

Weston Morris:

Welcome to the Digital Workplace Deep Dive. I'm your host, Weston Morris.

Weston Morris:

Chat GPT, DALL·E , Google Bard <laugh>. These are all examples of generative AI, and I'm sure you've heard these names before, where you're being flooded with information, and we might even say some misinformation about this emerging technology which seems to have the power to allow us to create new content based on patterns that it's finding and, and maybe millions of documents, images, and other artifacts that it's been trained on. So, I think it'll be a great topic for us to talk about here in the Digital Workplace Deep Dive and connect the dots. I think we've got some questions here about generative AI and what its role will be in the digital workplace. For example, how can we best take advantage of generative AI to improve the productivity and maybe even the experience of the workers that we serve in our various companies? And then with that in mind, we might be wondering about, especially with all the hype in the news, what are some of the pitfalls and dangers that this technology presents? And then lastly, as we think about using this next Monday morning, how can we get started with this technology in our own company? To help you answer these questions, I am thrilled to have as my guest today, Dr. Suzanne Taylor. She is the Vice President of Innovation and Emerging Technology here at Unisys. Welcome to the show, Suzanne.

Suzanne Taylor:

Thank you Weston, for having me.

Weston Morris:

Now, Suzanne, you and I have actually worked together for, for many years now, more than a decade. In fact, in 1989 while I was working on imaging algorithms at Unisys, you were earning your PhD in electrical and computer engineering. And I just recently learned that way back in the late eighties. You also were working with many of the algorithms that kind of formed the underlying technology in generative AI today. So if we knew how to do generative AI way back 40 years ago Suzanne, why is it just now exploding on the scene, you know, here in 2023?

Suzanne Taylor:

Well, they weren't specifically the algorithms for generative AI. I think they were the algorithms that led to generative AI, probably closer to those that what we would call deep learning neural networks specifically. But then that beget generative ai, particularly around 2014 or so. But several things have really evolved since then. So, like back then, again, we were working with the algorithms. We were doing a lot by hand. There were no Python libraries you could plug into. There certainly wasn't the compute power, there wasn't availability of data. We were all using a lot of typical, you know, prepared data sets to prove things. So since then, really compute power has exploded. Mm. The availability and plethora of data has exploded. The ability for data storage, the accessibilities of models. Now again, like I mentioned, there were no libraries back then. We had to write everything by hand. And I won't tell you what language it was in. And no code interfaces, cloud-based services now, APIs, the sharing of information. So all of this just, you know, has made people be able to just get their hands in the technology now in an easy way to start experimenting it rather than starting from scratch.

Weston Morris:

That, that gives us a good foundation here, I think for our conversation. And, and I might just share a little bit about your background of what you do here at Unisys. And I'm, you know, excuse me, I'm a little envious about your job driving innovation here. You run these cool Shark Tank sessions with startups from Silicon Valley, you quickly build out pilots and proofs of concept using all, all the new cool technology like generative AI. You're doing some projects with us now on that. And then over the last few months, I know that you've been invited to at least seven clients to conduct 10 different workshops on this subject of generative AI. So I think I'd like to just pick your brain a little bit. I know some of the questions that are coming up over and over again, so maybe we will discuss those here and see how you've answered them with your clients. So maybe the first question I think you get asked a lot is, you know, AI has been around for decades. We just talked about that. And so what is the unique aspect of generative AI?

Suzanne Taylor:

Very good question. So the very unique aspect of generative AI is that it can create new content based on what it's seen before. And that content could be video, text, even can mimic your voice. So that's what's really powerful about it. New content, traditional AI, even though it's not that old, a big use of it, it's really was about more like pattern recognition. So you would show it some samples and it would recognize that that same kind of sample and then even grew to be able to detect, you know, a tree out of a picture from a rock, from a bird. And now these algorithms can create a brand new picture that's never been seen before of a bird under a tree or creating some kind of new, new music. So that's really what the basic difference is right now. Mm-Hmm.

