can start to give it some context.

Loyd Thompson: So here you can see, I said, write it for program and project managers looking to decrease their time to produce presentations while upgrading their quality.

Loyd Thompson: the tone.

Loyd Thompson: And then what kind of images?

Loyd Thompson: So I said, you can create AI images. And I described what could be in your my formatting for the AI image.

Loyd Thompson: I get to pick a model, and there's a bunch of different models to choose from.

Loyd Thompson: This is one of the newer models that we use.

Loyd Thompson: and then I can format it. So I formatted it as a presentation. 16 by 9, because that's that's what I have, and what most presentations are in today, and I told it wide, and then I gave it some additional instructions.

Loyd Thompson: So before I move on, are there any additional questions about how to quickly go from an idea

Loyd Thompson: to content to like formatting your presentation?

Loyd Thompson: David, are there any questions? Yeah.

David Mantica--Co-host!!!: Yeah, 1st question is, can I share a template Ppt and ask it to create, update from notes.

Loyd Thompson: We've done something similar.

Loyd Thompson: I don't know that we've directly done it.

Loyd Thompson: But you. I'm going to show you how you can update slides, and so maybe maybe I'm going to cover the thing that will directly address that if I don't

Loyd Thompson: come back and and ping me after I'm done, and then I I will talk to you or work work on it for you.

David Mantica--Co-host!!!: Laurie got some questions here. Do you need Api for images?

Loyd Thompson: No.

Loyd Thompson: no, I'm gonna and I'm gonna show you how to change images as well.

David Mantica--Co-host!!!: How easy is it to incorporate branding Aka color palette from a client.

Loyd Thompson: I'm definitely going to cover that. And it's incredibly easy. Excellent.

David Mantica--Co-host!!!: All right, that's it. Keep going.

Loyd Thompson: Okay.

David Mantica--Co-host!!!: Oh, wait one more. Can you review what you generated from Chat? Gtp.

Loyd Thompson: Can I go back to it?

David Mantica--Co-host!!!: Yeah. Can you review what you generated from chat? Gtp.

Loyd Thompson: I don't.

Loyd Thompson: I don't understand the review part.

David Mantica--Co-host!!!: Okay, Lauren, if you let's see, Laura, if you want to add to that question, let me know, and then we'll keep going, and then I'll bring that question back.

Loyd Thompson: I mean, if if

Loyd Thompson: yeah, if they wanted me to directly go through

Loyd Thompson: what I have on the screen here, I'm happy to do that.

David Mantica--Co-host!!!: No, just keep keep going, for for now keep rocking.

Loyd Thompson: Okay. And I apologize. I'm just not sure how to try to.

David Mantica--Co-host!!!: No, she'll she'll redo her question a little bit to help us out.

Loyd Thompson: Okay, so

Loyd Thompson: prompt basics still apply.

Loyd Thompson: What does AI do that really adds value. It like helps to improve quality and definitely decreases speed or time

Loyd Thompson: increases, speed decreases time.

Loyd Thompson: It is great at organizing the content.

Loyd Thompson: so you give it the idea. It gives you a structured.

Loyd Thompson: a structured view of of the information that you want, you have the chance to move it around as you need to.

Loyd Thompson: What we. What I found is that while the AI inside of these various tools

Loyd Thompson: are pretty good

Loyd Thompson: chat Gpt or Gemini, or anthropic, or the other models, I think, tend to be better

Loyd Thompson: at just working on the content part itself. The words.

Loyd Thompson: But then you can use the AI in the application to help tweak things if you need to, and they're good. Then at formatting it, and and all the options you have for picking formats.

Loyd Thompson: So I can change the style of this card

Loyd Thompson: by clicking on this button and picking. I can change colors, content, alignment, etc.

Loyd Thompson: From the button.

Loyd Thompson: and I can also help it to either improve the writing that's on here, spelling and grammar, etc. Or I can ask it. AI, to do something.

Loyd Thompson: Now

Loyd Thompson: the AI is not always perfect. My experience with AI. Probably most of your experiences with AI is, it can often be very, very good, but then sometimes it can also be wrong or not work at all, as you think it will be. But I'm going to do something that's worked in my practice. I hope it's going to work. Now

Loyd Thompson: I'm going to ask it to change the title. So this is AI's role in design.

Loyd Thompson: I could click in here

Loyd Thompson: and just change it, which is often the easiest. So not sometimes manual is faster and easier than asking the AI to do something.

Loyd Thompson: but I can. I can ask it to change the title, or I can ask it to change the information that's down here

Loyd Thompson: so I can come in here. I can say edit.

Loyd Thompson: and I'm using AI images right now. Here's the prompt that goes with the image.

Loyd Thompson: My custom

Loyd Thompson: my custom input for how it should be.

Loyd Thompson: I can come up here and say, I don't want to use AI. I want to search the web for image and replace it. But you can see this is not very good.

Loyd Thompson: according to what I'm trying to do for my presentation. So I can change this

Loyd Thompson: and say.

Loyd Thompson: group meeting

Loyd Thompson: with a

Loyd Thompson: display on the wall.

David Mantica--Co-host!!!: Hey, Lloyd, while you're doing that, somehow you got blurred. Can you unblur your background so we can see your face.

Loyd Thompson: Sure.

Loyd Thompson: Can you see my screen still.

David Mantica--Co-host!!!: Oh, yeah, screen's great.

Loyd Thompson: Okay. Did you see how I went from that cartoony looking stuff.

David Mantica--Co-host!!!: To more.

Loyd Thompson: To this

Loyd Thompson: absolutely, so.

David Mantica--Co-host!!!: We could. Yeah, we.

Loyd Thompson: Is here.

David Mantica--Co-host!!!: Screen. But you're just. Your face is blurred, that's all. It's not a big deal.

Loyd Thompson: All right. I stopped sharing.

Loyd Thompson: I'll come back over here.

David Mantica--Co-host!!!: There you go. You're not blurred anymore. Perfect.

Loyd Thompson: Alright, you you're gonna get to see my my craft room.

David Mantica--Co-host!!!: It looks fantastic. So we got one question as you're going back. Is the presentation created shared, therefore, available on the Internet? Or is it only available to you in your account.

David Mantica--Co-host!!!: just in case you need to include proprietary information.

Loyd Thompson: It's only it's only on my account.

Loyd Thompson: unless I choose to share it or or publish it. Mostly what you're going to see people do, and this is a little bit out of order. But I'll answer the question for you.

Loyd Thompson: You create it in your account, but then you can export it.

Loyd Thompson: and once you have it exported as a Powerpoint, you can see here how you can export it, or I can share it. I can collaborate on it with other people that are members of my account, or I can even embed it.

Loyd Thompson: Then.

David Mantica--Co-host!!!: One other question as you're playing there. Can you redesign an existing Powerpoint.

Loyd Thompson: again. That's not something I've tried to do.

Loyd Thompson: But I will investigate

Loyd Thompson: when we're done. So let me take a note about that.

David Mantica--Co-host!!!: Yeah, so that would be cool to see. Can you can you update

David Mantica--Co-host!!!: an existing Powerpoint.

Loyd Thompson: Okay.

Loyd Thompson: if you go back to look at my prompt

Loyd Thompson: one of the things that I told it to do with the pictures

Loyd Thompson: was to not include words in the picture.

Loyd Thompson: And

Loyd Thompson: if for those of you that maybe have played with any of the graphic AI tools, and one that I use. You can see up at the top of my bar is Leonardo AI

Loyd Thompson: wording. Words

Loyd Thompson: in these AI tools are very difficult to get accurate. It's better today than it was.

Loyd Thompson: but very difficult, because of the technology they use to determine

Loyd Thompson: the letters, and they use a pixel mapping approach

Loyd Thompson: that can get close, even. Get it right some of the time, but oftentimes we'll get it wrong. So I asked it when it created my images to only use numbers and not use words in the image.

Loyd Thompson: But here you can see they clearly did that. It's not what I wanted. I have a choice. I can just delete it and remove it from the slide all the way around.

Loyd Thompson: I can try to change the focus. So let's say this, it was only this top one, but the bottom one was fine.

Loyd Thompson: I could just like try to move the focus in the image down.

Loyd Thompson: But it's that's not really what I want it to be

Loyd Thompson: so. Once again I can come and edit it. I can just ask for another AI image and just say, Generate, I'm not going to change my prompt. I'm just going to see if it'll do a better job of following the prompt

Loyd Thompson: and it it didn't. So come up here.

Loyd Thompson: and I'm going to try it. I'm going to make it even more specific.

Loyd Thompson: So now I've got it both places. I can improve my prompt. It doesn't often do a lot to it, but I can click, enhance, prompt.

Loyd Thompson: and you see it removed. My, no words.

Loyd Thompson: So come back, and that's that's an example of it doesn't always work like you expect it to

Loyd Thompson: say generate

Loyd Thompson: still didn't do it. And and that's part you get a number of things to choose from. Now, here's 1 that's more correct than the others. So I selected it.

Loyd Thompson: and I can go with that. It's still consistent with the look and feel the the shades of the blues and the grays are still part of what I've got going on.

Loyd Thompson: So it's not bad.

Loyd Thompson: but you can see that it took multiple times to try to come up with something that actually would work.

Loyd Thompson: Now there was a question about the color with the themes.

Loyd Thompson: and so this brand guidelines was is consistent with that and templates. So I'm going to come up here and I'm going to click on theme.

Loyd Thompson: You can see that I do have a custom theme that I used for this presentation. I'm going to click edit, so you can see.

Loyd Thompson: And here are the options it gives you for setting up your theme.

Loyd Thompson: So one of the things is, we do have a brand color.

Loyd Thompson: And this is the hex code for that color.

Loyd Thompson: So I'm telling it. This is my primary color for my theme, and this is my secondary color, which is just black.

Loyd Thompson: the heading and the body. So here are the pieces that you can set with this being white for the background.

Loyd Thompson: And here's what it looks like based off of setting these these parameters.

Loyd Thompson: I can come pick the font and do the same with it.

Loyd Thompson: You can see if you want to get into kerning and letter spacing, and whether you want mixed capitalization or all caps. Those are some options you can set.

Loyd Thompson: Here's our logo, so we can add a logo. You can see that it's down here, and when I close it you'll see it's back on the lower left

Loyd Thompson: here. You can start to set everything from the corners, and whether there's a shadow or not.

Loyd Thompson: lot a lot of adjustments on how you do, and we can see how we set up our buttons.

Loyd Thompson: And then, whether or not there's any images that you're going to show.

Loyd Thompson: So here, if I was doing multiple slides and I wanted it to be a part of the theme, here is where I would prompt it for its images, so that my template would be consistent when I created the next presentation and the next presentation, and the next.

David Mantica--Co-host!!!: Hey!

Loyd Thompson: So.

David Mantica--Co-host!!!: Hey, Lloyd? Question, can you import a template.

Loyd Thompson: Can you import a Powerpoint template.

David Mantica--Co-host!!!: Yeah, they just specific, said Template. But I'm assuming Powerpoint.

Loyd Thompson: Yeah, I'm good again. I just for any question about importing something from Powerpoint.

Loyd Thompson: I've only used this to create things from the start and export it to Powerpoint. I've never tried to do the reverse.

David Mantica--Co-host!!!: Okay.

Loyd Thompson: But

Loyd Thompson: consistent with the questions from today. When we're done, I'm going to take a Independent Powerpoint presentation

Loyd Thompson: and see if I can do all of these things

Loyd Thompson: in it. I'll document how it goes, or maybe just record my screen.

Loyd Thompson: and if successful, I'll be happy to make the recording available to the audience so they can see how to do it with that. If if you could give input to David about, would that be a good approach? I'm happy to do that for you.

David Mantica--Co-host!!!: Yeah, I'd like you to do that. That'd be great. One question is, how far from the final version? So did you have to make many twists or changes.

Loyd Thompson: Sometimes.

Loyd Thompson: Now, what what I will say is, the tool has gotten much better.

Loyd Thompson: We did a project

Loyd Thompson: probably 9 months ago. That involved 26 decks.

Loyd Thompson: The 1st couple of decks took

Loyd Thompson: couple of hours to do, and they were an average of about 30 slides per deck.

Loyd Thompson: and that's not bad. This was for content that I wasn't familiar with. It had to do with industrial Hvac systems and the like.

Loyd Thompson: and I'm certainly not an Hvac engineer. So it took a little bit to to create it.

Loyd Thompson: because it involved research and getting it, getting it, working and getting the AI and to the point where it was understanding what we were trying to do.

Loyd Thompson: they made an update to it while we were working on it.

Loyd Thompson: It actually made things worse a little bit, and I wound up with a series of help desk cases, trying to figure out why things were getting worse instead of better.

Loyd Thompson: Got that squared away. And then they did another update

Loyd Thompson: that update fixed a ton of things, and before you knew it we were doing sub 1 h decks just just sending them out right. They're just producing the decks. So it's gotten much better.

Loyd Thompson: But you have to be prepared for it to take a minute, and I think again, that comes back to the regular prompting and and trying to get the AI to do what you want it to do.

Loyd Thompson: That's 1 thing is to get it, to do what you want it to do, not hallucinate, not give you totally unexpected results, like the famous Gemini founding fathers problem

Loyd Thompson: getting it to do what you want it to do. The next challenge is getting it to do it consistently. And that's actually a bigger challenge than to get the right output to start off with.

Loyd Thompson: So

Loyd Thompson: I'd say, be prepared to invest in whatever tool that you pick, whether it's tome or beautiful AI or gamma

Loyd Thompson: but once you kind of learn, its idiosyncrasies

Loyd Thompson: depending on the level of of its code base at the time.

Loyd Thompson: you'll find that you can create some awfully good looking presentations very quickly.

Loyd Thompson: especially if you're not an expert at what you're presenting, what you're creating the presentation around.

Loyd Thompson: It's incredibly helpful to have the AI behind you, or sometimes in front of you.

Loyd Thompson: Putting things together for you.

Loyd Thompson: no matter what you do, no matter how good you get at it, no matter what you do.

Loyd Thompson: The final step in producing your presentation is human. Review.

Loyd Thompson: I can't emphasize that enough. And if you, if you fail to do that. I think you do it at your own risk.

Loyd Thompson: So

Loyd Thompson: take take that

Loyd Thompson: input for what it's what it's worth.

Loyd Thompson: You can come over and did it? Did I answer the question.

David Mantica--Co-host!!!: Yeah, you're talking specifically about human interaction. That's what they asked for. And so you told them where you think human interaction needs to be, and how important it is.

Loyd Thompson: Okay?

Loyd Thompson: And so I've got 5 min left.

Loyd Thompson: coming back to the effectiveness of the prompts.

Loyd Thompson: This is good prompting.

Loyd Thompson: Be prepared to go through a couple of times to get it. The way that you want it to be

Loyd Thompson: this hurts you in, prompts. It hurts you in creating Powerpoint decks, using an AI

Loyd Thompson: at the end of the day. It operates very similarly on the the back side.

Loyd Thompson: In fact, Gamma, if I'm

Loyd Thompson: if I remember correctly, Gamma is a customized implementation of Chat Gpt.

Loyd Thompson: so they've they've taken it and extended its functionality to be more graphics, you know, Presentation Powerpoint based.

Loyd Thompson: But Chat Gpt is the backside of it.

Loyd Thompson: We've already talked about templates. You can do Batch formatting

Loyd Thompson: by picking the slides on the side.

Loyd Thompson: and then I can tell it to change the text.

Loyd Thompson: change the alignment like left or center or right alignment, change the color so you can. You can. You could select your entire deck

Loyd Thompson: and make a change. That is a batch formatting.

Loyd Thompson: And then I've already shown you about leveraging the AI.

Loyd Thompson: So I'm gonna and I'm gonna show you that it can't always do what you want it to do, so I can change this slide

Loyd Thompson: from on the left, on the right.

Loyd Thompson: So you saw how fast. That was

Loyd Thompson: simple.

Loyd Thompson: I could

Loyd Thompson: try to make it something where the image is the background.

Loyd Thompson: Some, you know. That's a good look for some presentations. Maybe that's something you want to do.

Loyd Thompson: So that you know pretty powerful here.

Loyd Thompson: But I can also ask it to do something a little different. So

Loyd Thompson: change.

Loyd Thompson: utilize templates

Loyd Thompson: in Section One

Loyd Thompson: to template

Loyd Thompson: utilization.

Loyd Thompson: And there you go

Loyd Thompson: doesn't always work perfectly this time it did, which is fantastic. Let's do one more thing.

Loyd Thompson: Expand the

Loyd Thompson: explanations

Loyd Thompson: through the

Loyd Thompson: 3 sections.

Loyd Thompson: That part that I've just illustrated.

Loyd Thompson: incredibly powerful.

Loyd Thompson: And remember, right now, it's doing it.

Loyd Thompson: not just based off of my prompt. But it's actually using its own information in the Gamma AI.

Loyd Thompson: But if I made this into a presentation that's got information based off of what's available in its training model.

Loyd Thompson: It would use that and come back and put it on. Here. I'm gonna I'm gonna try something just to illustrate to you what you can do.

Loyd Thompson: I just totally changed

Loyd Thompson: the subject of the slide, and it went out and filled it in.

Loyd Thompson: That's pretty powerful.

Loyd Thompson: but I can also come and undo it.

David Mantica -- Co-host!!!: So long.

Loyd Thompson: So.

David Mantica--Co-host!!!: Here real quick. So 1st off is.

David Mantica -- Co-host!!!: can this work with Google Sheets

David Mantica--Co-host!!!: or just Powerpoint.

Loyd Thompson: So there is an AI for Google.

Loyd Thompson: It's 1 of the ones I talked about here. Oh, wait! I guess I didn't. There is one for Google, a Powerpoint AI model.

Loyd Thompson: I've not tried again. I've not tried Google sheets. And I don't. I don't actually use Google sheets. If somebody has a sheet of something that they want to share with me for me to give it a try.

Loyd Thompson: I'm more than happy.

David Mantica--Co-host!!!: Laura wanted to, but her company is restricting, getting into Gamma right now. So that was Laura's question.

David Mantica--Co-host!!!: Let's see. Oh, there's 1 other one, too. Here

David Mantica--Co-host!!!: is the Gamma free version. Pretty decent, I mean, does it? Let you do some things, or do you have to go to paid

David Mantica--Co-host!!!: to really.

Loyd Thompson: No, it it lets you. It lets you do some basic things.

Loyd Thompson: I think it limits how big, how many slides.

Loyd Thompson: But you know it's intended to help sell you on using it. And so it's been so long ago since I used the free version. I don't remember all the limitations, but.

David Mantica -- Co-host!!!: Okay, so.

Loyd Thompson: It's worth giving it. It's worth giving it a try.

David Mantica--Co-host!!!: And you move to paid ultimately, though.

Loyd Thompson: Yes. Oh, yes. Yeah.

David Mantica--Co-host!!!: That makes sense. And then one of the one of the folks, George said that it does work with Google sheets, which is great.

David Mantica--Co-host!!!: Keep going. The last question is about copyright on the image side. So just your thoughts. There.

Loyd Thompson: That's a great, great question.

Loyd Thompson: So here, when you do the AI images, if I go to web, search

Loyd Thompson: right here, image license.

Loyd Thompson: all images free to use free to use commercially

Loyd Thompson: right can't do it based off of this.

Loyd Thompson: So I'm gonna say.

David Mantica--Co-host!!!: All right, so.

Loyd Thompson: Presenter.

David Mantica--Co-host!!!: Tool is embedded with

David Mantica--Co-host!!!: protection for you. So you don't use images that you're

David Mantica--Co-host!!!: could have a copyright infringement problem.

Loyd Thompson: Correct.

David Mantica--Co-host!!!: Now, whether it works great or not, that's a whole other story. But.

Loyd Thompson: Correct.

Loyd Thompson: and what what you sometimes have to do, and what I've done many, many times

Loyd Thompson: is, go to Google

Loyd Thompson: and then presenter

Loyd Thompson: here

Loyd Thompson: right more, and you can, or I'm sorry. What did I do?

Loyd Thompson: Click too fast

Loyd Thompson: tools.

Loyd Thompson: pick the licensing and everything that you need.

Loyd Thompson: and then you can decide

Loyd Thompson: I can come save this image.

Loyd Thompson: I'm not gonna log in now, but

Loyd Thompson: you can save the image and then come back and put it into your presentation, you can upload it.

Loyd Thompson: I had something I meant to show you is, I use this for 99% of what I do.

Loyd Thompson: But you could use its AI

Loyd Thompson: just type in a a 1 line prompt and ask it to create a presentation around that.

Loyd Thompson: And then here is what I'm going to play with. I don't. I don't do this.

Loyd Thompson: but here's the functionality, and that's what I'm going to use to go get to do the work I've committed to for you guys and then report back to David. I'm just not familiar with it, because I've always over here because I start with

Loyd Thompson: Chat Gpt

Loyd Thompson: and David, that's that's it. I hope that I've covered this. I hope it's been fun, and a little different to see it actually at work. Thank you for all of your questions. They were great, and I'm going to work on getting you some answers.

David Mantica--Co-host!!!: Well, here's a skinny 1st off. I love the fact that you're doing that, Lloyd. Secondarily, this is a powerful tool, I think, introducing this tool at the beginning of the conference is really cool, because project professionals do a ton of presentations.

David Mantica--Co-host!!!: Presentations are the gateway to getting things done in projects, and everybody knows they're a big, hairy pain in the butt.

David Mantica--Co-host!!!: So this really is a tool that can help people become much more productive, get things done quicker, so I love it, and also we give them a chance to get going. You gave them a great starting point.

David Mantica--Co-host!!!: Let's see, we got lots of love, your lots of love, your presentations, Lloyd. This is great. Anyone have a specific question before we close out with Lloyd, and he'll get back to us

David Mantica--Co-host!!!: on some of those additional thoughts.

Lara Hill: And also I just want to jump in and say that we have no affiliation to Gamma. Lloyd doesn't have any affiliation. All the tools that you're gonna see today. We don't have any relationships with any of these companies that are

Lara Hill: providing these tools. Our intention is to just showcase tools that we think will be useful to you a lot of times they are free. So there's no affiliate links. There's no partnerships. We just want to show you what's out there so that you can decide

Lara Hill: what might work best for you. So I just wanna put that out there, too.

David Mantica--Co-host!!!: Yes, we are tool agnostic could care less.

David Mantica--Co-host!!!: Yeah. Use it. Great if you don't. Great your choice.

David Mantica--Co-host!!!: Thank you.

David Mantica--Co-host!!!: Lloyd. You cracked great job. Hope you stick with us. Look forward to hearing back on some of your testing. Laura, pass it over to you.

## Gen Al for Project Management: Getting Started with Al Concepts, Tools, & Use Cases - Samuel Parri

Lara Hill: Great. Thank you, Lloyd, and we're going to transition to Samuel Perry. Thank you, Samuel, for joining us. I know you have a fantastic, content, packed presentation ready to go. So I want to turn it over to you. Are you ready to go, Sam?

Samuel Parri: I am ready. I get a note host, disable participant screen sharing.

Lara Hill: Okay, let me fix that.

David Mantica--Co-host!!!: We're going to make you. We're going to make you a co-host.

David Mantica--Co-host!!!: Thank you for letting us know that.

Lara Hill: Okay. Please. Try again.

Samuel Parri: Okay.

Samuel Parri: let me try it.

Samuel Parri: Excellent. Thank you, Laura.

Samuel Parri: Okay.

Samuel Parri: Well, 1st of all, I wanted to say

Samuel Parri: thank you so much to you, Laura, and to you, David, and to George Churchwell.

Samuel Parri: Hello, everyone. My name is Samuel Parry. Thank you for this opportunity and privilege to be with all of you today.

Samuel Parri: Hopefully, you can hear me well, and you see my title slide. Jen AI. For.

David Mantica--Co-host!!!: We? We see the title, we hear you great.

Samuel Parri: Excellent, excellent. So a couple of things I'd like to begin. 1st of all, Laura, when you opened up, you said.

Samuel Parri: this is targeted for those of you who are quote beginners, project managers out there and then. Just a little while ago, David, you said, quote, whether you like it or not. It's here. And I love those 2 comments from you folks, because my piece of today's conference is several fold

Samuel Parri: number one. I want to talk to you project managers that are on the fence

Samuel Parri: on this thing called artificial Intelligence

Samuel Parri: number 2. I want to talk to you project managers that may have tried some of the tools as an example. What Lloyd just shared. But you're not sure what the benefits are, what the risks are, etc. Etc.

Samuel Parri: And, most importantly, number 3.

Samuel Parri: I want to talk to you project managers that are subject matter. Experts quote unquote thus far in this journey of artificial intelligence, because I want to make you subject matter, experts, bumblebees, and what I mean by that to spread and pollinate some of the benefits

Samuel Parri: and the realization value of the tools to those that have tried it.

Samuel Parri: also to those on the fence to help talk them down, so that as one company, all of you

Samuel Parri: are speaking the artificial intelligence language.

Samuel Parri: So to brief background about myself, I've had the pleasure team thus far to work at 3 great corporations.

Samuel Parri: I am an advocate of on the job training, certification, education. You name it because as a project manager.

Samuel Parri: I think you would agree that the more knowledge you have

Samuel Parri: in turn, the greater value that you could deliver to those that you serve.

Samuel Parri: So for Mount Tam I teach project management. I'm sorry for Mount Tam. I teach Itel foundation certification.

Samuel Parri: and for Mount Tam I teach project, management, certification.

Samuel Parri: and for Cisco systems I teach customer success, management, certification. So I enjoy being with folks like yourself from all over the world. And then, lastly, I reside in Akron, Ohio.

Samuel Parri: So that's a little bit about myself.

Samuel Parri: All right, let's have some fun.

Samuel Parri: I want to begin by shouting out David Monica, because I thought David's opening in the July Artificial Intelligence Conference was extremely important, because he said, it starts with us

Samuel Parri: as project managers.

Samuel Parri: It's like the Internet, if you remember 30 plus years ago for those of you that have been around, it's a tool that is enabled by the Internet.

Samuel Parri: But most importantly, David went on to say, we're not ramping up as fast as, say, some other professionals.

Samuel Parri: We're kind of black and white thinkers

Samuel Parri: versus say, entrepreneurs who think more creatively about what are possible.

Samuel Parri: And I think all of you have seen many reports. This is just 1 80% of projects today are done. They're projecting, I should say, by 2030

Samuel Parri: to be done by AI generative tools. And this list goes on and on. Lloyd just explained one of them in terms of presentation. Okay.

Samuel Parri: but what's interesting in my project management courses? I do polling questions.

Samuel Parri: And, interestingly enough, approximately 50% of the folks that join my courses know little to nothing relative to how to use

Samuel Parri: artificial intelligence tools. So as project managers, I want to share that we today more than ever need to learn much faster than ever before.

Samuel Parri: So

Samuel Parri: today, I want to give

Samuel Parri: a high, level

Samuel Parri: Rod. Brutch view

Samuel Parri: what it? What can it do for us?

Samuel Parri: What are the tools that we could use in our toolkit as a project manager?

Samuel Parri: I want to give 3 short fun examples. Lloyd touched upon one of them. I want to further expand that in terms of project management examples, if you will.

Samuel Parri: and then the mind. I want to talk a little bit about the right mindset to give each and every one of you a virtual wrench and a virtual screwdriver, because the technology is evolving so quickly. We got to constantly adjust our mind appropriately, so that we, in conjunction with the tool, could complement each other. And then I want to wrap up

Samuel Parri: with some strategies to share with you as a project manager to get you down off the fence and to start your AI journey.

Samuel Parri: So I hope that helps out.

Samuel Parri: If there's no questions, let's start. What can it do for me? A project manager?

Samuel Parri: Well, 1st of all, I want you all to know.

Samuel Parri: This is a new language.

Samuel Parri: This is a new competitive advantage.

Samuel Parri: Okay, it is no longer an option.

Samuel Parri: It's a necessity.

Samuel Parri: as the speakers earlier mentioned.

Samuel Parri: and it's a ship

Samuel Parri: on how we communicate, not only amongst our peers.

Samuel Parri: not only to those that we serve.

Samuel Parri: but it's becoming the new language of business.

Samuel Parri: Okay, so start speaking, start understanding the acronyms, the language, so that you could feel empowered

Samuel Parri: subsequently utilizing the tools

Samuel Parri: to then serve value

Samuel Parri: to those that you serve.

Samuel Parri: So it's going to require

Samuel Parri: investment, is going to require time

Samuel Parri: to help you over time, become the best project manager possible.

Samuel Parri: So it's a new way to create new ideas to manage projects. Again.

Samuel Parri: Lloyd just gave us one example.

Samuel Parri: So look at the positives, look at the benefits, knowing that.

Samuel Parri: like the Internet, it does have some risk. It does has concerns.

Samuel Parri: But over time it's like going to Carnegie Hall

Samuel Parri: practice practice practice

Samuel Parri: and you shall get there

Samuel Parri: all right

Samuel Parri: upfront team. I want to share a simple polling question.

Samuel Parri: how often do you use an AI generated tool.

Samuel Parri: A, BC or D, and I believe, Laura, we could do a polling question. If if I recall correct.

Lara Hill: Yes, however, that would have had to been set up in advance. So let's just use the chat, and I'll tally it up and let you know.

Samuel Parri: Okay, thank you. Kylie.

Lara Hill: AI to tally it. By the way.

Samuel Parri: Thank you. Thank you. So given the interest of time team, I'm going to continue. Thank you.

Samuel Parri: Okay.

David Mantica--Co-host!!!: But before you do that, Sam, I mean, we're getting lots of feedback, and it's wild

David Mantica--Co-host!!!: for this conference. It's all over the place. It's really cool, so we'll definitely tally it up at the end to get the info to you. Keep going.

Samuel Parri: Oh, thank you. Thank. That means so much to me. Thank you. Everyone

Samuel Parri: simply put team. What is this thing called Gen. AI.

Samuel Parri: It's a tool.

Samuel Parri: okay? And like anything else to achieve desired results.

Samuel Parri: And these desired results

Samuel Parri: span

Samuel Parri: unbelievable amount of things.

Samuel Parri: optimizing your work, improving your efficiency. I'm going to talk in a little bit about this information, pollution, if you will, of data, because right now, looking up, I see bits, I see bytes. I see packets. I see tokens flying all over me here, and I'm sure you do, too.

Samuel Parri: How can we gather that data and provide some valuable insight in a day in the life of project management related activities.

Samuel Parri: So there are algorithms you're going to hear some knowledge experts about AI how to generate fresh, unique content.

Samuel Parri: But I want to right now emphasize a quote.

Samuel Parri: A journey of 1,000 miles

Samuel Parri: begins with that 1st step. Okay, but I want to share with you my quote.

Samuel Parri: my quote, that journey starts with the 1st 6 inches.

Samuel Parri: And where are those 1st 6 inches?

Samuel Parri: It's between our ears.

Samuel Parri: All right. Now, let's talk some simple use cases with companies that are utilizing these AI tools. Let's start with problem scoping Microsoft developing AI system to detect, to prevent cyber threats.

Samuel Parri: This is real.

Samuel Parri: Let's talk about data gathering preparation kind of like, Lloyd was saying.

Samuel Parri: Here Twitter is using generated data tweets, engagement metrics

Samuel Parri: to look at sentiment, content analysis

Samuel Parri: from their customers.

Samuel Parri: Model development building and refining these models, using powerful algorithms here. Uber. Many of us use Uber fine-tuning the system to improve accuracy, to personalize a ride

Samuel Parri: for its users.

Samuel Parri: model development. Integrating these various models into production environments.

Samuel Parri: Airbnb utilizes this for their pricing system.

Samuel Parri: handling large volumes, requests and recommendations from the people that utilize Airbnb.

Samuel Parri: And then, lastly, model evaluation to assess performance, effectiveness, user feedback. The rating that Netflix, for example, uses to evaluate

Samuel Parri: the relevance and user satisfaction.

Samuel Parri: Okay, I talked some examples of you use cases with regard to companies ping

Samuel Parri: this spans multiple industries, construction predicting costs, timelines to or to avoid cost, overruns and delays.

Samuel Parri: This is huge for those of you that are in the healthcare industry to accurately predict and diagnose treatment plans to achieve better patient outcomes.

Samuel Parri: When you look at manufacturing, how to optimize reduced waste to predict failures of equipment. Obviously downtime is

Samuel Parri: lost revenue

Samuel Parri: financials. I worked a number of years in the financial industry, to make hopefully better decisions on lending money to minimize your risk as a financial institution.

Samuel Parri: When you look at retail industry, custom, data, personalizing recommendation

Samuel Parri: to increase customer loyalty.

Samuel Parri: make it sticky. They're yours for life.

Samuel Parri: and, most importantly, team

Samuel Parri: for those of you that have been practicing project management for a number of years

Samuel Parri: what this determined a successful project? And the answer was simple. Did we do it on time? Did we do it within budget? And did we do it to the quality satisfaction of those that we're serving?

Samuel Parri: And the answer is true. Today.

Samuel Parri: however, today, more than ever, we have to focus on improving

Samuel Parri: business value outcomes

Samuel Parri: to those that we serve.

Samuel Parri: and one way to raise your game.

Samuel Parri: to raise your conversation.

Samuel Parri: to be more consultative

Samuel Parri: to those that you serve

Samuel Parri: is to consider leveraging many of these AI tools that you're going to hear about throughout today to optimize your outcome, optimize the processes and most importantly

Samuel Parri: to personalize those that you serve.

Samuel Parri: I love this slide

Samuel Parri: because this is those of you that are up on the fence all right. This is what's called a fixed mindset.

Samuel Parri: I call it a closed mind.

Samuel Parri: a closed mind, meaning that you're not open to listening to

Samuel Parri: opportunities that are all around us.

Samuel Parri: Conversely, this guy with the wheel. All right. He's got a growth mindset

Samuel Parri: and open mindset to help people. Okay, so we're in what I call the blood, the guts and the beer as a project manager, traditionally doing mundane kind of tasks.

Samuel Parri: This is that transformation where again.

Samuel Parri: AI could help you be a rock Star Project manager.

Samuel Parri: You're gonna hear about a number of chat box. Lloyd mentioned one.

Samuel Parri: What I love about this slide team is to look at the pro and con of these, because they're not quite created. Equally.

Samuel Parri: Most importantly, I wanted to include why, you would consider one

Samuel Parri: over the other.

Samuel Parri: and these chat boxes are great tools to begin that 1st step

Samuel Parri: in utilizing and seeing the subsequent value

Samuel Parri: of some AI tools.

Samuel Parri: I mentioned earlier information. Pollution bits are flying all around us. Okay.

Samuel Parri: how do you take that information? Pollution data, let's call it and whittle it down by leveraging generative AI tools to have something that's meaningful that's diluted to exactly what you want.

Samuel Parri: That is to take that data, slice and dice it

Samuel Parri: and arrange it such that it's visually presented like Lloyd just shared with us

Samuel Parri: to then enable you to have a wonderful consultative conversation to the stakeholders that you're serving.

Samuel Parri: What a beautiful thing!

Samuel Parri: However.

Samuel Parri: there are implications! All right, I think you would agree. And this is from Project management Institute.

Samuel Parri: over 70% of projects fall short of their objectives.

Samuel Parri: Why

Samuel Parri: schedule overruns conflict

Samuel Parri: suboptimal decision making. And this

Samuel Parri: list could go on and on.

Samuel Parri: And what does that transpose into lost money, ineffective practices?

Samuel Parri: So we as project managers, we're grappling with inadequate skills, maybe inadequate tools.

Samuel Parri: Time, all right. We're not effectively utilizing our time

Samuel Parri: to deliver that value of when we execute a project.

Samuel Parri: Therefore, implement

Samuel Parri: well-defined tools

Samuel Parri: and what Lloyd just said was one of many you're going to hear about today.

Samuel Parri: It's gonna significantly

Samuel Parri: improve your success

Samuel Parri: to those that you serve

Samuel Parri: team. What I now want to do is simply

Samuel Parri: give you 3 simple project management examples that you could practice practice

Samuel Parri: on your journey to Carnegie Hall.

Samuel Parri: And this is that mindset

Samuel Parri: where you're taking and transitioning from managing tasks

Samuel Parri: to creating

Samuel Parri: that business value based outcomes to what your customer wants?

Samuel Parri: Let me give you the 1st simple example of what I touched upon a little while ago. Big data flying all around us.

Samuel Parri: The example here, you're a project manager on a large scale construction project.

Samuel Parri: How can you

Samuel Parri: take this data

Samuel Parri: and share it with your stakeholders to ensure? They receive

Samuel Parri: accurate timely updates on project status. As you journey around the project. Lifecycle.

Samuel Parri: How do you leverage this data

Samuel Parri: and present it?

Samuel Parri: Well, here is the outcome

Samuel Parri: of that particular

Samuel Parri: This particular was Chat gpt for all. All right.

Samuel Parri: And this is a summary of the data that I got response back from the tool.

Samuel Parri: I simply summarized it here in one view

Samuel Parri: data collection

Samuel Parri: drones our Internet of things sensors. And it's gathering all of this data as that construction project is progressing through the life cycle, how to analyze it updating of the status

Samuel Parri: stakeholder communication.

Samuel Parri: That's the output

Samuel Parri: of the tool. But what I love about it, what is the outcome

Samuel Parri: by leveraging big data you can provide highly accurate detailed updates.

Samuel Parri: transparent

Samuel Parri: data, driven decision making, etc. Etc.

Samuel Parri: Now let's look at the second one. You are a new project manager, all right. And the good news you were just assigned your project. Oh, by the way, you also heard that the stakeholders are tough.

Samuel Parri: they're difficult to please.

Samuel Parri: Therefore

Samuel Parri: how are you going to handle this?

Samuel Parri: Which tool can you consider? How do you get a detailed breakdown on each tool to help you get insight

Samuel Parri: to effectively manage

Samuel Parri: these difficult stakeholders.

Samuel Parri: This tool is project management, institute infinity.

Samuel Parri: Again, what is the output?

Samuel Parri: Some tools like surveys.

Samuel Parri: interviews.

Samuel Parri: maybe. Do a focus group

Samuel Parri: net promoter score.

Samuel Parri: But what I love about this is the outcome.

Samuel Parri: understanding.

Samuel Parri: stakeholder satisfaction, all right. Using a combination of these various tools both quantitatively

Samuel Parri: and qualitatively, to get a comprehensive view.

Samuel Parri: What's interesting here? And I think all of you would agree.

Samuel Parri: Not all stakeholders are created equally. You might have 10 stakeholders and 11 different wants and needs.

Samuel Parri: How are you gonna manage that

Samuel Parri: team? The 3rd is like Lloyd was talking about a document. Here's an example. Real life of a project charter, utilizing Claude

Samuel Parri: as the chat box. I'm a recent. I'm a project manager. That was just assigned a new project, and the stakeholder just gave me the Project Charter to collaborate.

Samuel Parri: I want to understand its accuracy and completeness.

Samuel Parri: Please share with me. To ensure. This is as good a project charter as can be

Samuel Parri: here Claude is giving me the output, the strength.

Samuel Parri: the areas of improvement. What some recommendations are, but what I love is the outcome.

Samuel Parri: It's saying this is a solid charter.

Samuel Parri: however, addressing these improvements, can make it even more comprehensive

Samuel Parri: and a stronger foundation for project success.

Samuel Parri: Okay.

Samuel Parri: I talked earlier about the virtual wrench and the virtual screwdriver that we gotta constantly adjust our mind.

Samuel Parri: What does that mean?

Samuel Parri: As human beings? What do we do best?

Samuel Parri: We're creative.

Samuel Parri: We're innovative.

Samuel Parri: We manage team dynamics, etc, etc.

Samuel Parri: However, what does the tool do?

