



## Teaching Tomorrow: Unleashing the Synergy Between Humans and Robots

### **SPEAKERS**

Tierney King, Jayne Lammers

#### **Tierney King 00:01**

This is the Faculty Focus Live podcast, sponsored by the Teaching Professor. I'm your host Tierney King, and I'm here to bring you inspiration, energy and creative strategies that you can utilize in your everyday teaching. All right, today we have Dr. Jayne Lammers who is the director of learning design and Edmentum. So to start, let's talk about your interest in learning about how to use AI in the classroom. What kind of really sparked this curiosity of AI?

#### **Jayne Lammers 00:33**

Thanks for the question, Tierney. Yeah, I mean, honestly, it was just hard to ignore when ChatGPT came on the scene in November of 2022. If you were anywhere remotely adjacent to education, you were hearing about it and wondering what was happening. But for me, I got particularly interested in the generative AI that ChatGPT represents because it connects to the years that I had been studying technologies affordances for learning. So prior to working at Edmentum, I was a professor of education, and I had been studying how young people use technology for their own learning initiatives, and I've always been kind of asking this question of, Why should teachers care about what you are doing outside of schools? And that was mostly in the social media online forums, but I thought ChatGPT, and all of the generative AI tools really represented an important area to explore, almost with the same questions like if young people are going to use this, why should educators care? At Edmentum, we really try to be good partners with the teachers and students and districts that we serve. So it felt really important to focus on how was I going to help the educators make sense of this tool that was essentially storming the classrooms. And people were trying to figure out what policies to put in place: how to use them, how not to use them. So I just dug in and started exploring and started using them.

#### **Tierney King 00:55**

That's awesome you got to kind of take, you know, that background from being a professor, and then just your interest in technology and kind of pair it all together. And then you explained how AI tools are not yet capable of, you know, replacing human roles in education. So explain how human involvement is still essential, and how educators could, if they wanted to, kind of form a partnership with AI.

#### **Jayne Lammers 02:35**

You know, the more and more I spend time looking at generative AI and figuring out what it could, and more importantly, what it could not yet do, I kept hearing this mantra in some of the literature and some of the articles I was reading about, "Keeping humans in the loop." And that has proved more and more true each time I dig into it. So for example, we take how these large language models work, they're generating predictive text based on the text that they've been trained on. So they're learning to please a user based on the prompt that they've been given the data that they have access to. So that's why they will make up a believable yet false information in response as a means of pleasing the user, right? As a means of generating a response that is predictively acceptable, but it may not be true at all. So I think in working with teachers and students, we need to help them be aware of these hallucinations. That's what they're called. And that's why it's important to keep those humans in the loop. So I think teachers have a really important role to play in facilitating student's development of the critical thinking that it takes to analyze what AI is doing, and to be able to suss out what's real, what's not. And then to think about how not only just to fact check what gets used, but to think about when in their processes would be a good time to use generative AI. Because there are things it's really good at, and there are things it's really not perfect at.

**Tierney King** 04:17

And then you kind of talk about how either individuals or instructors should explore these AI tools to kind of identify the strengths and weaknesses themselves. And how does this method of exploration help educators find the appropriate AI solutions that they may need for their classrooms?

**Jayne Lammers** 04:36

Yeah, I think because there are hundreds of these tools out there, and more and more get created every day, some of them with particular education purposes - we've got companies that are taking the open AI tools and wrapping them in these different features, trying to get it to do different things - and so I think because of that, to stave off almost the overwhelm, if you just invite teachers, invite your colleagues to just explore together, you don't have to be right about it, you can also invite the students into that same exploration. We're all just really learning together, because it changes every week. So at the time that we started our experiments here at Edmentum, ChatGPT was just in its infancy, we were using the free version, because we didn't want to learn from a version that might be cost prohibitive for some users. And that free version was not drawing on any real-time, web-based data. Who knows if one day a free version might do that, but there are other generative AI tools that do. So for example, we learned that when we went to Bing, it was using the web and it could give sources and link you to web resources that were informing it. And so just being able to learn that difference of how the tools worked was important learning for us that I think would be an important learning for educators. And so the other thing is that, like I said, these tools change all the time, they are evolving as we go. So I think it's really important to keep experimenting with them. Because they'll start to, first of all, learn from the educator, learn from the teachers, and the students who are using them. But then as they update the different models, it'll start behaving differently. So they're learning from us, we're learning from them. And I think that if we can kind of take that approach of exploration, it dials back a bit of the stress and the risk that some people associate with jumping into new technology. So I also think it's really vitally important that any educator or school leader who's going to make a policy about these generative AI tools, that they have some hands on experience with them. And I mean, believe me, I totally get why schools were at the beginning, just say no, right? But now we can't just say no, anymore. So now it's How? How do we

do this? How do we use these? And so I would encourage school leaders and educators to make sure that they're not relying on the media discussions of generative AI, or secondhand commentary, but they're actually digging in themselves. And you know, get some buddies, find some other people who are willing to talk about it, share what you learned, that's what we did with my colleagues. We kind of created this Team's chat, where we could all post articles, podcasts, things that show experiments, show funny things of where it went totally wrong, and successes. And I think kind of sharing or creating that space of sharing and collaborative exploration is really a great way to deal with just the magnitude of change that could be possible with generative AI and education.