Weston Morris:

So maybe something like, you know, on YouTube where if somebody uses copyright material, there's algorithms out there, AI that's, that's looking for that it can detect this is copyrighted material and give the, the licensing information over to the owner as opposed to generative AI, which you're saying would create something new. Like I could say, yeah, you know, give me a four-minute K-pop meets big band with a twenty-second saxophone bridge and lyrics about gen AI taking over mankind. Is is that the difference?

Suzanne Taylor:

Yes, I've never quite done that. I created a haiku and played with different languages and, and other kinds of comical poetry. But <laugh>, I haven't created K-Pop, but yes, that is, that is exactly the idea. And you can, by verbal instructions, it can create, you know, music and images too. So it's, it's really very fascinating.

Weston Morris:

Another question that you're getting as you're presenting this to, to clients is, you know, hey, gimme some real- world examples. Maybe a little bit more realistic than my K-pop example of how generative AI is being used today.

Suzanne Taylor:

Right? So there's, there's some pretty famous examples that you'll, you'll see in the news. For example, there was a recent photography contest. The person that entered the photograph purposely created it with generative AI one, and he took back the prize, but he was making a point there. So that's about creating, you know, photography which could look very real, which also brings you to the other

examples that we'll see hearing about something called deep fakes, which is using generative AI to create videos and photos, voice recordings typically for malicious means targeted celebrities, politicians. However, I just saw an article, I think it was yesterday, about TV's first deep fake comedy, so twisting it to be used. So I, I think we will see a lot of it in the entertainment world. You know, you can think about that whole editing, dubbing music and stuff, creating promotional videos. We're seeing companies start to do that, being able to translate things in different languages. And then maybe even another totally different example is for creating computer code now using these different algorithms and programs that use those algorithms.

Weston Morris:

I think maybe we could carve it up into two distinct groups. If we're looking at the, the workplace. One is how can an employee use generative AI to be more productive, to, to get more done? And then secondly, looking at the business, how can the business use generative AI technology behind the scenes? So maybe could you focus first a little bit on, on the employee team of individuals or a single person using it?

Suzanne Taylor:

Sure. Being able to create prototypes of products from drawings and schematics. So an individual can scribble something and, and the AI will understand it, and then help it create the actual product schematic. That's one example. We're already seeing it integrated with our daily search engines, Google and Bing. So it's gonna help us find information and synthesize it in a different way. And, and you're already seeing the search results coming back that way, where it's, it's more than just the, the list of things, but it'll also create a summary. And then we also are seeing that a lot of the big hitters that you use for productivity, the Microsoft, the Googles, their workspaces, they're starting to integrate this right into all the applications we do today. So imagine our PowerPoint being able to be created for you, writing emails for us, correcting our emails, taking notes at our meetings, managing our to-do list a little more proactively.

Suzanne Taylor:

I mean, all of these things will come in to us. And then if we look at not just us as an individual, but as part of a team, then there's, this technology starting to be used with developer coding assistance, as I mentioned already, like GitHub co-pilot, for example, and also project tracking software. Atlassian, who has Jira, which is a very well-known project tracking software. They're gonna put Chat GPT and generative AI front ends. And so it's gonna be everything from assisting humans as simply as composing an email, synthesizing information. Maybe you can set it to schedule, tell me everything new with generative AI this week, every Friday, and it'll come to you in a little more than you're just having to, you know, search all the digests yourself. So I think it's, it's gonna be endless how we're gonna see it coming in for the individual.

Weston Morris:

I'm thinking even about us here. We're doing a podcast. I was just listening to Alec Baldwin's recent podcast last week, and I was surprised to hear him, you know, a famous actor, director, interviewing two experts on generative AI. Yeah. You know, I mean, I think we've reached the peak of what Gartner calls the hype cycle when actors are talking about it in their podcast, <laugh>. But I, one thing I just wanna refer to in that podcast, he interviewed Jay LeBoeuf who helped design Descript. And it's a tool that podcasters like myself use to be more productive. And they made an interesting point in their

conversation that, you know, they said the danger is you can now more easily create more content, you know, flood the market with, you know, more podcasts and stuff, but is that really what we want? And I love the point that Jay made. He says, you know, really the goal should be as we use this technology in the workplace and, and as an employee, is to use generative AI to create better content, not just more.