Samuel Parri: We talked about data analysis.

Samuel Parri: pattern recognition like in health care predicting some future illnesses that a person might have

Samuel Parri: what are challenging. You're going to hear a lot today about bias

Samuel Parri: resistance to change those of you that are up on the fence.

Samuel Parri: All right. However, what are challenges of the generative AI tool? You're going to hear a lot about emotional understanding.

Samuel Parri: ethical blind spots.

Samuel Parri: But the goal is to have this a collaborative

Samuel Parri: human machine

Samuel Parri: interaction

Samuel Parri: optimizing decision making proactive risk management.

David Mantica--Co-host!!!: Hey? Hey, Sam! We got a 5 min warning.

Samuel Parri: Thank you. So here it here is a look at a glance of human judgment complexity

Samuel Parri: along with 4 quadrants. And here are some tools to practice

Samuel Parri: all right if AI tools for each of these quadrants. So consider playing some of these because it may be a great tool in your toolkit.

Samuel Parri: In addition, I put a compare and contrast for you in automation tools when compared to generative AI tools, the primary function, etc. Etc. And some ideal use cases.

Samuel Parri: It's amazing to me today how many project managers? All right, don't utilize a work breakdown structure. So I want to give you at least 5 popular tool to consider playing with. Like, Lloyd was saying, playing with a presentation tool.

Samuel Parri: All right. Now.

Samuel Parri: what I what I'm sharing here is

Samuel Parri: rather than compete. Try to improve your human skills.

Samuel Parri: focus on things that we humans do best.

Samuel Parri: A doctor having good bedside manner, a programmer spending time with the users.

Samuel Parri: future pew.

Samuel Parri: You're human

Samuel Parri: schools, such that excel in things that humans can do.

Samuel Parri: This will make you almost impossible to be replaced.

Samuel Parri: Here are just some of them. Okay, focus on improving

these?

Samuel Parri: This was a second question.

Samuel Parri: do you have concern

Samuel Parri: that AI will impact your job

Samuel Parri: alright in the group chat or in the chat window. It'd be

interesting to hear some of your thoughts on this

Samuel Parri: concerns.

Samuel Parri: hey? It's not the best. Try many of them.

Samuel Parri: All right.

Samuel Parri: Okay. Oh, thank you.

Lara Hill: Yup. I figured it out. I got it set up.

Samuel Parri: Oh, you use the profile.

Lara Hill: We will have immediate answers.

Samuel Parri: Thank you.

Samuel Parri: And to continue with this.

Samuel Parri: there's no human author.

Samuel Parri: Okay, somebody talked about licensing earlier with Lloyd. Understand? What's behind the tools. So in summary, what are strategies for success for you? The project manager.

Samuel Parri: understand who you are, what you are, why you are, where you are, and where your skill set is. Does that? Where do you want to be? Have a sense of curiosity, anticipation, develop some of these new skills you're going to hear about today.

Samuel Parri: Okay.

Samuel Parri: In addition.

Samuel Parri: in addition, have that growth mindset

Samuel Parri: be inspired, be motivated.

Samuel Parri: and always remember, Team

Samuel Parri: AI is not going to replace you.

Samuel Parri: You are going to be replaced by someone who's utilizing these generative AI tools. Who's going to outperform. You

Samuel Parri: understand where you fit in the social arena? All right, enhance your your human skills and your soft skills.

Samuel Parri: The best way to do it. Understand your career goals

Samuel Parri: determine areas that you want to specialize. All right. Get educated all right. Identify companies that have career paths, collaborate with some of the experts you're going to hear about today.

Samuel Parri: Practice practice practice to become that project Manager Rock Star. All right. And then I want to close with 2 closing thoughts.

Samuel Parri: Question number one.

Samuel Parri: What would you say?

Samuel Parri: An ethical, unbiased machine would look like

Samuel Parri: interesting question.

Samuel Parri: And the second question.

Samuel Parri: if the current project success, let's say, team, for example, is 30%,

Samuel Parri: what would you say? The success rate would be if Gen. AI. Tools were used.

Samuel Parri: These are closing thoughts to think about team. I've given you all virtual hug, Laura, George, and to you, David. Thank you, and I wish all of you good sex, good success

Samuel Parri: on your AI journey.

David Mantica--Co-host!!!: Man, Sam.

Lara Hill: Samuel.

# Empowering Data Governance with Generative Al: Transforming Compliance and Decision-Making with Abrar Hashmi

Abrar Hashmi: Can everybody see the screen?

Abrar Hashmi: Oh, sorry. That's the wrong deck. Sorry we're going to talk about Gen. AI. Sorry we're going to talk about data governance today. So welcome, we're going to talk about a lot of great presenters have shared their expertise and knowledge in the last couple of hours with us.

Abrar Hashmi: What we want to focus on for the next half an hour or so is, look at the underlying principles of data governance which will help us out with looking at compliance and improve decision making.

Abrar Hashmi: as we as Pms. As program managers, as coordinators, as leaders, embark on these journeys.

Abrar Hashmi: Lot of great Demos we have seen since morning. Even in the chat, a lot of discussions around the tools we use.

Abrar Hashmi: This talk is going to focus more on the.

Abrar Hashmi: what is the fundamental data model, the data governance structure which makes our model be accurate and help us out better with predictability.

Abrar Hashmi: So let's start this out by 1st and foremost talking about

Abrar Hashmi: the world we are living today.

Abrar Hashmi: It would not be wrong to say it would not be an understatement to say that today we're living

Abrar Hashmi: in the age of data.

Abrar Hashmi: You will see T-shirts. You'll see memes about data is the new bacon data is the new pizza. Everybody talks about data. And you'll see all these things out there.

Abrar Hashmi: The global data and analytics market in the industry today is valued over

Abrar Hashmi: around 350 billion dollars.

Abrar Hashmi: This was something very interesting. The amount of data which is generated every day.

Abrar Hashmi: not talking monthly, not yearly.

Abrar Hashmi: Every day.

Abrar Hashmi: We create

Abrar Hashmi: 2.5 quintillion bytes of data.

Abrar Hashmi: Now throw it out to the group here. I can't see the chat right now. But does anyone know how many zeros exist in a quintillion.

Abrar Hashmi: You can speak up if you want to.

Abrar Hashmi: We know 1 billion trillion

Abrar Hashmi: quintillion, and how many zeros and you can chat, gpt the answer, too. It's up to you.

Abrar Hashmi: 18

Abrar Hashmi: 18 zeros exist in

Abrar Hashmi: quintillion.

Abrar Hashmi: That's how much data we are creating and generating everything.

Abrar Hashmi: The talk we are giving, the buttons we are pressing on Zoom. The different

Abrar Hashmi: packets we have in terms of Internet. Everything which we do is

Abrar Hashmi: data driven.

David Mantica--Co-host!!!: Hey, Bro, can you speak a little louder, or turn up the mic volume? That'd be great.

Abrar Hashmi: Absolutely

Abrar Hashmi: 70% of the world's data today

Abrar Hashmi: is generated by us.

Abrar Hashmi: It's not somebody else creating it. Every single action we take, every single.

Abrar Hashmi: Can you hear me

Abrar Hashmi: perfect?

Abrar Hashmi: Every single thing which we do is

Abrar Hashmi: really going towards that 70% of that 2.5 quintillion bytes of data.

Abrar Hashmi: the cloud, computing industry, all the products which we saw, whether it is chatgpt, whether it's Claude, any other thing which we're looking at it from a tool. Perspective

Abrar Hashmi: enterprises are spending upwards of 500 billion dollars annually

Abrar Hashmi: for cloud computing, which runs the foundation off.

Abrar Hashmi: What is the world which we live in today? Everything is data driven.

Abrar Hashmi: So let this sink in before we get towards. Why, what we are going to talk about for the next 27 min. Why is it critical?

Abrar Hashmi: It's really understanding that everything which we do? It's data driven.

Abrar Hashmi: It's amazing to have all the chat listed out and put it in a tool and say, Hey, can you summarize it for me? That's data.

Abrar Hashmi: you choosing a tool. That's data, you attending a session. That's data. You clicking a button. That's data.

Abrar Hashmi: We then go towards

Abrar Hashmi: a high level overview of data. Governance

Abrar Hashmi: data is coming in every place. Everything which we do, every action we take. That's data driven

Abrar Hashmi: data. Governance is nothing but

Abrar Hashmi: the framework. For

Abrar Hashmi: where is this data? How is this data stored?

Abrar Hashmi: Who has access to this data?

Abrar Hashmi: How do we ensure compliance with this data.

Abrar Hashmi: How do we have decision making for the data?

Abrar Hashmi: The second component of our talk is going to be around, what is Gen. AI

Abrar Hashmi: Gen. AI is nothing but a model based on artificial intelligence.

Abrar Hashmi: which helps you take a look at this data and generate insights.

Abrar Hashmi: a use case which we have seen just today is you've taken a look at all the chat. You've taken a look at all the videos. You can put this out into an AI model.

Abrar Hashmi: and that AI model will generate new insights.

Abrar Hashmi: Why is this important? Because it helps you out with automation.

Abrar Hashmi: It helps you out with

Abrar Hashmi: being faster.

Abrar Hashmi: And last, but not least, it helps you summarize things. So you can have better decision making.

Abrar Hashmi: So we talked about data. We spent some time talking about what is data governance.

Abrar Hashmi: how AI fits in. And let's now continue

Abrar Hashmi: discussing what's next.

Abrar Hashmi: If you look at data governance today.

Abrar Hashmi: data governance results in a key important area. We have regulatory rules. If you're working in the federal space, you have hipaa compliance, you have. Gdpr, if you're in Europe, you have Ccpa.

Abrar Hashmi: The goal is every insight which we create is only going to be important.

Abrar Hashmi: If the data which we provide is good.

Abrar Hashmi: It's very similar to the Gigo framework garbage in garbage out

Abrar Hashmi: the better my data, the better decisions I can take.

Abrar Hashmi: And this is not something new.

Abrar Hashmi: If we are driving on a car. And if we see that it is raining, if we see our cars have tire pressure, we make a decision based on new data which gets fed into our systems. So we as human beings use the same mindset.

Abrar Hashmi: understand the data, have the knowledge and move forward.

Abrar Hashmi: Why is this a big problem? Why is data governance, a big problem. Then

Abrar Hashmi: there are 3 key things which we try to eliminate when we think about data, governance

Abrar Hashmi: number one

Abrar Hashmi: is complexity and volume.

Abrar Hashmi: Once again, 2.5 quintillion bytes of data.

Abrar Hashmi: That's how much data we have. Somebody has to summarize it. Somebody has to create insights. Somebody has to base responses, and that is daily.

Abrar Hashmi: By the time this training gets finished the decks get sent out to you by Lara and team.

Abrar Hashmi: That number is going to be 5 quintillion.

Abrar Hashmi: By the time the month finishes we'll have more data created.

Abrar Hashmi: The other big challenge is noncompliance.

Abrar Hashmi: What information is being fed who has access to that information where, they say, will this information be reused?

Abrar Hashmi: And last, but not least, data governance, because the sheer enormity of data is a manual process. It's time consuming

Abrar Hashmi: what happens when companies don't have good data. Governance

Abrar Hashmi: securities had a huge classic breach breach of data where bad data governance

Abrar Hashmi: had permission issues put the company's data at risk.

Abrar Hashmi: This was a few 100 million dollars. When they lost in terms of their market cap

Abrar Hashmi: unity, the company lost 37% of their market price. Their stock price dropped 37%.

Abrar Hashmi: Once they started having bad data for its ads and monetization programs.

Abrar Hashmi: So you're sending out the wrong type of products to customers and their stock dropped 37%.

Abrar Hashmi: We've all heard about the equifax breach.

Abrar Hashmi: When millions of user data, their social security numbers. Their addresses were breached in a security hack.

Abrar Hashmi: Funny enough.

Abrar Hashmi: we think that it happened recently. That was in 2017.

Abrar Hashmi: So once again, not something recent. Once you have data, governance challenges. Once you start having security breaches. Customers remember.

Abrar Hashmi: Most recently, a few months ago, citigroup was fined 136 million dollars. Once it failed to have data, governance processes be updated.

Abrar Hashmi: the total fines which city has paid in the last 8 to 10 years is over 1.5 billion dollars.

Abrar Hashmi: Data governance is not going away. Data governance is a foundation of where AI is going to help out with.

Abrar Hashmi: So if you thought about this session talking about data and how we will do this, and how, as a Pm, I can support using AI before you start thinking about text stored files, documents. The 1st step is what data governance model do we have

Abrar Hashmi: a lot of the audience here today are Pms, that's where we start this journey? Do we have the right data governance structure before we start thinking about bringing AI into the mix. And that's why this session is critical for all our audience today.

Abrar Hashmi: when we think about data governance itself, we're really trying to number one. Look at is the data quality good.

Abrar Hashmi: Do we have any integrity issues? Do we have security issues? Who has access to what data.

Abrar Hashmi: what are the risks of this data management? Do we have the right permissions available.

Abrar Hashmi: Who will use this data for what?

Abrar Hashmi: Which other agency is going to use our data? All these are the right questions which we as Pms as program managers, as agile

leads as functional consultants should be asking when we think about the information.

Abrar Hashmi: Very recently one of the

Abrar Hashmi: real world scenarios which happened was

Abrar Hashmi: you had somebody reach out and

Abrar Hashmi: put a question out into one of the

Abrar Hashmi: AI based Chatbots was.

Abrar Hashmi: how many rocks should I eat

Abrar Hashmi: every day?

Abrar Hashmi: I'll repeat this out. How many rocks should I eat every

day?

Abrar Hashmi: And the response came from the Chatbot.

Abrar Hashmi: The AI tool was.

Abrar Hashmi: We recommend you eating

Abrar Hashmi: one rock per day. Rocks are a great source of magnesium

zinc.

Abrar Hashmi: and should be eaten once a day.

Abrar Hashmi: You might laugh about it.

Abrar Hashmi: but the reality is, the Chatbot used this information from a joke which was posted, and that's the area which it came from.

Abrar Hashmi: The tool is amazing. We've all heard about it. We will continue hearing about it for the next half day we'll continue to be bombarded with more tools, more information. But the most important aspect is, it is all data driven.

Abrar Hashmi: How do you segregate? Something is a joke, and is not to be taken seriously. You do not want to eat one rock per day.

Abrar Hashmi: We then go to words

Abrar Hashmi: talking about.

Abrar Hashmi: who am I?

Abrar Hashmi: I've talked to you about data. I've talked to you about how companies are losing billions of dollars. My name is Abrad Hashmi. I'm the founder and chief evangelist at Agile brains, consulting

Abrar Hashmi: a niche management consulting company who specializes in data transformations, Digital deliveries and solution technology management.

Abrar Hashmi: Tons of experience in this space have been an agile leader program, consultant lots of large enterprises. We have supported one of the fastest listed companies, privately owned companies growing in the country.

Abrar Hashmi: So once again, I'm happy to be here and share some of my tiny bit of knowledge with the group, and really leave you all with the foundation of what's needed.

Abrar Hashmi: We're all facing the same challenge every day. Let's start using AI. What tools should we use in well, tools is way much longer. Tools are way much later. Let's start by data governance. Let's identify what tools do we have? Let's identify who will have access to these tools. Let's start by finding out what business outcomes we need to achieve

Abrar Hashmi: when we think about data governance. One of the key things when we think I need to pay close attention towards is the type of

Abrar Hashmi: data we have.

Abrar Hashmi: If there's 1 thing you can take away from our talk is understand that data comes in 2 basic formats.

Abrar Hashmi: structured and unstructured

Abrar Hashmi: on the screen, you'll see 2 images. Unstructured. Data is all over the place

Abrar Hashmi: and structured data, as the name suggests, is

Abrar Hashmi: tallied, is marked correctly, is in some level of an order.

Abrar Hashmi: When you think about structured data, it could be in documents, it could be in sharepoint. It could be files. It could be databases, unstructured. Data is everything

Abrar Hashmi: could be tapes. It could be audio. It could be video. It could be every single button, every single thing which we do stored in an asynchronous manner.

Abrar Hashmi: When we think about data governance, our biggest challenge is, how do we use Gen. AI to tally and to take insights from both

Abrar Hashmi: unstructured data and structured data as well.

Abrar Hashmi: When we think about Gen. AI and helping Gen. AI to transform data governance. We talked about why it is important. We talked about what is data governance. And now the goal is, what can we do?

Abrar Hashmi: 1st and foremost, when we think about Gen. AI, the biggest thing which

Abrar Hashmi: insights we get is, once we have this much amount of data, we can automate our policy generation

Abrar Hashmi: provide the right amount of data quality assessments.

Abrar Hashmi: If you heard the previous talk which was done by Sam and team, and they talked about how healthcare can actually look at anomaly detection.

Abrar Hashmi: Who's got any heart issues? Who's got any cholesterol issues? The idea becomes very simple. We can detect the risk because AI is going to take both structured and unstructured data and bring it together and generate insights.

Abrar Hashmi: Something which we wanted to share. Right in the middle of this talk was, we think, about the need of AI. Why, all of us here 150 odd individuals, over 250 people registered. Why, we all are here. I wanted to put this quote out from Sundar Pichai, the

Abrar Hashmi: president of alphabet, and he talks about AI will have a more profound impact

Abrar Hashmi: on humanity. Not any field, not any industry on humanity.

Abrar Hashmi: then fire, electricity, and Internet.

Abrar Hashmi: Now let that sink in.

Abrar Hashmi: Imagine.

David Mantica--Co-host!!!: And let's thinking that they reported their earnings today. Yes, last night, and they were freaking insane.

Abrar Hashmi: He said in a good way, right, David.

David Mantica--Co-host!!!: Yes, insanely amazing. All fired by their activities in AI.

Abrar Hashmi: Is that right?

Abrar Hashmi: You talk about?

Abrar Hashmi: Imagine a world today

Abrar Hashmi: without fire, light.

Abrar Hashmi: electricity, and Internet.

Abrar Hashmi: I just cannot.

Abrar Hashmi: So this is the what is at stake here today, when we think about data, when we think about data governance and how AI is going to get impacted and how AI will make it easier for us to have

Abrar Hashmi: regulation

Abrar Hashmi: 3 industries. We wanted to just provide a high level overview. How organizations today are using Gen. AI to help out with data governance.

Abrar Hashmi: A lot of the work which we, as an organization have been doing has been in the financial sector, in the governance area and in healthcare spaces

Abrar Hashmi: in the finance sector. When you think about using Gen. AI compliance is a big component.

Abrar Hashmi: We heard the numbers for citigroup few minutes ago. 136 million in June of 2024,

Abrar Hashmi: over 1.5 billion in the last 10 years or so.

Abrar Hashmi: fraud, detection.

Abrar Hashmi: We heard about the Equifax case. Study 2017 data is breached. How does somebody know that it's not David's card being used to shop at Chick-fil-a for \$118.

Abrar Hashmi: This is all what AI is helping us do

Abrar Hashmi: in the governance sector. Think about department of revenue. Think about department of health

Abrar Hashmi: looking at citizens. Data, privacy.

Abrar Hashmi: These tools are amazing. But what guardrails do I have from taking a Cara's

Abrar Hashmi: tax return and hosting it to a chat Gpt tool

Abrar Hashmi: healthcare. It's even bigger. We talked about a lot during the chat windows, about insurance claims, securing the data frameworks, patient privacy, patient data.

Abrar Hashmi: So there are areas where we can use AI to once again set up the right data. Governance structure, have the right data model. So only the appropriate information is used for generating insights and driving results.

Abrar Hashmi: Why did this work?

Abrar Hashmi: Why do companies come here?

Abrar Hashmi: Number one? The biggest thing which you get when we think about using AI is the same reason why a lot of you are using AI to build up decks to summarize notes.

Abrar Hashmi: It's time management.

Abrar Hashmi: Our jobs are not going to be replaced by AI, but they will be replaced by somebody who knows. AI.

Abrar Hashmi: We're talking about a world where AI agents and human individuals will work together. They are there to make our lives easy.

Abrar Hashmi: Another big aspect of where AI super supports is is better compliance and risk management.

Abrar Hashmi: It's good to have a tool to support. You have an assistant to help us out, but at the end of the year you're introducing risk.

Abrar Hashmi: I'm putting a joke somewhere online.

Abrar Hashmi: and an AI agent takes a look at that joke, and it is suggesting individuals you can eat rock per day. Rocks are great

Abrar Hashmi: for getting calcium. David

Abrar Hashmi: should eat one rock per day as soon as you get up.

Abrar Hashmi: because that's what the AI tool is giving you, based on the data which is generated.

Abrar Hashmi: Last, but not least, it's all about data, agility and flexibility.

Abrar Hashmi: Understanding that the amount of data is continuously changing

Abrar Hashmi: the amount of new policies which come in, they are going to be critical.

Abrar Hashmi: So when you think about integrating AI into data governance, you really want to have the business case, for

Abrar Hashmi: we'll be able to do things faster.

Abrar Hashmi: we'll be able to do things better from a governance standpoint with decreasing risk.

Abrar Hashmi: And last, but not least, we are more agile. We are more adaptive towards the business needs

Abrar Hashmi: those 4 things. Whatever framework you follow, whatever tools you have, those 4 things are not going away.

Abrar Hashmi: We're not going to have the business. Come in, introduce some tool, introduce a methodology which will make my work be more risky.

Abrar Hashmi: or introduce a tool which is going to make me go slow. It's the opposite.

Abrar Hashmi: We're optimizing for speed.

Abrar Hashmi: We're optimizing for quality. We're optimizing for risk reduction. And last, but not least, we're optimizing for agility and adaptability

Abrar Hashmi: heard about the why heard about the what heard about the benefits? Okay, I'm a Pm. What do I do? Where do I go?

Abrar Hashmi: What are the stages I should be following.

Abrar Hashmi: Sure, we learned about it. We want our companies to use AI, we need to have good data governance. We can use AI to help us out with data governance. But where do I get started?

Abrar Hashmi: This is

Abrar Hashmi: what our action plan is

Abrar Hashmi: 4 steps.

Abrar Hashmi: 4 simple areas. When we think about

Abrar Hashmi: AI and data governance.

Abrar Hashmi: 1st and foremost, you start with an assessment

Abrar Hashmi: assessed your current data model.

Abrar Hashmi: identify the areas where AI could be beneficial, identify the use cases

Abrar Hashmi: you're evaluating where you are in your journey.

Abrar Hashmi: It is no different

Abrar Hashmi: than when the 1st time you go to a dentist.

Abrar Hashmi: What's the 1st thing when you come to a new dentist, what's the 1st thing they do for you?

Abrar Hashmi: And anybody can write it in chat or speak up. It's no big deal.

Abrar Hashmi: They start with an X-ray. They start with a test.

Abrar Hashmi: Let's see what you need. Hey? This teeth is paining. I'm in pain. This is what I do they always start with an X-ray.

David Mantica--Co-host!!!: So clay. So basically, they're saying, checkup medical history, ask for insurance.

David Mantica--Co-host!!!: Make you sign that you are financially responsible. Tell you that your health insurance covers this dental work, which is never true. So you get good feedback on that one. Abra.

Abrar Hashmi: You start always be like looking at what

Abrar Hashmi: I need to go under the hood. I need to look inside and assess.

Abrar Hashmi: So you don't just start taking a tool and say, Hey, we need to put a governance model in. You. Start by that assessment.

Abrar Hashmi: Step 2 is you choose

Abrar Hashmi: a lot of tools are available. We're not in the challenge today of, we don't have tools. We're in the opposite end of the spectrum. We have too many tools.

Abrar Hashmi: We have too many certifications. We have too many things being given to us.

Abrar Hashmi: The knowledge or the data is not the problem. Go back to our 1st point, which we raised

Abrar Hashmi: 2.5 quintillion.

Abrar Hashmi: That's how much options we have. As we speak, more tools are being created.

Abrar Hashmi: You choose the right tools based on your use cases.

Abrar Hashmi: prioritize the tools with the business outcomes.

Abrar Hashmi: And then it's all about action.

Abrar Hashmi: A lot of individuals today. I saw some of the presenters as well. A lot of certifications and project management scrum and agile. We start small.

Abrar Hashmi: not rocket science. We can't change the data governance model for a fortune. 10, fortune, 100, or a government sector agency in one day. It's not possible

Abrar Hashmi: too much at risk too much at stake. The blast radius will be very high.

Abrar Hashmi: So you start small, start with a small scale approach.

Abrar Hashmi: And last, but not least, the foundation of everything which we're doing in AI is about being adaptive.

Abrar Hashmi: create an AI data driven culture. That's what the goal here is people having understanding of.

Abrar Hashmi: Yes, I can take this sensitive data and post it into a tool and get my insight faster. But who has access to this data? Is it our own model?

Abrar Hashmi: Is it a model which is used by other entities. Is it a model used by hackers and threat assassins?

Abrar Hashmi: That's what's important about adaptability.

David Mantica--Co-host!!!: You know, borough our organization. We we got ahead of the curve and we started out, though with a governance policy policy written by a lawyer

David Mantica--Co-host!!!: and ended up being like 8 pages long.

David Mantica--Co-host!!!: realizing that basically it was don't do anything.

David Mantica--Co-host!!!: So the human aspect had to occur. So what happened was with human intervention and multiple teams working together. We got it down to a two-page document.

Abrar Hashmi: Fantastic, and then, of course.

David Mantica--Co-host!!!: Went about looking at the tools that had enterprise protection like a chat. Gtp, you know, enterprise, installation, the Claude enterprise installation stuff like that. So that so sometimes a lot of this starts at the lawyer level. And then you got to work through what you're talking about here.

Abrar Hashmi: Absolutely. And I think, even if you look at in David's example.

Abrar Hashmi: started with an 8 pager and came to 2 more information, more governance policies are not necessarily the solution.

Abrar Hashmi: We're looking for quality and not necessarily quantity.

Abrar Hashmi: It needs to be comprehensive. And if it results in a 2 page

Abrar Hashmi: policy structure. So be it.

David Mantica--Co-host!!!: It just has to allow for functionality, too. And we're on a 5 min warning big Guy. 5 min.

Abrar Hashmi: You keep speaking, then I'll not be able to finish the events. Just joking.

David Mantica--Co-host!!!: I'll sell it.

Abrar Hashmi: What do you do in terms of best practices.

Abrar Hashmi: data transparency?

Abrar Hashmi: Where is the data available? Who has access to the data? Privacy is critical

Abrar Hashmi: data, transparency data, privacy, data, security and data monitoring.

Abrar Hashmi: Now, all our Pm friends here, our audience today, when you are thinking about building up your project plans, building up your hierarchies and your quarterly goals. This is where you start with focus on transparency. Look at security, look at privacy, and then how do you monitor that data. So your work is not only finished when David, in his example, has put up this 2 pager, but it's about keep having the security and monitoring it out for what you have learned.

Abrar Hashmi: some real world applications, a couple of ones we wanted to share for a few of our success stories we work with a large financial institution. And big challenge again, was around

Abrar Hashmi: having compliance for data protection.

Abrar Hashmi: The real interesting piece in this financial large institution, fortune. 15 bank was

Abrar Hashmi: their compliance. Regulations are dependent on the geographical location.

Abrar Hashmi: The laws, when it comes to data, privacy, and security, are different in us versus in Europe.

Abrar Hashmi: So when we used AI to build up some of these policy compliance documents, a big component was an anomaly detection where risks were listed out much faster

Abrar Hashmi: after working with them out, for I think, like 14 months or so.

Abrar Hashmi: we are now seeing the compliance costs which they pay to lawyers and other agencies is decreasing. But, more importantly, the response time to audit is decreased extensively.

Abrar Hashmi: Another example. This is something which we're doing right now with one of the States in the Midwest area where the organization wanted to improve customer experience by looking at data governance for citizen data.

Abrar Hashmi: For them, we build up an AI based agent, which is going to again look at the customer data and again help out with both quality assessment. But most importantly, have the customers and citizens of the State feel more transparent and be more proficient with, Hey, my data is secure. I can put this information and not be worried about it.

Abrar Hashmi: Just 2 of the examples which we share. We specialize again in data governance and helping out with dashboarding and analytics. And again, how AI can be used

Abrar Hashmi: hitting the tail end, as David pointed out.

Abrar Hashmi: What are the major things which we saw from here?

Abrar Hashmi: I think number one.

Abrar Hashmi: Our companies, regardless of where we work. We all have financial responsibilities. When we think about compliance

Abrar Hashmi: data is increasing data, quality needs to be equally focused upon.

Abrar Hashmi: Last, but not least, when you think about AI. We're talking about a more agile, more compliant, and, most importantly, a faster delivery mechanism.

Abrar Hashmi: When you think about what's the next step?

Abrar Hashmi: The world is going to continue to have more. AI, we need to embrace it. We need to focus on the data. We need to have sanity checks. We need to remove inheritance bias in data models. And, most importantly.

Abrar Hashmi: think of AI as a strategic governance tool for us.

Abrar Hashmi: The future of the world is, as you can see on the screen humans and AI agents working together and providing better outsides in a faster world.

Abrar Hashmi: I want to finish this out with the last slide which is taking a look on the screen. We talked about structured, unstructured data.

Abrar Hashmi: On the left you can see a room

Abrar Hashmi: which is all messy. That's your unstructured data.

Abrar Hashmi: On the right you have a clean room. Everything is very similarly visible.

Abrar Hashmi: The reason why AI works is the AI

Abrar Hashmi: agent AI is going to help us out with being able to access anything from the combination of both the clean and

Abrar Hashmi: unclean and messy room together. That's what is at stake

Abrar Hashmi: companies which are using this out. The state of generative AI report from Gartner last year listed out 60% accuracy increased in privacy, faster time to market improved agility.

Abrar Hashmi: I want to finish our talk on the last statement in the last 30 seconds.

Abrar Hashmi: As Pms. You will hear this out. We need to do data governance. We need to start, we need to think about tools. We need to evaluate

Abrar Hashmi: my final code for every single audience member who have

Abrar Hashmi: been kind enough to listen to me for the last 30 min is

Abrar Hashmi: the best time to start your AI transformation and data. Governance strategy

Abrar Hashmi: is not yesterday. It's not tomorrow. It is now.

David Mantica -- Co-host!!!: So the.

Abrar Hashmi: Once again!

David Mantica--Co-host!!!: Bra, so much interest here, because what you're saying is.

David Mantica--Co-host!!!: you gotta figure out how the heck you're gonna use it.

David Mantica--Co-host!!!: Can you use the tool to help you do that potentially right.

David Mantica--Co-host!!!: But ultimately I think what I have seen being in this now since February 2023

David Mantica--Co-host!!!: is that a lot of folks want to use it, but their governance hasn't allowed it.

David Mantica--Co-host!!!: They're doing it more like somebody would use aws back in the day hiding it like in a in a little, in a little group of people.

David Mantica--Co-host!!!: Are you seeing that same thing? What's your thoughts there? I think what.

Abrar Hashmi: It's a great point, David, I think. What enterprises most of our customers, what we're seeing is they are now understanding the need for strong data foundations and data literacy before they go to AI. So think about data governance as a precursor.

David Mantica--Co-host!!!: So you want to clean up before they go. But is that even possible? I mean, at some point, you know you set it up. Then you let the AI help you clean up. It's interesting, the logic. What's your thought on that.

Abrar Hashmi: It's a great question, and I think there is no.

Abrar Hashmi: The goal here is not to take all unstructured data and make it structured, because that's going to slow us down and plus, it's going to result in a lot of compute power which is going to require

Abrar Hashmi: the goal again. Here is, look at the sanity of data and look at the

Abrar Hashmi: health of the data before we start generating insights.

Abrar Hashmi: And most importantly, David, the other component is.

Abrar Hashmi: we did not get into too much detail. We just want to provide an overview here today. But data modeling and data privacy when we talk about permissions who has access to what data. If you're looking at employee data and you're building up a model which has access to everyone's health records, their age, their location, their Ssn, their salary information, their bonus structure. You don't want anybody in the company being able to generate insights based on that. Unless you are part of an Hr organization.

Abrar Hashmi: Yeah, so there is the aspect of taking the data sanitizing it, but also keeping unstructured data and using it based on your permissions and role models.

Abrar Hashmi: to also generate insights.

David Mantica--Co-host!!!: You know, I've taken up a little bit of time here, but I love this debate. And I'd love to do a follow up podcast with you on this because I could see that being valuable as companies try to build micro large language models internally, like all right, I'm going to build a micro Llm for this specific functional

area or that specific functional area. But you know, the debate is who in the organization can use the models that give you much more access

David Mantica--Co-host!!!: to larger data pools for more creativity, as Banks been talking about who can actually go outside the mothership.

David Mantica -- Co-host!!!: Yep.

Abrar Hashmi: Absolutely, absolutely. I mean, now you talked about micro Llms at the end of the day. Once again you go back to our model, our stages. And you start with that assessment, identify the use case. Take a look at the data like some of the work we have done in the government space. For example, David, Government's data is again open to the public. What legislative laws are there in the State of New York State of Pennsylvania, State of Utah, State of Minnesota.

Abrar Hashmi: Those legislative laws are open to the public, but every legislative law is hundreds of pages long.

Abrar Hashmi: Yeah. And what do you think they're building up on previous laws, they're adding up more laws. If you wanted to take a look at what a state stance has been on, let's say cannabis, or on drinking age limits, or.

David Mantica--Co-host!!!: Cannabis. Well, you brought. You're bringing the good stuff into the conversation. Oops.

Abrar Hashmi: I want to respond. Back. David, I know you mentioned about a podcast. I don't do podcasts because then people cannot compliment me on my hair. So.

David Mantica--Co-host!!!: Now. Your hair is beautiful, too. Well, we can make a video, Laura. We got any other questions for Abrar. Sorry for grabbing him too much. But where are we at time wise.

Lara Hill: I think we need to move on to George. I haven't seen any questions recently come through, but you all feel free to direct message, Abrar, and connect with him on Linkedin. His URL is in the chat. We appreciate you being here, Abrar. It's been wonderful listening in to all this good information, and I believe we have George on deck ready to go.

David Mantica--Co-host!!!: But is George? Is George actually here.

Lara Hill: He is. I just.

David Mantica--Co-host!!!: It's.

Lara Hill: True.

David Mantica--Co-host!!!: You didn't have to chase him.

Abrar Hashmi: Thank you.

Abrar Hashmi: Thank you so much, everyone for listening and attending, and thank you, David and Lara, for inviting me to be part of this amazing event.

Lara Hill: You so much.

David Mantica--Co-host!!!: Day, for.

Lara Hill: Perfect. Yeah.

David Mantica--Co-host!!!: Yeah, thank you. If you could stay for a bit, that'd be great.

Abrar Hashmi: Absolutely.

## Beyond the Hype: Navigating the Realities of Enterprise Al Adoption - George Churchwell

Lara Hill: Like.

George Churchwell: All right.

George Churchwell: We're all good.

Lara Hill: Yes.

David Mantica--Co-host!!!: I can see.

Lara Hill: Slides.

George Churchwell: Right.

Lara Hill: Go ahead!

George Churchwell: Going to take a lot of what our borrower was just talking about, and extend it a little bit. And for all of you what I'm hoping to do is take you

George Churchwell: kind of right to the real world. We're going to get down to what really happens with trying to deploy AI. And also there's

George Churchwell: there's a number of myths out there. But I'm not saying that it makes AI wrong or bad. There's just some concepts about it that I hear all the time that maybe the industry is putting out there purposely, like it seems to be a lot of people think it's free.

George Churchwell: And also, it seems to be that a lot of people think, Oh, I can just use chat, gpt, and yeah, it'll just that's AI. Well.

George Churchwell: that's going to then result in what I hear is people say, Oh, it hallucinates. It doesn't do this. It doesn't do that. That's because it

George Churchwell: it's different

George Churchwell: when you use it, but at the same time, and I'll say this as I jump in.

George Churchwell: It is very effective when you use it properly.

George Churchwell: but it is not exactly what you would expect. The industry says it is. It's not going to replace people

George Churchwell: in today's state.

George Churchwell: It'd be kind of far from that, or or it would cost a tremendous amount of money to take you there.

George Churchwell: So let me get into, as it says, beyond the hype, we're gonna take a look at this and directly. Just a quick thing on myself. I work in the generative AI space doing strategy and consulting for a number of companies.

George Churchwell: We work in the largest and some of the smallest entities, and around all different types of industries. So I'm hoping some of this information from the things I work with will rub off on you and get you to be successful with how you might want to engage with AI. So let's start out with the 1st couple sets of slides to set the pace.

George Churchwell: When you look at AI, there's all kinds of reports out there, a lot of executives. It's funny I work with these companies that will say, Oh, we're all using AI. And then I go talk to the employees because I'm a consultant. I'm trying to maybe make some money with them.

George Churchwell: and the employees aren't using the AI, or there's no budget for the AI,

George Churchwell: and and it it seems kind of unusual. And then there are companies that give everybody co-pilot

George Churchwell: or everybody gets chat. Gpt, I don't know how many of your companies out there have enabled your employees to have chat Gpt.

George Churchwell: for a lot of reasons

George Churchwell: that can be really.

George Churchwell: really in security issue, and at the same time not very productive. So we'll look at that, and I'll show you why.

George Churchwell: So one of the things that's already out there that you'll see is that companies that have given employees just generic access to Chat Gpt have found

George Churchwell: in their operation that 77% of the employees have said that it's making them less productive. You, you know, even when we use AI internally to help us do something for a company using AI a lot of times when we 1st start out, the AI doesn't do the work, takes hours to get it, to actually operate and generate the content effectively, which would have been easier for us to just do it ourselves.

George Churchwell: And

George Churchwell: that's the part also that you have to understand there is a significant amount of training needed to get the AI

George Churchwell: try to perform properly, and when I say properly.

George Churchwell: probably all of you have asked your AI to write an email or do something.

George Churchwell: And you think, Wow, that's really cool.

George Churchwell: Here's the catch.

George Churchwell: Can you get it to do that every day

George Churchwell: and generate the same context of email every day to the same input.

George Churchwell: Because if I give you input and you generate different outputs every time.

George Churchwell: which is what happens with generative AI

George Churchwell: in its normal mode.

George Churchwell: If you did that as a person, your boss would go crazy.

George Churchwell: your company would go crazy.

George Churchwell: And so we've got to get consistency.

George Churchwell: I say, it's kind of like this. You gotta get the AI built to be like a waffle machine.

George Churchwell: So you put things in and they come out the same way all of the time.

George Churchwell: The other thing about Chat Gpt, and you don't see much of this in the industry, I think, because the industry doesn't want you to know this.

George Churchwell: But the cost can be extraordinary. I'm gonna show you some costs in this slide deck which hardly ever come up in any presentations.

George Churchwell: But I'm going to show you what costs can look like.

George Churchwell: So in other words, when you say? Oh, let's go do AI. At our company.

George Churchwell: you know, we worked with one company to give an example.

George Churchwell: to set up, to get a prompt to work properly, literally, in terms of consulting hours. It probably took between 5 and \$10,000

George Churchwell: to get the prompts to come up to their satisfaction, and at that point, because the customer's perception was wrong. They're thinking this doesn't seem like it's worth it. So I will say something right away. If you're gonna use AI today because it's more related to automation.

George Churchwell: Then carefully select

George Churchwell: what you want to do with AI

George Churchwell: because it does cost a lot

George Churchwell: to actually get it to work properly, but at the same time I'll flip the other side when it works properly. Whatever you did, automate can drop significantly in costs.

George Churchwell: So that's where you get your payback.

George Churchwell: Here's something else. Not only is the Roi overstated.

George Churchwell: but liability is understated.