**Tierney King 07:59**

And having that conversation, like you said, is the first step of, How do you integrate this AI into your classes? And so specifically, let's kind of explore some of the AI tools that you've explored. What do you recommend for, you know, educators just starting out on this AI journey? And then maybe what would you recommend for educators who are very advanced on their AI journey?

**Jayne Lammers 08:25**

You know, there's so much to look at. So I think the text generators that I've explored most are ChatGPT, Claude.AI, which I don't hear many people talking about, Bing, and Google's Bard. So for example, when I dug into those, we learned some of the affordances of the tools. And I already mentioned the difference between, you know, the ones that do and don't access the internet. But Claude, and one of the reasons why I find that program so intriguing, is that it was the first that I came across where I could give it a PDF of a reading of something, and it would summarize the key points for me. It would, if I continued to ask it questions about a particular section or asked it to define things according to how the paper did, I engaged in a conversation with Claude about the PDF that I had given it. So I thought that was an interesting tool and an interesting problem to solve for educators as they're assigning readings. So thinking about whether and how to use a tool like that, or just even being aware of the fact that, that kind of thing exists. So I've also started exploring some of the school specific AI resources and tools. And here again, there are so many, so I'm not going to be able to talk about all of them, but one in particular Magic School AI. So that's one of the sites that has taken the functionality of the GPT and designed and trained it specifically for teachers. Mind. So, if a teacher wants to get started by having an AI tool that helps them with lesson planning, or, for example, generating alternative explanations for concepts where they're trying to differentiate instruction for their learners and their classes. I think Magic School AI is one of the tools that would be a good place to start. It's free for teachers to sign up. And they kind of call themselves an AI assistant for teachers. I can see how that's really helpful. There's an organization called TeachAI.org. And they have AI guidance for schools, they have a toolkit, and that helps navigate some of those policymaking conversations. They have some sample student agreements for the use of AI and other helpful resources that I think would be good for educators. I also think that if an educator is going to be part of any of our contemporary conversations, you have to play with ChatGPT, just because it's the one that most of the media talks about. So I think you can get a free account with open AI and just start using it. I find it very good as a brainstorming partner. So if I'm having to write an article, or if I'm having to think of questions, or come up with topic ideas for something, it's great. It's a great assistant for the beginning of a writing task. I know there are teachers who also use it for lesson plan writing, and writing parent communications is another one that I've heard it used for a lot. And I think the popularity of ChatGPT means that it would

probably be my first choice of an AI tool that I would try to use with students just because it would be the one that they would probably hear about most. So putting that up on your smart board and projecting how you use it with students would be helpful. I think in our explorations, we found that Bard actually did some better work at doing some of the translating experiments that we ran. So we were thinking about communicating with the language learners that are flooding classrooms today that teachers are trying to figure out how to best serve. Also thinking about parent communications with those communities when you don't have translators available. And so Bard actually did a really good job of especially of paying attention to local language variations. So for example, we have a colleague here who speaks Moroccan Arabic. And so she went in and did some experiments, they're just trying to get it to explain concepts, STEM concepts, that would be a little bit challenging. And she thought that it did a really good job of replicating some of the language used by a native Moroccan Arabic speaker. It also does a really good job of like explaining why it's making some of the choices that it does. So I think that tool is very good if you're looking for something to do with language translation. Lastly, we haven't yet even talked about the image generation tools, which there are many of those, right? So maybe some teachers who are more advanced on their AI journeys, they might want to look at the multimedia generating tools, things like Midjourney, which you'd need to pay for, or maybe even the Magic Studio feature in Canva is another one that can help with the like presentation tools. Or if you're really ready to dig in, get yourself a paid account of ChatGPT and start making GPTs yourself. So you can train it, you can put different guardrails and give it particular identities to do different things. So that would be a fun one for some of the more advanced teachers to dig into.