Suzanne Taylor:

<Laugh>. And I think, I think that's exactly, it's about productivity, not just, you know, creating, I mean, people are creating a lot now because they're experimenting, they're having fun, it's new, you know, but you're absolutely right. It's about making us more productive and more creative. That's the unique aspect about this, again, is it's, it's a tool for creativity. You know, you, you talk about the podcast, let's say you don't like something I say in this podcast, Weston, well, you can now, you know, dub <laugh>, my voice in and, and correct it and, and change things. So there's just so many, so many ways we're gonna use it.

Weston Morris:

Yeah. Yeah. That's, I think even in that podcast, the very intro that, that Alec did, and it ended up saying, this is not Alec Baldwin, this is, you know, generated by AI you know...control of the script, so, right. We'll try, we'll try to avoid that here and keep it, keep it real. Right. Okay.

Weston Morris:

So that was a great discussion here around how generative AI can be used by the employees, by individuals and teams. Let's put things around and look at the other part of the question. In the workplace, how can generative AI be used on the business side of things, maybe behind the scenes as opposed to individuals using it? What are your thoughts there?

Suzanne Taylor:

Well, let's start with support. That'd be a good place to start. Support organizations. So a lot of companies have a service desk or, or some organizations where they, they support their associates or, or other companies. And you know, we've, we've had the chatbot in the mix, right? It's usually pretty primitive, a little computer or head, maybe looking like a television set and, and you can type it in. Well, now with this technology, we can make that user experience much more realistic and, a feeling like we're really talking to someone and really being understood. And not only that, but this technology gives us much more flexibility to be able to talk in different languages also, because underlying it understands language so much better. I think it's just gonna have tremendous effect in, in interfaces to automation and other activities that we've been doing in the, in the future here.

Suzanne Taylor:

AI has always been used for decision making. That's one of the things, again, you, you recognize certain pattern and you do a certain action. I think it's again, gonna make us be able to interact with those systems in a much better way and to get more accurate decision making, and it's gonna learn even more. So I think it's just gonna accelerate that capability of AI. And I can see applications in the, in the business for like onboarding associates. How do they find information? They need training. Now we can tailor training specifically to the way employees and others work. And that's, you know, just to diverge slightly, that there's been a lot of controversy in the educational field about using this, but I think it's the same thing. There's some very positive things that will come out of it, being able to personalize and that AI is going to adjust to you as a person, your capabilities, what you've done in the past.

Suzanne Taylor:

And it'll be a much more relatable experience. The other thing I think it's gonna do for us is be able to create new content and synthesize new content on the backend. So again, if we take the support application, sometimes I'll, I'll call in and it'll be self-serve, meaning it's gonna tell me how to do something. If, the data behind the scenes is not accurate, up to date, it might tell me the wrong thing. Well this AI's gonna be able to detect that, or common problems that people are having, be able to create new knowledge and just improve that entire experience. You can even tell this technology how you want it to answer the question. So you could say, please answer this question as if the person is a non-native English speaker, for example. So it would give you very, you know, simplistic, easy to understand, not use colloquialisms, et cetera. So I think it's just, a tremendous opportunity.

Weston Morris:

I think another important question that you're getting a lot, Suzanne, is you know, what are the pitfalls? What are the dangers? Cause we're, we're hearing a whole lot about that in the news as well. I just saw something cross the headlines, you know, it's going to cause mankind to become extinct and we, we need to reign it in. But I don't really wanna go down that path in discussing that, but, but there are some very real-world dangers, you know, in an IT, a business perspective, I hear about hallucinations, you know, data leakage. Can you talk about that a little bit? What are some of the real concerns that, that we should be paying attention to as we get started with this?

Suzanne Taylor:

So from like an IT perspective, if, if you're gonna be thinking about bringing this into an organization, you'll be thinking about, you know, cost and how to work and people are thinking about that, but we're also seeing that there are chips and, and specialized hardware to help with some of the training and the cost issues for that. So we can, we can put that aside a little bit, but if you're going to be actually working with it, you mentioned hallucination, so let me just define what that is. Hallucination is when the systems make up answers because they don't really know and they can sound very, very realistic. Mm-hmm. So, the real litmus test, is if you ever have the opportunity to use, let's say Chat GPT or one similar system is ask it to create a biography for yourself.