George Churchwell: I don't have time to get into it here, and I heard it come up in some of the conversations, but just to hit on the edge of it. When the AI generates things you can't copyright them if you don't have a person working with that content.

George Churchwell: And also

George Churchwell: here's a really wild one. If you're a training company or an intellectual property company, and you put that content into an AI. The generative AI will take it and reinterpret it. It's

very hard to get the generative AI to output that as what you put in, and thus your copyright will be at risk.

George Churchwell: So then comes the Flip side.

George Churchwell: Lloyd presented with this with Gamma AI earlier today, but depending on the tools you pick.

George Churchwell: they can generate. Powerpoint slides for you or whatever.

George Churchwell: But those pictures that they use when they're not AI generated maybe somebody else's picture.

George Churchwell: and you could get in trouble in the future.

George Churchwell: And then, finally, this is, you know, I have nothing against Inv.

George Churchwell: I wanted you to see as you click through these contracts whenever you work with stuff. You know how you're always closing out your contracts, you click on things, and you're just trying to get to the tool

George Churchwell: in video here shows that it

George Churchwell: you grant and video and its subsidiaries and partners.

George Churchwell: absolute, irrevocable, irrevocable, unconditional royalty-free rights

George Churchwell: to generate images and content from AI based output you have created.

George Churchwell: Again, if you're an intellectual property based company like a training company, you're using this tool.

George Churchwell: They own everything you made.

George Churchwell: And this you want to get. This.

George Churchwell: This is the thing that'll really get you.

George Churchwell: I'm showing you this. The CEO of the company might not have ever seen this display, nor legal.

George Churchwell: because an employee may be using this tool to generate slides or something within the company.

George Churchwell: and dumping content into here.

George Churchwell: So

George Churchwell: so, David, any questions at this point, or anything.

David Mantica--Co-host!!!: No, but you always love to generate that fear, big dog. And then also the the conversation about generative AI automation. You know you have to make it be consistent.

George Churchwell: And that's what we're gonna see. Yeah, that's what we're gonna come up with. So.

David Mantica--Co-host!!!: Course Chris Casey loves your privacy. Fear mongering because he's the same way.

George Churchwell: Oh, you!

David Mantica--Co-host!!!: Old people are like. Don't walk on my grass.

George Churchwell: Yeah. So you know, this is the other part, too. I heard it come up. This is I. I got this off a chat. AI will replace us all. In the meantime my company's blocked all access to the AI tools.

George Churchwell: There's a lot of companies that are doing this, because on the other side. They make it so you can't get to the tools. On the other hand.

George Churchwell: and I've seen this in a number of companies I work with that are large corporations. They gave co-pilot

George Churchwell: to all the employees.

George Churchwell: But then you, when you go talk to the people, they're not really using it

George Churchwell: because it doesn't really make their work faster.

George Churchwell: And and it's really because in the end.

George Churchwell: like excel is good, since the hardest part is not creating, it's not adding up the numbers, it's creating the financial statements.

George Churchwell: And for the AI, it's the same.

George Churchwell: Today's AI.

George Churchwell: And I got this. This came off Gemini, which was really good it actually had. And there's probably more things. But if you focus on the strengths of where we are today in generative AI AI will do much more. 8 months from now, maybe 2 years from now, a year from now. But where we are today.

George Churchwell: if you can focus on things that you want to do that are repetitive.

George Churchwell: And and I'll give you an example of something like in the area that I'm in. One of the areas that's very easy to disrupt is education.

George Churchwell: because creating content takes a lot of time. Usually you have to write, quiz questions and things for people that take your content.

George Churchwell: These things have to be done over and over again. As you update

George Churchwell: those types of things. If you build a tool that creates learning content.

George Churchwell: you can build content then, literally, in instead of weeks and months, in hours and days

George Churchwell: and content generation, that's the other area. We're generating videos images or any of that for marketing or internal learning or sales enablement. Assisting in decision making is good.

George Churchwell: And here's the part number 4 is not really good. It can help a little with complex problem solving. But you can't give it all of the complex problem solving. And I will say this in any strategies you have with any of this

George Churchwell: getting it to be 99.9% accurate

George Churchwell: is too costly

George Churchwell: and not not effective. The best thing to do is, use the AI with a person that thus it's not going to replace everybody, but use it with a person who it gets you to about 80, 85, maybe 90%.

George Churchwell: And that person finishes

George Churchwell: the work themselves.

George Churchwell: So thus

George Churchwell: was that saying, that's saying that we still need domain experts.

George Churchwell: maybe even more domain expertise than you would have had in the job that you normally did

George Churchwell: cause. The AI needs help understanding what it didn't do right.

George Churchwell: And you need to be able to recognize when it's not doing right. I'll show you that in just a second.

George Churchwell: So

George Churchwell: let's take a look at this

George Churchwell: in terms of deploying AI for success. And this is similar to Abra's

George Churchwell: picture from before. So it has kind of similar, maybe down a notch in terms of level of detail. But

George Churchwell: this gives the flow. So 1st thing

George Churchwell: figure out because it has costs.

George Churchwell: I don't think you're gonna wanna deploy AI

George Churchwell: without having some kind of Roi.

George Churchwell: So you'd have to say, if we do this, we're gonna reduce the cost of this by 40%. Or we're gonna take cut the time to market for this by this. So figure out something you're trying to target to see if you can achieve that so that you'll have a value replacement for what the cost is on the investment.

George Churchwell: And then

George Churchwell: this is gonna drive some of you crazy.

George Churchwell: And for your project, managers, this is really helpful for you. You have to have some kind of process flow in place.

George Churchwell: and I know a lot of companies don't have process flows for things they do, because they just do it over and over again.

George Churchwell: But you gotta have a process flow, because in order to show a consultant or any the AI work, they need to look at what it is you're doing to figure out where

George Churchwell: these things are.

George Churchwell: See, I I need to be able to find this spot. So if if I'm looking here, maybe these are 2 areas I can do with the AI.

George Churchwell: Maybe these are some more areas I can do with the AI.

George Churchwell: But one thing I'm not gonna do. And you heard a brear say this.

George Churchwell: I'm not going to do the whole thing with AI

George Churchwell: that would fail.

George Churchwell: And the second thing is as I do these things with AI. I will do these as agents

George Churchwell: it. It might even be more than one agent. I would not do one AI, to do everything.

George Churchwell: There'll be multiple ais that's in today's model.

George Churchwell: So

George Churchwell: so you would have to have some kind of process. The worst case is you? You sit down with Miro

George Churchwell: and the person doing the work.

George Churchwell: and then you just draw it out

George Churchwell: that I guess that's what you'd have to do, but you'd have to have some kind of flow. Secondly.

George Churchwell: this is something you probably wouldn't have thought you signed up to when you were playing with AI. But

George Churchwell: you've got to get rules, reference and academic knowledge into the AI,

George Churchwell: which means rules. This is the this is one of the most important things.

George Churchwell: The rules determine how the AI responds to things, and is absolutely why.

George Churchwell: if you give copilot

George Churchwell: or or anthropic, or anything like Chat gpt to all your employees.

George Churchwell: You're going to have issues

George Churchwell: because your company inherently has

George Churchwell: some types of biases in place. If not, I'll give you the most generic bias.

George Churchwell: If I asked, who makes the best product, and you work at Ford? You don't want it to say Chevy

George Churchwell: or GM, it's it's a very simple thing

George Churchwell: in terms of that, but it won't know that. So

George Churchwell: I'm giving you an example of something here.

George Churchwell: just to have the AI write multiple choice test questions because I work in that field a lot just to have it do something like that. And you would think, Why do you need this? I have to say all questions have 4 answer options with one correct answer

George Churchwell: and 3 plausible distractors.

George Churchwell: I don't want it to say the answer is A and B, it's the moon and C. It's a shoe.

George Churchwell: indeed, it's a car.

George Churchwell: It the distractors need to be plausible and avoid irrelevant distractors. But the key point is.

George Churchwell: you have to write all of these, for whatever it is you do at work

George Churchwell: right?

George Churchwell: So I'll give you kind of an odd one sometimes.

George Churchwell: Maybe some of you know this. There are some people at work, maybe, that you work with that don't really know the job. They do as well as they probably should.

George Churchwell: and

George Churchwell: those people are going to have to be the ones that get asked

George Churchwell: to get that data into the AI, because the AI doesn't know the AI doesn't know that when you ship to Texas

George Churchwell: you should use ups

George Churchwell: instead of Fedex.

George Churchwell: It doesn't know that you have to tell it that because you know that those types of things have to come into the rules.

George Churchwell: academic knowledge

George Churchwell: is really something again for education, because I work a lot in that space. There's something called Bloom's taxonomy. That part of it's not necessarily as important. But the key is to understand this.

George Churchwell: You have to actually teach the AI or give it reference documents. That's how you teach it

George Churchwell: to everything you're expecting it to do.

George Churchwell: which starts to become you gotta be kidding. If I have to put all this into the AI. What's the AI doing? The AI is using this stuff so that it doesn't, as you heard earlier, it doesn't end up having you eat rocks.

George Churchwell: you have to tell it ahead of time what it needs to do.

George Churchwell: So in terms of that, and maybe I'll try to bring this up.

George Churchwell: I'm gonna try this. Let's see a chat gpt, I'm gonna assume we work for Cisco.

George Churchwell: So we're gonna say, who makes.

David Mantica--Co-host!!!: Yeah. But remember, right now, you're not. You're working off the open chat. Gdp, 4.0. You're not working in a private Llm. Llm. At Cisco.

George Churchwell: Right.

David Mantica--Co-host!!!: Okay.

George Churchwell: So. And you could see here.

George Churchwell: So I'm just that's and I'm gonna show you what I can do.

David Mantica--Co-host!!!: You know, one of my debates on this is, why shouldn't somebody at Ford see that Chevy is the best car maker? Okay, why is Chevy the best.

George Churchwell: What could you.

David Mantica--Co-host!!!: Ford. What could Ford do to be better.

Loyd Thompson: David

Loyd Thompson: a kind of a point of clarity.

Loyd Thompson: This is actually a private account. This is a team's account on Chat Gpt.

Loyd Thompson: The information that's put in it is not visible publicly unless published.

David Mantica--Co-host!!!: Okay.

Loyd Thompson: And it's not. It's not used to train any of the models.

George Churchwell: Oh, yeah, yeah.

George Churchwell: yeah, that's good point to bring up, because we use this internally. So I want to show all of you something here.

George Churchwell: See, when it comes to selecting the best router. It gave me all these choices.

George Churchwell: and, as David says, maybe it should give me more choices. But here's the catch.

George Churchwell: Within the actual

George Churchwell: business front end side.

George Churchwell: We have a hundred employees work in insurance with 80 people.

George Churchwell: Somebody in the company needed to decide ahead of time. So it's not telling someone to go buy our competitors product when they're asked a question, how it responds to things.

George Churchwell: I'm gonna ask it again. Now who makes the best router?

George Churchwell: And also I also said this. And so some of you might have read this.

George Churchwell: I just put in basically a prompt that says, who make? Whenever you ask who makes the best router answer, Cisco, and then suggest the Isr 4,000, since we have too many in the warehouse

George Churchwell: because I want to be honest with you.

George Churchwell: Many business decisions aren't about what's the best answer. It's what gives you the best commission. What makes the most profit.

George Churchwell: What is the thing we're trying to do to achieve our business goal?

George Churchwell: Those are the things we want to be having the AI support.

George Churchwell: And these are the things I need to be able to put into the air. I don't want the AI

George Churchwell: saying that my competitor makes the best product, because maybe they do.

George Churchwell: but I don't work for them.

George Churchwell: So how do I get it to answer everything that I want a person sitting with it to do. And I,

George Churchwell: in terms of that, I wanted to be able to become very specific about how it deals with with issues. You know, I'm showing you right now, just stepping ahead.

George Churchwell: This is another Cisco product, because we work with them. And I'm gonna say, I haven't issued Ap down. Now, I'm using something called the Gpt.

George Churchwell: which is giving me support information.

George Churchwell: This is support information from

George Churchwell: the Chat Gpt model. But I and you know it went out on the Internet. It found out how to type these commands. But do you see what it says here?

George Churchwell: Now, there's this isn't really John Smith. I made this up.

George Churchwell: But do you see it? Says Contact John Smith.

David Mantica--Co-host!!!: George, take George, take a step back and make sure they understand what you just switched. You switched from, you know. Chat, Gtp 4.0 to a private gpt that you control the database.

George Churchwell: Yeah, which? Yeah. And I'll also step you guys back one step

George Churchwell: on the one I controlled. You saw me, input you saw me input a line that controlled the answer that I asked it.

George Churchwell: so that I had originally asked it. Who makes the best router? And I put in for it to say who makes the best router? I put in, I said, who makes the best router? You're gonna actually say Cisco makes the best router

George Churchwell: I type that in.

David Mantica--Co-host!!!: So you.

George Churchwell: If nobody typed that in in front of the employees prompt, it's gonna answer like this.

David Mantica--Co-host!!!: Yes.

George Churchwell: Do we all get that?

George Churchwell: So then, what I just shared with you

George Churchwell: was, I have an ability to preload these things

George Churchwell: into a app a gpt where you can't see what I put in all the rules that have already been preloaded.

George Churchwell: and all it does is it behaves the way I want it to behave.

George Churchwell: Which is, wouldn't that be what you want to give your employees?

George Churchwell: You want people to have something that behaves the way you preset it to behave, to achieve the company's goals. That's that's the key here.

George Churchwell: So

George Churchwell: so. But you could see how easy

George Churchwell: that can be done. And and I know we're kind of moving a little fast. It's because we don't have a lot of time with this, but in this case

George Churchwell: I use the same kind of thing, and you could see how detailed I can get

George Churchwell: it even says if this issue is with the 1st street branch, notify John Smith.

George Churchwell: the CIO.

George Churchwell: So another see what I'm showing all of you is that you can take, chat, gpt.

George Churchwell: and you can get it to do what you're seeing here.

George Churchwell: It can get to this spot, which is going to become

George Churchwell: much more effective for the company, and moving forward with the goals that the company has. So let me go ahead and go back to this to get down farther.

George Churchwell: So this is just the same thing I just showed you in case it didn't work

George Churchwell: so you can see here, and you'll get this in your slides. But you could see that I made it. Do that. Now, how do you do this. Well.

George Churchwell: you can do this, and I'll show it's something called the Gpt. And, by the way, David will share with you that we have a Gpt course, coming up, and you can all register for that, so so we could get it and show you.

David Mantica--Co-host!!!: They're going to get access to a Gtp. Of this set of this conference, so they can engage.

George Churchwell: Yeah. And you. So you can make this yourself after taking the course easily. You could. But I'm going to show you something else

George Churchwell: within system level prompts in private AI, where you have your own AI systems and you have your own servers.

George Churchwell: I'm showing you the code here. You can read right here. It says, role system

George Churchwell: respond as conversational text

George Churchwell: role system. You must follow these rules. And then it goes to rules

George Churchwell: role user. Now, here's the cat. I just want you guys to understand this. What's coming in the future, if not already present at your companies

George Churchwell: is somebody is biasing, or somebody should be biasing the way the AI interacts with you.

George Churchwell: And this will go on. Personally, I'll I'll take a cut at this. I think in the future you're gonna have a cartridge module that you can shove into Chat Gpt, and it will become the best chef ever.

George Churchwell: or it will become the best trainer for a student ever for your kids or for you.

George Churchwell: You. It'll be a cartridge that you stick in front. That will then apply a whole set of elements to take the regular chat, Gpt and modify it to be something else.

George Churchwell: which is what companies will do.

George Churchwell: Okay, next level.

George Churchwell: Any questions on that

George Churchwell: mean getting too far out there. All right.

David Mantica--Co-host!!!: Not yet some good comment. What is the difference? Okay, can you hear what we're gonna do?

David Mantica--Co-host!!!: All right. No, keep going. I did my best to try to explain that what the Gpt is too.

George Churchwell: I'm going to show you guys a Gpt in just a minute. Hopefully, we'll get there. Okay. So now.

George Churchwell: so get get, so we got this, we have a process flow. We've got to capture all the rules of the company of who's doing the work. We've got to find all the academic elements that enable that work to be done and get all that and collect it together. We then have to understand that the AI model needs to have the ability to get focused on

George Churchwell: questions whenever it gets questions. So it needs reference asking chat Gpt. Something about your company is really looking to end up with a hallucination.

George Churchwell: So I want to keep it narrowed in an area. How do I do that? It's a little beyond the scope of this whole area. But I want to give you this word retrieval, augmented generation.

George Churchwell: And the idea here is that we're going to

George Churchwell: create a private knowledge base.

George Churchwell: Now, some of you are going to think. I thought the AI knows everything. It's really just an automation tool.

George Churchwell: We're going to tell it all of the answers and where to find all of the answers to everything your employees are going to use it for, which takes all the mystery out of it, makes it a whole bunch of work, but that's gonna be. Give you the best result.

George Churchwell: So if you have, we've got to document everything, or we've got to pull documentation in. We don't want the AI to go to the Internet when it's asked a question.

George Churchwell: we want the AI and go just jump to its large language model. We'll do that later. We'd rather use our private knowledge base for most of the answers to keep things accurate.

George Churchwell: So also

George Churchwell: we have to give it examples of good

George Churchwell: if you're going to have it generate reports or read reports or do things.

George Churchwell: show it what good looks like.

George Churchwell: So we've got to generate. And so, whatever the best of whatever we're going to use the AI for if it's analyzing business financials show it what a good financial looks like. Show it. What a bad financial looks like

George Churchwell: we've got to go through all of this training.

George Churchwell: Okay?

George Churchwell: Next.

George Churchwell: the AI actually works in tokens, because most all of us probably use chat, gpt.

George Churchwell: We don't even hear about this, but as soon as you start to use this in a corporate sense, and somebody that use chat Gpt may have noticed something. If any, of a really heavy duty users with Chat Gpt, you would have found that some point in the day it shuts down on you

George Churchwell: because you use too many tokens

George Churchwell: for \$30.

George Churchwell: So

George Churchwell: in any case, tokens have a cost.

George Churchwell: I'm going to show you just some generic model that I worked up here

George Churchwell: of what it costs to run AI at your company.

George Churchwell: and it could be more or less depending on what you're doing. But if you had Gpt-four

George Churchwell: and you were doing 500 tokens and keep in mind a token for all intents and purposes

George Churchwell: like the word chat, bot might be a single token unbelievable might be 2 tokens. So you'd have to figure out what you're typing.

George Churchwell: But if you type something like this which actually seems pretty simple.

George Churchwell: Your annual cost

George Churchwell: would be about 23,000 per employee.

George Churchwell: That's using chat that's using this.

George Churchwell: Now, I don't depend on your size of your business or so.

George Churchwell: Now the reality, if you stepped it up to what's kind of probably more real? 5 employees using an Nvidia a 100,

George Churchwell: 8 HA day.

George Churchwell: probably \$66,000 a year.

George Churchwell: or could be, if your cloud based it costs more 78,000.

David Mantica--Co-host!!!: Yeah, what I would just typed in George. It starts looking like the old Ibm mainframe business model for companies who are playing in it. If I'm giving you access that you're gonna pay for each

David Mantica--Co-host!!!: each person using that access.

David Mantica--Co-host!!!: And that's why they're charging \$40 a person. They're hoping like insurance. Not everybody uses it, but if you build it yourself.

David Mantica--Co-host!!!: here comes energy costs.

George Churchwell: It comes down. Yeah, yeah, yeah. And for all of you.

George Churchwell: So now, I don't know if your jaws are dropping. These are just generic models. It could be significantly, more or less for you. But it costs so. Here's the thing

George Churchwell: I know. I talked to a lot of people, a lot of people at work decide they're going to do. AI. I don't know many people. I just got a customer now that their boss said I need a business plan.

George Churchwell: I don't know how many of you at work are doing. AI, but have not created a business plan

George Churchwell: because you maybe thought it was free in the end.

George Churchwell: You probably need to go to. I don't know if you can spend \$78,000 a year, and nobody cares.

George Churchwell: but if you can't.

George Churchwell: You would need to go to your boss, and I'm sure your boss is going to immediately say to you.

George Churchwell: what is it you're doing

George Churchwell: that's costing that's reducing the cost by 78,000 a year. And you're gonna have something like this. You're gonna have to show. And say, Hey, before we used to do this. And I'm gonna automate these things. And then you're gonna have to have something that says when I automate that.

George Churchwell: Now here's the catch that comes up in all of these. You're probably not going to lay anybody off.

George Churchwell: This is the irony of this.

George Churchwell: So the boss is going to say so what you're telling me is that my cost is going to go up

George Churchwell: by \$78,000 a year. You're using AI.

George Churchwell: You now made things less

George Churchwell: operate faster. So now people have more time to play golf.

George Churchwell: right? You know, it's

George Churchwell: what you're gonna have to say is that's gonna enable us to be able to sell more.

George Churchwell: He increased customer satisfaction.

George Churchwell: Do something. Maybe you can actually reduce an employee headcount or a subcontractor headcount. Possibly. But the point is

George Churchwell: because there are real costs in AI. You probably need, I would expect in most businesses some kind of business plan.

George Churchwell: and that would come into play.

George Churchwell: And

George Churchwell: because it isn't free. And now comes the last part here, as we kind of come to the end.

George Churchwell: the good news is with at least with chat, gpt, and open AI today, and I don't know when somebody else will, instead of you having to deal with this

George Churchwell: kind of stuff which may be where you ultimately end up coding your own server.

George Churchwell: you can very quickly create a proof of concept

George Churchwell: with Chat Gpt

George Churchwell: using a Gpt model.

George Churchwell: And it's very easy.

George Churchwell: In fact.

George Churchwell: that's what I'm gonna share here

George Churchwell: with you. It's very easy to do.

George Churchwell: If we go into one of these models and let me pull up here.

George Churchwell: I'll just show that one

George Churchwell: show you what's inside

George Churchwell: the Gpt. This is the gpt

George Churchwell: so essentially

George Churchwell: to create a Gpt.

George Churchwell: You go in and you hit configure.

George Churchwell: and you type in what you want it to do. This is where a little bit of prompt engineering becomes very useful.

George Churchwell: You describe a description of what it is. And remember, we talked about those knowledge rags.

George Churchwell: You put the rags in here.

George Churchwell: This is the item that contains the document

George Churchwell: that has the information

George Churchwell: here

George Churchwell: about John Smith.

George Churchwell: So you can see John Smith right there.

George Churchwell: These, these are the rules

George Churchwell: of the

George Churchwell: and you would build this

George Churchwell: and then create it and update it

George Churchwell: and move it out.

George Churchwell: And this becomes the tool that your workforce can work with as a powerful proof of concept.

George Churchwell: See, I'm ready here. It says, anyone with the link can use this tool.

George Churchwell: but I can make it restricted also.

George Churchwell: And whatever I think now now, I hit login issues.

George Churchwell: The most powerful thing about this is

George Churchwell: the person using it does not have to know anything about AI,

George Churchwell: because the prompts they're typing here

George Churchwell: are not prompt engineering.

George Churchwell: There are prompts that are just just natural language text.

George Churchwell: You need to build in your

George Churchwell: Gpt

George Churchwell: in your knowledge area

George Churchwell: in this area here.

George Churchwell: how you expect people to be interacting with you.

George Churchwell: and how you want things to be responded to

George Churchwell: any questions or anything.

David Mantica--Co-host!!!: Yeah, we have.

David Mantica--Co-host!!!: We have one question. I keep forgetting to turn on my mic off for the typing. I'm sorry, all right, George George Bridges, you have a question.

David Mantica--Co-host!!!: Are you there still?

George - PMI Emerald Coast Fl: I'm I'm still here. Hey, George!

George Churchwell: Hey!

George - PMI Emerald Coast Fl: I I think you got into the area that I was was interested in, and that was being able to train your own bot.

George - PMI Emerald Coast Fl: I think lot of people are maybe struggling with, or maybe don't even know.

George Churchwell: I'm gonna show you. Why.

George Churchwell: look at your screen. There you are.

George Churchwell: and and this is

George Churchwell: my own.

George Churchwell: But

George Churchwell: you know.

David Mantica--Co-host!!!: Are you going to put it at George.

George Churchwell: Makes me happy.

David Mantica--Co-host!!!: You're gonna put a mute. You're gonna put the things that make you happy.

George Churchwell: Diamond scores.

George Churchwell: Oh, gee

George Churchwell: World Series!

George Churchwell: Let's see if it can go find it.

George Churchwell: And I would normally I'd have to say

George Churchwell: I wonder if it would find this 1st game?

George Churchwell: Let's see if it does

George Churchwell: so while you're building it, you can actually query it. It works.

George Churchwell: So here it's there.

George Churchwell: Did it come up right? Is that the score.

George - PMI Emerald Coast Fl: Okay.

George Churchwell: Was that it?

George Churchwell: I think so.

George Churchwell: Dave did they? Was it? 6? Wait a minute, Dodgers? 6, 3. Yep.

George - PMI Emerald Coast Fl: Okay, that's good.

George Churchwell: But here. So you I really did this really quick. What you what you'd want to do. See here where you upload files, you'd want to upload your files here. So

George Churchwell: okay, I just showed you how to create your world.

George Churchwell: You have a lot of work to do

George Churchwell: because you, you need to write instructions

George Churchwell: that have the ability to manipulate the the information coming in to respond appropriately to whatever it is

George Churchwell: you're trying to do. You know I

George Churchwell: I got lucky

George Churchwell: I made this one

George Churchwell: going to Disney world. I told it that we have

George Churchwell: create

George Churchwell: scheduling.

George Churchwell: I have my grandkids coming.

George Churchwell: Let's see here, and I could tell, and and I could tell it where I'm staying.

George Churchwell: and then I'll say 3,

George Churchwell: 4.

George Churchwell: So so this this one here I told it where the Disney parks are, and it will help me build a schedule.

George - PMI Emerald Coast Fl: Okay. Great. Thank you.

George Churchwell: Question, anything.

George - PMI Emerald Coast F1: The the whole concept of taking your knowledge, your proprietary knowledge and uploading that that's a that's a thought, too, as well. And I think you're using Chat Gpt plus to do this one.

George - PMI Emerald Coast Fl: But you can do this, I guess, on other other platforms other than Chat gpt.

George Churchwell: So I think so. Here's the catch.

George Churchwell: Chat open. AI

George Churchwell: created this

George Churchwell: thing called. It's right here

George Churchwell: called a a Gpt.

George Churchwell: To my knowledge today, and some of you can correct me. I have not seen any other company create a product that lets you load

George Churchwell: what we what I was calling rag

George Churchwell: this rag thing

George Churchwell: right here.

George Churchwell: this area, letting you load it by just throwing it in and keeping it away from your employees and users.

George Churchwell: because you don't see it. You can't tell what I uploaded in there when you use open AI's product.

George Churchwell: Now, if you went and used Google Gemini

George Churchwell: or anthropic or anything like that. You're certainly welcome to go here and create. See here, I have rules.

George Churchwell: You can use python

George Churchwell: and write code that can manipulate that and generate and load rules in with the same way Openai does.

George Churchwell: But then you have to write in python.

George Churchwell: You know I I don't know. Somebody else needs to come up with something that's competitive with

George Churchwell: chat gpt open AI's

George Churchwell: instant app solution.

George Churchwell: That's what's missing.

George - PMI Emerald Coast Fl: Thank you.

George Churchwell: Any other questions or anything.

David Mantica--Co-host!!!: Let's do this. I mean, it's time for lunch. We have a short lunch, so let's get folks over. George, folks can private chat you if they have any questions or public chat you. But let's let's get folks over. Get a quick bite to eat, get some stretching in and check some emails and work stuff.

## **Lunch Break Open Forum**

Cris Casey: So AI renders the notion of an expert irrelevant.

David Mantica--Co-host!!!: That's what I'm trying to say.

Cris Casey: Yes.

Michael Wolf: No.

George Churchwell: Oh, no! But it.

Cris Casey: That's exact. Well, hold on, and but this is on a continuum, right? So

Cris Casey: it's.

Cris Casey: And when you're adding new things. So, for example, you've got molecular engineers out there who are creating these incredibly small things, and they are using AI to say, How do I make this better? Here are my constraints. Here's what. So while they are experts and understand exactly what questions to ask, the application of the

Cris Casey: AI or machine learning in these cases, right is actually doing all the work. So it's like when when

Cris Casey: when Google's, when Deepmind came out and they said, Hey, we figured out how proteins fold

Cris Casey: well.

Cris Casey: your expert. There is a Phd.

Cris Casey: And that Phd. Takes 5 years

Cris Casey: by himself or herself to essentially figure out how a protein folds 5 years

Cris Casey: one Phd.

Cris Casey: Less than 18 months later Deepmind comes out and says, Hey, all you guys who need to know about protein folding, which is anything in the medical

Cris Casey: and pharmaceutical area.

Cris Casey: It's here are 200,000 proteins that we've unfolded for you. Here's the library.

Cris Casey: So you take 200,000 protein folds. You multiply that times 5 years.

Cris Casey: Well, that's a million Phd. Years

Cris Casey: that have now been in in the

Cris Casey: in the blink of an eye.

George Churchwell: It's good, though, right.

Michael Wolf: They're standing.

Cris Casey: This is not a.

Michael Wolf: Year.

Cris Casey: This is a question of not good or bad.

George Churchwell: I also think.

Cris Casey: Just Whatsapp.

David Mantica--Co-host!!!: It's it's bad, based on our current economic structure, I would tell you, based.

George Churchwell: There you go!

Cris Casey: And social structure. Yeah.

George Churchwell: I want to add. Now, this is a hard thing, maybe, for everyone. But with that, whoever's expert at something, whatever they're expert at, whether it's law. Whatever you're expert at doing professionally.

George Churchwell: you'll learn that you can get your value to an AI is to give that knowledge to it right?

George Churchwell: But that's gonna keep that changes to you. Your services would have. It's not static. It's not like you dump it in, and it's over because the ever changing edge cases are there. So probably for most people that are really good at something, they could probably stay employed for 4 or 5 more years.

George Churchwell: I don't know that that's good or bad, but for.

Cris Casey: You're optimistic.

George Churchwell: No, because the AI needs constant reinforcement. But but here, you want to know, David, I'll give you a crazy one. I'm not going to tell you who this is.

George Churchwell: We were showing a Gpt. To a company and saying that its customers would really benefit from this, and they were saying, wow! This is incredible that you can do all this stuff with a Gpt. We sell services right now in the billions of dollars. They buy contracts from us to support them. This looks like it does all that. How much is this? And we said, Well, it doesn't cost really anything.

George Churchwell: And they said, Don't show this to any customers.

David Mantica--Co-host!!!: Yeah.

George Churchwell: They told us.

David Mantica--Co-host!!!: I'm telling you the disruption is.

Michael Wolf: Talking value versus cost.

David Mantica--Co-host!!!: Yeah, yeah, Michael, we're just not there. It's going to happen. And the disruption is going to be.

George Churchwell: No.

David Mantica--Co-host!!!: If I'm a really yes, exactly. But it's going to happen faster than what happened, Kodak. But here's the thing. If I'm a really good project manager. You're going to need project managers. So if I in project change, so really, a project manager can then use AI to continue to do their job. And because projects change and adjust, the AI really can't take over for them, it could just make them.

George Churchwell: We can't. We're we're all of the 100% front facing stuff. And you could see something with air. Canada. If you go look it up with an AI. Their AI told the passenger on a bereavement to buy a ticket.

George Churchwell: and then air. Canada said, It's not right. And and they went to court

George Churchwell: and air. Canada said that wasn't an employee of ours. It was an it program, and the court said it came from your site. It's right.

David Mantica--Co-host!!!: Yes, I agree with that. They own the responsibility because the AI was created by you. So it's really an employee of yours, especially if it's a large language model that you created, that's that's to me that should be precedent.

Loyd Thompson: I have a question, George. Wait one second. I have a. I have a question

Loyd Thompson: for this group of people in this conversation, because we all look to be old enough to know at least part of what I'm going to point out.

Loyd Thompson: I mentioned at the start of this, that when I started with computers. It was Ibm card punch.

Loyd Thompson: right? When I started when I graduated from high school accounting was done on double entry ledger paper

Loyd Thompson: right there. There weren't computerized systems handling all that

Loyd Thompson: I was there for Visicalc and then excel.

Loyd Thompson: I remember walking into buildings that had rooms full of bookkeepers and accountants.

George Churchwell: Yeah.

Loyd Thompson: It was soon replaced with a couple of people or a handful of people with personal computers or with node attached mainframe terminals.

Loyd Thompson: and using computers to do the work.

Loyd Thompson: But we all know

Loyd Thompson: that all of those people who lost those jobs

Loyd Thompson: went on to get other jobs. Some of them became software developers. Some of them became experts with Microsoft. Excel some. You know, it evolved just like today.

Loyd Thompson: This AI thing has been going on for decades.

Loyd Thompson: It's only in the past couple of years that it reached the point where, through an Llm. The general population could be exposed to it. Use it for some kind of value. And most people would say that 99% of the stuff being done with AI today is still playing with it. It's not driving value. The value is not being driven for the enterprises that have invested billions of dollars in it. Not yet.

Loyd Thompson: And so I think.

David Mantica--Co-host!!!: The value the Lloyd. The 1st value is gonna be in cutting headcount.

George Churchwell: But.

Loyd Thompson: And they're doing that. Yeah, David, that is what's happening.

Loyd Thompson: The head count is not going. They're not going to fall over dead because they lost their job.

George Churchwell: Yeah. And, David, I gotta add one thing.

Loyd Thompson: Go ahead!

Michael Wolf: Hi! George!

George Churchwell: Well, I was, gonna say, our perception, because of what we see

George Churchwell: is is limiting us. And I just want to throw something out. We just got a contract, our company to start working on certifications for Moon construction.

David Mantica--Co-host!!!: Yeah, you know, that's George. Here's a great, that's a great point. Like we are always in a box. We cannot visualize what's going to happen next. We can. And and that could be it. Maybe the new job is going to be welding on welding in 0 gravity.

David Mantica--Co-host!!!: I know the but what concerns me right now is

David Mantica--Co-host!!!: part of the reason Google had such great numbers is they did some layoffs that nobody knew about. They cut staff. They focused more on using AI for productivity. The productivity numbers increased. Thus they profit, numbers increase. So this 1st wave is going to be tied to people using AI at their work becoming more productive, and people being laid off

David Mantica--Co-host!!!: so they can make more profit. That's my belief.

David Mantica--Co-host!!!: Now where the second wave comes like, Lloyd was saying, as it trades to creating enterprise value. I don't know yet, at least I don't see it.

Cris Casey: Look up. Curzwell's the law of accelerating returns.

Cris Casey: and he explains very, very succinctly why AI is not like any type of industrial or automation

Cris Casey: advancements that we've seen over the life of of humans. And he breaks this out, you know, starting at an epoch level back from the Big bang and runs it all the way out.

Cris Casey: and his point is is that you know, if you make a better jet engine well, he an example that he uses is the amount of time that it takes to get from North America to Europe right, and it collapses down

Cris Casey: where you had the Concorde which could make the trip in a couple hours, but the Concorde was too expensive to operate, and nobody wanted it. So now the level has dropped back down to about 7 h. And the reason why there's been no further investment in terms of trying to bring that time down is because jet engines and that technology. It doesn't build on itself

Cris Casey: the way AI does. And AI right you. You keep feeding it back. You keep refining it, as George pointed out. And this is behind him.

George Churchwell: Chris. Chris, I'll add something to the all the things you're bringing up. And, David, this goes with what you were saying.

George Churchwell: We don't. We can't get supersonic right now. We don't go to space like everybody doing stuff. We are not on the moon.

George Churchwell: If you had AI

George Churchwell: and you just put into AI. Here's the Concord's design

George Churchwell: design, a model that uses less fuel.

George Churchwell: Change the engine. What's wrong with this engine? Make the engine better

George Churchwell: those types of things the AI can do.

George Churchwell: and those are things we can't do. You still need engineers and stuff. And also now we're making new things that we never made before, and all those people that used to sit at a cubicle

George Churchwell: are now working in space.

David Mantica--Co-host!!!: Yeah, there's somebody. So this is good. We gotta stop here. We gotta go from being

David Mantica--Co-host!!!: cereal.

David Mantica--Co-host!!!: So going back to Earth. So we're going to come back to Earth. We're back in the real world. We are going to talk about real world application with Mr. Chris Knotts, a great friend of mine, somebody who is knee deep and using AI for project work.

David Mantica--Co-host!!!: Chris, we're going to get you. You're bringing us back to Earth. Brother, I know you love this ethereal conversation, too. But I need you back at Earth, giving us how we make things happen.

## **Applied Generative AI for Project Management - Chris Knotts**

Chris Knotts: Hey? Thanks for that. Tee up, David. You know I love the philosophical angles as much as anybody, and that is important, I should say. But you know, when we are dealing with these generative AI tools in our daily work, we've you know, we've got to reorient back to what the heck, can we do daily? Right? So thanks, David, that was perfect. Tee up. Can everybody hear me? Okay.

David Mantica--Co-host!!!: Yeah, you hear, you great, sound, fantastic.

Chris Knotts: And then let's see if we can have a little bit of screen sharing action here.

Chris Knotts: Can everybody see that.

David Mantica--Co-host!!!: Yes, we do.

Chris Knotts: Great. So let's talk about exactly what David just referred to here. How do we apply the tools so? And you know I love the reference to Ray Kurzweil and the singularity books would love Chris to have a conversation about that offline or something. Please hit me up. We can have a beer, but we're in the world of going to work every day trying to get work done. And I just want to say I love the

Chris Knotts: topics that I've heard to date. In particular, I want to give a shout out to Abrar's topic on data governance. That is a critical topic, and some of the earlier conversations about some of the caveats and the points about focusing on where your human value comes in. These are such critical points, but these are some of the things that I'm going to cover. Right

Chris Knotts: number one here, you can see. I want to talk a little bit about the disruption of AI. As David said, not from this philosophical level, but from as pragmatic of a level as I could. So and I'll just, I'll share sort of what the orientation was as I was putting together this talk. The goal here for this presentation is, you know how in a 45 min talk, how can I present as much like

Chris Knotts: practical pragmatic, immediately applicable AI usage as I can. And so I want to cram it all in. So I'm going to do a bunch of demos. I'm going to explain a few of the key sort of frames that I use for this, as I have done an increasing amount of work with Gen. AI just in everyday professional work over the last couple of years.

Chris Knotts: I'll share a couple of frames for that. But then I'm going to do a bunch of demos and actually show you what I'm talking about here, and then I'll wrap up with a little bit of some other pragmatic

Chris Knotts: concerns that aren't exactly about using the tool on an individual level. But you know, using the tool and and getting allowed to use it kind of from a policy standpoint and things like that. Some some people have talked on that George made a bunch of good points about that in his talk, and I've got a few things to share with you there. Right? So

Chris Knotts: I'll start with this sort of alarming sounding slide from Gartner, in which they say that by 2030. They claim 4 fifths of the project. Management work is done today will be automated away by AI. Right? So now I will say, I'm not really sure that I agree with this exactly. And certainly I think there's more nuance here, even if some of this is true, I do agree with the fact that your biggest job

Chris Knotts: threats are going to come from up and coming project managers in particular, maybe like a project, managers of a younger cohort who may not have the experience with project management program management that some of us do. But you know, if they're ready to roll with the generative AI tools and they get paid half as much. Then that is certainly a career threat for some of us, so we can't.