**Tierney King** 13:45

And you made a really good point. You had said, you know, you don't have to learn all of these, there are 1000s of tools out there. But just getting to know them, even if you're not using them, is a great way to get that conversation kind of started with other educators or with other students. And so you know, you've gone through all these ways that you've encouraged educators to use AI, whether you know, it's a grading assistant or it's a lesson planning assistant or language translation tool. How do you think specifically this has helped students? And what kind of conversation should educators be having with students when they're introducing these AI tools to them?

**Jayne Lammers** 14:24

Yeah, I think students, from what I understand from both talking with educators and hearing some of the media that has interviewed students themselves, there are many students who are already using it, but they feel like they're cheating. They feel because of the way that it was talked about at the beginning, they feel like it's something that they need to keep hidden. And so I think educators would do well to bring it out into the open, bring it into the classrooms. Let students know that these tools are available and that they know they're available, but then to have conversations about appropriate use. Like I said, ChatGPT is great for idea generation. So if you've got a student who has trouble getting started with certain projects or tasks, has trouble focusing, teaching them how to write prompts that will get them started I think is a good way to go. Again, the language learners in our classroom, teaching them how to use a tool like ChatGPT or Bard to help them explain different concepts. They can almost create personalized tutoring for themselves, personalized translation. So we have many students who are very visual learners. So going to a place like Khan Academy and using their tools to help explain concepts with all of the video. But some students, you know, if they could just see it explained a

different way, if they could ask their follow-up questions to something that gives them responses and maybe doesn't feel as vulnerable as kind of speaking up in a classroom, I think that would be a great service to use. I also would show for example, I was an English teacher, and so I've heard many English and writing teachers bemoan the availability of something like a ChatGPT so widespread, and tend to talk about what this means for writing. But if you give the prompt that you would give for an essay, so to speak, and give it to check GPT, in class on the board, so everybody can see. And then work with the students to analyze what it produces, maybe compare it to student writing, and help them see that going back to that humans in the loop thing, it ends up being pretty flat, like it may be grammatically correct, but there's not a lot of life in it. And helping students see how they can make it more their own, that maybe it's good for the outlining, but to actually put the life into some writing, they need their own voice. And so having those conversations, I think, would serve classrooms.

**Tierney King** 14:24

Awesome. Yeah, I mean, there's just so many tools to we didn't even cover, like how it can do interactive tools, where I've seen it do bingo or Jeopardy boards, or I just went through an AI tool that it was like an opinion piece of "take down the emperor of AI" and you kind of have an opinion banter back and forth with it. I mean, the options are endless. And going back to your point of just familiarizing yourself with these tools is key.

**Jayne Lammers** 17:39

That's exactly the reason why I talk about working in community and creating a space of exploration is I would want you to share with me, you know, where did you see that? Where did I see that? It could do that? And then I could share with you like, here's where I saw it could do this. And yeah, those kinds of conversations happening in schools, amongst interested colleagues, I think, will do well, to help us all try to understand how to make the best use of these AI tools.

**Tierney King** 18:07

For sure. And then I guess, kind of lastly, just anything else that you want to add to, you know, the discussion of AI of how you're using it, how other educators are using, just maybe anything that we may have missed?

**Jayne Lammers** 18:21

Well, we didn't explicitly talk about cheating, necessarily, or plagiarism. And that's an open question for debate now in academic circles in education. But I think we've seen enough stories to tell us we can't rely on the AI detectors to tell us whether or not a student has used it. And so I think just getting to know your students' responses, mixing up what is done via a computer versus what's done by hand. So that you can learn student voices is something that's important. And thinking about it as a personal tutor and showing young people how to use it in that way, I think to explain concepts. Again, going back to my English teacher days, we always like to show models or exemplars, even non-examples of responses or essays. And we'd have to rely on a student's work from a different class and just kind of white out the name. Well, now you can just have AI generate it for you and think of it as a sample to work with. So I think there are lots of efficiencies here. I also think pooling resources and looking for sources of information that you can trust about how to think through AI and education is important. One source that I found is common sense education. And they have a really a nice curriculum that started to

give lessons available to use with students from grades six through 12. So that's another freely available resource to teachers that they might want to think about. And just explore. Try not to put too much pressure on yourself as you're thinking about it. Don't claim to have to be an expert about it before you bring it into your classroom. Know that we are all learning how to use these tools together. And I think that will do well to go a long way to not keeping it as something we need to hide or feel like we're cheating with, but use as a tool to make the things that we don't like to do or that are hard to do easier, and give us the energy and the space to be more creative and to do the things that humans are best at.

**Tierney King 20:39**

Whether you're driving to work, or you just did a 15 minute thing session. We hope the fact the focus life podcast will inspire your teaching, and offer ideas that you can integrate into your own course. For more information on the resources included in this episode, please check out the links provided in the episode Description.