Weston Morris:

Okay.

Suzanne Taylor:

And see what comes out. Cause it will make up things in between. Like it might see that you were an author on a paper with someone from another company. So it might assume that you worked for that company. I've seen that happen, and making up hobbies. So that's hallucination. And if you're dealing with hallucination, I always say that you have to verify every bit of output from these systems. Like you can't take anything for face value. It's like the expression trust, but verify. That's one thing. And you can do that by actually asking it what sources it used, for example, making sure that what you're telling it to do is very specific to what you want. Now if I'm asking it to create a haiku about the Pennsylvania Turnpike, which I actually did, I won't tell you why, but then you're okay if it hallucinates, right? Mm-Hmm. <affirmative> mm-hmm.

Weston Morris:

<Affirmative>, okay. You want something creative.

Suzanne Taylor:

Creative, right? But in certain cases you wanna be, you wanna be very, very actual, very specific. Now, and also if you use some of these systems, they actually have what are kind of tuning parameters where you can tell it to cut down the amount of imagination it has. And that's another way to do this. So you can either tell it in the prompt if you don't know, give this response or you tune down the hallucination and imagination. So that's, that's one way you have to deal with it.

Weston Morris:

And I could see that being super important, going back to your other examples where you're talking about how it would be used by the business world, right? So if you're wanting to mine a bunch of knowledge articles and, and create, you know, how-tos and things like that that, people would use to fix problems or go through processes, you want that to be really factual. So you'd want to turn that knob, what did you call it? The temperature dial. Yeah. Right. Really, you know, way, way over to the factual side of things. Whereas if you are on the marketing side and you wanna be creative, you may be looking for some sort of blue sky, never, never been seen before, you know, shocking or interesting content. Okay, that's great.

Suzanne Taylor:

Great. And also you have to, you bring up a thing about marketing mm-hmm. <Affirmative>. And then we'll, we'll get to the data piece, which you mentioned also. Now companies, we have to look at things as what, what information are we putting out there that these systems are going to use? Is my company being represented in the best light? Am I or my product? And think of it almost as the reverse and the data that you actually feed it. Because typically what happens, it's, you know, these, these data models are trained on what they're trained on and that helps 'em understand your questions in the English language. And they have a set knowledge base. It's fast. I mean, they were trained on 'em, with the whole internet. But you add to that when you develop these applications or even use it internally, so you just have to be careful with what you add to it.

Suzanne Taylor:

You know that that's factual, it's not biased, it's, you know exactly what you need it to be. So there's a piece of it there on how you, again, prompt it and add, add information to it. The other thing is you have to be very cautious with...this is probably the biggest pitfall. There was no accident that these applications were released to the world for quote, "free." They wanted to collect more data and test it. Right? Okay. So when you use these systems, particularly the ones that are more popular out there that you can get a subscription to, they're not that expensive. Be very careful to read the data privacy policy. Are they entitled to use anything that you put in as your prompt? Remember, like I said, you could put information in your prompt to tell it more things. Is that fair game for them to use?

Weston Morris:

Sorry, it just occurred to me if I'm putting code in that I'm working on, intellectual property, that could, depending on the privacy policy or the usage policy that could then become part of the public domain?

Suzanne Taylor:

Absolutely. So what we do is we're ensuring that we're using versions of these and, and typically if you use services from the cloud providers, they'll have that same kind of protection if you used any of their services that will be contained only within our, you know, network in our company. And none of that

will be released. But if I use it in my private life, I also wanna make sure I'm not releasing any of my private data and not all of them do this, but you have to, you have to read the data privacy policy and know that you have the potential to give out any IP or personal or someone else's personal information accidentally. That's why it's really important for companies that are using this. And you talk about digital workplace, you know that if you're gonna put these things in place to have very clear guidelines and frameworks for those that are using and building applications with these technologies. And then on the other thing, you have to be cautious to know what data the application has been trained on to ensure that you're not gonna inadvertently use anybody else's copyright or IP.