Chris Knotts: We can't ignore that. Then the other thing I'll point out here is that this is from 2019 right now. So that's important, because that's before Chatgpt and all the generative AI tools even blew up right? So Gartner is saying this about project management work, claiming that within just a little over 5 years from now most project management work will be severely disrupted. But this was just with the legacy AI

Chris Knotts: that came along before we had all of these really easy to use generative AI tools, the private Gpts and the large language models. Those things were still sort of behind the scenes in the lab. You know, these guys are just talking about kind of like retail machine learning and things like that. Right? So then, like a year or 2 after this, then, you had Chat Gpt, blow up

Chris Knotts: so the disruption is being predicted at broad scale. But let's think about that disruption for just a minute. Right? Because this is the big point that I want to make

Chris Knotts: You know, there is obviously like world shaking disruption happening moon construction. Or you know, whatever, George, you know, if you need a guest lecture on the moon hit me up. But you know, as I've worked with these tools more and more, and taught classes on this stuff, the thing that I've realized is that the tools seem so amazing, and they are, you know, they are quite

Chris Knotts: amazing. But it's easy to get distracted by letting the imagination run wild with all of the earth, shattering disruptive things that these tools can do.

Chris Knotts: And the thing that I've realized as I have worked more with generative AI. Is that the generative AI tools start to struggle fairly quickly, and we've already seen some of that stuff touched on right. But if you get into a sophisticated use case or complicated things very contextually, rich situations. The AI begins to make mistakes, begins to struggle.

Chris Knotts: It'll let you down right. And so you have to be really careful. And then there's a whole other layer of work around the governance and fact checking the AI and kind of the AI safety of policy and all that right? So what I've realized really is that when we say generative AI,

Chris Knotts: one of the most, if not the most, valuable application of the AI tools is actually not in generating things at all.

Chris Knotts: not in creating something from scratch. The AI doesn't just have the ability to generate stuff. The AI has the ability to ingest existing stuff and then manipulate it in different ways to apply cognition to it in kind of a small, a automated way. But we're not really asking it to cook up the stuff from scratch data sets and documentation and things like that. And of course it can do that

Chris Knotts: generative AI is happy to crank out B minus or C plus grade content all day long. But there's still a lot of work that's required there. Once it has drafted that stuff for you. But if you

give the AI human generated material to work with, then you'll find it actually does much better, because we're not rely

Chris Knotts: relying on the AI to things in a vacuum. We're actually giving it things that already have the contextually rich points and the nuance and the situational things that content is generated essentially by humans. And so I want to talk a little bit about that.

Chris Knotts: Now, this is just my one slide is in terms of kind of basic Llm tech function. I'm not going to spend a ton of time on this. But there's 1 point down here that I want to make in red. Right? So like, we are probably somewhat familiar with the concept of the large language model here. But there's so actually a couple of points, and then one main one in red. Right? So the 1st point that I want

Chris Knotts: make is that of course, the ais, actually don't understand anything that can be easy to forget, especially when we play with the really cool models that seem to to do amazing things. And all this stuff. But you know, the ais fundamentally are doing are they're just analyzing statistical relationships in words, phrases, and language. So it's just kind of it's taking. It's taking words. It's turning them into math

Chris Knotts: and then it's turning the math back into words. And it's just a statistical analyzer. Right? So so that

Chris Knotts: means that the AI is good at some stuff and not good at some stuff. Yeah, Laura, exactly fanciest autocomplete ever. Right? So. But if you think about how that fundamental operation works? It means that basically number one, the AI is going to be best at tasks that are language based. Right? So that's an important thing to keep in mind now. They can do some math.

Chris Knotts: They can do some data analysis and things like that. But but you always want to start with the use case. That's oriented around language.

Chris Knotts: because that's kind of the fundamental way that the Ll and models are built. And then down here in red here. This is like a

really important point that I like to make that the people who are going to be really good using these tools as we move forward, are not software engineers or programmers or data analysts? Really, even the people that actually become power users with AI are the people who have the

Chris Knotts: biggest command of disciplined, rigorous language skills. How good of a communicator are you right? So I always think about somebody who studied

Chris Knotts: like linguistics or philosophy in college. What do those people learn how to do they use? They learn how to use the language.

Chris Knotts: to have a very structured, very disciplined exchange a dialectic, as I call it, and they learned to use that dialectic language pattern to kind of arrive at a conclusion, or to solve a problem or to come to agreement or to analyze the problems with an argument. Things like that. And that's exactly the type of skills you need. You don't need any software engineering skills to use chat, Gpt.

Chris Knotts: But the better you are at those types of language skills, the better of an AI user. You're going to be now that unlocks a complete realm of possibility to professionals outside of these these technology topics. So that's the point that I want to make here about the Llm.

Chris Knotts: So as I'm thinking about, how can we use this in our work? You know, we heard in the morning earlier about how really you know the best. I think it was alluded to. The best work to have AI do is the boring work. It's the repetitive work, the work that essentially, machines are good at doing. And that's another thing to remember. Right. Like at the end of the day, AI is just a computer

Chris Knotts: program. It's like a robot right? And it has the same attributes as a robot or a machine does. And so it's useful to think about, how do we use machines and robots to help us do our work up to this point right? And you can kind of see I've got these columns here, and what you can see is if you compare the strengths and the weaknesses of machines and robots versus people.

Chris Knotts: they're kind of complementary to each other, and they're also quite different. Right. So like the things that machines are good at doing are the things that people hate doing, you know, doing the same task a thousand times doing it the same way, every time not getting tired of doing something at large amounts of scale.

Chris Knotts: These are things that humans aren't good at. And we really don't enjoy right, but we do bring some strengths as well that machines are not good at right? So you know, the AI has no emotional intelligence. It has no ability to work in different communication styles. It has some lowercase C creativity, but in terms of true

Chris Knotts: problem solving. You know, you're not going to get that from the AI and keep in mind the AI's training data has a cutoff point. And right now I think the cutoff point for the most advanced AI models is somewhere in 2022, right? So you can't really innovate if you're using a 2 year old training data set because the AI doesn't know what's been going on in the world for the last 2 years. So you know. So this is how I like to think about

Chris Knotts: this right if you and then I'm going to come back to my 1st slide about the Disruption and take issue somewhat with the Gartner point. That's the real disruption, right. The disruption is not in the exotic earth, shattering world changing stuff. The AI may or may not be able to do moon construction. I can't get past that one. But the real disruption is the fact that we now have a cognitive robot who can do a lot of the boring, repetitive.

Chris Knotts: busy work that we have to do when we are doing project management work. And there's a lot of that work right? Project managers have to do a lot of data merges. We have to do a lot of documentation. You know, we have to do a lot of stuff that it's not. You don't really have to be that smart to do it. But you have to be smart enough right? And now, with the AI tools, we actually have a tool here that is smart enough to do a lot of this stuff right? So think about that. Think about the differences between machines and people.

Chris Knotts: So what can it help us do right like getting back to the pragmatic right? So if you think about what the robots can do. Well, here's a short list, certainly not an exhaustive list. But it's enough to kind of get you thinking categories of use case routine stuff data, intensive tasks, things that are standardized. You're doing over and over and over things where you have like a fairly inherent level of stability in the context. And there's not a lot of change

Chris Knotts: that you don't have to adapt to or show a lot of agility. Robots and machines are kind of inherently brittle, you know, in terms of their use case they don't really understand task switching context switching, you know, reasonable tolerance for air, large scale tasks, a lot of tasks a thousand times 1 million times. And then finally, just integration, ease like, is it a good fit? I mean, you can have a great tool, but if it doesn't play well with the rest of your stack.

Chris Knotts: then, you know, it might just might not be a good use case, even if the tool is awesome. So these are categories of Use case. But let's think about some specific examples. That fit into these categories. All right. So.

Chris Knotts: this is just a little calculator from my website to allow you to to to figure out. Is it worth investing the time and an automation solution to to automate something? So I won't go through this right now, but you can see like if you were to put in like a 5. Say, do a task

Chris Knotts: 5 min. It takes 5 min, and you do it 5 times a day, and you want to see what the payback period is over the course of a year. If you run a calculation like this, what you can see is basically you're going to get return on your time after one year. If you invest up to like 70 h of development work in doing an Api integration or building a widget that will allow you to now automate the thing.

Chris Knotts: even if it's a very small boring thing. If you do that small boring thing a thousand times a year. It's worth standing up a project to get a development team to spend, you know, 70, 80 h

Chris Knotts: to build an automation widget for that thing, because then you've just gotten payback on your time. So just thinking about, how do we gauge payback periods and Roi on automation tools when we're dealing with this kind of busy, busy work. Right? So now, this is a screenshot from one of my generative AI and project management classes where we sort of brainstorm some of the tasks and use cases that

Chris Knotts: we use. And so what you can see from this screenshot is that project. Managers don't have any problem. And we this takes 5 min. Right? We take 5 min to brainstorm these, and you can see that the participants in the class

Chris Knotts: find it very easy to come up with quite a lot of ideas around the things that are good fits for the machine to to do for you right? And so if you're in a Pmo or your project program manager, you know, most of these probably are pretty familiar. You know, we do a lot of work like this. A lot of this work is fairly mechanistic. It takes some intelligence, some more, some less. But

Chris Knotts: but there are. There are criteria around what machines can do for us that fit? Well with all this kind of stuff, right? So we had somebody mentioned summarizing the meeting notes earlier, you know. You'll get this Gpt. At the end of the conference here that that contains all of the knowledge base of what was discussed today, and then you have something very fast that you can access. So plenty of

Chris Knotts: low hanging fruit in terms of use cases here.

Chris Knotts: So you know, just summing this up into a specific list targeted at project managers and people who do the type of work that we do. Here's a list, right? I won't read you the list, but you can look at this, and you can see that this is the type of work that we have to do as project managers. Every day we spend a lot of our time doing this. We spend a lot of time

Chris Knotts: communicating, summarizing, identifying action items. We spend a lot of time calculating, scheduling and budgets and and things like this that are. There's a lot of data there. There's probably also a lot of examples there from previous projects, or maybe a lot of

existing documentation. So you see again, I'm bringing this back to the point that you know we're not. We're not asking the AI to

Chris Knotts: cook up all this stuff from scratch.

Chris Knotts: We need to do work with the the assets that we have the documentation, the schedules, the timeframes the budgets. The meeting transcripts, you know, etc, etc. Contracts even. But we have that stuff, and we can give the AI that stuff and then ask it to manipulate it, analyze it, slice it and dice it in different ways. And I've just. I've found that the

Chris Knotts: the AI is, you know, instead of generating like C plus or B, minus content from scratch, it can get into like a territory when you're asking it to work with a human generated artifact like a spreadsheet that we already have or documentation we already have, or something like that. So that's kind of one of the big points that I want to make here. You know, I think about generative AI,

Chris Knotts: not always so much as generating, but like is manipulating and and analyzing and parsing stuff. The AI can do that, and it's quite good at it.

Chris Knotts: So just a quick slide here in terms of where we can pull information from where we can. We pull material from for the the AI to work with all kinds of places, right? We can pull it from our our project, tracking environment from our our software dev environment, flat files or just any kind of documentation, anything that sits in sharepoint or teams. Anything like that

Chris Knotts: exported data from Trello boards, or what have you? You know you can pull that into a Gpt like George was talking about, or you can pull it in just directly into the AI tool, or you can pull it into a private Llm. There's all kinds of ways. You can pull it into this reference data set layer. But then you can use the the same type of chat ux that we are used to with Chat Gpt, or

Chris Knotts: or Gemini, or Claude, or any of those to work with this type of stuff. But the key thing here again is it's not cooking it up

from scratch. We are giving it data sources. And in a project management context in particular, that is quite exciting. Right? So I'm going to switch over now and do some of these demos to kind of show you what I'm talking about. So the 1st demo I'm going to do is called Ports of the World.

Chris Knotts: So I've been working on a project earlier this year. That is, it's for a large maritime Services company. And I've had a bunch of research and stuff that I've had to do with this project. And so, as part of my research I came upon, I had to do a bunch of data compilation here. So

Chris Knotts: I've found some very valuable data from the CIA. Interestingly, the CIA World Fact book has a repository here of every single port in the entire world. So I'll just scroll through this right. So from A to Z. Every single country, every port, every natural gas port, every oil, port.

Chris Knotts: cargo, ports, small ports, big ports, river ports, deep water ports, etc, right? Like it's all here. This is all the information that I need. But there's a problem with this makes it really hard to work with for me. Right? So the problem is, it's just a big wall of text. It's not really. I mean, it's organized. But it's not structured in the way that I need. So what I did with this piece of my research was come over here. I've got these all preloaded for you here already. So what I did was I came over to my

Chris Knotts: my chat, gpt enterprise account here and I I designed a little a couple of prompts here to and you'll see. I I specifically called out the fact. You're not supposed to generate, create anything here or add anything new, right? You're just supposed to manipulate and organize the information that I give you.

Chris Knotts: So I teed it up that way. And then, you know, I kind of explained what I was gonna do right? I gave it a little bit of a example, tinkered with it a little bit to get it working right? And then, once I had it working right, I was able to just copy and paste that wall of text information about the ports and start organizing it

right? And so you can see how this worked. I just started dumping the data in there and then I started getting the structured information.

Chris Knotts: and I'll just skip to the end and show you what I ended up with. So what I ended up with was, after completing. This was something that looked like this. But I didn't just

Chris Knotts: put the information into a tabular format here. I did use the the cognitive ability of the AI to to add some information that it could. It could derive from the original data set. But it wasn't in the data set. And specifically, I'm talking about counts right? So it had all these lists, but I needed numbers. How many container ports are there? How many LNG ports, how many dry bulk ports, right? So.

Chris Knotts: as it compiled the data from the wall of text into the spreadsheet, it was able to generate new columns here that gave me all these counts, so that I had now, like a very granular data set that I could work with. And then, now that this is in a Csv, I have a lot more options to to work with this data. Right? So and then

Chris Knotts: I also kind of again, it's not really hard. I'm just asking it to count. You know, it never really had to count higher than 20. So that's a perfect math. Use case for generative AI, you know, as a counting that's not going to be above above 20. But then so you can. You can just imagine right how this would be very useful. And you can use this kind of thing for all kind of stuff scraping data and then putting it into a spreadsheet like this. Right? So boom!

Chris Knotts: That's demo number one for you. I hope that that wasn't too fast for you. So

Chris Knotts: next the next demo, I'm gonna show you real quick is a sentiment

Chris Knotts: analysis example. So this is an example in which let's imagine that we're standing up an it project to integrate a very large new software platform. Let's say it's a a new Erp system, or maybe

even like an internal an internal Llm, where we want to stand up a private generative AI environment, right? So

Chris Knotts: as part of a project like that. One of the things I may do during my due diligence is, I might conduct a survey of my stakeholders. Right? Let's get. Let's get the concerns. And the you know. Let's see if we can use

Chris Knotts: information from. We ask from our stakeholders about what their concerns might be, and we use those concerns to identify risks in our projects. So now we've got something where, you know, we're we're collecting information from our stakeholders, and we're asking them about their, you know, their biggest concern. So we might get something that looks like this, right? So here's just a spreadsheet, you know, whatever a few 100 lines long with a 1

Chris Knotts: one question survey response hypothetically, in which we've got this we've asked them what their biggest concerns are here in the in the survey.

Chris Knotts: And so we've got this long, this long spreadsheet with names job titles when they responded, and things like that. And once we have a data set like that, now, we could, of course, do sentiment analysis manually, but what we can do using the AI tool is, we can load that spreadsheet. And since I preloaded this you don't see the visualization.

Chris Knotts: But this red box shows you that I uploaded the the Csv, I just showed you guys here. And then I've designed some prompts to conduct a sentiment analysis on the survey data.

Chris Knotts: So you know, it's quite. It's fairly long prompt. I had to be very thoughtful about how to ask it for what I needed. But then you can see here that once it has the data that I gave it. It runs the analysis on the data and gives me the counts and slices and dices, the sentiment neutral, positive, negative, etc. It breaks it down by sentiment and a stakeholder group and things like that. So you can imagine I was a

Chris Knotts: project manager that would be pretty handy. And then, you know, this only takes a few minutes, but then, with with just a little bit of cleanup I generate a report draft that looks something like this, right? So now I've got my my sentiment analysis, which is pulled from the AI.

David Mantica--Co-host!!!: Chris, I got to jump because I got 2 things, 2 questions for you.

Chris Knotts: Sure.

David Mantica--Co-host!!!: They're very pragmatic.

David Mantica--Co-host!!!: 1st one is all right. How do you get the Jira information into an AI tool? What's the best way to do that?

Chris Knotts: Yeah, I got a demo coming up. That's gonna show you that exact thing.

David Mantica--Co-host!!!: Okay, great. Then number 2 would be. And I'm this way as well. I'm a big cut and paster. So I do something in claw to cut and paste it into other documents. Is there a better way besides cut and paste to move things in other documents?

Chris Knotts: Well, I'll be honest. I use cut and paste a lot. I will often make sure I instruct the AI to generate its final output in a table format, so that it makes it easy to paste it into excel. I've seen Mark vigorously nodding his head. So that's my go to. But now, depending on which tool you're using, you know, if you have an enterprise copilot license, for instance.

Chris Knotts: copilot, obviously Microsoft product. So it integrates a little better with the Microsoft productivity apps than other AI tools. But it'll be happy to generate. Excel documents directly out of the prompt, for you know, Chat Gpt some of the other tools will also generate Csvs or other formats. I do find it a little glitchy, so it kind of has that capability. But that's 1 of the reasons I find

Chris Knotts: myself for really relying on cut and paste, because sometimes it just kind of stalls out if you ask it, to generate a

spreadsheet or something like that, but within within copilot it's way better at generating that output. But I mean, for now copy and paste still is my go to, you know. Now, if you get into a little bit more customization, if you want to do some engineering, of course us here, we're not going to do this engineering because we're not

Chris Knotts: always engineers, some of us may be. But if you want to get into api integrations or build a bit of a stack. Now, at that point you can automate and build in some of the parsing of the output of the AI, which, of course, the AI is. It's essentially always just text, right? So even when it, that's why it can create a spreadsheet. Because it's creating an Excel document. What it's really generating is just Csv

Chris Knotts: text format, and then it can kind of turn it into a spreadsheet. But with the large language model only has the ability to output language based stuff.

Chris Knotts: Text, right? So, you know, you can. You can do a little bit of you know.

Chris Knotts: transforming the the text based information and other stuff if you wanted to integrate. But I I wouldn't, you know, unless you have, I would start with like, what do you want to do right? What's your business need and if the business need doesn't need some kind of custom api integration or a bit of application development, I wouldn't even worry about it like, just go ahead and copy and paste. That's that's my answer to that. So

Chris Knotts: so back to the sentiment survey here, you know, this is my output. Right? So. And this, you know, just only takes a few minutes based on parsing and analyzing the survey data that I shared with you. So as a project manager. You can imagine how this would be pretty interesting, and of course I've appended this report with an explanation of how I conducted the sentiment analysis. All right. So that's demo number

Chris Knotts: 2, I believe. So. Let me keep on rolling here because I want to try to get through all my Demos.

Chris Knotts: So ports of the world. Sentiment, analysis, the next one. I just want to show you a little bit about using AI for image generation. So this is one, you know, in a project management class. We don't spend a lot of time on this but it's something that people are really interested in, I would say, because there are some really powerful capabilities associated with image generation.

Chris Knotts: So I'm going to show you just a little bit about what the AI tools can do. Now this I'm going to show you a tool that's it's not in Chat Gpt. This is a tool called mid journey. Now, midjourney is what's called a diffusion generator. If you use Dolly within Chat Gpt, or anything like that, you can, it works in very similar way. Now, again, the AI is not really going to be able to

Chris Knotts: kind of create the all the stuff. It's certainly it's not going to be able to do business diagrams or anything very sophisticated, but it can help you generate stuff that's going to help your presentations look better. Spice up your stuff so you can see that what I've done here is that within mid journey I've kind of. I've found. I've played around. You can see here like I've been playing around a little bit

Chris Knotts: playing around with

Chris Knotts: prompt template. That gets me a consistent

Chris Knotts: style. And so here, you know, style is not really very consistent. I'm messing with it, messing with it, messing with it. But then here, finally, I finally got a style of graphic that I liked a color scheme, you know, kind of. It's minimalist style with a white background. And then once I had that you can see here, I just started cranking out these images, and I'm just going to show you. So these are images for a deck and a course that

Chris Knotts: that I've been I'm getting ready to teach a devops course for O'reilly next week, so in for my devops. Course, I just wanted to kind of spice this up right with with some of these graphics. So again, like, I'm not really adding any anything

Chris Knotts: revolutionary here, but I'm it's I've got like a very consistent look and feel and I've generated graphics that are consistent with O'reilly's branding. So that color scheme I was talking about we find a good example here.

Chris Knotts: So so here you can see where I've like integrated the little graphics down here, and they're kind of consistent with O'reilly's branding colors, and I could I could use a different graphic for every slide find some others here, so like I've got my database. Ci like. I've got my databases here tracking to our O'reilly's

Chris Knotts: color scheme. And so you know it's not. It's not like doing the job for me, but it's really helping me make nicer looking slides. And so you can use this for reports or whatever but and then there's another use case I want to share

Chris Knotts: in which you can use the data analyst to perform a different type of of visualization as well, in which you are actually doing

Chris Knotts: doing data visualization. So I obviously teach a lot of classes. And so, you know, I've got an example here in which I've fed my Lms reporting data up to the data analyst and chat Gpt for. And then I can do visualizations on the Lms learner data here.

Chris Knotts: or just the example here, distribution of final scores. So when the learners complete a class complete the exam, I can visualize the data across the cohort of the learner scores, and then the final example that I'll give you here is we do a conference here in Raleigh every year called Devops days, and we do this thing called Ignite Karaoke, where we take volunteers from the audience, and we give them 5 min to give an ad hoc

Chris Knotts: improvised presentation into 20, or I'm sorry 5 slides that they've never seen before, and so we're always trying to trip them up. It's really funny, right? So these are all AI generated images that I gave them. You know, I'm trying to throw them off right?

And then, like, you know, see what the what the heck are they? Yeah, it is, Jonathan. It's kind of like. It's very much like

Chris Knotts: unconference devops. Days borrows a lot from that. So just few examples. You can see all kinds of different styles all kinds of different themes. But you know I can. You know you can. It's imagery that's kind of hard to find is accessible to you with the AI, because you can tell it to generate all kinds of crazy stuff. So you know, what's the application? I mean? I don't know. It just depends on what the use case is. You know, is this? Is this, gonna help your

Chris Knotts: Is this gonna help your program director understand where you stand with your safe implementation? Well, it's not gonna be able to generate those types of images, but.

David Mantica--Co-host!!!: Yeah, Chris, a couple questions for you that I wanted to. If you could do something be great. So just on the sediment analysis, Liz was just asking, how was the analysis measured high, medium and low? Or is this something you made up as a percent of mentions.

Chris Knotts: Yeah. So I gave. I gave the the AI my parameters in terms of the buckets that I wanted to fall into. So just give my parameters and said, You know, I wanna I wanna group it into those 3 of those 3 buckets. But you can tell it whatever parameters, if you that you wanted right depending on how much detail.

David Mantica--Co-host!!!: So the sentiment was raw as in. Here's all the feedback. It was raw, then, that the AI actually put it in the buckets.

Chris Knotts: That's right. Yeah.

David Mantica--Co-host!!!: And you created the rules.

Chris Knotts: Yeah, I created the rules like, George.

David Mantica--Co-host!!!: Just talking about in your chat as you were doing your chat prompting you created those rules.

Chris Knotts: That's exactly right. Yeah, yeah.

David Mantica--Co-host!!!: Alright. So then we have another question is that some folks you're talking? What's your thought about using the tools embedded in some of the project management tools?

Chris Knotts: Yeah. So that's a great point, right? And I'll mention a little this when I get to the Jira export demo here in a moment. So I like those tools right? So this is a whole other conversation. So I don't want to get too far down the rabbit hole. But you know our copilot is in Beta for dynamics 3, 65,

Chris Knotts: and Ms project as well. You know the project management tools, product management tools. Asana, you know, product board. Atlassian has a tool called Atlassian intelligence that you can subscribe to. So there's a lot of tools coming online. Clickup is heavily oriented around its onboard. AI, they all work basically the same way. They all work

Chris Knotts: essentially like a Chat Gpt agent that's been bolted into the environment. So that's really useful, right? Because then you don't have to do the manual step of exporting these data sets and then importing them back in and kind of doing non native data set analysis. The tools can integrate right there with the data set. So just by example, right? Like in dynamics 3, 65, it can't do everything, but it will.

Chris Knotts: It will generate draft project schedules for you, capacity planning, and and it'll generate draft budgets, and it'll also identify risk by as you get your budgets in there, and then you start to populate dynamics with some actuals, you know, as the project moves forth, the AI will compare the actuals versus the budgets, and it can. It can like automatically derive.

Chris Knotts: You know, Npv, and what your risk is, if you're creeping out of scope and things creeping over budget and things like that. So yeah.

David Mantica--Co-host!!!: Love it.

Chris Knotts: As well. Yeah.

David Mantica--Co-host!!!: Okay, what other question here? We currently don't use an enterprise version of Chat, Gtp. Or any other AI like copilots and enterprise. No enterprise version.

David Mantica--Co-host!!!: Does that mean? I have to prompt prime the tool every time before using it? If so, does anyone have a cheat sheet of different ways to prompt the tool for project management use.

Chris Knotts: That's a great question. So there's a few questions in one there, right? So like, if you don't have an enterprise

Chris Knotts: package, then. Yes, you will have to prime the tool, although, of course, it saves your threads, so as you're in a project or particular thread of work, then it'll save all that context. And then, if you, if you're replicating context from one project to the next, then you have all that in your history. I also highly recommend that everybody keeps a prompt journal and an AI Conversation journal for themselves, so that you've got a

Chris Knotts: a searchable document that you can use to find the context setting prompts that have worked well and things like that, because you will find yourself typing the same thing over and over and over. But there's a bigger issue here that I want to mention, which is that your organization, your employer probably doesn't want you dumping all of that stuff into individual retail level accounts. And so I'll talk about that in just a moment. Here, if I can. If I can get to it.

David Mantica--Co-host!!!: And I got one last thing, the thing I want you to definitely show the jira thing. But one thing I think we're missing with the simulations would be if you could save 5 min to try to show them.

David Mantica--Co-host!!!: Live how you build up an image. Say.

Chris Knotts: Yeah, yeah, yeah. I'll be happy to if I, if their time remains.

David Mantica--Co-host!!!: Yeah, we'll try.

Chris Knotts: Yeah, I'll go as briskly as I can.

David Mantica--Co-host!!!: Okay. Great.

Chris Knotts: Okay.

George Churchwell: David. Don't forget, Gpt. Don't no prompting.

Chris Knotts: So. let me show you this one, because as project managers, I think this is one that we're all probably pretty interested in. Let's say that I've got I've generated. Well, let's even just say we've used the we use the sample, the survey sample with the sentiment analysis that I just showed you. So we again, here's the survey data. We've we've used our sentiment analysis within Chat Gpt to generate

Chris Knotts: the final report. We've got this report. And now let's use this report, and we feed that in as a source reference data set so that we can generate some workflow, some task breakdown, related to the risk that we've identified. Right? So we've got as a part of our final output. We've got these mitigation strategies here. Well, let's turn that into work right as a project manager. So

Chris Knotts: I've got a 1 here, and I did preload these because it was kind of slow. If you do it live. So that's why I wanted to have them prepared. So in this one you can see that I've placed this list of task breakdown that's directly related to the risk identification we did in the previous report.

Chris Knotts: and I've put this into Chat Gpt, and then I've asked it to generate what's called a plant Uml script. Now, you don't have to be highly technical to understand what plant Uml script is, but it generates this scripting here. I had to do a little troubleshooting, but once I get the right one, then I can just copy this script out. I don't have to understand how to do plant uml scripting because Chatgpt understands how to do it for me.

Chris Knotts: and then you can come over here to plant Uml paste that script in and

Chris Knotts: boom. You get a Wbs, and it can do all kinds of business diagrams like this, right? So if I come over here to my mirror board, I've got pulled up. I'll just show you a few other examples. So here, right is the the Wbs diagram that I just showed you. So you know, fairly basic. But I mean, this is like a 5 min diagram. So you could play with this. I've got also dependency diagram here.

Chris Knotts: audit diagram. So Uml has the ability

Chris Knotts: to champ put into business diagrams. So that's just another way of visualizing work specific to a project manager that that can be pretty handy.

Chris Knotts: So this is pretty fun one. But if you plant, Umlcom is free to use. So fire up your chat. Gpt, and just, you know, feed in basic language, project descriptions and stuff, and see if you can get chatgpt to turn that documentation or that language into a uml script that you can use to generate diagrams. Pretty pretty fun

Chris Knotts: all right, then. So now I think I'm let me go to the the import export

Chris Knotts: because I want to make sure that I've got time for this.

David Mantica--Co-host!!!: Yeah, we want to cover that.

Chris Knotts: Yeah. Yeah. Okay. So the so the jira. Now, the 1st thing I'll say about the Jira import is that, for one thing, if you're able to convince them to let you subscribe to Atlassian intelligence. You don't have to do this because then you'll have a Gpt. Agent that works right there in the the Jira environment. So that's pretty that's pretty useful. And you know, there's no

Chris Knotts: there's no better way to work with the AI and the data sets than actually having it integrated. Because there's a lot of, you know, debugging and things like that. So I'll show you a couple of Atlassian tools here. Now, the one I'll start with is this one just

because I have this project, and this is not in Jira. This is in Trello

Chris Knotts: that I worked on earlier this year, and you can see, you know, it's pretty pretty granular. I've got like notes in things, you know. We've got documents in here. We've got all kinds of all kinds of project information in here, as we often would have. But of course, if you come over here, and there's similar functionality in Jira as well. So if you come over here within Trello, you have generally, and you have something generally within any type of Project tool

Chris Knotts: I can export here as a Csv. If I've upgraded I've let my my license lapse here, so I just have a free version. But

Chris Knotts: if I have my paid version I can export a Csv. I can also export as Json.

Chris Knotts: which

Chris Knotts: if you do this, it'll generate something

Chris Knotts: that looks like.

Chris Knotts: Let's see if I can get it here.

Chris Knotts: So it'll generate something for me that looks like this, right? So this doesn't mean anything to me because this is Json Code. But if I select a chunk of this code and then let's just go ahead and try this right. If I come over here and open up a new

Chris Knotts: chat.

Chris Knotts: I'll move to 4 because I find it to be the strongest model, and I'm just for the sake of time. I'm just gonna say, what's going on with this exported

Chris Knotts: Trello project data.

Chris Knotts: And I'm just gonna dump in that raw

Chris Knotts: Json export data.

Chris Knotts: So it was just a

Chris Knotts: it was just a a very small segment. But you can see right away how it does begin to parse the data right now. There's a

Chris Knotts: another way to support. This is a Csv.

Chris Knotts: so here's the Csv switching gears a little bit, because this is actually a Jira Jira sprint export. So now I've got a kind of a larger, more robust, but also more structured.

Chris Knotts: Csv. Then dumped from out of Jira. And then, once I have this, of course, now it's ingestible into Chat Gbt again. You can see in the red box here. I've uploaded the Atlassian data export here, and then I've given it some basic prompting, and then, just to get it started? These are some of the questions I've asked it to interpret for me now, some of these may be interpretable within Jira, but some of them

Chris Knotts: may not. Jira may not have the capability to ask or analyze exactly what I want it to. So the cool thing about this is that you can take the raw data set from out of Jira and then craft like whatever questions you want, because the AI will figure out the logic for you, so you can see that it's begun to parse the Jira project. I've asked about

Chris Knotts: tasks in progress. I've asked distribution across my resources, and then I've asked it to identify overdue tasks and which categories they are so and you can see that it begins to give me output on this right? So it's doing counts of my tasks in progress

Chris Knotts: counts of what's overdue distribution of tasks across the category. So we can start to identify things you might be interested in as a project manager. Bottlenecks, scope creep, overloaded teams, things like that, right? So in in the amount of time we have here, you know, it's like, I'm just giving you kind of a

glimpse, right? But you can see you can see how this works, so I hope that at least starts to touch on

Chris Knotts: the the idea of piping data in and out of Atlassian tools, other project management tools and things like this is.

David Mantica--Co-host!!!: So all you're doing, all you're doing is asking for the export. So if you're in Jira, give me an export, I got the export file. Then I could stick it into one of the tools. If I don't have Jira intelligence and I can start manipulating it in the tool I've selected.

Chris Knotts: Yeah, exactly. Right. So here's the big point that I would say right in terms of interoperating across project management tools and the generative AI tools. This is what you want to look for. Figure out how to get your projects and data sets, or whatever it is. Figure out how to get that out either as a a plain text document, if it's like documentation related. So like if it's an actual

Chris Knotts: you know, written document, or whatever just you know. Word, Doc. Simple text. Whatever or be a Csv, Csv is the jam. Right? Like Csv is the format that seems to work the best with the tools?

Chris Knotts: It can. It can interpret Pdfs excel sheets other types of formats, but it just it gets a little glitchier less reliable. Yeah. Get your exports into Csv, that. And and so Csv very common format. Obviously, if you have some constraints, you have to like, jump through some hoops if you have to get it into an Excel format. Well, then, of course, then you can get into Csv from there. But the the AI agents work best with Csv for structured tabular data.

Chris Knotts: All right.

Chris Knotts: So I hope that helps at least ignite your imagination about it a little bit.

Chris Knotts: And so let's see here. Where am I? That may have been? I think that was my last and my actual, my last demo.

Chris Knotts: David, how am I doing on time here? What what do I got left.

Lara Hill: You're right at time, actually, Chris, but that's perfect.

Chris Knotts: What does that mean like? Do I have 1 min left? 5.

Lara Hill: Yes, let's let's say 1 min left.

Chris Knotts: Yeah, we're.

Lara Hill: Running about 5 min behind. So if you could wrap up in a minute, that'd be great.

Chris Knotts: Okay. All right. Well, I've I'll I'll.

David Mantica--Co-host!!!: I would love to see a Chris. Show them how you do an image.

David Mantica--Co-host!!!: You got a great let's do.

Chris Knotts: Yeah, well, we'll. We'll.

David Mantica--Co-host!!!: Do an image of

Chris Knotts: Give me an idea.

David Mantica--Co-host!!!: Of date of somebody at the conference, just overjoyed with all the information that they received.

Chris Knotts: All right. That sounds

Chris Knotts: sounds like a great idea. So within mid journey let me try to do this. So mid journey also uses a prompt now, a key thing to understand about the image generators is they also use the large language model right? So that but they use a different type of training data.

Chris Knotts: Then the text-based AI tools do. So let me just think. Here, let's start with something basic. And then we'll craft it into

something that might be a little more useful. So we're going to say, give me an image of an incredibly

Chris Knotts: overjoyed

Chris Knotts: attendee at a business conference

Chris Knotts: very excited about a presentation she is seeing.

Chris Knotts: And so the images take about 60 seconds to generate. So I'll give you just some other information about the image generators. So what the image generators will do is they will start by giving you 4 candidates. So in image, I was just playing with yesterday. You get 4 candidates, and then you can upscale the images. You can also dial in the aspect ratios in mid journey. So if you want something

Chris Knotts: is rectangular, if it's a slide, you can tell it. Give me a aspect ratio of one by 2, or whatever you know, you can specify colors or specific characteristics. So this is pretty funny, right like incredibly overjoyed.

David Mantica--Co-host!!!: So. Chris, can you add physical? Can you add things like physical features of your image?

Chris Knotts: Absolutely. So. Now, what I'm gonna do is I'm gonna just this, just remember, it's a starting point, right? Like AI never gives you a final product number.

David Mantica--Co-host!!!: I would say, try to get this virtual. Say, yeah, but they're doing a conference virtually.

Chris Knotts: Okay, sounds good. So and we'll just add the language virtual

Chris Knotts: and incred instead of just an incredibly overjoyed attendee. Let's say an incredibly overjoyed attendee, wearing

Chris Knotts: glasses

Chris Knotts: with brown

Chris Knotts: here.

Chris Knotts: and a blue suit.

Chris Knotts: and let's see what that does.

Chris Knotts: So.

David Mantica--Co-host!!!: Blue suit? Or is this some

David Mantica--Co-host!!!: dumb and dumber, or something? A blue suit.

Chris Knotts: Yeah, I don't get that reference, but we'll.

David Mantica--Co-host!!!: You don't get the reference. Oh, man, dumb and dumber, the Tuxedos, the blue and orange, or whatever.

Chris Knotts: This is. This is my biggest pitfall with you, David is when we get into the movies. I haven't seen you make fun of me because I haven't seen.

David Mantica--Co-host!!!: I know I forgot about that.

Chris Knotts: I feel like a Pop culture ignoramus, because that is my weakest trivia category. So now we're starting to get like again, you know, it's still probably not quite there. But we're getting the blue suit. We're getting the glasses. We're getting the brown.

David Mantica--Co-host!!!: And they didn't do the virtual conference very well.

Chris Knotts: Yeah, I didn't really get the virtual conference, so they probably doesn't really understand what that means, that it's a virtual conference. So we have to say something like, probably a virtual business conference

Chris Knotts: sitting in front of a computer

Chris Knotts: on a zoom call

Chris Knotts: and then let's add a few other things here, right like, for instance. Let's say we want this to be

Chris Knotts: let's say photo

Chris Knotts: journalistic style.

Chris Knotts: And using let's say we want to use purple

Chris Knotts: color palette.

Chris Knotts: So you know, getting more and more specific. So like again, the reasoning that the approach that we're using with the image generator, it's logically. It's the same kind of approach that we want to be using with our chat Gpt or our language based tools in which we're, you know, we're starting. And then we're refining, refining, refining. You know, we're building on it. You know, we're not. Gonna we're not going to get the final product the 1st time. But then, just like within a text-based Gpt bot

Chris Knotts: with this once you do find that template that works. Then you know, then you can start to use that again and again, just like I did in the O'reilly deck. So again, you see, we can see we're getting there right like we've got the purple color palette. We've got the incredibly overjoyed look so excited the glasses, the brown hair. Now we've got the computer in there. So you know again, right like we. We would probably have to play with this for a while, but within

Chris Knotts: hour, I guarantee you, we would have a template that we could use that would generate an image that's like very close to what we need.

David Mantica--Co-host!!!: Okay.

David Mantica--Co-host!!!: yeah, it was great. That's really. I kind of wanted to show people the process the engagement associated with it. It's still a lot shorter than creating that image from scratch, because most of us on here couldn't do it.

David Mantica--Co-host!!!: And oh, my goodness.

Chris Knotts: Yes.

David Mantica--Co-host!!!: And as you're if you're a female, a white female who's attending the conference, and you want to show your boss how great it was. You write it up, and you put that picture in there. A picture is worth a thousand words.

Chris Knotts: Yeah, that's exactly right. And you know, the other thing, too, I will say, is just again, as with all AI, where this really becomes powerful is when, then, my designer, who understands how to use illustrator and Photoshop and indesign, can generate raw material with the AI, but then pull it into the actual professional expert run tools that are not AI and

Chris Knotts: and and use them together like that. Right? So you know, it's the it's again. It's the combination of the human expertise with the AI. And the key, of course, is to understand what is the good robot use case for what the AI can do well. And where? Where do you want to reserve your bandwidth for the human needs to contribute to the joint work product? If that makes sense.

David Mantica--Co-host!!!: Yeah.

David Mantica--Co-host!!!: okay, so one of the things we're talking about here and before we get is that you know that people are loving the real world examples. The challenge of the conference to do the real world examples is it's tough to integrate the different topic areas and also real world examples come with some risks. So what we're trying to do is get you empowered with the skills that you could take that next step.

David Mantica--Co-host!!!: But when you take a hands-on class based on role for Gen. AI, or just in general, is where you can start getting that practice. And Laura, with that, said, Why don't you do the pitch share, and then we'll get into mark session.

## Inverting TDD - Al-Generated Tests as Specifications - Marc Balcer

Lara Hill: turn it over to Mark Balser. Thank you for joining us, mark.

Marc Balcer: Oh, thank you so welcome, everybody! If you saw me just a moment ago. Looking around, it was because I saw a reference to Chesapeake by James Mischner, and

Marc Balcer: I thought I had on my bookshelf

Marc Balcer: a signed copy of it from James Missioner himself.

Marc Balcer: That you know I had gotten from my mom many, many years ago, but somehow it, you know, it's probably staring me right in the face. But.

David Mantica--Co-host!!!: Or somebody said, or somebody sold that way.

Marc Balcer: Nobody sold it. You know we don't go there. Okay.

David Mantica--Co-host!!!: Don't mind me.

Michael Wolf: Oh, I I put that reference up there. I asked Chat Gpt to tell me the characters in the book, because I lose track of characters.

Michael Wolf: so I had it tell me the 1st time a character appeared in a chapter and had it graph it out for me. It was really nice. And that's my reference to Mermaid graphic language which kind of reverts back to Chris's discussion about Uml.

Marc Balcer: Oh, yeah. And and Chris, that was the other thing, Chris, you know, to actually have done a live demo with plant. Uml

Marc Balcer: that that was gutsy.

Marc Balcer: because you know, every.

David Mantica--Co-host!!!: He didn't do it. Live. That was, that was a simulation. He built it.

David Mantica--Co-host!!!: Make sure it would work. You can't do it.

Chris Knotts: I did run. The Uml generation live, though.

David Mantica--Co-host!!!: Oh, you did. Okay.

Chris Knotts: And I gotta give a shout out to Mark, because Mark's the one you you're the one who originally gave me that idea. So thank you, Mark.

Marc Balcer: Yeah, alright.

Marc Balcer: Okay. So

Marc Balcer: the other area that I'm also into not only the AI for BA, but also the AI for testing class.

Marc Balcer: And one of the things that comes about, you know, that's really interesting. I found in putting together both of those classes, and, you know, working with clients in this particular area is that

Marc Balcer: there just seems to be a lot of commonality in the problem of, you know, coming up with business requirements and doing software, testing or doing the analysis or doing the work required to create software testing. So

Marc Balcer: purpose of this, you know, is to 1st kind of give you a couple of the acronyms that you might hear people talking about. You know all the Dds as I like to call them. Then to go through a couple of Demos. I actually, I'm not gonna make them Demos. I'm just gonna make them sort of talk throughs. You know of how you go from concept to tests.

Marc Balcer: and how those tests help you to elicit requirements. In other words, we're kind of going to be doing things very backwards. If you think about it? You typically think, oh, I've got to elicit requirements first, st in order to be able to develop the software and to develop the tests. Well, it turns out that if you're paying attention during this whole process.

Marc Balcer: you know, as you're coming up with test cases.

Marc Balcer: it can actually help you to figure out the requirements of what it is you need to build.

Marc Balcer: and then I'll finally wrap up by giving you a couple illustrations of how to go about doing this in practice

Marc Balcer: plus one other nice little surprise based on some of the talk that has talks that have been going on. Okay.

Marc Balcer: so about a year ago, year and a half ago, maybe.

Marc Balcer: you know. The word I came up with was gobsmacked

Marc Balcer: when I was able to take a drawing, do a drawing

Marc Balcer: paper and pen.

Marc Balcer: take a picture of it.

Marc Balcer: upload it into chat, Gpt, and say, What is this?

Marc Balcer: So I took.

Marc Balcer: you know, a screen which I was using already in one of my software testing classes. And it was actually, interestingly enough, it was actually, during some.

Marc Balcer: you know.

Marc Balcer: informal time during one of those classes when we were talking about not the AI for testing, but just a regular, you know, test automation class. We were talking about AI and what we were doing. And someone said, You know, you think you could upload a picture or a screenshot? And so I played around with it, and then I even drew this out by hand.

Marc Balcer: gave it to chat, gpt.

Marc Balcer: and said, What's this?

Marc Balcer: Oh.

Marc Balcer: it's pretty good.

Marc Balcer: It looked at it. It kind of figured out what I wanted.

Marc Balcer: Okay.

Marc Balcer: now, of course, the thing that everybody is talking about when they can do that is well, if you can have it. Figure it out. Can you have it? Write the code?

Marc Balcer: Yeah.

Marc Balcer: Yeah. And in fact, you know I have that.

Marc Balcer: You can take that.

Marc Balcer: you know.

Marc Balcer: Tell it to write out HTML with Bootstrap for formatting and Javascript to make it work.

Marc Balcer: and it will create something for you, and it will actually create this mileage reimbursement page.

Marc Balcer: Great!

Marc Balcer: How do I know I'm done?

Marc Balcer: How do I know it's right?

Marc Balcer: I got a test.

Marc Balcer: Okay?

Marc Balcer: So

Marc Balcer: give you a little bit of background. Just in case, you know, some of these concepts might be new to you.

Marc Balcer: Agile methods make very heavy use

Marc Balcer: of the concepts of various concepts of test driven development. The idea of test driven development fundamentally comes down to the idea that

Marc Balcer: before people start coding, we know what the test cases are going to be, and the goal is to make the test cases pass

Marc Balcer: right. I tell people in my classes it's kind of like, you know, walking into a math or physics course on day one professor not only hands you the syllabus, but also says, Oh, by the way, here's the final exam

Marc Balcer: now, on the last day of class, if you can solve every one of these kinds of problems, I might change up the numbers, but if you can solve each one of these kinds of problems and show your work.

Marc Balcer: You'll get an A

Marc Balcer: that's going to help really help direct your studies. Okay, so test driven development for a developer is kind of a very similar thing in the sense that you know, it really helps the developer to scope out the work they need to do, because one of my old buddies, Martin Fowler, who I used to work with many years ago at Thoughtworks. Martin had this great expression, he said, the most expensive code is the code that's never used.

Marc Balcer: I don't know if it's it was him who came up with that or somebody else. But you know, it really makes a lot of sense.

Marc Balcer: If, as a developer, you're writing something and nobody's using it.

Marc Balcer: You have the lost opportunity cost, plus. You have to drag that code along with you at the same time.

Marc Balcer: The last thing we want to have happen is, you know, 2 days before the end of the sprint, you know. Tester comes in and says, Well, you know, guess what

Marc Balcer: you're not passing 5 of the 7 test cases.

Marc Balcer: huh! Developer says.

Marc Balcer: well, you know, when I do this, and the you know, and the developer is perfectly in his right mind to say, scope creep.

Marc Balcer: because.

Marc Balcer: after all, what's happened?

Marc Balcer: The you know. Nobody said, Oh, this is what I want.

Marc Balcer: you know. The requirements were given to them as these wonderful glittering generalities. So the developer kind of just filled in the blanks.

Marc Balcer: All right. So test driven development basically says before we commit to doing the work.

Marc Balcer: we're going to know what the test cases are in advance. Now, there are many different variations of this, you know, developers like Tdd, because that's like their unit tests. So that there's also behavior, driven development acceptance test, driven development. As far as I'm concerned, for our purposes here. They're all the Dds. It's all the idea of we're going to know in advance what needs to pass before we get started.

Marc Balcer: Okay?

Marc Balcer: So given that.

Marc Balcer: let's go back to our

Marc Balcer: mileage calculator. So

Marc Balcer: just to keep things from being polluted

Marc Balcer: clear out the chat. Tell it. Don't remember anything that you know you had seen before. Go to a new chat.

Marc Balcer: clear the memory. If you're working with a professional version of Chat Gpt.

Marc Balcer: give it the picture and say, now describe this behavior as a set of test scenarios.

Marc Balcer: Now again.

Marc Balcer: remember, forget the fact that you saw the code

Marc Balcer: right? All we had was the picture.

Marc Balcer: So now what's going to happen here?

Marc Balcer: It's going to generate a whole bunch of different pictures

Marc Balcer: or a whole bunch of different test cases for us.

Marc Balcer: Right?

Marc Balcer: Now, that's a little

Marc Balcer: prompt for me. It says, go to the chat. So we can actually take a look at

Marc Balcer: the chat. And we can see the different test cases that we got. Okay. So you got a, you know, basic input and reimbursement right away. I pick up a problem. It's like, Wait a minute. I don't expect the you know user to enter it in your month. Day format. Okay, make a note of that.

Marc Balcer: All right, and the number of miles driven. Okay, that makes sense. Select business as the purpose. Click compute. Okay? Great

Marc Balcer: and it figures out 58 cents per mile.

Marc Balcer: Where did you get 58 cents per.

Marc Balcer: Okay? No, I'm again. I'm making notes of all these things, because again, I'm going to throw those back into chat Gpt to say, either make a correction.

Marc Balcer: or here's what I want to do differently. Or where did you get that from? Or something? Okay?

Marc Balcer: So we leave the miles driven blank. Okay.

Marc Balcer: this is great. It figured out that you know this is a required field

Marc Balcer: non numeric miles driven. Okay? You know, again, it kind of knows, based on its training data, that if we have a numeric field that yeah.

Marc Balcer: Got to put numbers into it. Purpose. Selection?

Marc Balcer: Oh.

Marc Balcer: what are the choices that we should have for purpose? Okay. Now, maybe that's not an opportunity just to correct Chat Gpt, that might be one of those questions that we need to go back to our subject matter experts and say, Hey, what do those have to be? Oh, I love it!

Marc Balcer: I love it when I, you know, put my

Marc Balcer: hand up.

Marc Balcer: and

Marc Balcer: it

Marc Balcer: there we go. Thank you for clearing that. You know. It's a nice little feature in zoom that if you make certain gestures, it will, you know, make those gestures.

Marc Balcer: Live on you

Marc Balcer: until you do it. Okay? So we have all of these different test cases.

Marc Balcer: We go through the different test cases. We see. You know what we have. We start to make up a list.

Marc Balcer: Right? That's a pretty good

Marc Balcer: idea. All right.

Marc Balcer: Now.

Marc Balcer: I'm going to use a little bit of vocabulary on you first.st

Marc Balcer: I like to always, you know.

Marc Balcer: use different words for different purposes. So when people talk about writing a user story

Marc Balcer: back of the card contains the acceptance criteria, the acceptance criteria are not written necessarily in gherkin given. When, then, they are not a formal list, they are not a complete list. It's sort of. Here's what I think we need to have. Okay.

Marc Balcer: Scenarios are the informal

Marc Balcer: but a much more complete format of what needs to be delivered. Now, writing out scenarios. That's where typically people will write those in the gherkin given when then, formats or in similar kinds of formats, but acceptance criteria

Marc Balcer: kind of bill. This is kind of what I want to see happen scenarios much more formal test cases are intended to be executable.

Okay? So from here on out, I'm going to use the term scenarios for what we're doing.

Marc Balcer: So the next thing I want to do.

Marc Balcer: although when working with the agents. Sometimes I use the word test cases because scenarios it comes back with stuff that's a little too

Marc Balcer: flaky for me. Okay, isn't it lovely that we're working in an industry where the terms are so well defined.

Marc Balcer: All right. So

Marc Balcer: once I have a few test cases, a few scenarios out of Chat. Gpt.

Marc Balcer: I'm going to go over to Claude.

Marc Balcer: Given Claude the same problem. Okay, now, Claude's going to come back in a totally different format.

Marc Balcer: right?

Marc Balcer: And so

Marc Balcer: I need to merge the formats. Great.

Marc Balcer: I give that to AI. Right? That's 1 of those boring, repetitive things that Chris was talking about.

Marc Balcer: People hate doing, boring, repetitive. I love. Do I mean a. I hate doing boring. Repetitive

Marc Balcer: people hate doing boring, repetitive computers love it. Give it to the AI agent. Okay.

Marc Balcer: so

Marc Balcer: give it to check. Give it to Claude. Claude comes back with the list of test cases. By the way, one of the features I'm seeing in Claude now is that when you ask it to generate something, it produces these documents as separate elements as opposed to putting them into the main body of the chat.

Marc Balcer: Okay?

Marc Balcer: So it would look something like this. Let me come back

over here.

Marc Balcer: And so

Marc Balcer: this is what you get

Marc Balcer: alright. And so it's pardon me.

Marc Balcer: it's gonna give me, you know, again, you know, the same set of tests. I haven't corrected anything. By the way, I haven't corrected chat. Gpt. I haven't, corrected Claude, with any of things like the formatting and what the values for purpose ought to be, and so forth. I'm just letting it kind of free associate and come back with different lists of test cases.

Marc Balcer: Now.

Marc Balcer: the key notion of this is, and what I find is really valuable in all of this doing this so early

Marc Balcer: is that

Marc Balcer: I'm not prejudiced by what I have already done what I've already seen.

Marc Balcer: I'm more likely to be thinking broadly about the whole problem than if I were letting the if I were

Marc Balcer: working with this.

Marc Balcer: you know well, into the the development phases. Okay? So I let AI do the job of managing. Now.

Marc Balcer: one thing, though, that is important to do is to partition the problem by different subject matters. Okay? So I'm going to ask Chatgp. I'm going to ask Claude in this case to partition the set of test cases into the core calculation tests.

Marc Balcer: ui tests

Marc Balcer: and

Marc Balcer: other non functional requirements or other. You know, what we sometimes call quality attributes.

Marc Balcer: The value of doing this is that you know, typically there seem to almost be different

Marc Balcer: subject matter experts in larger organizations who have opinions on each of these different areas. And so, for example, it makes a lot of sense to get the core business rules down right? Before we start to diddle in with the user interface. So separating those out can be very useful.

Marc Balcer: Okay, so the bulk of the talk is really, how do we use the test to elicit requirements? Right?

Marc Balcer: Well, in this case we do more of what I'm showing you and discussing earlier. We go through the scenarios, and we say, yep, that one's right. Nope, that one's wrong. We look at some of them, many of them, in fact, and go well, that's a very general statement. Any more detail on that.

Marc Balcer: And then, of course, as we're going through the list.

Marc Balcer: you know. We would like to think our AI was going to be very complete. It's not but

Marc Balcer: what will happen is when you start to think about tests in one area or one set of tests.

Marc Balcer: it might prompt you or your team to think about other sets of tests. Again, we're fighting the blank page syndrome. We're using AI to fight the blank page syndrome, the problem of

Marc Balcer: staring at a blank page and wondering, okay, what do I do now?

Marc Balcer: People are much better at criticizing real content than creating something new by staring at a blank page. Okay? And in fact, this idea is very related to the notion of hallucinations, because one of the questions I always ask students is.

Marc Balcer: you know, you get a set of test cases like, you know things like

Marc Balcer: decimal mileage and change in rates and things like that.

Marc Balcer: How did AI know to come up with that?

Marc Balcer: Okay, well, let me lose in training data, or you know, it had seen previous systems or test cases, or, you know, discussions or something. And what AI comes up with is kind of what we would consider to be

Marc Balcer: typical expected behavior. Now that typical expected behavior might be right.

Marc Balcer: But it might be wrong.

Marc Balcer: But you know what the next best thing to being told you're right is being told you're wrong.

Marc Balcer: And so I like to refer to these as good hallucinations as the AI is hallucinating things as it's making stuff up that we didn't tell it.

Marc Balcer: That can be a good thing, because it might identify things. Oh, wow! I never thought about that, or Oh, wow!

Marc Balcer: No, that's out of scope. We're not going to have decimal mileage, for example. So we'll say, that's that's out of scope. We'll cut that out.

Marc Balcer: or you know, maybe other test cases where it's just plain wrong.

Marc Balcer: right? That's perfectly fine.

Marc Balcer: But a lot of cases we'll find, for example, that

Marc Balcer: you know our knowledge as analysts and testers.

Marc Balcer: We'll

Marc Balcer: come to play because we'll look at the set of tests and we'll wait a minute. It's talking about earliest and latest valid dates.

Marc Balcer: Okay.

Marc Balcer: it kind of reminds me of this. The the people who say to me, Well, you know.

Marc Balcer: we need, you know, in test case 32, you know, check for valid input.

Marc Balcer: To which I respond, what's valid?

Marc Balcer: What makes it not invalid?

Marc Balcer: Guess what

Marc Balcer: this is, where we need to catch it. Okay? So

Marc Balcer: I'll ask here, what are the tests for minimum and mileage.

Marc Balcer: you know, maximum date and mileage values? Okay?

Marc Balcer: So it'll come back with the test cases.

Marc Balcer: But and then we can begin to engage in a dialogue, for example, about the business rules. We realize that. Hey? Wait a minute. We never told it that there were business rules around this. We never said things like.

Marc Balcer: Oh, by the way, you know, the business rule is that all expenses need to be submitted within 30 days of being incurred. Now, yeah, traditional requirements approach would have been to say, we have to make sure we capture all the business rules upfront.

Marc Balcer: But you know what? Just the fact that you captured a bunch of business rules upfront doesn't necessarily mean you got all of them, or you got the ones that really matter for testing.

Marc Balcer: And so as a result, what we're doing here is we're looking at the test cases and going. Okay, that test case is too general.

Marc Balcer: How do I know it's valid, I mean. And again, it comes back to the difference between a scenario which can be informal, and a test case which hacks has to be executable.

Marc Balcer: If you gave a

Marc Balcer: the scenario

Marc Balcer: like the one we saw

Marc Balcer: on this, on one of the earlier pages to

Marc Balcer: a manual tester, and said, it said, Enter a reasonable number of miles driven.

Marc Balcer: What's a reasonable number? What's an unreasonable number. What's a too big number? What's the boundary between

Marc Balcer: good and bad? Well, guess what? That's not just a testing problem. That's a business rule problem. And it turns out that by

having to confront that issue we confront the problem of what's the business rule.

Marc Balcer: right? And we can enumerate those things, and we enumerate them in a kind of a just in time basis, as we need that information now, traditionally, again, this kind of thing might have been the result of a conversation between a

Marc Balcer: subject matter expert

Marc Balcer: and a oops. There's my hand again, a subject matter expert and a developer.

Marc Balcer: But where was the tester in all of that.

Marc Balcer: Where was the agreement about those requirements? Okay.

Marc Balcer: so bottom line is lots of work needed to get those rules. Well.

Marc Balcer: you can ask your AI, you can actually go through some of these exchanges and say, All right.

Marc Balcer: In order to do the test correctly, you need to know our business rules right.

Marc Balcer: Wow!

Marc Balcer: That was a pretty big list.

Marc Balcer: and even more

Marc Balcer: right. And so, after doing that, you can take the answers to the questions, put them back into the chat.

Marc Balcer: and then see, how does it reinterpret its your answers?

Marc Balcer: Pardon me

Marc Balcer: as a series of improved test cases.

Marc Balcer: Right? And so at that point you're back to looking at your scenarios again. Again, there's there's an iterative process to doing this, you know.

Marc Balcer: Is it right? Is it wrong? Is it

Marc Balcer: needing more definition, is it out of scope.

Marc Balcer: you know. Again, we're but what we're doing here is we're looking at. We're working with real concrete examples as opposed to glittering generalities. Okay.

Marc Balcer: so what?

Marc Balcer: Well.

Marc Balcer: someone might say, well, you've done all this work. But I need a traditional requirements document.

Marc Balcer: Well, that's fine. After we've gotten all done, all the work of getting to the specifics. AI is great at being able to take content once it has its model built out.

Marc Balcer: It's great taking that content and putting it into different representations. Okay, you need the test. You need it in the form of use cases great. You need it in the form of this great right. Our job right here has been to refine the knowledge that the AI

Marc Balcer: has by looking at specific scenarios and working through those specific scenarios. It might feel at 1st that this is a lot of work. But it's actually the kind of work that turns out to be really valuable because you're answering really important questions that either a developer or a tester or others might have about the problem.

Marc Balcer: Now, years ago there was a phrase that was very popular for a while and then died off. All right. Called shift left.

Marc Balcer: You know, the basic idea behind. It was, we're gonna take a lot of things that are testing oriented, you know. Testing was sort of on the right side of the.

Marc Balcer: you know, the old waterfall picture, and we're going to move those testing activities earlier into the life cycle. You know, we're shifting them left.

Marc Balcer: Okay?

Marc Balcer: Well.

Marc Balcer: this is kind of a very much of a shift left approach, because

Marc Balcer: we started off with a quick drawing of the page. We went right into the test cases.

Marc Balcer: and we were then getting the traditional requirements, not as the 1st step to be able to get to the detail, but rather as a derived object, something derived out of.

Marc Balcer: You know those detailed scenarios now predict, you know, in practice.

Marc Balcer: there's a lot of iteration between all of this. And you know there's another document in here that I find is really useful, which is putting together a user guide. I'm a big believer in. For you know.

Marc Balcer: applications that involve user interaction. Write the user manual first, st or what does it look like to the user?

Marc Balcer: get that information, you know, that will help to, you know, having people help to visualize the problem is really valuable.

Marc Balcer: So

Marc Balcer: finally, one real example of this

Marc Balcer: couple

Marc Balcer: years ago I was given an app.

Marc Balcer: I said, years

Marc Balcer: months ago I was given a nap

Marc Balcer: and was told, can you test this?

Marc Balcer: No documentation

Marc Balcer: could look at the code.

Marc Balcer: How do I know this? You know? Okay.

Marc Balcer: so

Marc Balcer: this is the

Marc Balcer: well, you know some of the screens

Marc Balcer: from this particular application.

Marc Balcer: Okay, so again, what's this?

Marc Balcer: Right?

Marc Balcer: Got that?

Marc Balcer: Can we identify a process out of this? In other words, how much can AI infer, or, as I like to say, here, hallucinate out of?

Marc Balcer: You know the visuals of the screen?

Marc Balcer: You know, if we look at the screens, can they kind of tell us what's supposed to be happening? And this is, by the way, this is not just a fun. Little.

Marc Balcer: you know, exercise. There are many people who have come through, you know, testing and test automation classes and consulting that I've had to work with where they go. I'm working with legacy code, these legacy applications. There's not a lot documented on how these work.

Marc Balcer: How do I teach people how these applications work, or how do I figure out a test strategy for these applications? Right?

Marc Balcer: You know this is great. You know the ability to take the screen snapshot. Use the snipping tool, snap it, put it into Chat Gpt, and say, What's this?

Marc Balcer: Right? That's very powerful. And then, of course, once you have that, then you can start the dialogue about how to make this work.

Marc Balcer: So

Marc Balcer: our 1st cut is always going to be too general. This is an iterative process. This is very much a case of you know. Try it. What do you get? Okay, correct. Try it again, correct, and so forth. But you know

Marc Balcer: the goal is ultimately to get to the specifics and to try to let AI help with that process of developing the understanding.

Marc Balcer: Okay.

Marc Balcer: so AI can really help to change the process. It can help us really to figure things out.

Marc Balcer: You know, it produces the big list of questions. One thing somebody told me, you know, a few months ago, was, Smes are more comfortable answering specific questions than being told by an asked by an interviewer. Can you provide me with your requirements?

Marc Balcer: Right. And so, being able to answer specific questions driven off, of what do you see on the page? What do you see in the documents and so forth can be very, very valuable. And of course the

legacy applications where there isn't documentation this can be a really big asset in that process. Now, of course you can't enter into this without having the background knowledge. You know. So this is not an activity. I would say that you want to give to

Marc Balcer: somebody who is

Marc Balcer: not knowledgeable about software, not knowledgeable about your business, not knowledgeable about your application. This is the kind of thing that can really augment the capabilities of somebody who's knowledgeable in these areas. You know, to, you know, make things happen a whole lot faster. So

Marc Balcer: again.

Marc Balcer: this is shift left

Marc Balcer: right. And if you haven't thought about being agile, incremental and iterative, this can help you in that way.

Marc Balcer: So

Marc Balcer: if you're having trouble getting the big picture. You can work up from examples.

Marc Balcer: Generating it. You know, these scenarios through AI can make the whole process a whole lot faster, a whole lot more responsive.

Marc Balcer: And then finally, Sam, you know you were one of our 1st speakers today.

Marc Balcer: You know, you mentioned the Carnegie Hall way back at the beginning I had put together. You know I thought of the very same thing. How do you get good at doing generative? AI. It's practice practice practice, you know. The more of this that you do, the more opportunities that you'll see.

Marc Balcer: So

Marc Balcer: Want to thank you and take questions.

Lara Hill: Awesome, mark. Thank you so much. You're getting some great feedback in the comments.

David Mantica--Co-host!!!: Man mark with his.

Lara Hill: Seen any questions, David, have you.

David Mantica--Co-host!!!: Not yet mark with his cold, though, man, he's rocking it today.

Lara Hill: Oh, you can't even tell.

David Mantica--Co-host!!!: He's rocking it today.

Marc Balcer: Oh!

David Mantica--Co-host!!!: All right. Well, Mark will be on. If you have any specific questions, go to what tool for the cartoon. Did you use a tool for the cartoon?

Marc Balcer: That was an early version of Dali.

David Mantica--Co-host!!!: Nice.

Marc Balcer: A year ago. It's actually pretty good.

David Mantica--Co-host!!!: That's actually pretty good for Dolly.

Marc Balcer: Oh, but you know it took about, you know, 22 iterations to get it to what I wanted.

David Mantica--Co-host!!!: 22, but still faster than if you had to design it yourself.

Marc Balcer: Oh, I couldn't.

David Mantica--Co-host!!!: Yeah, you wouldn't. That's exactly. And it communicates a much, a much more powerful message. I love that part of it.

## Bridging Innovation and Execution: The Technical Program Manager's Role in Gen Al Projects - Om Hashmi

Lara Hill: Yeah, let's do it. Welcome back everyone from your break. We have Om Ashmi here to present on technical program management. Om, are you ready to go.

Om Hashmi: Ready to go. You guys see my screen.

David Mantica--Co-host!!!: Yes, we do.

Lara Hill: Yeah. Awesome.

Om Hashmi: Good afternoon, everyone.

Lara Hill: Am I going to speak up just a bit.

Om Hashmi: Sure.

Lara Hill: Make sure you're.

Om Hashmi: Good afternoon and thanks everyone for my fellow presenters. It's been a wonderful day so far, and I'm looking forward to the the rest of the sessions and the keynote by David. I hope so

Om Hashmi: awesome. So

Om Hashmi: for the next 30 min or so I want to set the stage about. Why are we actually here?

Om Hashmi: Gartner's report from earlier this year projected that globally

Om Hashmi: we will be spending in the world of it

Om Hashmi: just over 5 trillion dollars. On it projects

Om Hashmi: 5 trillion with a T,

Om Hashmi: and they've been pretty spot on with the kind of spend that they've been tracking.

Om Hashmi: So if you're spending 5.1 trillion dollars over the course of 12 months.

Om Hashmi: One of the questions that they have been collaborating with C-suite with high level execs it leaders is around.

Om Hashmi: How effective has this spend really been?

Om Hashmi: So let's take a look at how effective it really has been. Right? So

Om Hashmi: turns out

Om Hashmi: our hit rate

Om Hashmi: on the traditional project. Triangle, scope, time

Om Hashmi: and dollars

Om Hashmi: is just under point 0 5%

Om Hashmi: meaning one in every 200. It projects

Om Hashmi: actually meet the success criteria across all of those 3 intended benefits.

Om Hashmi: time.

Om Hashmi: scope, and money.

Om Hashmi: Over 40% of them

Om Hashmi: of these initiatives end up being

Om Hashmi: overrun in terms of cost that gets spent on them.

Om Hashmi: More than half of them end up being delayed from the original intended time

Om Hashmi: or intended

Om Hashmi: timeline

Om Hashmi: delivery date, whatever you want to call that.

Om Hashmi: and more than

Om Hashmi: almost 2 thirds end up, being

Om Hashmi: not able to realize the value that was originally envisioned.

Om Hashmi: That's the market. That's the landscape where we generally run our it projects, and we haven't even touched the surface of everything that we've talked about all day around. Generative AI.

Om Hashmi: So Gardner did a more in-depth analysis about why is it that we keep missing the mark so vividly? And yet we keep spending

Om Hashmi: trillions of dollars globally on it projects.

Om Hashmi: Obviously the spend is justified because it technology runs the shops today.

Om Hashmi: But why is it that we continually keep missing.

David Mantica--Co-host!!!: And they.

Om Hashmi: Found out by surveys, by conversations with leaders

Om Hashmi: that about 13% individuals that participated in the discovery mentioned that the projects tend to

Om Hashmi: lack focus.

Om Hashmi: 11% came back with, Hey, we have consistent execution issues.

Om Hashmi: And about 10%, 9 and 9. And change came back with content issues.

Om Hashmi: And so across the board, there were areas that they recognized as contributing factors

Om Hashmi: as to why we continually, consistently miss the mark on it projects man.

Om Hashmi: Let's talk specifically in in generative AI world. Right like that's been the content. That's been the focus of the entire day. So far I happen to have been privileged that I was at the Gartner Summit, CIO. Summit last week, spent some time with some industry. Experts.

Om Hashmi: Take a while. Guess what was the most common reason that the Cios that were at the summit in Orlando

Om Hashmi: said, Here is the reason I'm here.

Om Hashmi: What do you all think? Why was every CIO that was in presence, and there were about

Om Hashmi: almost 10,000 people

Om Hashmi: over the course of the whole week there.

Om Hashmi: What was the most common reason for people to be there.

David Mantica--Co-host!!!: Of course. AI.

David Mantica--Co-host!!!: Now, one question real on your data. What do you? One person asked.

David Mantica--Co-host!!!: What does? What are content issues in that context for the information, what's your thought.

Om Hashmi: They were referring to

Om Hashmi: the overall holisticness of recognizing requirements, essentially content in the sense of the what needed to be built.

Om Hashmi: the moving target. The agility element of it requested.

David Mantica--Co-host!!!: So yes, definitely has to be Gartner. All those you know executive weenies there. Probably all I gotta know more about AI.

Om Hashmi: That's it, right?

David Mantica--Co-host!!!: Voice. Dude. That was a good Weenie voice.

Om Hashmi: So interesting enough. The keynote, the 1st keynote on Monday of last week literally started with, Hey, how much are we actually spending now on AI initiatives

Om Hashmi: just on Pocs alone. Organizations are spending anywhere from  $300\ \mathrm{K}$ 

Om Hashmi: to 3 million dollars

Om Hashmi: over a Poc that spans anywhere from a couple of weeks to 10 weeks.

Om Hashmi: That's the spend organizations are actually putting in. Now same question.

Om Hashmi: how are we doing.

David Mantica--Co-host!!!: Hey, poc is proof of concept, right.

Om Hashmi: Pocs. Proof of Concept.

David Mantica--Co-host!!!: Thank you. Alright!

Om Hashmi: So again, where did we end up?

Om Hashmi: Came back with finding out

Om Hashmi: one in 2, have mentioned any of the AI initiatives that they have tried or attempted in the form of proof of concepts, or in the form of actual executions.

Om Hashmi: have not met the Roi expectations, whether it was for personal gains. Whether it was for operational efficiencies.

Om Hashmi: business process, optimization, individual employee improvements and efficiencies.

Om Hashmi: one in 2 came back with did not meet.

Om Hashmi: Now. They are also recognizing the fact that

Om Hashmi: we have a ton of capabilities, opportunities available across the tools, the softwares, the products that get implemented across enterprises.

Om Hashmi: and we still struggle.

Om Hashmi: In fact, almost 3 and 4 struggle with actually utilizing efficiently any sort of generative AI tools that might be available at their disposal.

Om Hashmi: Most of us have already come across open as Chat Gpt. For those of us who are working in any sort of an enterprise that uses Microsoft. You must have heard and utilized some version of a

Om Hashmi: co-pilot

Om Hashmi: which is meant to be a generative AI based assistant. Smart assistant.

Om Hashmi: What's the worst thing in everything that we've captured over the course of the entirety of last week was

Om Hashmi: building on the

Om Hashmi: challenges as we are plagued with already in it projects where 40% of our projects end up being overrun in terms of dollars.

Om Hashmi: Gen. AI. Efforts can actually end up costing

Om Hashmi: nearly 5 to 10 x

Om Hashmi: of what was originally intended. So that's what's at stake for the next 30 min of this conversation.

Om Hashmi: This is why this whole idea of what we're going to talk about today is so critical.

David Mantica--Co-host!!!: Hey? Someone has. What are some of your thoughts about the barriers to AI adoption? Are you going to talk about that, or some thoughts you want to share.

Om Hashmi: There for us.

Om Hashmi: I'm going to talk a little bit about that. In in the second half of the

Om Hashmi: the presentation.

David Mantica--Co-host!!!: And and is there a way to turn up your turn up your mic a bit more.

Om Hashmi: Let me get a little closer.

David Mantica--Co-host!!!: Hey! Thanks!

Om Hashmi: Let me know if there's any better.

David Mantica--Co-host!!!: A bit. Keep rocking, though. Keep going.

Om Hashmi: Awesome.

Om Hashmi: So let's take a look at how the industry has been over the course of the last.

Om Hashmi: I want to say 3 to 5 years.

Om Hashmi: Look at the names! Look at the Logos, look at the brands that you see on the screen here.

Om Hashmi: Real big names.

Om Hashmi: What's common

Om Hashmi: in between all these companies?

Om Hashmi: What's consistent.

David Mantica--Co-host!!!: Regulatory. There's regulatory issues there.

Om Hashmi: Good. There is some level of regulatory elements associated. Yes.

David Mantica--Co-host!!!: Financial org. Someone says, here.

Om Hashmi: The financial orgs. They are related to

Om Hashmi: privacy. There's data. There is elements.

David Mantica--Co-host!!!: A lot of data.

Om Hashmi: A lot of data.

Om Hashmi: Here's what's even more interesting.

Om Hashmi: each of the 4 companies that are listed on the screen. Here

Om Hashmi: are one of the 1st ones that have actually gone out.

David Mantica--Co-host!!!: He killed their agile.

Om Hashmi: Completely killed the agile roles that existed in these organizations.

Om Hashmi: Capital one a couple years back, went on to lay off the entire agile division globally in one shot.

Om Hashmi: right the roles of an agile delivery lead the role of an agile coach, an enterprise Agilist, a scrum master eliminated

Om Hashmi: like this.

Om Hashmi: So where is the industry heading?

Om Hashmi: This is where Technical Program Management Institute comes in right.

Om Hashmi: The whole idea of the Institute is.

Om Hashmi: we have this vision.

Om Hashmi: Every it project should be run by a technologist.

Om Hashmi: Now, what's a technologist? Do I need to learn how to write code?

Om Hashmi: Do I now need to attend every single boot camp that's there. So that I can do estate type of activities. Do I need to become a Devops engineer? Oh, that's not the intention.

Om Hashmi: It's about

Om Hashmi: becoming intelligent and learned in the technology solution that you're building and deploying for your said customers.

Om Hashmi: The team that we've assembled as part of Tpm Institute is a team of professionals, technical program managers from the likes of Microsoft, Google, Amazon, Meta.

Om Hashmi: Netflix Apple.

Om Hashmi: with the philosophy that we are shifting from the

Om Hashmi: adage of going from project to product.

Om Hashmi: We are shifting from program to business.

Om Hashmi: And that's where the role of a technical program manager is going to come in

Om Hashmi: and

Om Hashmi: comes me.

Om Hashmi: My name is Omar Hashmi. I go by. Om.

Om Hashmi: I'm 1 of the Enterprise principal technical program managers currently supporting Amazon's retail experience team

Om Hashmi: been blessed to have served in a number of different capacities as a change agent, as a technologist, as an engineer. It's where my career started

Om Hashmi: in various different verticals, starting with oil and gas energy

Om Hashmi: utilities, consumer products. And most recently, with

Om Hashmi: most of you, if you're using a cell phone

Om Hashmi: which resembles a fruit

Om Hashmi: work on several different initiatives over there. So lot of.

David Mantica--Co-host!!!: Say, say, Ohm, someone has a question. Define a technologist.

Om Hashmi: Good. Just like I was mentioning before, a technologist is someone who has sound rudimentary knowledge of how technology gets built, worked and deployed.

Om Hashmi: They do not necessarily need to be somebody who writes code.

Om Hashmi: but should be very fluent and actively understanding of how to build, what to build

Om Hashmi: and how we test and how we deploy.

Om Hashmi: So.

David Mantica -- Co-host!!!: Thank you.

Om Hashmi: When we start talking about running generative AI initiatives, right? So we've talked about utilization of a bunch of different tools that we got a chance. Some of my co-presenters and steam colleagues got a chance to demonstrate some of the tools that we've seen in action. Many of us might be using a lot of these tools in our daily lives already.

Om Hashmi: Here's how every generative AI initiative actually starts

Om Hashmi: right for those of us who have had a chance of actually playing with some of the tools or been a part of an implementation. This is how every one of these starts right expecting

Om Hashmi: holograms and and computer vision. And all these other fancy buzzwords coming in.

Om Hashmi: And here is how they actually end up being when it comes to actually

Om Hashmi: delivering Gen. AI solutions at the enterprise level.

Om Hashmi: Right? So

Om Hashmi: how do we go from the right to left

Om Hashmi: type of view

Om Hashmi: starts with getting an understanding of what is generative. AI. Now, it's not a novel concept. It's not something that just happened overnight, contrary to popular belief, when people started

thinking that once Chat Gpt became mainstream. That's when generative AI came into existence.

Om Hashmi: Concepts of generative AI and

Om Hashmi: artificial intelligence in general have existed since the forties.

Om Hashmi: When we 1st started looking at rule-based algorithms to create the 1st chessboard.

Om Hashmi: the computerized rule-based chess that eventually ended up beating a human being for the 1st time back in the fifties

Om Hashmi: we built on that went into machine learning in the eighties. And then we built further, and we built

Om Hashmi: neural nets.

Om Hashmi: understanding those pieces is what led now to

Om Hashmi: generative retained models

Om Hashmi: that can now get us the ability to create new content.

Om Hashmi: That's what generative AI is in a nutshell.

Om Hashmi: Now, I wish it was as simple as what I just explained. And I wish it was just this much.

Om Hashmi: But the depth of the information, the depth

Om Hashmi: in the technology itself is what organizations today are actively looking for  $% \left( 1\right) =\left( 1\right) +\left( 1\right) +\left$ 

Om Hashmi: when it comes to execution of their generative AI initiatives. And who's looking for it every single CIO, like I said before, at Gartner Summit last week clearly had the agenda. Hey? We have to go ahead and think about our governance for our Gen. AI. Initiatives. We have to think about our delivery of our Gen. AI

initiatives. We need to staff appropriately. We need managers who are going to come in and run these in an ethically safe in a

Om Hashmi: a privacy-wise, safe, and acceptable manner

Om Hashmi: across every single vertical.

Om Hashmi: How big is the market?

Om Hashmi: It's projected to get to over a hundred 1 billion dollars over the next 5 years.

Om Hashmi: Right? We're already some of us are already utilizing or using

Om Hashmi: the different elements, the different pieces of generative AI in our daily lives. We've already started incorporating some of it

Om Hashmi: for content generation for writing emails, for

Om Hashmi: automating any simple task that exists in our life. Right? So think back to yourselves the last time someone had to create a visual on a Powerpoint presentation.

Om Hashmi: How long did it take?

Om Hashmi: Think about the series of steps that generally we would take to get to that point

Om Hashmi: right? We would generally go about going on Google doing some search, figuring out some content, putting it on a Powerpoint slide, looking at it, thinking about it, massaging it, then working on some shapes and icons and images

Om Hashmi: for those that were a little bit more advanced, they would go about searching for specific images.

Om Hashmi: try to crop images, modify images, work through that

Om Hashmi: today, with all the tools and technology that exists.