Weston Morris:

Ah, it works both ways. Okay.

Suzanne Taylor:

Yes, yes.

Weston Morris:

Now, Suzanne, I know the, probably the final question you get at the end of your presentations is something along the lines of, okay, how do I get started? You know, so what are you recommending to the clients you speak with?

Suzanne Taylor:

So first of all, there's education, understanding what it is, what it's not, the limitations, what tools are out there, and then to start to experiment. But again, experiment responsibly. And just like I've mentioned, you have to understand the data privacy. You have to understand the source of the data it was trained on. Is it, for example, GPT-3 was only trained until a couple years ago, so it's not gonna have the most recent data. So if you asked it a question, it might not, you have to be careful. It might not know what's happened last week. You have to understand that. And I always recommend that there are guardrails from the beginning. We work with our legal and our IT very closely to ensure exactly what we will and will not allow people within the company to work with, with this.

Suzanne Taylor:

And we set up very safe environments for people to experiment. Cause I think the only way people are gonna learn what to do with this is to experiment. We also look, I would say look at internal use cases and internal users first before you start developing public solutions and applications to really understand it. And that works really well because I think the big gain for this, as we've talked about is going to be productivity. And you talk about the digital workplace. This will be a key part of that digital workplace is, is being able to increase our productivity through these types of digital tools and to keep evaluating different tools that are out there. They're gonna come and go. Some are gonna come to you automatically because almost everybody now is trying to figure out how to use this technology in their existing applications. And then there are a lot of startups trying to fill in the gaps right now. So it's really wild and evolving, so set up groups to share information, share best practices, keep abreast of what's going on and then try to separate the hype from the reality.

Weston Morris:

And it's really important to identify real, like real-world applications. I really like the suggestion you gave to a state government that you were speaking to. They were looking about how to improve citizen

experience, you know? Mm-Hmm. <Affirmative>, It's important, right? As a government. And, and I think the example that I remember you giving was of how to, you know, imagine an unemployed single woman needing help in finding government resources and, and it's so hard navigating, you know, government websites, it feels like. But you talked about how using generative AI, this person could do so much more easily, quickly if the state was making use of generative AI on their state portal where citizens go to search for information. I mean, I just love that as an example. Yeah.

Suzanne Taylor:

And we extended it also to say, and suppose I am a Ukrainian refugee, can you give me the answer in my native language? And it did.

Weston Morris:

Ah, yes. That was, or maybe, maybe even can you give it to me as if I'm not a native speaker? Right. Give it in English, but as if I'm not a native speaker. Exactly. You can simplify, don't use slang. Wow. yeah. This is just beginning to open up all kinds of ideas. Mm-Hmm. <Affirmative> Now by, by the time this episode goes live, Suzanne, I think you will probably have given at least 10 presentations to clients on this topic of generative AI, if not more. I, I'm sure our listeners, you know, would go, wow, I'd love to chat with you further to, you know, pick your brain, how can they reach out to you in some way?

Suzanne Taylor:

Yeah. So you're welcome to reach me on LinkedIn. It's Suzanne, actually, Liebowitz Taylor. If you find a lot of Suzanne Taylors. Or I am happy to take email at my work address, which is suzanne dot taylor at unisys.com. We've also, Weston, if they're interested, we've, we have some papers and articles that have been published particularly one on responsible AI we did recently. And a couple more to come out. We can post them with the podcast, and that would be another way people can get more information and contact.

Weston Morris:

We will include those in the links to those in the episode notes. Yeah. That's awesome. Well, well, Suzanne, our time has flown by here. I really want to thank you, the Vice President of Innovation and Emerging Technology at Unisys. It has been such a pleasure having you as a guest on my podcast today. I've definitely learned something new about generative AI and its role in the digital workplace, and I hope our listeners have too. Thank you so much.

Suzanne Taylor:

Thank you.

Weston Morris:

Well, you've been listening to another episode of The Digital Workplace Deep Dive, and if you found this content useful, I would love it if you shared a comment on it on your favorite social media platform and subscribe to the podcast. I'm your host, Weston Morris. Thanks for listening.