Om Hashmi: all of this can be automated soup to nuts

Om Hashmi: right? And this idea of us being able to bridge the gap

Om Hashmi: between

Om Hashmi: something that might work in the form of a prototype

Om Hashmi: to actually productionizing so that an Roi can be realized

Om Hashmi: is where the role of a technical program manager

Om Hashmi: thrives and is so essential and so critical.

Om Hashmi: So some of the roles that we've probably all seen in the past. A few of them listed out here.

Om Hashmi: We're all familiar with the project manager role, the product manager role, the product owners, the product managers, the program managers, the portfolio managers

Om Hashmi: no question for everyone here.

Om Hashmi: What's the responsibility of these roles in any enterprise. Small, medium, large, sized.

Om Hashmi: What's what is the what are these roles collectively responsible for.

David Mantica--Co-host!!!: All right. Folks delivering value.

Om Hashmi: Okay, good. They want. You want these

Om Hashmi: monitor.

David Mantica--Co-host!!!: That spoke like a true developer, monitoring, doing the work.

David Mantica--Co-host!!!: coordinating, and communicating.

Om Hashmi: Very good, coordinating, communicating.

Srinath Kondabathini: Providing the business.

Om Hashmi: Running the business. Very good.

David Mantica--Co-host!!!: Chair.

Om Hashmi: So bunch of different roles and responsibilities shared across these different roles. Let me tell you what I firsthand experienced about 6 weeks ago.

Om Hashmi: about 6 weeks ago I happened to be at an insurance clients

Om Hashmi: headquarters in the East Coast.

Om Hashmi: and I'm sitting down with one of the

Om Hashmi: leadership team members sitting as part of some of you might have attended what is called a scrum of scrums.

Om Hashmi: At that scrum of scrums we have a series of the rules that we see on the screen here.

Om Hashmi: Project managers were there some product owners? Were there, some scrum masters? Were there, some Agilists were there, and this

Om Hashmi: it, director it, senior director?

Om Hashmi: She asked the question. Hey? When is Project Unity getting completed

Om Hashmi: and the series of the crowd team members? They looked at each other for a second.

Om Hashmi: figuring out who is the most appropriate person to ask. Answer this question about when is Project Unity getting completed?

Om Hashmi: It took about 30 seconds for the assigned scrum master and the assigned project manager

Om Hashmi: to respond back by saying.

Om Hashmi: I'm just a scrum, master.

Om Hashmi: We'll have to check with the tech leads and get back to you on it.

Om Hashmi: Hence the need for a new role.

Om Hashmi: the role of a technical program manager.

Om Hashmi: It's a relatively new title, something that has not been in existence for the last 1015 years.

Om Hashmi: but it certainly has for the last 3 to 5 years.

Om Hashmi: It's a new role that has been identified by most of these West Coast companies that I was referring to earlier

Om Hashmi: because they realize the potential, the need for having a combination of the 3 pronged approach.

Om Hashmi: A technical program manager is an amalgamation, a consistent formulation of

Om Hashmi: being an Agilist.

Om Hashmi: Being a technologist

Om Hashmi: and being a project manager.

Om Hashmi: So the ability. The concoction of being able to play those 3 roles.

Om Hashmi: those 3 skill sets is what makes you a technical program manager. Now.

Om Hashmi: the role itself for those of you who are interested do me a favor. Go on your Linkedin page today

Om Hashmi: and on your Linkedin pages. Actually search for the job title technical program manager.

Om Hashmi: right? When you search for the title technical program manager. What you will see is it's gonna show you somewhere about 2,500 somewhere in that vicinity in terms of new job postings that are available for the title of a technical program manager

Om Hashmi: do the same for the term

Om Hashmi: or role scrum master.

Om Hashmi: That number is about half that today.

Om Hashmi: The industry is moving

Om Hashmi: from that traditional agile roles to the need of having technical program managers.

Om Hashmi: They're proficient in technology, because innately, they've upskilled themselves towards becoming a technologist.

Om Hashmi: And they understand how to execute complex programs and projects.

Om Hashmi: Now, this role started with the technical organizations started with the likes of the apples, the Metas, the Microsofts.

Om Hashmi: But more recently, I want to say over the last

Om Hashmi: 2 and a half to 3 years, especially once capital one came out and said, That's it. No more agile roles.

Om Hashmi: It has gained a lot of traction across non-technical organizations as well. We know utility companies who are doing this. We know banks who are doing this, insurance companies who are doing

this, healthcare clients who are doing this shifting from traditional agile roles

Om Hashmi: to technical program management.

Om Hashmi: So what is their technical program manager? What's

Om Hashmi: what is the expectation

Om Hashmi: now?

Om Hashmi: Because the role is a combination of these 3 pillars like, I said before, the whole idea becomes

Om Hashmi: realizing you still have your traditional project management responsibilities. You're still helping out with building out a plan. You're also still figuring out how to manage your risks and how to manage your decisions and raid logs and resources, and all of that other fun, things that need to go into practice. If you were a traditional project manager.

Om Hashmi: because we are generally in all of these organizations, still executing in some sort of an iterative fashion. The expectation is, you couple those project management skills with your knowledge of agile practices being iterative in nature

Om Hashmi: ability to go back and say.

Om Hashmi: hey? What can we do in this iteration that we didn't do in the previous iteration retrospection?

Om Hashmi: But the last piece that's the most critical piece

Om Hashmi: is upskillment in the technologist aspect of becoming

Om Hashmi: somebody who treats the program or the project as an entrepreneur.

Om Hashmi: So somebody who's interested in actually delivering a Gen. AT initiative.

Om Hashmi: the deeper you can understand the technology elements of it the better you serve the program or the project to meet the return on that investment.

Om Hashmi: These are technically high complexity initiatives. That's what organizations are looking for. That's why they're investing a ton of money in trying to approach

Om Hashmi: technical program managers to run these types of

Om Hashmi: initiatives because they don't just require coordination.

Om Hashmi: They require a level of strategic and technical alignment

Om Hashmi: across the various different groups that get involved in any Gen. AI initiative.

Om Hashmi: So most recently, we've been working with an energy customer where we have the need for 3 technical program managers

Om Hashmi: where the ask was, Hey, how do we go about helping our call center because we get a bunch of calls about

Om Hashmi: our bills? Not correct service needs to be updated. How do we improve the handling time

Om Hashmi: on

Om Hashmi: our call center calls.

Om Hashmi: Think about that use case in particular.

Om Hashmi: Think about how many different departments within an organization a large utilities provider. Would I need to coordinate

Om Hashmi: this width?

Om Hashmi: I wish it was as simple as oh, I would go to the center of excellence for Gen. AI. And and that's it.

Om Hashmi: Think about how many hands

Om Hashmi: this technical program manager now needs to cut across.

Om Hashmi: All of this is not something that started yesterday.

Om Hashmi: It started with the West Coast Company. So I have a bunch of examples just for everybody to take back

Om Hashmi: and see what a technologist

Om Hashmi: or what a technical program manager brings to the table when it comes to actually executing real world projects real world programs from these West Coast companies.

Om Hashmi: So take an example of a Netflix. I hope many of us have had some experience with utilizing or having their own

Om Hashmi: personal subscription to Netflix, or any other streaming platform. For that matter.

Om Hashmi: Netflix created in 2,007 the concept of something called Netflix Prize.

Om Hashmi: That was their flagship, personalized content recommendations engine.

Om Hashmi: Contrary to popular belief, they started it back in 2,007. So they were not waiting for generative AI to catch where it is today. It's all built on the concepts

Om Hashmi: of big data and machine learning that has existed from the eighties.

Om Hashmi: But they didn't stop there.

Om Hashmi: They're a team led by a technical program manager

Om Hashmi: to curate

Om Hashmi: data quality efforts so that they can improve what they call goe

Om Hashmi: quality of experience.

Om Hashmi: That's the outcome that they were trying to drive with the the data that they had now

Om Hashmi: to get to that point. They put in

Om Hashmi: over 400,000 different parameters

Om Hashmi: on every user's experience. As you're going through the series of watching anything.

Om Hashmi: Think about parameters that a layman would not even think about.

Om Hashmi: think about things like bit rates.

Om Hashmi: rebuffer rates.

Om Hashmi: the the combination of them impacting impacted by your network capacity

Om Hashmi: because the role of the Tpm here was to make sure that information gets captured

Om Hashmi: and shared with data engineers, data scientists to be able to look at and say.

Om Hashmi: is the subtitle that we display on the screen

Om Hashmi: appropriately buffered at the right instance when someone is actually speaking.

Om Hashmi: That was the initiative.

Om Hashmi: To get to that level.

Om Hashmi: The role of a Tpm is way more than just. I'm going to come in and run my ceremonies. It's just going to be, hey? I have a project plan that I need to execute.

Om Hashmi: Let's take another example. Some of us who might have had exposure or experience with the most recent versions of Apple's

Om Hashmi: devices. Apple just initiated or launched earlier this year something called Apple Intelligence. How many of you've had any experience with apple intelligence recently

Om Hashmi: heard of apple intelligence.

Om Hashmi: So apple intelligence is, is a very unique use case, because

Om Hashmi: the entire product portfolio is built on management of privacy concerns.

Om Hashmi: And again, head of technology program management over there hand selected individuals who came with deep knowledge

Om Hashmi: of privacy.

Om Hashmi: data, privacy and data governance to run this initiative

Om Hashmi: as part of the Tpm. Role for this initiative.

Om Hashmi: Why?

Om Hashmi: Because the expectation for a Tpm. Is the more knowledgeable you are in that domain

Om Hashmi: the more valuable. You are as an entrepreneur to this program.

Om Hashmi: So Apple's

Om Hashmi: apple intelligence combines 2 key combination or 2 key elements.

Om Hashmi: First, st on device data processing.

Om Hashmi: They have created a large language model that runs off of 3 billion

Om Hashmi: parameters

Om Hashmi: on the iphone device itself. Self-contained.

Om Hashmi: does not have to send any data does not have to correlate with an offshore or an offline model of any sort runs on device by itself.

Om Hashmi: Now, even with 3 billion data points, cell phone with their advanced a chip memories and and a chips and M. Chips. It runs out.

Om Hashmi: and therefore they came up with the next level, which was their private cloud compute an initiative that was led strictly by a data privacy

Om Hashmi: technical program manager.

Om Hashmi: coordinating with the legal teams, coordinating with the internal privacy standards, making sure that the User trust is of paramount importance. As we went through

Om Hashmi: Google did the exact same thing with when they 1st launched Google Photos and Google Assistant.

Om Hashmi: Look at the examples in your phones today for those of us who have a smartphone today. And I'm hoping it's everyone.

Om Hashmi: If you look at your smartphones today, you're gonna look at it and say, if I go on my photos, I can actually search in my photos by using a keyword. So I can just search for a photo where I'm playing a sport.

Om Hashmi: We can do a keyword search for sport.

Om Hashmi: You never tagged any of this information. You never annotated or labeled any of these images.

Om Hashmi: In order for you to do this, there is a governance, a rule book that gets prepared in any of these tools in any of these technologies organizations that are now striving. And this is probably one of the hottest space

Om Hashmi: 4 roles today is technical program managers who can help with data, governance and AI governance in organizations. Somebody who can guide ethical development

Om Hashmi: key theme in this being experience in data, privacy and and data governance.

Om Hashmi: Look back at a completely separate example.

Om Hashmi: Amazon. And again, this is not just limited to Amazon's

Om Hashmi: echo and and

Om Hashmi: Alexa devices, by any means any smart assistance. Home assistant that any one of us might be using today comes preequipped with, we've all heard of the term Nlp. Natural language processing. How many of you have heard of the term Nlu

Om Hashmi: nlu

Om Hashmi: natural language understanding.

Om Hashmi: That's when it started

Om Hashmi: the original paper on this from Google.

Om Hashmi: when Burt's paper came out in 2017

Om Hashmi: or 2018.

Om Hashmi: Right? So if we think about the technology element of being able to take multilingual data points.

Om Hashmi: get the effort to expand across multiple language supports.

Om Hashmi: deploy learning systems, deep neural networks, to be able to look at this continually learn and build out products that can actually not just

Om Hashmi: process, but actually understand the ask.

Om Hashmi: So, for instance.

Om Hashmi: back when metadata annotation and labeling 1st started in in mid 2 thousands.

Om Hashmi: organizations like Apple spent millions of hours

Om Hashmi: on annotating data.

Om Hashmi: Right? You would go about annotating data thinking, Hey, I've received a song. I have a song from Michael Jackson, and I want to say, Hey, this is a Michael Jackson song. So the next time someone comes in and says, Hey.

Om Hashmi: Hey, siri! Or Hey, Alexa, can you play me a Michael Jackson song.

Om Hashmi: It's gonna pick from one that has been annotated

Om Hashmi: today. That's no longer the case.

Om Hashmi: because now it understands

Om Hashmi: right. Natural language. Understanding.

Om Hashmi: This is one major element of the types of programs and projects. Organizations are actively deploying. Today.

Om Hashmi: There's a second

Om Hashmi: key element or key

Om Hashmi: marketplace. I want to say, when it comes to generative AI initiatives in large enterprises.

Om Hashmi: something called the science of computer Vision.

Om Hashmi: where you're utilizing the sense of

Om Hashmi: vision

Om Hashmi: to translate into any kind of a business outcome, the most common and the most

Om Hashmi: relevant example for those of us who drive one of these Evs.

Om Hashmi: or else otherwise any other car.

Om Hashmi: is the full self-driving mode that Tesla has been working on for the last several years.

Om Hashmi: Right? They just deployed this a few months ago.

Om Hashmi: happened to have been a part of some of the pilot programs and discussions back in the West Coast.

Om Hashmi: across the different programs and projects.

Om Hashmi: right capturing, processing.

Om Hashmi: recognizing.

Om Hashmi: dealing with opacity, dealing with luminousity of all the different elements when it comes to image, recognition, image, processing, image, classification, all of those elements.

Om Hashmi: If you get a good deep understanding of those technical pieces. Your ability to drive success to your Gen. AI initiatives

Om Hashmi: is quadrupled.

Om Hashmi: So

Om Hashmi: now that we've talked about all of these examples of Google and Netflix and Tesla and Apples. Let's see what job they're actually looking for.

Om Hashmi: These are from yesterday.

Om Hashmi: So what organizations are looking for technical program managers today.

Om Hashmi: all the companies that I've mentioned, plus the organizations that are

Om Hashmi: non-technical in nature are actively hiring

Om Hashmi: technical program managers a real role. Look at the one on the right side in the in the Middle Trust and Safety technical program manager. That's directly related to their Apple Intelligence program.

Om Hashmi: The deeper you can learn the more upscale, you are the better fit you become.

Om Hashmi: So how do you become a technical program manager? How do you

Om Hashmi: improve your skill set as a technical program manager right on the, you know, from the gecko starts with technical competence. Gotta start up skilling on the technology side, not just from the project management, not just at the surface, but go deeper.

Om Hashmi: Now. Does that mean drop everything and start learning how to write code? And

Om Hashmi: absolutely not.

Om Hashmi: on the contrary.

Om Hashmi: think about yourself. The last time you had to provide an effort estimate to get some work done.

Om Hashmi: Were you able to give even a swag estimate without having to deal with or talk to some of your technical engineers technical needs. The answer is, yes, you're already making good progress on that technical competence. But for most

Om Hashmi: project program managers, traditional agilist. The answer is, no, I have to go ask.

Om Hashmi: I have to go. Ask John DOE or Mary Jane, my tech lead

Om Hashmi: getting out of that.

Om Hashmi: On that technical element.

Om Hashmi: And then these other elements of fundamentals of good project and program management communication, financial acumen, running projects programs like you're running an actual business.

Om Hashmi: becoming strategic.

Om Hashmi: Those skill sets.

David Mantica--Co-host!!!: Hey? 2 comments. One give you a 5 min warning, but 2, you know some of the comments. Here is, where is the customer in that.

Om Hashmi: Where is the one?

David Mantica--Co-host!!!: Where is the customer?

David Mantica--Co-host!!!: And this key ingredients? Where? Where does the customer engagement fit

David Mantica--Co-host!!!: under emotional intelligence or communication? Effectiveness? And what do you. What does? Who? Which type of customer does the technical program manager engage.

Om Hashmi: Oh, great, great question. So across the 3 pieces that you see in the middle, emotional intelligence, communication, effectiveness, and financial acumen.

Om Hashmi: those those are the 3 areas where the customer fits from the role of a technical program management perspective.

Om Hashmi: So when we say the word customer in the world of a Tpm, you're thinking about it from 2 perspectives. One, you're thinking about your internal customers, the business sponsors, the stakeholders that have actually initiated a 3 million dollar investment to improve the call center average call time

Om Hashmi: right? That's the internal. That's where the communication effectiveness, the financial acumen comes into picture

Om Hashmi: when we talk about the emotional intelligence. This is where, putting yourself in the role of your end customer, your end users. They may be internal, they may be external.

Om Hashmi: That's where that role comes in. Great caller.

David Mantica--Co-host!!!: So the customer mindset is there. It's just, you know. It's 1 of the things that you know you don't even. It's at some point in the Sdlc world. That's such an old term. But it's you have to have customer centricity across any type of role. So another question, this is a good one, too. Can you break out some of the technical competencies? I know it's kind of hard.

David Mantica--Co-host!!!: but it's like something like you should understand what Co. How coding works right? You should have a understanding of how compiling works right? You should be able to understand. So keep going on that mindset.

Om Hashmi: What I would do is the following, so thank you for that question. There's 2 elements. I would 1st broadly categorize this question under

Om Hashmi: understanding, high level system design and then understanding low-level system design.

Om Hashmi: When we talk about high level system design start thinking about things like architecture.

Om Hashmi: monolithic verses.

Om Hashmi: microservices, start thinking about things along the lines of database and data storage start thinking about the likes of

Om Hashmi: networking.

Om Hashmi: start thinking about security scalability. These are high level system, design principles.

Om Hashmi: low level design is more at the levels of object oriented programming to your point from earlier. David, how do you write code? How do you read code?

Om Hashmi: What is the overall complexity in reading or writing, or designing an application or a system?

Om Hashmi: Your biggest takeaway

Om Hashmi: from all of this is

Om Hashmi: this role of a technical program manager is a key bridge in successfully upskilling and learning how to get to

Om Hashmi: better execution of technical programs, especially generative AI driven projects.

Om Hashmi: Right? So because there is going to be a ton of investment across small medium, large size enterprises

Om Hashmi: in this space.

Om Hashmi: and if you can walk away with the opportunity and ability to learn upscale and be able to add value

Om Hashmi: so that they can realize their gains.

Om Hashmi: their return on investment faster, cheaper, better.

Om Hashmi: You're in a very good spot.

Om Hashmi: What's happening next?

Om Hashmi: This skill set for Tpms is growing. The technology.

David Mantica--Co-host!!!: Homer real quick. There's another question. This is from Sam, which I think is good from a hierarchical standpoint, you know, from a Pmi perspective. You have a project specialist

David Mantica--Co-host!!!: who, a project manager will be working with multiple project specialists.

David Mantica--Co-host!!!: the specialists we've working with project team members. Then you have a program manager who's looking over multiple projects and those program managers are connecting in with the the project managers. Then you have the portfolio manager who's he? Or she is looking over the monstrosity. How does does a Tpmi have project people reporting to them, working with them? How does that work.

Om Hashmi: The good question also. So from an organizational hierarchy perspective, it may differ.

Om Hashmi: But the way I like to always look at this role of a Tpm is.

Om Hashmi: It's meant to be an upskillment of either your existing project or program managers. So their existing roles and hierarchy and and

Om Hashmi: dotted lines in your org structure, and then in the direct lines in your org structure still exist.

Om Hashmi: and they get maintained.

David Mantica--Co-host!!!: Okay.

Om Hashmi: Most organizations are using this role in lieu of not in addition to a scrum master, not in addition to a project manager

Om Hashmi: right in larger tech organizations. Those that I've been a part of

Om Hashmi: this role sits on top of some of the larger enterprise programs. This role sits on top of maybe a multitude of some project managers that might be handling certain components within a large scale program.

Om Hashmi: So could we both

Om Hashmi: depends really on the size and magnitude of the organization and the program itself.

Om Hashmi: So what we covered

Om Hashmi: the ability and the role and the importance of a Tpm in running complex Gen. AI initiatives.

Om Hashmi: making sure that you get involved. Making sure you recognize the different technology upskill yourselves.

Om Hashmi: So as part of this, we do a 3 half day workshop on technical program management. It's the only one of its kind in the world.

Om Hashmi: We've already trained and certified several 100 people in this space.

Om Hashmi: And we've received incredible feedback. The entire team of instructors is based

Om Hashmi: out of technical organizations. Like, I said before, with the Microsoft, the Googles.

Om Hashmi: the Metas, the Amazons of the world.

Om Hashmi: And if he was interested in learning more

Om Hashmi: or utilizing Laura's

Om Hashmi: 20% discount code, send us an email.

Om Hashmi: scan the QR code to see check out the next available workshop.

Om Hashmi: and I appreciate any questions you might have at this point.

David Mantica--Co-host!!!: So one question is, are Tpms going to be desired outside the big tech firms?

David Mantica--Co-host!!!: What are your thoughts on that?

Om Hashmi: Absolutely 100%. And I'll tell you why I say this with so much confidence. One

Om Hashmi: capital one just laid the foundation of it 2 years ago.

Om Hashmi: They've already removed every single agile and traditional Pm role that they had. They've already started replacing

Om Hashmi: actively.

Om Hashmi: If you search today, capital, one technical program manager. I'm pretty sure you'll find double digit job opportunities at capital. One same.

David Mantica--Co-host!!!: Seeing this as the new Accelerated team, Tpm with AI in the middle, driving accelerated teams to get stuff complex things done faster without as much oversight, and you know the the orchestration side of it.

David Mantica--Co-host!!!: All right. Ohm, thank you very much

## Low code, no-code, Al...oh my! Product management in an evolving software development lifecycle - Jonathan Stephens

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Lara Hill: Great. So next up we have. Jonathan. Are you ready to go?
Lara Hill: I believe he's sharing his screen and.
Jonathan Stephens (he/him): And I muted myself.
Lara Hill: Yay, okay. Now you're ready.
Jonathan Stephens (he/him): You can see my screen.
Om Hashmi: Not yet.
Lara Hill: I can see it trying to start, and I'm sure it will.
Lara Hill: Yeah, there we go.
Jonathan Stephens (he/him): Okay.
Jonathan Stephens (he/him): So
Jonathan Stephens (he/him): okay.
Jonathan Stephens (he/him): yeah, it's not working right? Oh.
David Mantica--Co-host!!!: Oh, man, always stuff like this happens.
Give a second. Now we can take a breath here as you work through the
challenge.
David Mantica--Co-host!!!: I definitely want to hear this. So
David Mantica--Co-host!!!: we're we're cheering for you to fix up.
Jonathan Stephens (he/him): I think you'll just have to deal with
Jonathan Stephens (he/him): not seeing it in the.
David Mantica--Co-host!!!: Full screen.
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Jonathan Stephens (he/him): Normal way.

David Mantica--Co-host!!!: That's fine!

Jonathan Stephens (he/him): You'll just see some of my notes.

David Mantica--Co-host!!!: It gives us a little bit of a brain rest, too, by the way.

David Mantica--Co-host!!!: and we can finish the candy discussion. I didn't see everybody respond, okay, there we go some point. I want to hear everybody's candy choice.

David Mantica--Co-host!!!: I would take a 3 musketeer bar any day of the week. Oh, baby. They're good.

David Mantica--Co-host!!!: all right. You ready?

Jonathan Stephens (he/him): Right? Yes.

Jonathan Stephens (he/him): so welcome. We've heard a lot about generative AI today. But we're going to talk about something a little bit different.

Jonathan Stephens (he/him): And that's no code, low code. And how they intersect with generative AI

Jonathan Stephens (he/him): it's interesting, because what we've what a lot of the talks today have been is getting into the Gen. AI tools and digging in into how to use those tools from the sort of

Jonathan Stephens (he/him): the raw

Jonathan Stephens (he/him): Gen. AI

Jonathan Stephens (he/him): tools rather than what we can use them as

Jonathan Stephens (he/him): in product development and what all is being made.

Jonathan Stephens (he/him): So we're gonna define what they are.

Jonathan Stephens (he/him): We're gonna see how they intersect with Gen. AI.

Jonathan Stephens (he/him): Look at their popularity in terms of what is the actual market

Jonathan Stephens (he/him): dive into a few case studies, and then look at where to start, and then we'll just do a review and random.

Jonathan Stephens (he/him): So along the way we'll go, from the sort of apprehensive lions and tigers and bears. Oh, my to oh, my! By the end of this, so hopefully, you'll be able to transition away from the apprehension and unknown into excitement and

Jonathan Stephens (he/him): Seeing the possibilities. The growth mindset that one of the earlier speakers today talked about.

Jonathan Stephens (he/him): So Hi, I'm Jonathan. I've spent around 17 years building stuff on the Internet

Jonathan Stephens (he/him): working for all sorts of different clients. Spent a decade scaling, booking.com where I started as a ux designer, but I was leading. I led the as a manager managers, the product development of the growth org.

Jonathan Stephens (he/him): the localization org, and then the Api

Jonathan Stephens (he/him): web and native app platforms for booking.com partners. Right now, I'm an independent consultant helping teams and companies design and make products better

Jonathan Stephens (he/him): definitions.

Jonathan Stephens (he/him): So

Jonathan Stephens (he/him): our current state of development and how software has been made is in the full. What we're calling full code.

Jonathan Stephens (he/him): Full code is where you have to start from the ground up. Starting from like, even. I've got this URL, and putting on a server somewhere, and I have to figure out how to change the Dns to put something there and then put code there and then add some front end to it, and then make it all work and hope it's safe somewhere, right? There's lots of process and lots of coordination for that.

Jonathan Stephens (he/him): But a subset of that is low code.

Jonathan Stephens (he/him): And then a subset of low code is no code. And Laura asked this earlier about what do I call it? Is it low code, or is it no code or what?

Jonathan Stephens (he/him): It's both low code is no code is low code, but there is some differentiation in the market.

Jonathan Stephens (he/him): and we'll see what those are now.

Jonathan Stephens (he/him): So no code is a way of developing software using visual logic. And these are with interfaces that you have drag and drop tools, pre-built templates and simple stuff.

Jonathan Stephens (he/him): Let's if you've ever built or used wordpress wordpress is technically a no code tool. They've been around for a long while. It's a lot more on the Cms side of things, the content management system, simple websites. But now that we're at a point of development

Jonathan Stephens (he/him): and software dev and web development that we can sort of move beyond just Cms's and start to do on more app development?

Jonathan Stephens (he/him): and what's cool is that the whole idea is to democratize development, allowing people to make their own software for what they need

Jonathan Stephens (he/him): think of it as

Jonathan Stephens (he/him): The way a typewriter is to writing right? So we used to go from a chisel on stone to writing with dipping your ink in your quill to now typing on your computer. And so it makes that simpler in terms of the mechanics.

Jonathan Stephens (he/him): It's the fastest out of the 3 to build with

Jonathan Stephens (he/him): very cheap compared to like hiring a dev or taking the time to learn program yourself. Easy to maintain. And it prototype simplifies prototyping, but it's less customizable. You're less admin. So you're sort of locked into whatever platform or tool you're using.

Jonathan Stephens (he/him): and you have to rely on that platform.

Jonathan Stephens (he/him): They may have an update, and it breaks everything you never know. And then there's also a scalability challenge. But that's also becoming less of a con, but it still is. Now

Jonathan Stephens (he/him): there's all sorts of use cases, and we'll see later on. But Bubble.

Jonathan Stephens (he/him): one of the big no code platforms says, a lot of their work comes from social platforms or marketplaces business automation. And there's like over 3.3 million apps developed on bubbles. No code platform. They've been doing it for more than 10 years now, I think.

Jonathan Stephens (he/him): so it's kind of endless.

Jonathan Stephens (he/him): And each of these no cool, no code tools. Specifically, they have 3 primary phases, sections, parts.

Jonathan Stephens (he/him): features, whatever but parts to developing a thing.

Jonathan Stephens (he/him): you have to have the database. So basically, where do I put the data that people input, where do I take it out?

Jonathan Stephens (he/him): You have to make the interface. How do I interact with the thing?

Jonathan Stephens (he/him): And then you have to have the logic when I press this thing that happens, the if this, then that mentality

Jonathan Stephens (he/him): so low code is a bit different.

Jonathan Stephens (he/him): it's more developed as a way to help developers speed up their development. So as a hybrid development approach, you still have visual programming tools. You still have reusable components and customizable templates. But it needs a bit more

Jonathan Stephens (he/him): coding and very much more knowledge. And and that software development.

Jonathan Stephens (he/him): either language or or

Jonathan Stephens (he/him): concepts. Low code is much more like Ikea furniture.

Jonathan Stephens (he/him): It can be a pain in the butt to make, and you can figure it out and mess it all up and take it apart. Put it back together again because you did miss the screw, but it's a heck of a lot easier than building a tree from building a table from scratch.

Jonathan Stephens (he/him): so it it

Jonathan Stephens (he/him): simplifies it. But it doesn't take away the work.

Jonathan Stephens (he/him): There's still more manual work in there.

Jonathan Stephens (he/him): So because of that ability to do your own code. That's more customizable. It's still faster to build and create than full code and maintain. And it saves developers. Tons of time.

Jonathan Stephens (he/him): Cons.

Jonathan Stephens (he/him): some of them need at least very basic coding skills. Other needs more advanced. You still don't have control as much as you would if you just own all the code and make it yourself.

Jonathan Stephens (he/him): it's much more expensive than no code, mostly because of size and scale, is very different than no code projects.

Jonathan Stephens (he/him): and it's not designed for accessibility. They tend to be designed for productivity.

Jonathan Stephens (he/him): Again, tons of different things to use. But a lot of the

Jonathan Stephens (he/him): low code tends to be more complex challenges. So customer customer Portals, looking at an employee portal. So how do I work with the Cx. And ex of a place. There's the IoT enabled applications and big orchestration of bits. But what's really interesting, I think, for the Pm. Pm. Multiple P's M side of things

Jonathan Stephens (he/him): is how they're being used to migrate legacy systems. So they act as a stopgap so that you can develop the next thing and sort of link the old, old code and legacy and swap it out in a lot easier and and better state.

Jonathan Stephens (he/him): So side by side

Jonathan Stephens (he/him): that covers sort of what we've talked about, right? The target user for no code or non developers, non tech people, low code developers and power users of tech.

Jonathan Stephens (he/him): what's fun is in the target users. There's this new thing that's becoming a more thing.

Jonathan Stephens (he/him): Called citizen developers. There is. It's similar to like citizen scientists of of how you do science as a citizen and keeping track of the weather change, and how that does, and to report it, and developers are taking control. And it.

Jonathan Stephens (he/him): citizen developers are using no code tools to make things for their own

Jonathan Stephens (he/him): town or city, or whatever it may be, or doing it for fun and enabling others.

Jonathan Stephens (he/him): yes, that's

Jonathan Stephens (he/him): and this is goes back to what Owen was talking about now as well.

Jonathan Stephens (he/him): because of the easy to learn for both, for more, no code than low code, but

Jonathan Stephens (he/him): because it's generally easier to learn. It's much easier to build really quick, rapid prototypes, and you have proof of concepts that you can test and get in front of customers, test it out and figure out if it's worth it, to invest in a more complex and home brewed and home built full code option.

Jonathan Stephens (he/him): Generally

Jonathan Stephens (he/him): complexity goes down as you go down. The inheritance

Jonathan Stephens (he/him): so full code is most complex. No code is the least same with costs, same with, etc.

Jonathan Stephens (he/him): I've heard.

David Mantica--Co-host!!!: Would be, how much

David Mantica--Co-host!!!: robust is there a robustness, loss

David Mantica--Co-host!!!: into what you can do.

Jonathan Stephens (he/him): It depends. I mean one. How do you find robustness? 2. There's more than 4, 300. 5,400. No code apps out there.

Jonathan Stephens (he/him): all with very different specializations.

David Mantica--Co-host!!!: Tell me, why won't more organizations move to it? Then.

Jonathan Stephens (he/him): Why won't.

David Mantica--Co-host!!!: Why don't they move to it?

Jonathan Stephens (he/him): There are cases there was, I forget exactly which company, but they just canceled all their salesforce contracts and workday contracts and everything else, because they said they would build their own no code tools to replace them.

Jonathan Stephens (he/him): because it's more custom fit to their workflow processes rather than

Jonathan Stephens (he/him): What.

David Mantica--Co-host!!!: Interesting.

Jonathan Stephens (he/him): Suppliers, Designed.

David Mantica--Co-host!!!: Okay. Do you hear that? Do you see that as a trend.

Jonathan Stephens (he/him): It's I think that's in the same line of trend as firing everybody, because AI will replace all the riders sort.

David Mantica--Co-host!!!: This is so interesting, because what you think.

David Mantica--Co-host!!!: what you're saying here is that there's a box right? And.

Jonathan Stephens (he/him): This is.

David Mantica--Co-host!!!: About this, too, and you can pick pick a box you want to play in.

David Mantica--Co-host!!!: But if you don't like the boxes you're playing, and you can try to build your own box.

Jonathan Stephens (he/him): yes. And it especially works with the small medium businesses. And that's sort of the target use as well and with the robustness of the tools. You can do a lot.

David Mantica--Co-host!!!: And what would they consider salesforce? Are they the Force language? Is it no code or low code?

David Mantica--Co-host!!!: What would you say they consider it to be?

David Mantica--Co-host!!!: That's a question from the group.

Jonathan Stephens (he/him): well, salesforce itself is a Crm, so it's Sas. However, they also have their own low code platform to be able to integrate and develop more closely into their ecosystem called.

David Mantica--Co-host!!!: Yeah, that's.

Jonathan Stephens (he/him): Person.

David Mantica--Co-host!!!: So you call it low code. Then.

Jonathan Stephens (he/him): That side. They probably have a no code solution. So we are building a Crm, or if you're

Jonathan Stephens (he/him): like a form

Jonathan Stephens (he/him): for intake and customer sort of reach out side of things that could be considered a no code website, right? Because you're just sort of generate. My form gives me a URL. I can send it out and link to it, and then it goes directly in there, and then I can go

Jonathan Stephens (he/him): through my workflow processes.

David Mantica--Co-host!!!: Yeah, like with Hubspot, we're coding landing pages. You can do no code landing pages.

Jonathan Stephens (he/him): In the brain.

Jonathan Stephens (he/him): The same with, that's where a lot of tools are going.

Jonathan Stephens (he/him): So what happens when they're combined with generative AI.

Jonathan Stephens (he/him): So

Jonathan Stephens (he/him): this is the moment where Dorothy steps out into the technicolor world of Oz.

David Mantica--Co-host!!!: There it is!

David Mantica--Co-host!!!: 1936, reference.

Jonathan Stephens (he/him): 39

Jonathan Stephens (he/him): and

Jonathan Stephens (he/him): it wasn't the 1st movie to be in second color, but it remains in the American Zeitgeist as like the 1st where it was because

Jonathan Stephens (he/him): of how much, how impactful the transition was to go from the black and white to this new to all this color, which is a new technology at the time, right color film wasn't a a thing

Jonathan Stephens (he/him): for the longest time even.

Jonathan Stephens (he/him): It's another talk on

Jonathan Stephens (he/him): the magic of cinema and and play. But

Jonathan Stephens (he/him): even how they had to do some special working and camera movements to make sure that the technicolor was shown right. It it's incredible, but

Jonathan Stephens (he/him): we don't see black and white color pictures anymore. We don't see black and white movies anymore unless there's clear intent of why and what they're trying to communicate.

Jonathan Stephens (he/him): And as I've researched for this talk, and as I've gone deeper, we're in that technicolor moment now.

Jonathan Stephens (he/him): technicolors a new thing, we're trying stuff out. And when you glue all that generative AI, together with the No code and low code, it software developments changed forever.

Jonathan Stephens (he/him): We're not going to be developing software and making things the same way. We have been

Jonathan Stephens (he/him): until now

Jonathan Stephens (he/him): so low code and no code like we said, visual development, reusable components and faster development.

Jonathan Stephens (he/him): Then you have low code and AI. And this is what a lot of the Github, copilot and coding assistant things are with code suggestion, automated testing and smarter debugging.

Jonathan Stephens (he/him): then you have an

Jonathan Stephens (he/him): the test driven development, those mark. I think it talked about as well.

Jonathan Stephens (he/him): Then you have the no code in AI, and these are intelligent templates. Right? So if I like this style of template and say

Jonathan Stephens (he/him): in natural language, I I like this template. But I'm actually a restaurant, not a

Jonathan Stephens (he/him): dog, Groomer.

Jonathan Stephens (he/him): Could you rework what I might need for that, and it would auto generate the ui from there.

Jonathan Stephens (he/him): And the future is today. All these things exist today and are being used in these ways. For rapid prototyping. And

Jonathan Stephens (he/him): what we had seen from again, I think it was Mark that it's shown the picture and working through how to get from the picture to what was read. And then how to develop that product. You can

Jonathan Stephens (he/him): make a workable, rapid prototype based off of sketches and get it in customers. See how it works, see where it could be improvement, etc. before going forward, a lot of the automation tools are trying to become are becoming more intelligent. So you have to make fewer decisions and make

Jonathan Stephens (he/him): that focus on critical decision making. But overall, it's democratizing development for a broader audience. So you can actually make your own tool for what you need it for your case.

Jonathan Stephens (he/him): Okay, but how popular are these? So what's the actual market look like?

Jonathan Stephens (he/him): So in 2020, Forester predicted that the market would grow to be 12 billion worth 12 billion by 2023 ended up at 13.2 billion

Jonathan Stephens (he/him): by the end of 2023. And they just released an import report this year

Jonathan Stephens (he/him): with 3 different possibilities. And this is specifically because of the of how does generative AI

Jonathan Stephens (he/him): when it gets thrown into the mix change things.

Jonathan Stephens (he/him): So 14.6 billion is where

Jonathan Stephens (he/him): generative AI and low code

Jonathan Stephens (he/him): don't mix

Jonathan Stephens (he/him): and low code tools get dropped off and generative AI wins.

Jonathan Stephens (he/him): 30 billion is the low code market stays the same and continues on what it's doing without much impact from generative AI.

Jonathan Stephens (he/him): The 50 billion question

Jonathan Stephens (he/him): is, if generative AI low code, and no code. Actually, pair really well, and companies get it done right. There's drastic more

Jonathan Stephens (he/him): possibilities for

Jonathan Stephens (he/him): larger market and a lot of money.

Jonathan Stephens (he/him): So Mendix, one of the

Jonathan Stephens (he/him): large enterprise, low code

Jonathan Stephens (he/him): companies did a 2024 state of low code, and I've linked to the 2021 low code as well. White paper. But

Jonathan Stephens (he/him): most of these companies that are in they sorry they interviewed around their

Jonathan Stephens (he/him): surveyed around 2,000 people across us Uk, Benelux and Japan

Jonathan Stephens (he/him): to see how they were using low code. And 98% of the companies they surveyed are using low code platform and tools.

Jonathan Stephens (he/him): and 80% of them are have improved tech teams productivity.

Jonathan Stephens (he/him): which is in

Jonathan Stephens (he/him): quite a bit like

Jonathan Stephens (he/him): same with reporting low code, OP reducing operational costs

Jonathan Stephens (he/him): And what was also interesting from this is how the coo is the primary

Jonathan Stephens (he/him): receiver or user, or or the topmost C-suite person that's interested in low code adoption.

Jonathan Stephens (he/him): In terms of who is driving change in the company.

Jonathan Stephens (he/him): Bubble. Another platform stated earlier, they had their own 2024 state of no code.

Jonathan Stephens (he/him): The people they surveyed.

Jonathan Stephens (he/him): or

Jonathan Stephens (he/him): on the on the

Jonathan Stephens (he/him): fly math.

Jonathan Stephens (he/him): 2540.

Jonathan Stephens (he/him): No other way around

Jonathan Stephens (he/him): 16,

Jonathan Stephens (he/him): 90, 80%, 80, 85% of the people surveyed said that by 2030 the majority of human developers will be using no code solutions.

David Mantica--Co-host!!!: Let me ask the group right now how many folks right now out there are using some form of low code? No code.

David Mantica--Co-host!!!: we say yes or no, we'd love to see it.

Jonathan Stephens (he/him): Yeah.

David Mantica--Co-host!!!: So Chris is saying. Yes, of course.

David Mantica--Co-host!!!: Alright.

Michael Wolf: And drop some names in the

Michael Wolf: Chad, as you're saying. Yes.

David Mantica--Co-host!!!: Looks like most people are using some form.

David Mantica--Co-host!!!: Yes. How about true coders like? Is there a true coder out there? And are they using

David Mantica--Co-host!!!: no code, no code, 20% of the time, 15% of the time.

David Mantica--Co-host!!!: So we have one true coder, and they don't have your name, because the way that it's set up, but doing government work. So they're doing none.

Jonathan Stephens (he/him): Yeah, I'm doing some government work now. Well, military work now, and some of the Devs are using the

Jonathan Stephens (he/him): using it to help support the Debbie. So.

David Mantica--Co-host!!!: See what's happened is you're you're gonna have to jump between your applications like, okay, if I'm working my work, if I'm working on my website. I'm gonna do low code. No code with.

Jonathan Stephens (he/him): Internet connectivity is big.

David Mantica--Co-host!!!: If I have a dev. If I have a e-commerce car, I would use shopify. So shopify low code, no code to connect in with Wordpress. Right? So then, if I'm you know, if I want to jump over and have marketing automation, I would jump in and add Hubspot to it.

Jonathan Stephens (he/him): Yes.

David Mantica--Co-host!!!: So this is what we're getting at. We're basically again, the fact when you really look at it, gen AI plus this, you could set up an Internet commerce business in the day.

Jonathan Stephens (he/him): Yes. Well.

David Mantica--Co-host!!!: Write the copy. Yeah, you I mean, you think about it.

Jonathan Stephens (he/him): You can set it up, you can.

David Mantica--Co-host!!!: I'm gonna sell all my used stuff on my desk right now. I could set up.

Jonathan Stephens (he/him): You'll sell.

David Mantica--Co-host!!!: If I had stripe right.

Jonathan Stephens (he/him): Yeah. Doesn't mean you'll sell anything but.

David Mantica--Co-host!!!: No, I might mess up.

Jonathan Stephens (he/him): Come on!

David Mantica -- Co-host!!!: Bye, bye.

David Mantica--Co-host!!!: but that's my inventory right.

Jonathan Stephens (he/him): Yeah, well, and I also found interesting in Bubbles. Report is that as developers were using no code and there's no code developers now. And low code developers now.

Jonathan Stephens (he/him): but developers conversation with the product or the management counterparts are more focused on the outcomes than the technical complexity.

Jonathan Stephens (he/him): And I think that's a significant shift in in how the technology is forming the ways of working

Jonathan Stephens (he/him): Zapier in their own no code report this year. Their serve. Their sample size was much smaller. They're around 300 people

Jonathan Stephens (he/him): across the world.

Jonathan Stephens (he/him): and every department is using no code tools in some way.

Jonathan Stephens (he/him): I think, at least in the startup space notion is a big one

Jonathan Stephens (he/him): for just Hr. And and Company operations.

David Mantica--Co-host!!!: What about data governance? What about architecture?

David Mantica--Co-host!!!: What are what are some of the concerns as it looks? If I'm a CIO and I got this company. And all this stuff is happening.

David Mantica--Co-host!!!: Everybody's got these. I know. There's there's 35 different apps driving and doing coding in my company right now.

Jonathan Stephens (he/him): Yep.

Jonathan Stephens (he/him): what's your thought?

Jonathan Stephens (he/him): So

Jonathan Stephens (he/him): there's a lot about shadow it out there.

Jonathan Stephens (he/him): So the shadow it is the stuff that

Jonathan Stephens (he/him): people are using. But.

David Mantica--Co-host!!!: This is what we're talking about. Really, you're talking.

Jonathan Stephens (he/him): And there's legacy.

Jonathan Stephens (he/him): Yeah.

David Mantica--Co-host!!!: Rick talked about acceptable. Rick is talking about acceptable level of out of control. That's an interesting concept.

Jonathan Stephens (he/him): It's how much do you control the chaos rather than guiding it rather than sort of

Jonathan Stephens (he/him): adjusting with it? And this is where you can't just.

David Mantica--Co-host!!!: Go ahead, Rick. What, Rick? What you gonna say?

Rick Bauer: I would say the other. The other alternative is fascist CIO domination, which is guaranteed to crush

Rick Bauer: the creative spirit initiative and the speed to market.

David Mantica--Co-host!!!: Do you see?

Jonathan Stephens (he/him): That's.

David Mantica--Co-host!!!: Do you see? Do you see this changing, Rick? Do you see the moment.

Rick Bauer: Yeah, I I see. I see departments funding their own it because they're no longer

Rick Bauer: adopting the one size fits all and and a lot of cios are going to be

Rick Bauer: Ktlo, just keeping the lights on.

David Mantica--Co-host!!!: So interesting.

Rick Bauer: And yeah, anyway.

David Mantica--Co-host!!!: That was such a great share, Rick, thank you so much. Keep writing in, too. So keep going, Jonathan. That was. This is so interesting.

Jonathan Stephens (he/him): Yes, and one of the things that I think are are useful in terms of yes, the shadow it. But what you have said repeatedly, David.

Jonathan Stephens (he/him): this is the value. Add and the differentiator in terms of how you work. So if you can actually use some, no code tools and increase your productivity and sort of

Jonathan Stephens (he/him): make things happen just for your own work.

Jonathan Stephens (he/him): People have said here, I mean additional compensation, promotion positive recognition from leadership. So there's a lot of value in understanding what's out there, and how you might be able to plug it in, even if it's just for your personal.

Jonathan Stephens (he/him): your way of working. You create the tools that work best for you, and then they can go with you wherever you go.

Jonathan Stephens (he/him): and then, if you, if

Jonathan Stephens (he/him): you scale it up or add it into your company or organization. That's a different story. So there's also multiple levels of ways of working and utilizing no code in your daily tool.

Jonathan Stephens (he/him): So

Jonathan Stephens (he/him): there are a lot of tools.

Jonathan Stephens (he/him): Oh, that just on, only no code. It's collected more than 350 tools that you can use across back end blockchain calculators, game engines, IoT social media landing pages, knowledge bases, job boards. I mean, it's used

Jonathan Stephens (he/him): for all sorts of things.

Jonathan Stephens (he/him): And it goes back to, I think, where you just asked David, in terms of what about the architecture?

Jonathan Stephens (he/him): No code. I want to use for architecture. But if I can just press a button to roll out my code cool.

Jonathan Stephens (he/him): so you can also use it and put it into different aspects of the development lifecycle that actually could alleviate some work.

Jonathan Stephens (he/him): or at least.

Jonathan Stephens (he/him): yeah, we're

Jonathan Stephens (he/him): so what are some people making with this?

Jonathan Stephens (he/him): Bubble turns out just about everything.

Jonathan Stephens (he/him): They introduced a natural language process. Natural language

Jonathan Stephens (he/him): through generative AI ways of building apps. So you can just type in this sort of app that you're trying to build, and they'll build it out for you.

Jonathan Stephens (he/him): And

Jonathan Stephens (he/him): they're finding all sorts of language being used of. I need this sort of thing or that sort of thing.

Jonathan Stephens (he/him): But they don't have enough

Jonathan Stephens (he/him): data right now to to really have something greater than 10% of their customer searches.

Jonathan Stephens (he/him): So one of the tools that I found was really cool is New York City's COVID-19 mapping and Hotspot tracker.

Jonathan Stephens (he/him): it happened, and in April they were like, we need a solution. So this

Jonathan Stephens (he/him): no code platform called uncork, built out in a portal in 72 h. That enabled 8.4 million New Yorkers to self report COVID-19 data in 11 languages, coordinating Ppe donations and emergency food deliveries. It's really cool.

David Mantica--Co-host!!!: We got a 5 min warning, brother. 5 min warning.

Jonathan Stephens (he/him): Okay. A tool validated and created in 2 months, validated and tested over there 1.1 million pre-seed funding

Jonathan Stephens (he/him): Marty Margaritaville, managing cocktail recipes, no code app for a recipe management system on their cocktail recipes, 18% increase in profitability and of drinks because portion control 83% faster updates across their 1,000 locations or 100 plus locations.

Jonathan Stephens (he/him): So some of the tools.

Jonathan Stephens (he/him): a lot of talk today has been about Google and Microsoft, because that's what companies use. They each have their own low code, tools, power platform and app sheet for Microsoft Google respectively.

Jonathan Stephens (he/him): No code tech a place where you can find things, and specifically they have tools, but also guides and explainers and tutorials and just thoughts.

Jonathan Stephens (he/him): Only no code is another

Jonathan Stephens (he/him): congregate. They have a top 51 list. I've listed some of them here, but the links are in the thing to see it yourself.

Jonathan Stephens (he/him): What? Why I like to use these. There's so many out there they evaluate. They have descriptions of why they're choose things, etc, that can help you choose on your reason. Why do I want to go this way, or which way do I want to go?

Jonathan Stephens (he/him): Project management reports? I wanted something more catered to the actual audience. And and y'all so this is a site that

Jonathan Stephens (he/him): well, the whole purpose is to help you choose project management software by and for project managers

Jonathan Stephens (he/him): and these are their designations of each of their top platforms.

Jonathan Stephens (he/him): This is from Zapier best. No code app

Jonathan Stephens (he/him): software for beginners bubble for balance and power and easy ease of use, and they each have their own purpose.

Jonathan Stephens (he/him): So

Jonathan Stephens (he/him): options, you have more options today to get shit done or develop software

Jonathan Stephens (he/him): full code, low code and no code.

Jonathan Stephens (he/him): As you go down the inheritance, it reduces cost and complexity.

Jonathan Stephens (he/him): The future is today, rapid prototyping automation, democratized development

Jonathan Stephens (he/him): can make pretty much anything with no code and low code.

Jonathan Stephens (he/him): Oh, my.

Jonathan Stephens (he/him): thank you.

Jonathan Stephens (he/him): Okay.

David Mantica--Co-host!!!: A couple things here 1st off is that you know we're going to do this as a web seminar.

David Mantica--Co-host!!!: probably in a month or 2, Jonathan. So, folks, if they want to get

David Mantica--Co-host!!!: more time with Jonathan talking about this stuff, we want to do this as a web seminar. I just think you know, you start looking at this. And as we talked about the Gen. AI space, you can see fundamental shifts in how work is going to get done. So my thought really comes down to how much does a project manager need to know? How many of the tools should they be using? You know from a marketing perspective. I get it because we play a lot of those tools, but from a project it project management space. There's so many cool things that are going to be.

David Mantica--Co-host!!!: Yeah, dude is eating the low code dog food I am. I think there's some really interesting things that can happen here any any last thoughts before we bring Kara up to talk about AI certs.

David Mantica--Co-host!!!: Jonathan, any last thought.

Jonathan Stephens (he/him): I've dropped in some links. My! I've tried to fill my presentation with as many links so that you can follow up yourself.

Jonathan Stephens (he/him): I added, have a calendar invite here. If you do want to talk following up for today, you can go ahead and book time on my calendar. And I made a Youtube playlist with around 30 videos that I

Jonathan Stephens (he/him): used for researching and all that fun stuff for this.

David Mantica--Co-host!!!: Excellent

## Navigating Generative AI in the Public Sector: Challenges, Best Practices, and Emerging Use Cases - Taher Jamshidi

Lara Hill: Well, in the interest of time, I'd like to go ahead and turn it over to Taher Jamshini, who is joining us as here on the stage. Love to go ahead and have you introduce yourself.

Taher Jamshidi: Thank you. Thank you, Laura. Glad to be here.

Taher Jamshidi: Just gonna start my screen. And then I can

Taher Jamshidi: talk through that. So.

Taher Jamshidi: so yeah, thanks so much for for having me. It's it's it's great to be here, and especially being part of this generative AI Enterprise adoption. Conference.

Taher Jamshidi: Today's conference. As I was listening to focuses on enterprise applications of generative AI. But I'll be taking a different approach. My focus will be on how this technology can be leveraged specifically in the public sector, a space where the needs and challenges are unique compared to the private sector.

David Mantica -- Co-host!!!: Yes.

Taher Jamshidi: By way of introduction, I lead Alpha AI, a consulting firm dedicated to helping government agencies, adopt forward thinking secure and impactful AI solutions. We believe that to achieve mission success, the public sector requires AI solutions that are both agile and reliable.

Taher Jamshidi: At Alpha AI. Our work centers on empowering public sector organizations through tailored AI and analytics solutions. We support digital transformation strategies, set up innovation hubs and

deploy cutting edge tools that enable government agencies to lead confidently and stay prepared for the challenges ahead.

Taher Jamshidi: With that, let's start our discussion on navigating generative AI in the public sector. We'll look at the immense potential. This technology brings, as well as the challenges that come with implementing it securely and responsibly. In government settings.

Taher Jamshidi: Generative AI offers the public sector a potent tool.

Taher Jamshidi: one that can reshape government operations, but only if its deployment is thoughtfully managed.

Taher Jamshidi: Unlike commercial uses, public sector, applications must navigate a landscape where compliance, trust, and security are paramount, generative. AI could in principle streamline services and enable smarter decision making.

Taher Jamshidi: yet its true value will emerge only if risks are carefully calibrated

Taher Jamshidi: and benefits aligned with the unique demands of public missions

Taher Jamshidi: as project managers and implementation leaders. In this space. Your roles are critical. You're not just driving innovation. You're also responsible for ensuring these AI initiatives remain secure, compliant, and scalable. This responsibility is huge, especially in the public sector, where stakes are high and the implications are broad.

Taher Jamshidi: So here's a big question to keep in mind throughout this session.

Taher Jamshidi: Can generative AI

Taher Jamshidi: truly transform the public sector? Or are we potentially opening doors to risks that are beyond our control.

Taher Jamshidi: To answer this, let's break it down and walk through today's agenda.

Taher Jamshidi: Each part will explore practical approaches for navigating generative AI applications within the unique landscape of public sector work.

Taher Jamshidi: First, st we'll start by exploring the unique role of generative AI in the public sector. Generative AI is revolutionizing various industries. But the public sector has distinct needs and challenges. In this part. We'll highlight what sets this space apart and why a specialized approach is essential.

Taher Jamshidi: Next, we'll move into the 3 pillars of generative AI adoption in the public sector. These pillars provide a structured approach to ensure AI is not only effective but also secure and sustainable.

Taher Jamshidi: They will serve as our guide for responsible adoption.

Taher Jamshidi: In Part 3. We'll cover emerging use cases and potential impact. Here we'll discuss the specific applications of generative AI that could bring substantial benefit to public sector operations, transforming everything from citizen engagement

Taher Jamshidi: to internal processes.

Taher Jamshidi: And finally, we'll wrap up with a roadmap for responsible generative AI adoption. This roadmap will outline actionable steps for implementing generative AI that aligns with the values and mission of the public sector. With that, let's dive into part one and set the foundation for mission-driven AI in the public sector.

Taher Jamshidi: Generative AI offers a powerful tool for government agencies, one that could potentially reshape how public services are delivered.

Taher Jamshidi: But unlike in the commercial sector, where innovation can often move fast and with fewer constraints, public sector applications face a unique landscape

Taher Jamshidi: in this context. Agencies don't just want innovation. They need solutions that are compliant, trusted, and secure.

Taher Jamshidi: These aren't just boxes to check.

Taher Jamshidi: They're essential for maintaining public trust and meeting strict regulatory regulations that exist for a reason.

Taher Jamshidi: Generative AI could truly streamline services, allowing agencies to make smarter data, driven decisions. Imagine smoother citizen services or faster policy analysis all powered by I. But here's the catch.

Taher Jamshidi: This potential will only be realized if you carefully manage the risks and make sure that these benefits align with public sector missions.

Taher Jamshidi: Now, with these unique demands in mind, let's look 1st at the challenges generative AI brings, and then the opportunities that we need to address to unlock its full potential in the public sector.

Taher Jamshidi: There are some real concerns here which are unique to the responsibilities and standards required in government settings.

Taher Jamshidi: 1st up is data, privacy and security in the public sector. Agencies deal with sensitive information that requires strict controls on where and how data is processed.

Taher Jamshidi: Generative AI here has to operate under privacy and security protocols that go well beyond what's typically seen in the commercial world.

Taher Jamshidi: Many of these applications need in network data handling meaning that data should ideally stay within secure

government control systems, not external cloud platforms. This means that technology should meet the standards like Fisma and Fedramp.

Taher Jamshidi: compliance is essential to avoid data breaches and keep sensitive information protected, and security is the backbone of generative AI deployment in this space, making it a core challenge. We need to address thoughtfully.

Taher Jamshidi: Then there's a challenge of ethics and public accountability

Taher Jamshidi: in the public sector. AI doesn't just impact the mission. It impacts citizen lives rights and access to services

Taher Jamshidi: here issues like AI bias and misinformation or black box decision making can really undermine public trust and even have legal consequences. Generative AI must maintain the highest ethical standards, often going further

Taher Jamshidi: than private sector applications, and to address this generative AI needs transparency and fairness built in. That's why we are seeing the use of explainable AI frameworks and bias detection tools. These help ensure outcomes are clear and unbiased. But achieving this level of accountability requires a rigorous approach that's unique to the public sector.

Taher Jamshidi: And finally, there's the issue of scalability and integration across agencies.

Taher Jamshidi: Generative AI for government use often needs to work across multiple departments which brings its own set of challenges.

Taher Jamshidi: a standardizing data, handling ensuring secure integrations and managing compliance across different policies.

Taher Jamshidi: Unlike the private sector, where scalability is often associated with growth, scalability in the public sector is often about adapting AI to meet the varied mandates of different agencies. This requires adaptable frameworks, such as market services, or for

modularity and federated learning for secure decentralized data, training

Taher Jamshidi: together. These frameworks enable agencies to meet their specific compliance standards while collaborating effectively, adding a level of complexity. Again, that's not always present in commercial AI applications. So these are 3 of the core challenges we need to navigate. If you're going to make generative AI work effectively and responsibly in the public sector.

Taher Jamshidi: Now that we've covered the challenges, let's look at some of the exciting opportunities generative AI offers the public sector. These are the areas where AI can add real tangible value, helping government agencies operate more efficiently and serve the public better.

Taher Jamshidi: First, st let's talk about operational resilience and efficiency. Generative AI can take on a range of repetitive tasks, from drafting legal documents to pulling together complex regulatory data tasks that take up a lot of time and resources when done manually.

Taher Jamshidi: We're not just talking about marginal gains here. Studies

Taher Jamshidi: show that public sector could potentially save a lot of operational costs by using generative AI. The aim here is to build a government infrastructure that's more agile and responsive and infrastructure that can adjust quickly to public needs without being bogged down by traditional processes.

Taher Jamshidi: Next is enhanced public engagement and citizen services.

Taher Jamshidi: Generative AI enables agencies to interact with citizens in a more personalized, responsive way. Think of virtual assistants offering 24 7 support that adapt to each person's needs.

Taher Jamshidi: The main value here is about improving citizen satisfaction by providing services that feel accessible and tailored.

Taher Jamshidi: For example, with generative AI driven round the clock. Virtual assistants agencies can manage higher service volumes without constantly increasing their teams.

Taher Jamshidi: This is an opportunity for generative AI to help government be more transparent and accessible.

Taher Jamshidi: ultimately building greater public trust.

Taher Jamshidi: And finally, let's talk about data-driven policy and strategic planning generative AI's ability to analyze massive data sets quickly makes it a powerful tool for crafting policies. AI here can model scenarios, help generate actionable strategies and refine policies based on real data insights.

Taher Jamshidi: For instance.

Taher Jamshidi: agencies might use AI to tackle challenges like infrastructure planning public health responses, or even to support a national strategy focused on economic diversification. Generative AI lets agencies be proactive, aligning resources to changing priorities and making policies that are both responsive and strategic.

Taher Jamshidi: These opportunities show the enormous potential of generative AI.

Taher Jamshidi: And as we move forward we will see how these benefits can be realized responsibly in the public sector.

Taher Jamshidi: So

Taher Jamshidi: here's a big question.

Taher Jamshidi: how can we leverage generative AI's opportunities while managing its unique challenges in the public sector. It's a question that keeps coming up. And for good reason.

Taher Jamshidi: On one hand, we have these powerful opportunities. Generative AI can improve efficiency, engage citizens better and give us data, driven decision-making support to transform policymaking. But,

on the other hand, we are navigating serious challenges, especially when it comes to data security, ethical, conscious considerations.

Taher Jamshidi: and the complexities of a scaling across different government departments.

Taher Jamshidi: So as we move into the next part. Let's look at a structured approach for making this work. We'll explore 3 fundamental pillars that can help us maximize the benefits of generative AI while keeping these challenges in check.

Taher Jamshidi: These pillars offer a roadmap, not just for successful deployment, but for responsible adoption that aligns with the public sector's mission.

Taher Jamshidi: Our 1st pillar is a strategic implementation and scalability

Taher Jamshidi: in the public sector. Scalability isn't just about expanding capabilities. It's about doing so with a strategic, careful approach that maximizes impact while managing resources effectively

Taher Jamshidi: generative. AI has a potential to add an estimated 967 billion dollars in productivity gains to the public sector by 2034.

Taher Jamshidi: This shows the incredible impact AI could have

Taher Jamshidi: if implemented thoughtfully.

Taher Jamshidi: But to truly capture this value agencies need a strategic approach. Starting with targeted pilot programs and a scalable modular architecture that support long-term.

Taher Jamshidi: flexible growth.

Taher Jamshidi: The journey to scalable generative AI in the public sector starts with targeted high impact pilot programs. These pilots focus on projects where the potential return is high, but the initial investment remains low.

Taher Jamshidi: Take a quick wins. Applications like document generations for internal use or synthesizing data for specific departments. These projects allow agencies to demonstrate value early on refining systems as they go

Taher Jamshidi: by building these early successes, agencies create a solid foundation, establish visibility, gain critical insights, and build momentum for larger, more ambitious rollouts down the line.

Taher Jamshidi: achieving scalability in the public sector, relies on a modular architecture, so flexibility is essential here given the diverse needs across agencies. A modular design allows agencies to integrate AI engines such as those for supply chain optimizations.

Taher Jamshidi: resource, forecasting or demand, modeling

Taher Jamshidi: incrementally rather than deploying everything at once or replacing entire systems.

Taher Jamshidi: For instance, in emergency management, a forecasting engine could project resource needs during crisis, while the supply chain optimization engine manages logistics for rapid response. Meanwhile a specialized AI agents operate at a higher level, managing multiple AI engines and assisting with key decision-making processes.

Taher Jamshidi: These agents monitor compliance and real-time data collection and coordinate between departments ensuring each AI component functions in alignment with the public sector standards.

Taher Jamshidi: This approach allows agencies to add or update engines and agents as requirements evolve, creating an adaptable AI infrastructure that supports mission critical goals.

Taher Jamshidi: distributing AI capabilities in this way agencies maintain a resilient scalable system that can adapt to shifting demands without unnecessary overhauls

Taher Jamshidi: in summary the strategic implementation with targeted pilots and modular design lays the groundwork for a sustainable,

scalable AI system that can grow with the public sector's evolving needs.

Taher Jamshidi: Our second pillar is risk and compliance framework

Taher Jamshidi: in the public sector building. A strong foundation of trust and accountability is essential when implementing generative AI.

Taher Jamshidi: It is surprising. But only 15% of public sector entities currently have policies to address data inaccuracy in generative AI applications. That means the majority of agencies are potentially at risk.

Taher Jamshidi: as they lack

Taher Jamshidi: framework to prevent and manage AI inaccuracies. This is why a robust risk and compliance framework is essential.

Taher Jamshidi: Trust in AI is critical for public sector adoption, and while building trust takes time.

Taher Jamshidi: Transparency and explainability

Taher Jamshidi: are 2 essential 1st steps.

Taher Jamshidi: By forcing.

Taher Jamshidi: by by focusing on explainable AI agencies can create models where decisions are both understandable and traceable. This approach isn't just about technology. It's about ensuring that every AI driven decision is accessible and accountable, whether to the public or internal oversight bodies

Taher Jamshidi: over time. This transparency helps establish lasting trust by making AI decisions clear and open agencies can responsibly

Taher Jamshidi: expand AI's role into more critical applications without compromising public confidence. Think of it as laying groundwork for responsible growth.

Taher Jamshidi: Next, we have.

David Mantica--Co-host!!!: Hey? Is there

David Mantica--Co-host!!!: to hire? Is there any Federal agency that oversees this at this point? Anybody that's going to come in and say, all right, you gotta have this type of technology sealed to say that we can use this tool in our environments. Anything going on with that? At this point.

Taher Jamshidi: That's that's a very good question. And unfortunately the answer is, no, there is no single body that oversees that one of them, you know, one of one of the ways that are we're trying to get there is this second thing that I was going to talk about, which is missed this AI risk management framework that is trying to provide that framework for all the government agencies so they can use that while they're implementing these AI solutions.

Taher Jamshidi: But one of the advocacys that we are doing is that we probably need to have that single source of information, whether it's going to be NIST or another agency, or at the White House level, to come in and lay the foundations for everything that will enable the more use of generative AI

Taher Jamshidi: that are responsible and secure that can enable the agencies provide more services to citizens.

David Mantica--Co-host!!!: Do you see that happening? Any conversation, any chatter? I can use that chatter word? Maybe maybe not.

Taher Jamshidi: Yeah, I think it is happening. It might take some time, but there are some people at the Government that are actually advocating for this. We had some discussions with with them as well in the in the past, continuing this discussions as well, and there are some learnings that we can we can have looking at other government

Taher Jamshidi: agencies in other countries. Like, for example, Uk, they have the office of I think it's called AI, or it's part of their innovation that they have laid out the foundation for for how AI

should be applied in the government. So we can use that I think Australia and New Zealand. They have another one. Us is a little bit behind.

Taher Jamshidi: but I think there are some learnings that we can do, or lessons learned that we don't want to do it again in terms of implementing an approach across government agencies for for better, more fruitful resolution.

David Mantica--Co-host!!!: Excellent.

Taher Jamshidi: So so the next one here is is that we have. We have risk management. Guided by NIST's AI risk management framework.

Taher Jamshidi: This framework offers a robust structure to help agencies identify and mitigate potential risks associated with AI deployment.

Taher Jamshidi: It's adaptable. So each agency can tailor it to meet its unique requirements and challenges. But it goes beyond implementation as agencies

Taher Jamshidi: work with this framework. They should also contribute feedback based on real world applications. This input. Can refine the framework, making it even more applicable to the unique challenges AI introduces in government settings. It's a collaborative approach to build, not just compliant, but resilient AI systems for public sector.

Taher Jamshidi: So together, explainability, transparency, and risk management create a foundation for responsible AI adoption. These steps ensure that AI used in the public sector is both trusted and accountable, ready to meet the sector's unique demands.

Taher Jamshidi: Our 3rd pillar is workforce empowerment and readiness in the public sector preparing the workforce is essential to maximize the impact of generative AI, ensuring that employees are equipped not just with skills but with a clear understanding of how AI can support and enhance public service goals.

Taher Jamshidi: Let's consider this

Taher Jamshidi: around 40% of public sector employees believe that generative AI will significantly change their roles.

Taher Jamshidi: This statistic speaks volume about the urgency to prepare the workforce equipping employees not only with technical skills

Taher Jamshidi: but with a deeper understanding of how AI can support their mission objectives. It's very important to to say that again.

Taher Jamshidi: not only with technical skills but with a deeper understanding of how AI can support their mission objectives.

Taher Jamshidi: So the 1st step in workforce readiness is comprehensive AI literacy and upskilling programs in the public sector. AI literacy isn't just about coding or technical knowledge. It's about empowering these employees to recognize AI opportunities relevant to their roles and understand best practices for managing AI projects both operationally and technically

Taher Jamshidi: by focusing on upscaling.

Taher Jamshidi: This approach builds confidence across tips, enabling public servants to integrate AI effectively into their workflows and drive agency goals forward.

Taher Jamshidi: The next element is creating dedicated roles to drive AI leadership and collaboration across agencies, roles like AI ethics, officers, cross-agency AI, liaisons or strategic AI advocates serve as key players in coordinating efforts. They help align AI initiatives, with agency goals, set standards and ensure that each AI driven mission objective supports broader public service goals

Taher Jamshidi: by establishing these rules. Agencies create a support system for AI driven transformation that spans departments enabling smoother implementation and consistent innovation.

Taher Jamshidi: So with these 2 elements in place, workforce empowerment and readiness

Taher Jamshidi: become more than just training.

Taher Jamshidi: they become the backbone of successful sustainable AI deployment in the public sector.

Taher Jamshidi: Now that we've explored the foundation pillars, let's shift our focus to the emerging use cases and potential impact of generative AI in the public sector.

Taher Jamshidi: This part will look at specific applications where generative AI is already creating value, and those with high potential for transformative impact.

Taher Jamshidi: Each of these examples represents applications that align with the public sector's broader goals and unique responsibilities.

Taher Jamshidi: These emerging use cases are either already making an impact or are just beginning to reveal their full potential.

Taher Jamshidi: First, st we have intelligence, synthesis, synthesis and analysis in areas like defense and national security, the ability to to the ability of generative AI to analyze and summarize large data sets is game changing.

Taher Jamshidi: It allows for rapid decision-making in critical operations where speed and accuracy are essential.

Taher Jamshidi: Next is knowledge, management, and policy formulation.

Taher Jamshidi: Generative AI makes it possible to retrieve and access vital information quickly streamlining the process of creating policies

Taher Jamshidi: and ensuring compliance. This is particularly useful for government agencies that with complex, ever-changing regulations and need reliable access to real-time information.

Taher Jamshidi: the 3rd one

Taher Jamshidi: is generative AI

Taher Jamshidi: for advancing training and simulation capabilities by generating synthetic data, enabling agencies to securely train both personnel and AI models without exposing sensitive information. This dual use of synthetic data is especially valuable in mission critical areas like defense, emergency response and healthcare.

Taher Jamshidi: The realistic scenario-based training is essential for personnel synthetic data creates safe environments for practicing responses to complex situations for AI models. It provides a controlled data set for model training and testing, allowing agencies to enhance AI systems.

Taher Jamshidi: accuracy and readiness while maintaining strict data security

Taher Jamshidi: in terms of citizen engagement.

Taher Jamshidi: AI. Powered virtual assistants are transforming public-facing services. These assistants make it easier for citizens to access information and interact with agencies, especially in high demand areas. While allowing human resources to focus on more complex tasks.

Taher Jamshidi: Another promising area is legal document drafting and policy writing.

Taher Jamshidi: Generative AI can automate the drafting of policies, regulations and contracts, streamlining administrative work while maintaining high standards for compliance and consistency.

Taher Jamshidi: Finally, we have assistive coding. Generative AI can support government software teams by generating code and documentation, accelerating secure application development. While this has an indirect impact, it still contributes to the efficiency of government. It functions

Taher Jamshidi: together. These use cases, highlight the diverse applications of generative AI in the public sector, offering solutions that range from high impact decision-making tools to efficiency gains in daily operations.

Taher Jamshidi: As we come to our final section. Let's talk about a roadmap for responsible generative AI adoption in the public sector. Today, we've covered the pillars of implementation, examined the unique challenges and opportunities generative AI brings and looked at specific use cases where it's already making a difference. Now it's time to tie it all together. This roadmap

Taher Jamshidi: outlines a clear path forward, a guide that ensures generative AI is deployed thoughtfully, ethically, and in alignment with public sector values.

Taher Jamshidi: With each step we aim to maximize AI's benefits while safeguarding public trust and accountability.

Taher Jamshidi: So let's walk through this roadmap designed to support an AI journey that truly enhances the mission and public trust.

Taher Jamshidi: So here's our roadmap for responsible generative AI adoption structured around the 3 pillars we've covered with practical steps to bring these ideas to life. First, st

Taher Jamshidi: initiate with targeted pilots for impact.

Taher Jamshidi: start by targeting high impact low-cost pilot programs. These focused projects are opportunities to achieve quick wins and early successes

Taher Jamshidi: which help refine systems before scaling. The aim here is to scale thoughtfully with a foundation of proven results.

Taher Jamshidi: then focus on scalable and flexible infrastructure. This approach allows specific AI engines and agents to operate within a flexible infrastructure.

Taher Jamshidi: adapting as needs evolve

Taher Jamshidi: this modularity ensures that AI can grow and change alongside agency goals maintaining flexibility and resilience.

Taher Jamshidi: Our second pillar risk and compliance framework is all about building trust through transparency AI in the public sector must be explainable and clear. So the public understands and trusts AI decisions

Taher Jamshidi: by prioritizing explainability and transparency agencies can progressively build trust. Opening the door to wider adoption.

Taher Jamshidi: additionally adopt and adapt a risk framework. The NIST AI risk management framework offers a structured approach of AI risk adopting and evolving this framework ensures. Agencies are not just compliant, but are actively improving. AI. Safety and accountability.

Taher Jamshidi: Real world feedback is essential to refine the framework to the unique demands of public sector work.

Taher Jamshidi: Our final pillar workforce empowerment and readiness recognizes that AI success hinges

Taher Jamshidi: unprepared teams, comprehensive AI literacy programs, empowers employees to identify and leverage AI applications relevant to their work, making them proactive. AI stewards, furthermore, establishing

Taher Jamshidi: specialized AI roles such as AI ethics, officers and advocates, foster cross-agency collaborations and leadership.

Taher Jamshidi: These roles are pivotal in driving responsible AI adoption, ensuring that AI initiatives align with each agency's mission and public sector standards.

Taher Jamshidi: This roadmap

Taher Jamshidi: provides a balanced approach for adopting generative AI in a way that's scalable, secure, and mission aligned.

Taher Jamshidi: allowing the public sector to leverage AI responsibly and effectively.

Taher Jamshidi: Well, thank you all for joining me today and for taking the time to explore the role of generative AI in the public sector. As we've seen, generative AI has enormous potential to support and transform public sector missions. But realizing this potential depends on a thoughtful approach grounded in trust and a commitment to public service values.

David Mantica--Co-host!!!: Can you bring back the can you bring back the last slide real quick?

Taher Jamshidi: Yes, absolutely.

David Mantica--Co-host!!!: What are you seeing from initial like? What are people initially asking you for? An agency comes to you? What are they saying.

Taher Jamshidi: Wait the conversations that we had usually start with. None of these.

Taher Jamshidi: They

Taher Jamshidi: I I wish they were following the roadmap. That's why we have the roadmap so that the conversations are are usually about some ideas that they have about huge big

Taher Jamshidi: initiatives that they have so completely the opposite of what I'm proposing here to initiate with targeted pilots for for impact. So they start with huge applications, and they want to to do that at once. I think that is, is a wrong way to do that. I think we have to start small, and then build and adapt and grow accordingly. There are some.

David Mantica--Co-host!!!: Then there's a lot of questions about.

Taher Jamshidi: Just just one more thing.

David Mantica--Co-host!!!: Okay. Good.

Taher Jamshidi: Some discussions that are happening for some more mature, that are want to be more more conservative in terms of using AI, that they start from risk management. So so those are usually good good conversations, but because of the nature of of those discussions they usually are, are very slow, and it will take time for them to digest all the information that they will receive through Rfi. Discussions that we have with other companies.

David Mantica--Co-host!!!: There was transparency conversation. We had some discussion there. Is it possible to offer transparency? And how much do you want to tell the public of what AI is doing, I mean, especially if you're giving it decision-making power in the Government. What are your thoughts? There.

Taher Jamshidi: So our our thought is that we need to the way we are building this this roadmap is that as you start small, and then you're building, you're building trust. So in the smaller applications, you can completely be transparent. You can explain how the decisions are being made.

Taher Jamshidi: And as you do that more and more, and interact with the citizens you build that trust. So the goal here is to get to the point that the citizens are trusting the AI use across

Taher Jamshidi: the government. So even if you are not going to be transparent, or you can't be transparent about an AI program that is deciding on a very important issue, but because you have that history of trusting it, you can still rely on that and be be okay without bringing some issues, but but the road to getting the full trust of the public and our citizens will be a long, windy road.

David Mantica--Co-host!!!: Yeah, absolutely. It's so interesting. When's going to be the 1st lawsuit based on AI making a regulatory decision. You know. All right, AI, we're going to sue AI for that

decision right? But you know that's where we should go, you know, and also with the Go ahead.

Michael Wolf: Yeah, you withheld medical or didn't do this kind of funding.

Michael Wolf: Those are the kind of decisions that are being made. And how do you?

Michael Wolf: How do you do that.

David Mantica--Co-host!!!: But then Michael Michael had a great use case around taxes.

David Mantica--Co-host!!!: I mean AI could be done wonderfully to cut back the effort.

David Mantica--Co-host!!!: the frustration, the cost for the for Us. Constituents to do our taxes.

David Mantica--Co-host!!!: That'd be a really interesting one. Well, I mean, I greatly appreciate this. Go ahead, Michael.

Michael Wolf: Yeah, that was, actually, I've heard some country requires that when you write a law that requires taxing of people, you must write the software and make it freely available to the citizens to be able to comply with that.

Michael Wolf: It's a it's a cool structure.

David Mantica--Co-host!!!: This has been fantastic. So it's interesting to hear some of the adoptions what people are doing, you know where the best practices should be, and then some of the challenges that are faced out there. So thank you so much. Awesome.

Taher Jamshidi: Absolutely thanks so much for having me. I look forward to seeing some of these generative AI making a meaningful difference in the public sector.

David Mantica--Co-host!!!: Yes, I look forward to it as well. I can't wait to see it

## **Unleashing Digital Twins to Power Operational Excellence - Michael Schank**

David Mantica--Co-host!!!: fresh off a presentation at a conference in New York City.

David Mantica--Co-host!!!: I don't know if I want to talk to somebody who's from New York City, but I guess I'll accept only kidding fresh off a presentation in New York City. Jumping into the concept of digital twins.

David Mantica--Co-host!!!: We want to introduce Laura and I, Michael Shank, Michael, the floor is yours.

Michael Schank: Right I I get. I get cleanup for the day. I love it.

David Mantica--Co-host!!!: Yes.

Michael Schank: All right. So thanks everyone for joining. And and as David will attest, this is one thing I probably chew his ear off

Michael Schank: about most, because I think it is super powerful. And I think it is the future.

Michael Schank: So it's unleashing digital twin for an organization to power operational excellence. And I just want to comment on this this picture real quick. When I think of this topic, I think a minority report where he's got the screen, and he could see everything going on in the future, their whole pre-crime thing. And and I think that's kind of the the right visual to keep for this. I think it's.

David Mantica -- Co-host!!!: Home.

Michael Schank: It's a fascinating topic. Yeah.

David Mantica--Co-host!!!: We had the same picture from another presenter. I'm gonna see if anybody can figure out who had it. And the Minority Port thing was actually talked about. Keep going.

Michael Schank: Well.

David Mantica--Co-host!!!: Yeah, I loved it. I love it.

Michael Schank: Not unique. Then

David Mantica--Co-host!!!: No, but it's cool.

Michael Schank: So unleashing digital twins. So a digital twin of an organization, I think, will revolutionize how organizations run. And the one thing I want you to take away from this is that. And it's not necessarily a new concept. It's a concept that has its roots in manufacturing because it's a physical environment. You map out what your factory does, and you use that to teach AI about the different nuances

Michael Schank: of your processes. But I think it's a new concept in the non-physical space. And I came from banking. So it's all kind of back office processes. So the one thing I want people to take away from this is that I think understanding your processes is a critical foundation for unlocking this ground.

Michael Schank: breaking potential. So just 3 things that I'll I'll go through here is is just a little bit of description of what a digital twin for an organization is, and how it can power operational excellence. What is? And then, second, how do you build that that process foundation to to capture this potential? And then a little bit about the conceptual architecture for actually building it

Michael Schank: alright. So a little bit about me. So I

Michael Schank: I had my roots in consulting, so I started. I had 13 years at Accenture, 10 at Ey. I did a stint at Bank of America for a couple of years, and then I was the head of process excellence for the Us. Retail bank at Citi, I started at Accenture is purely technology based. So I was a Java C plus plus programmer. I was a solution architect.

Michael Schank: I led large development programs. But then, when I went to ey, I started to get away from technology. And I got introduced to this topic called Business Architecture, where you map out everything that an organization does. And I thought it was just. It was a epiphany moment for me, because as a technologist, I really didn't have any idea what the business did. My focus was on delivering quality code, making sure

Michael Schank: it's on time. It was defect free all the things that a technologist thinks of, but when you really, you know. But but then, as I kind of progressed in my ey career, I branded myself as business architect, and I realized that

Michael Schank: it doesn't go far enough that you have to go into process. But I would go into many organizations, mainly financial services, and I would

Michael Schank: I would come across chaos and complexity that always held organizations back. And I just I as branding myself, I kind of developed this framework called process inventory, and I realized that it worked in every scenario. So defining a transformation strategy for an organization defining your your target state architecture doing risk management, really, everything.

Michael Schank: So I left the corporate workforce in March of last year, and I followed my calling, which is to write a book called Digital Transformation Success. So everything I talk about will be detailed in that book. I'm not here to sell you a book. I think it's more about the concept. But if you do like the concept. The book is there.

Michael Schank: And I also have my own. Consulting company where I help organizations stand up a process based capability and and build the process inventory and then utilize it for things like, I'm gonna describe here. And I'm rolling out a training through through

Michael Schank: David's company in early December, so I'm looking forward to.

David Mantica--Co-host!!!: Gills or soft Ed, whoever we call ourselves.

Michael Schank: You're chirping me up on the name, since you since.

David Mantica--Co-host!!!: It's crazy. Now, it's skills development group. That's what we changed to.

Michael Schank: Yeah.

Michael Schank: So so current state of AI and I, just, you know, obviously, you probably heard a bunch of that throughout the day, but, you know, reach, you know, organizations are still trying to grapple with how they do it. Obviously, how do you wall off the data? What are the regulations about it start thinking through the use cases.

Michael Schank: And and there's a lot of investment being put into this. But I I pulled this list of use cases from Ibm, and I think it's a probably maybe it's not a complete representation, but it's a good one. Obviously, Gen. AI could do code generation. It. It knows syntax of different coding languages. It could create it. It could help with product development sales and marketing, specifically looking at customer data and hyper personalization of communications and reach out

Michael Schank: project management generating, based on maybe past work, what the efforts are and laying out project timelines.

Michael Schank: graphics and video designs. I won't go through the full list. But I think if I was going to characterize this, and and hopefully, I'm correct in this characterization, I think it's still on the periphery of processes like you could build Gen. AI engines that take in a lot of information like procedure documents and

Michael Schank: job aids and training. It could help answer questions. You could do chat bots, but it's still not integrated into how our businesses work day to day, and I found this survey, and Deloitte creates this quarterly Gen. AI. Report, and I thought it was fascinating because it speaks to kind of the thesis that I'm saying here, which is, I think, organizations, and you could see the top

Michael Schank: thing that people are looking for is, they want to deeply embed Gen. AI into their functions and processes. So I I think that's kind of exactly what this whole topic of digital twin does.

Michael Schank: So what is a digital twin, a digital twin of an organization is a dynamic virtual representation of an organization's process assets, people, systems, data. It's really a way to educate AI on everything your business does and all the resources that go into it. But then you could. So you create this model. And then you feed that model into a digital twin AI engine

Michael Schank: and then then you feed it. Some some data about how your how your processes work, real time or or whatever. But you could see. I put on the left hand side just just so you could understand kind of where this thing is. It's not necessarily a new concept, but I think it's new in the non-physical space.

Michael Schank: But the digital twin market is expected to reach 183 million, a billion by 2031, which is a growth rate of 41%. So it's a massive

Michael Schank: massive space and a massive opportunity. So what what can a digital twin do for you. It could help data driven decision making. So we could take all that information I mentioned about you know.

Michael Schank: what? What is the best way to answer a customer question, and it could help you do that. Also. It could give you information about how your organization is working. Maybe compliance or any other factor where there's where there's cost

Michael Schank: inefficiencies, etc. So it could give people armed with data that's analyzed by AI help them make better decisions, predictive analytics. So it could look at trends and start to predict how, where things are going to break before they break before there's impact to customers or other stakeholders.

Michael Schank: you could do simulation. So instead of spending a lot of money and saying, What if we got rid of? Maybe we sold off this

business, or we got you know, we we slim down to maybe one erp system as opposed to 4. You could really run all those simulations and understand the metrics and benefits and some of the the consequences of it, and then obviously real time monitoring. So if you're feeding real time monitoring information to this. It could.

Michael Schank: It could really tell you where the Hotspots spots are. Generate generate kind of dynamic heat map analysis really give people a transparent picture of how the organization is operating

Michael Schank: so a little bit about operational excellence. And I just want to touch on this. Just so we're we're grounded in a definition. And I use the definition that operational excellence is really about consistent execution, optimal performance and efficiency across all levels of operation

Michael Schank: in a way that leads to potential sustainable growth. And I think there's 2 parts to that. There's below the line efficiency. So how do you increase efficiency like lowering operating costs, reducing complexity in your environment, making sure that you have higher quality and everything you do for your customers

Michael Schank: and every other stakeholder getting stronger employee engagement, so greater accountability, for you know, understanding what people's roles are giving them

Michael Schank: latitude and autonomy to drive innovation in their own role, greater retention of talent, risk management. And that was the the talk I just gave on on how this process framework drives better risk management. But it's a big problem, especially in financial services industry where there's a lot of fines. I just saw. Td. Bank was fine. 3

Michael Schank: 1 billion dollars for anti-lenney monitor

Michael Schank: anti money laundering and bank syncresy act violations over a many year period.

Michael Schank: but but getting that strong so that you don't have those large regulatory fines. So you don't have those issues that impact customers, or even like the 2,008 mortgage meltdown that impact potentially the global market and data decision making data driven decision making. And then there's the above line growth, which is, how do you know, understanding what your customers experience

Michael Schank: from a day to day perspective? What are the moments that matter for them. And how do you deliver a greater experience for them? Because, you know, customers can vote with their feet, and they have a lot of latitude to go to your competitors. So it's important, you understand who they are, what they're looking for and deliver that experience and then drive business growth. And I put kind of straddling. The line is scalability and agility, which is the external market, is changing

Michael Schank: on a constant basis. So how do you get to shorter time to market. Take the complexity out of maybe your it environment so you could deliver change in matter of

Michael Schank: weeks as opposed to months or years and then re reduce the cost of that change. So really, what that looks like is consistent execution aligned to purpose. And I think alignment is a very key concept, a culture of continuous improvement, that kind of talks to the employee, engagement, cross functional collaboration, making sure that everything's transparent. You're you're breaking down silos and then the effective use of technology.

Michael Schank: So what does that mean

Michael Schank: for for each of the various ways that you drive operational excellence? So a couple of different scenarios here. So one is defining your strategy and understanding the impact. Every organization when they go through a strategy. You know you have your vision mission, your your your purpose statements. So that is typically

Michael Schank: somewhat stable. But you have to look at the swot analysis, your your internal environment. What are your strengths and

weaknesses? What are your opportunities and threats from an external perspective? If you could understand and have AI kind of understand everything that your business does, and then you feed it. Data around performance of different processes or performance of our own different groups. You could generate real time information

Michael Schank: where the the weak points are where the threats are, and then ultimately getting to objective portfolio investment. So understanding precisely where you need to invest your money so that you can remain competitive.

David Mantica--Co-host!!!: You have this

David Mantica--Co-host!!!: digital thing. That is your organization's processes. It is your organization. It's like a digital coo

David Mantica--Co-host!!!: business architect. And all you're doing is asking it questions. What happens if I did this? What happens if I did that.

Michael Schank: Exactly.

David Mantica--Co-host!!!: All right. Keep going.

Michael Schank: Yeah. And yeah, and that that's how it's used in the in the manufacturing spaces you have, you know, the whole model laid out, and you get things like IoT information. And you get to know where their bottlenecks in your process line, or where do I maybe have quality issues that I need to address, etc, etc, so absolutely

Michael Schank: from the change process perspective. Once you understand all your processes. Now, you could say, I need to make a change. And digital twin for the organization could potentially tell you where are the impacts so that you could precisely understand what processes need to change, to deliver that. It could even help you write, you know, down to the process.

Michael Schank: how does that process need to change? What are the requirements and really everything from an Sdlc process perspective, it could pinpoint what people need to change. And how do you deliver

the right procedures, the right job aids and training so that they're educated on what the new process looks like

Michael Schank: from a transformation perspective. And this kind of goes to a strategy to impact. But it could help you define what is my transformation strategy. And there's a whole bunch of them from mergers and acquisitions and technology transformations and and cultural transformations. The list goes on and on, but really informing you on what it is we need to do to change

Michael Schank: kind of profoundly across the organization, help you create that roadmap

Michael Schank: and help you manage the journey from an operational excellence perspective. So since it has an information about your entire environment, it could help me understand. Where do I have waste and inefficiency across the board so it could help you. And that's obviously it's a big topic with some of the

Michael Schank: economic challenges going on today. There's there's been a lot of layoffs with a lot of companies and some. Sometimes it's not a very precise or scientific way in terms of

Michael Schank: how headcount reductions are identified. And I'm not. This is not just about headcount reductions, but it's more about, how do you optimize cost in a way that

Michael Schank: you're in line with expectations from a cost perspective. So it could tell you where you maybe have too many people. Or maybe you have

Michael Schank: 3 organizations doing the same thing, and maybe I should drive to a shared service, or maybe I should drive to

Michael Schank: A, you know. Maybe outsource it completely.

David Mantica--Co-host!!!: So a couple couple of thoughts. The thought number one is, does a digital twin allow outside information to augment the inside information to find potential. Hey? You're not seeing it this way. Where you just really talk. Okay, you can bring in the outside information.

Michael Schank: Yeah, absolutely. I mean, and risk management is a great one. So the you know, a lot of organizations, especially, that have a regular large regulatory obligations. Those regulations are external. You have laws, you have regulations, you have industry standards, you have internal policies, and those change on a daily basis. And what organizations do a lot of time

Michael Schank: times is they do maybe use AI to do a horizon scan so they could understand all the changes that are happening on a daily basis. And then they could take that kind of working with the digital twin to analyze what those new regulations are and then map them to business processes, so that you know exactly what those business processes need to do from a people or technology perspective to remain compliant so absolutely, it could take in competitive information really any kind of external information

Michael Schank: that that's appropriate for your scenario.

David Mantica--Co-host!!!: So you know, you're gonna you know, you're gonna get this next question, yeah.

David Mantica--Co-host!!!: level of effort.

David Mantica--Co-host!!!: level of effort to create a digital twin to maintain it. And remember one of the 1st things I'm gonna present to the group. You don't have to do this just at the company level right.

Michael Schank: Oh, no! No!

David Mantica--Co-host!!!: So go into your go into your thoughts on that one.

Michael Schank: The level of effort relative to the benefits. I think it's a

Michael Schank: low level of effort, and and I have a slide that will that will talk about this in fact, I'll maybe I'll jump ahead to it. So

Michael Schank: I'll I'll jump back to it. So how do you create this digital twin. So process? Well, actually, no, I'll go back.

Michael Schank: So in order to create a digital twin, you have to understand the concept of systems thinking which which really states that our organizations are extremely complex, and they're made up of

Michael Schank: of thousands or tens of thousands of parts. If you think about people and technology and data and 3rd party vendors that support us, etc, etc. So it's really understanding what are the relationships between all of those parts. And how do you model those? Because those relationships are key to understanding performance. And

Michael Schank: the the key part of this diagram on the right is, you need a ground truth. And and I always talk about Google Maps is a massive data integration project. Because you have

Michael Schank: restaurant information. You have satellite data you have on the ground data. You have track, traffic information, and much, much more. We have to resolve all that data to a ground truth. And Google actually has a team called ground truth that does this, and it actually takes a lot more manual work than you would think. But their ground truth is obviously the physical address. So they have to resolve everything to the physical place and make sure that that's accurate, because that's what people rely on to get to places, or

Michael Schank: to understand where their favorite restaurant is. Well, in an organization. That ground truth is process, because process is kind of the start of of why you do everything. You don't buy an accounting platform unless you have a need to drive to create financial reports on what you do

Michael Schank: and then you hire a Cfo and other accounting people to do that. So if you understand your full process environment, you can understand all your organizational knowledge, and you can connect the

dots, to to have a transparent understanding of how everything works together. It creates a common language to facilitate alignment across strategy and execution. So

Michael Schank: from vertical strategy, the leadership of your organization all the way down to

Michael Schank: your your ground level practitioners all on the same page, and understanding what their role is to change. The organization breaks the silo, and that's horizontal alignment. So that your business teams talk to your technology teams, your risk teams, your data teams, everyone speaking the language.

Michael Schank: So in order to do that, you need to create a process inventory. And that's kind of the whole concept. Here is I create a process inventory, and that's just a full taxonomy. But it's got to be comprehensive. It's got to capture every process your business does, because any gaps will leave uncertainty depending on what you're trying to do with it.

Michael Schank: It's got to represent different levels of granularity so useful from for c-suite. And David, I'm gonna get your question from the C-suite that's driving strategy and making decisions all the way down to the lower level practitioners. It's got to capture each unique process within each organization. Unit.

Michael Schank: So.

Michael Schank: And you know, when I was at city, what the mortgage organization did was much different than credit card, which was different than retail banking, etc. So you need to understand all those those nuances and idiosyncrasies you have to have clear ownership and accountability. You need to understand, especially if you're driving standardization. Where? What's the

Michael Schank: the? Not only the dictionary of processes, whatever? What's every process that I run, but what's the the source, so that I understand like processes. And I could drive standardization and and commons and driving common implementations across and then align with

key data. And you could see in this diagram on the right each business unit you drive down to a taxonomy of processes. You could align ownership to it, and you could align all your data to that as well.

Michael Schank: So this really gets to your question, David, so how do you construct it? And there's a lot of AI automated techniques. There's there's a process mining

Michael Schank: which I think is all great, and it should certainly mine all the information in your organization. But there's a couple of problems with that so process mining, I'm a huge fan of. But there's 1 thing process mining will never give you. And that's business context. It could just tell you what some log file says in a system and create a process.

Michael Schank: We all know with the AI could scan all your procedure documents and your roles and responsibilities and everything else. But the problem is is those it'll get you a good start. But those aren't necessarily constructed with complete data and are and are consistent across. So ultimately, I think you, you do all those things. But if you want to drive ownership and and completeness with the organization. I think I still think you want. You need to talk to people.

Michael Schank: And what that means is, you start an interview process at the head of a line of business, and you ask a simple question, what is it that you do, or what processes do you own? And you take those answers and you turn them into verb noun process names, and you structure this taxonomy aligned to your organizational structure. You do this, and then you ask their teams what they do. Yes, their teams, what they do until you feel like you have the right level of detail for what

Michael Schank: processes are in your environment. Then I do a bottom at a station, because if I'm going to ask somebody to own a process, I need to give them an opportunity to say, yes, that's right, accurate and complete. And yes, I'm the owner. So I go start bottom up. And I say, do you agree that this is an accurate and complete representation of your processes. I get them to sign off via

Michael Schank: a formal email, a workflow. But some electronic signature that's saying, this is accurate. I go to their leadership, and I do the same thing, and I go to their leadership so that everyone up and down the chain says this is the right level of process.

David Mantica--Co-host!!!: This is a very human driven process to get electronic.

David Mantica--Co-host!!!: because that's probably the only way you can make it happen.

Michael Schank: For sure, I think. For now, yeah, I think once you do this, a couple iteration, a couple of iterations. Well, one other question that that I always get with this is my organization changes all the time.

Michael Schank: And I think that's a great question, because you gotta care and feed for this thing so that it remains accurate. So you do need a centralized process. Capability that will go out to the organization on a periodic basis and say, is this accurate and complete? But you also need to use it. And I think that's the other way. If you use it and build your digital twin off it, use it for strategy if you use it for change management, if you use it for risk management. The more people that use it, the more

Michael Schank: focus there is on creating this. But I think, David, to your point, once you create it and start orienting all your documents around it, then AI could certainly be a great engine for keeping this up to date, but certainly the 1st couple iterations you're going to have to do a human driven process.

David Mantica--Co-host!!!: Interest. And then what's the other thing? I had one other.

Michael Schank: Level of effort, for.

David Mantica--Co-host!!!: Yeah, we got that one. But tooling.

David Mantica--Co-host!!!: Are you going to talk a little about tooling as a how? Okay?

Michael Schank: I will. That'll be at the end.

Michael Schank: you know. But back to the effort. The one thing one thing I want to just highlight is, there's a separation between having the process names and the process models itself.

Michael Schank: So when I was at Citi, I estimated for the Us. Retail bank, and before I left to write my book, I probably covered about 70% of the process inventory across the organization. So I extrapolated that out. And I estimated there'd probably be about 10,000 processes.

Michael Schank: I would never advocate that. You create 10,000 process models. I just don't think

Michael Schank: you would get the benefit from it, and I think it would take forever.

Michael Schank: But getting process names alone is valuable, because now you have the connection of what you do, the definition of it who does it, and then all you can map, all your you know, all the appropriate resources to it, and that is a very low level of effort relative to you know.

Michael Schank: you know what the benefits you could get out of this. So I I think it's

Michael Schank: You know, I think I took to create 70% of the process inventory for city. It was about a team of 5 people just having a very rigorous structured approach and being efficient. And how they did this interview process

Michael Schank: one other thing. And and if you guys are process people, you know that there are a lot of different models out there from value streams and customer journeys. And I'm talking about process taxonomy. There's capability models, processes, etc.

Michael Schank: It's important that if you're going to create this and create a digital twin that you got to be focused on creating one unified model of what your organization does. And to David's point,

this, this may sound scary and overwhelming, but you do not have to do this at a full enterprise level. You could do it for one business unit and then scale from there. Once you have some wins. But ultimately you're going to to want to use these different model types and think through how they connect

Michael Schank: so that you could show people. Here's the N 10 view of my processes. But now I could drive into specific organizational processes, and maybe the details and the data that's associated with it. And it's really important that you think through kind of how you use these different model types and and drive that that one unified view of what your organization does

Michael Schank: last point here. And and I think this is a critical one, especially as it comes to digital twins. There is a lot of operational data that our organizations have. So we we all have. Hr, our organizations have Hr systems which cover our people information and how we're structured, and roles and responsibilities and

Michael Schank: and things like that. And we have system repositories that capture all the technical details of what our platforms are, on, what coding language. It's on where it's deployed, etc. We have risk repositories which define our risks, our controls, our monitors, our regulatory obligations

Michael Schank: are disruptive events, from an operation, resiliency, perspective data, product, catalog, etc. The problem is this, data right now is not connected. And if you had to do an analysis or a root, cause deep dive into a specific problem. You would have to spend 3 months doing a current state analysis to understand how that works.

Michael Schank: But if you could take that that data. Now extract it. And David, this gets into the tooling aspect. A business process, analysis tool

Michael Schank: and a lot of these tools have really good capabilities around ingesting data and then doing mapping data. But you create your process taxonomy in that data and process models.

Michael Schank: If you're creating those now, you take the data. And that's what shows in this example. Here, I could take my system repository data. I could load it into a system library. And then, when I'm creating process flows or identify a process, I could say, Oh, the credit request system supports the send quote activity. So now, ultimately, what I'm doing is I'm creating a single repository that has all operational intelligence.

Michael Schank: So I could slice and dice

Michael Schank: the environment and understand how everything connects, and that is very critical for for creating a digital twin

Michael Schank: ultimately. And I kind of spoke on. This already is, if you're going to do this, you need to maintain this information. And that means creating a process, capability, a process center of excellence, or whatever whatever you're creating.

Michael Schank: but that that ultimately, that starts with, you know, you have to do these 5 things to be successful, and I always advocate. You have to write it down on a playbook so that there's clarity across all the stakeholders that are involved. But you have to define your process strategy. That strategy has to be in context

Michael Schank: with the overall organization strategy. But you have to define what the vision and mission of this process framework is, and how value will be delivered across a lot of different use cases you have to divide, define your frameworks and standards, and that goes to that one unified model. But you also need to define

Michael Schank: models in such a way that it's consistently built across organizations, so that your stakeholders understand what they what they do and or you know what that process describes. But then, also, AI has a consistent language and data quality for doing it, your value cases. So and this goes to your digital twin as well.

Michael Schank: what use cases are you doing? And that's really going to define what models you're creating, what data you're going to feed into it, your people operating model, both internal to the process

center of excellence and then external. So things like, what do, what's the role of process owners and the various stakeholders for your use cases and then tooling, which I actually, I'll I'll get to in a subsequent slide.

Michael Schank: But in that, in that process, capability, there's a couple of roles that are important. The 1st one is your Coe leadership. As David, you pointed out, this at least initially, will be a somewhat manual exercise, at least to create the virtual model of your organization. So you're going to have to have somebody that has a

Michael Schank: that has a commitment to this process concept that has a commitment to quality and making sure that you're keeping this repository up to date. They also have to be an internal salesperson within your organization

Michael Schank: that is getting everyone on board with this process point of view

Michael Schank: and building and and enabling your you know the build out of your of your digital twin.

Michael Schank: You need modelers to go and interview the business and make sure that they collect all this data and really create that one operational intelligence platform. You need to maintain your standards. You have to govern your assets to make sure that it always reflects reality and is of high quality. And then you have to manage your platform and data. That means managing

Michael Schank: the the quality of the models within the the platform, but then also doing periodic feeds of of this operational data, and then doing your dedupes, etc, so that it always maintains a reflection of reality.

Michael Schank: Let me pause here. Any other, David, are you seeing any questions in the chat.

David Mantica--Co-host!!!: Well, you know, it's like you always say in here, right? The 1st concern is effort, right? Level of effort. Right?

David Mantica--Co-host!!!: You know. How can I do this? How is it going to be possible? I think the second question really forms the line. It's a data flow more than processes. Does the data tell you more than the processes tell you so. I'd love to get your thoughts on that, because I've been sharing back and forth with somebody there.

David Mantica--Co-host!!!: I think you know, that's some of the key thoughts. Here is that

David Mantica--Co-host!!!: effort

David Mantica--Co-host!!!: in turn, having that digital trend magically. I think everybody wants that like, if you can have that.

Michael Schank: Right.

David Mantica--Co-host!!!: Now, crap, I mean, it'd be amazing. But yeah, give me give some thoughts on the data side versus the process side, and then give your dig in a little bit more as your thoughts about

David Mantica--Co-host!!!: overhead, and how to make this happen.

Michael Schank: So so from a data perspective.

Michael Schank: you know, there's there's 2 key concepts in data management data at rest and data in motion.

Michael Schank: So let me pick on data in motion. There's 2 ways data travels. One is through your business processes. So your people are executing some process they're under. They're reviewing or underwriting a loan application, or they're processing a payment. Or they're.

Michael Schank: do you know, onboarding some customer? Well, that there's a lot of that data that goes through the different activities of those processes. And if you did detailed data modeling, you could understand the data that goes from one activity to the next. And then you could compare that to maybe a conceptual data model. And you could

load into the platform so you could understand what different types of data, and you could tag it as maybe

Michael Schank: personal identified information like social security, etc. So that's kind of the business process movement of data. Then there's the back end movement of data. So I have a batch job that kicks off at 2 am. And it moves data from this platform to that platform. And it goes to this data, transformation, etc, etc. So this really probably more, speaks to the the former, the process side of it. But there is a tie to the to the other side of it that

Michael Schank: you know. Ultimately, if you go down to my from a process perspective, you go down to the lowest level of process. Ultimately, you're going to have an activity that says, click a button, or do something that triggers an interface.

Michael Schank: You could take this concept. And now go from your business process modeling to your system interaction diagrams where you show that the swim lanes are no longer people actors, but they're system actors. And I could show what Apis are being invoked, the flow of data from different applications, the business logic where transformation happens.

Michael Schank: and and that, you know, is not only just triggered in business process, but that could be triggered in the the batch job that I mentioned as well. But if you could if you could, anchor all of that understanding of how data flows

Michael Schank: to the context of your business, which is process inventory of your business or your process taxonomy. Now you have a platform to educate your digital, your organization for how everything works. So the effort question I think it really speaks to.

Michael Schank: I really talk about how you create the the process inventory, and I think it's a really low level of of effort. I would just to kind of further on that, though I think the other point I would. Stress is if you're creating a digital twin, I would not tackle the enterprise. I mean, obviously, that's overwhelming. I would start with

Michael Schank: one business unit, one, maybe challenging pain point. And when I was in banking payments was always an issue. It's always complex. There's a lot of regulatory oversight, etc. So if you map that out

Michael Schank: rated the digital twin, identified your data feeds, and then you could start to show people, and obviously kind of as a, you know. Just watch and learn right now, you're not necessarily making decisions. But you're start to evaluate the the answers and the insights that the twins giving you, I think you know. Certainly it'll take off in terms of the potential it has for managing your.

David Mantica--Co-host!!!: Yeah, it's almost like everybody knows if they had it, what they could do with it. It's a matter of being able to help somebody digest how to build it.

Michael Schank: Exactly. Yes.

David Mantica--Co-host!!!: Keep going, brother.

Michael Schank: All right, I'm gonna yeah.

Michael Schank: I'm going to skip these for now. But I'll come back to them if it if it's appropriate.

Michael Schank: Okay, so the conceptual architecture. So

Michael Schank: really, what what you need to do is you need to create the process modeling information that I talked about through predominantly the the interview process and then your operational data. But you put that in the business process analysis tool.

Michael Schank: And ultimately you need to extract that information in your digital twin software. And so that's just creating the model of your organization and feeding into digital twin. And there's a lot of platforms for digital twin. I just wanted to point out that you see at the bottom, and I'll point out the different vendors for your business process analysis tool.

Michael Schank: But a company like software. Ag has invested a significant amount of money and effort. And a lot of these platforms are are investing in this and creating the

Michael Schank: their digital twin framework. And they have a a data. And it's it's escaping me now. But they have a way to extract the information in a digital twin type language you could feed into that that model.

David Mantica--Co-host!!!: So what you get, what you're getting at here. And I think people are starting to see it is that that you put input it into the tool. The tool now can operate much like a Gen. AI environment as you can start

David Mantica--Co-host!!!: talking to

David Mantica--Co-host!!!: your twin.

David Mantica--Co-host!!!: Yeah. And then, as their AI environments get better, they can start bringing in

David Mantica--Co-host!!!: other stuff.

Michael Schank: Yes.

Michael Schank: yeah, you're just modeling. You're modeling what the organization looks like. And that's what your process tool is. And then you're using that to educate your AI digital twin image engine on how things work.

Michael Schank: Right? So that's just the building, the the model of the environment itself.

Michael Schank: And and then this next slide goes a little bit into some of these business process analysis tools. And I put some images on some of the leading ones. I'm not making any recommendation on which is the best, and and I probably wouldn't even make a say that this is necessarily a complete list. But there's software. Ag Eris, there's Gb, tech, mega graphic signavio evolution abacus biz design.

But what these, what these platforms do is it allows you to model the environment

Michael Schank: they have process mining. So I think it's a good thing as long as you give it business context. But it could look at the log files that are generated by your systems and really give you insight into what is happening. It could generate some process, flows, etc, could do all the data management that we talked about process analysis. And you know, the big thing is impact analysis. The what if statements on what if I change this? What if I change that really understand

Michael Schank: all the impacts across the board, reporting governance, etc. So this is a relatively mature market, and these tools have a lot of good capabilities.

Michael Schank: Then the the last one is really the the data Orient, the operational data capture. So now, once I have this, I could take data from all different inputs. And hopefully, if you.

Michael Schank: you take the time to create a consistent labeling schema. And I think that's that labeling schema is process names. But you have maybe process and and task mining

Michael Schank: information. You have your transactions, processing systems, you have your issues, you have your customer complaints, your Grc risk data, your regulatory reporting. You name it. If you start. If you feed all this into your now your digital twin, it could do analysis on all the different nuances of how your business works.

Michael Schank: and I just put some of the some of the sample metrics on the right. Improve your customer experience. If you understand, maybe you do a customer journey tied to your specific processes that support it supplied to data. Now we could look at, where do I have maybe from a predictive analytics standpoint. Where do I maybe have some customer touch points that are a problem.

Michael Schank: Maybe before they actually impact the customer. Maybe it could zone in on what is exactly the software code and give you the new code so that developers can implement it could do operating

efficiency, improve quality. Understand? Where there's challenges in your software and your people processes improve your time to market.

David Mantica--Co-host!!!: I really love this from a marketing perspective, Michael. Like, if I was a Cmo. I could put my process, my marketing processes into my into the framework, put the digital twin out, and I could start pounding it.

Michael Schank: Exactly.

David Mantica--Co-host!!!: And I could add some marketing best practice information into the system I can. I can look into like some information, maybe, on you know how how to deal with better, with programmatic and all these other things, and then we can start pounding and see how our marketing team could perform better.

Michael Schank: Exactly. Really. Any team. Your operations team.

David Mantica--Co-host!!!: Yeah, yeah, I got it from marketing. Just to think I got a strong marketing background. I'm like, Wow, I could see. Now, yeah, what would happen.

Michael Schank: What's the lab?

Michael Schank: Yeah.

Michael Schank: So let me pause here. Are we getting any other questions, David?

David Mantica--Co-host!!!: No, we just. We're getting a lot of comment. Comments back and forth about the recording and the session breakout and all that good stuff.

Michael Schank: Okay. But.

David Mantica--Co-host!!!: Does anybody have any questions for Michael? I think ultimately, too, you know this type of thing, you know, it's something that you really have to no pun intended process.

David Mantica--Co-host!!!: Yeah, I think about.

David Mantica--Co-host!!!: And this is.

Michael Schank: A lot.

David Mantica--Co-host!!!: It's a lot.

David Mantica--Co-host!!!: Any questions, comments, thoughts.

Michael Schank: Criticisms.

David Mantica--Co-host!!!: I think the big comment was, and you shared your thoughts of data flow versus process flow. Can you see? Can you see better watching the data, or you can see better. Knowing the processes.

Michael Schank: Yeah. And I think they're very complementary to each other. The the processes give you context from a business perspective, which is what's critical for for digital twin.

Michael Schank: The data flow is obviously important, too. I just gave a presentation on risk management, one of the especially from a non financial risk perspective. It's all about is my data accurate? Do I understand all the transformations and the hops? And so you need to understand the flow of data as well. But if you piece all those together, it gives you a full understanding of how your environment works.

David Mantica--Co-host!!!: Yeah, that's what's and any thoughts on where you've seen some execution.

Michael Schank: What do you mean by execution?

David Mantica--Co-host!!!: Of like, let's talk 1st on the process inventory, then, second, on

David Mantica--Co-host!!!: digital, the digital twin.

David Mantica--Co-host!!!: Yeah. So I'm doing it.

Michael Schank: Process inventory. I I'm helping a couple, you know, many different clients implement this. I think it's a a kind of novel concept and a lot of organizations, you know, part of part of what I'm doing is just trying to get people to understand the concept and realize that they need it from a digital twin perspective. I think it's still new, and I don't know of any solid use cases of people doing it in non physically tangible environments.

Michael Schank: As I mentioned this, the roots of this is in manufacturing where there's physical floors and physical space, and it's easier to to model.

Michael Schank: But but I think this is this is something that is up and coming, and I'll I'm certainly looking for a partner where I could build some

Michael Schank: pilots to really test this out.

David Mantica--Co-host!!!: Yeah, I mean, the thing about it is when kids and the my brain just fried a Kevia here talking about the business clone. It's a test dummy.

David Mantica--Co-host!!!: Yeah.

David Mantica--Co-host!!!: And Joel Barker and other thought leaders talked about the decision bubbles right? Where? Okay? You can sit down and think about decisions that you make, and what are other decisions that would happen from that? And you draw these bubble circles. And you do this. That's done this way much

David Mantica--Co-host!!!: more powerfully, because what we don't have is crash test. What we don't have is the ability to actually see 3 levels of head. But maybe doing this you can pound out. If I did this, what would be happening.

Michael Schank: Exactly it. It could give you all those. What if it could probably draw those

Michael Schank: those thought bubbles, you know, for you, and give you all the insights that you need.

Michael Schank: Yeah.

David Mantica--Co-host!!!: That's it would give you all the. There's a good chance it would, and then use AI to help the brainstorming process. And, as you said, you're using AI to help

David Mantica--Co-host!!!: augment and and add the additional logic about what should be happening.

David Mantica--Co-host!!!: Yeah.

Michael Schank: That's right.

David Mantica--Co-host!!!: Any other last point you want to share, Michael.

Michael Schank: Yeah, I think, just.

David Mantica--Co-host!!!: Hired people.

Michael Schank: Yeah, it's been a long day. But but maybe just on score underscore 1 point, I think it speaks to the benefit, and I always talk. And this is a ubiquitous kind of stat within. The transformation kind of community is that 70% of transformation fails.

Michael Schank: transformations fail.

Michael Schank: And there is a lot of money, and I forget the exact stat. But it's like 3 trillion dollars, or something like that that is spent on transformation. So I think, while the effort it does take some effort, it does take some leadership commitment to do this. I think the space in terms of the potential benefit is just massive.

David Mantica--Co-host!!!: Yeah, you know. And I just keep.

David Mantica--Co-host!!!: I just keep thinking about how larger and larger companies are failing faster in change. And it's the unicorns of the myopic focus, who just happen to get lucky that can then jump and beat them.

David Mantica--Co-host!!!: and a lot of it has to do with. You know, Michael talked about the blockbuster scenario. You're eating your own dog food. You don't know what's going inside of your company. You haven't pounded that, and so you can't change fast. You can't transform.

David Mantica--Co-host!!!: you know, even transform at the product. You do, you can't. You certainly can't digitally transform. You might do it at a group level.

David Mantica--Co-host!!!: the department level. But until something like this happens, I do think it's just going to be the world of the Mag, the Magnificent 7, which is what the S. And P. Is driving right now, and upstarts blowing away standard companies, and a company like GM. Can have a market cap. That's

David Mantica--Co-host!!!: what like, I think Nvidia's market cap is like 15% bigger than GM's. I mean, just think about that. I mean so. And I know they're 2 different industries. But you know, why wasn't Intel. Why isn't Intel doing the same thing that Nvidia is doing right now?

Michael Schank: Exactly.

David Mantica--Co-host!!!: Let's talk about that. I mean, that's what you're getting at here.

Michael Schank: Yeah.

Michael Schank: yeah, so I think.

David Mantica--Co-host!!!: Eating up to waste.

Michael Schank: If you if you yeah, I mean, I think this gives a opportunity, especially the the young startups. Or, you know, companies that are have visionary. They could leapfrog the competition because they could do things faster.

David Mantica--Co-host!!!: What's happening. This is what's happening. And they're just blowing them away. And then, because a lot of kinds of companies don't know what's going on in their company. Yeah.

David Mantica--Co-host!!!: they don't know their true capabilities and the the weakness of the poop, Emoji. But anyways, that that's what gets me when I start seeing this, it starts. It starts showing me a picture that you can use to catch yourself

David Mantica--Co-host!!!: and maybe do that pivot faster.

John Ruppel: Michael, it's John. Can I share a conversation we had with Ken, you and I about this?

John Ruppel: I think it helped everybody. So what what David, what you just triggered on was really interesting for me, because

John Ruppel: we, Dr. Ken and I had this conversation with Michael.

John Ruppel: the other day, on reviewing this presentation, and it goes back into the whole adoption thing is that leaders are so reactionary because they don't have foresight to lead ahead, and what Michael's shown them here is he's given them a blueprint for how they can actually get ahead. And what you guys just said leapfrogging, yeah, any organization whose leadership is going to get on board with this.

David Mantica--Co-host!!!: Because here's the problem, leadership can't keep up anymore. The biggest biggest issue now is change is so rapid.

John Ruppel: Exactly.

David Mantica--Co-host!!!: Unless you have really good technologists, or you have really good vps or keeping their eyes afloat. Leadership is just focused on shareholder value and shareholder needs.

John Ruppel: That's right.

David Mantica--Co-host!!!: They aren't looking at what's going on, I mean, HP. Is the best story about that Mark Herb. When he ran it he

was a darling focused on sales, and he cut the R. And D. Budget to next to nothing. And look what happened to HP. And the story of the S. And P. Is so strong. Companies used to last on the S. And P. 30 years. On average, a company lasts on the S. And P. 10 or 11 years now.

David Mantica--Co-host!!!: and it's all boils down to John. What you were just saying.

John Ruppel: And it's the flow value right? If you combine this with the context of flowing value, and you push everything out to what I call the tip of the spear, which is out to where the customers are, where the decisions are being made at the lowest levels of the organization, where the action is taking place, and you have this type of infrastructure or way for the leaders to tie in and get their head wrapped around it. So there are servants now supporting.

John Ruppel: That's the model that wins today.

David Mantica--Co-host!!!: Also. This is a place where you can see where AI can help you. If you did, your process flows, and inventory for your Pmo. Then you can overlay that with where you can stick AI in and do so consistently. You know the debate George is having with. Do you standardize and scale. Or do you allow people to do their thing?

David Mantica--Co-host!!!: Brandon? Thank you so much, man, appreciate that share. I'm gonna pass it to Laura real quick, and then we'll have our closeout time. Go ahead, Laura.

Lara Hill: Okay, great. Well, I just wanna check in with Michael and see if this was your last slide, or did you get to

Lara Hill: point? Okay, great.

Michael Schank: Yeah, we're we're great. Thanks.

Lara Hill: Wonderful presentation. We all enjoyed it so much a lot of good feedback in the comments.

Lara Hill: I would love to continue this conversation, and we will. But before we do that I want to give one last. Thank you to all of our

speakers, to our sponsors, Mount Tam Innovations and AI search. Thank you for sponsoring. We appreciate you. We couldn't do this without you, and of course, thank you so much to all the participants. This, I hope, has been valuable for you. We really would love to have your feedback. I'll be sending an email with a link to a survey. This is really important to us that we hear.

David Mantica--Co-host!!!: Please.

Lara Hill: How this experience was for you. We read every comment, and we take it very seriously. So please do let us know.

David Mantica--Co-host!!!: Please, and then also with bad things, I mean, give us some thoughts on what we can improve upon, and we already see the break time, and then trying to break it out. We know that. But tell us that reinforce it. Please do.

David Mantica--Co-host!!!: Sorry, Laura.

Lara Hill: So with that, I'm going to stop the recording.

Lara Hill: and we will continue on.