Designed for Learning Ep10 Transcript

Teaching Students When (Not) to Use AI (October 2, 2025)

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Guest: Derek Bruff

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[JIM LANG]
(cheerful upbeat music)
Welcome to *Designed for Learning*, a podcast from Notre Dame Learning. I'm your host, Jim Lang.

When satellite maps became available on our phones, I was one of those folks who wondered whether we were losing something by relying too much on our technologies, becoming less oriented to the places we lived or visited. Other folks warned how lost we would be if we became too accustomed to our phone maps and then had no access to our phones in some strange place, or if the whole power grid went out. Most of us have had maps on our phones for many years now, and it is an incredibly useful technology, and the power usually doesn't go out. Maybe we have lost our sense of direction a bit, but does it matter?

As artificial intelligence technologies have become more and more able to replicate cognitive tasks like writing or coding or brainstorming, questions like these have become urgent for educators. What happens when we stop using a skill and allow technology to do it for us? Do we become de-skilled? Does that de-skilling matter if it's for a task that a machine can do better than we can? In those cases where it *does* matter, how do we help students understand the importance of committing themselves to the hard work of learning that skill?

My guest today, a long-time analyst and powerful thinker about educational technologies, has always been one of my favorite people to listen to when it comes to technology and education. Derek Bruff directed the Vanderbilt University Center for Teaching for more than a decade, where he helped faculty and other instructors develop foundational teaching skills and explore new ideas in teaching. He's currently an associate director at the Center for Teaching Excellence at the University of Virginia. Much of his work focuses on helping faculty respond to the challenges and opportunities posed by generative AI. Derek has written two books, *Intentional Tech: Principles to Guide the Use of Educational Technology in College Teaching* and *Teaching with Classroom Response Systems: Creating Active Learning Environments*. He writes a weekly newsletter called *Intentional Teaching* and produces the *Intentional Teaching* podcast.

Welcome to *Designed for Learning*, Derek.

[DEREK BRUFF]
Hi, Jim. Very glad to be here. Thanks for having me on the show.

[JIM LANG]
So you and I go way back. I think it's, we determined at one point, it was 2008 when I visited Vanderbilt when you were there, and you recorded a podcast with me.

[DEREK BRUFF]
That's right.

[JIM LANG]
(laughs) Yeah. Maybe you were, were you a graduate student at that time? Were you like assistant director?

[DEREK BRUFF]
I was a very young assistant director, yes.

[JIM LANG]
Yeah, yeah. And I had, at that time, I had no idea what a podcast was (Derek laughs), you brought me in this little room and said, let's do this thing called a podcast. Yeah, okay, I guess, I'm here, might as well, let's try this (laughs). And in the meantime, after, you know, after many years of getting to know you and hearing your thoughts about technologies, your writing, your podcasting, your books, I'm looking forward to this conversation to talk a little bit about this moment that we're in right now with AI.

So I wanna jump right here to the questions I raised in the introduction, which are about this notion that if we rely too much on our technologies, we might lose access to important skills or knowledge. So we can talk later about skills like writing, which are important to me as an educator and as a writer and teacher of literature and writing. And I have, you know, strong opinions about that. But I wanna start with, like, a more challenging case.

[DEREK BRUFF]
Okay.

[JIM LANG]
Brainstorming. Brainstorming. Okay? So, a recent national survey of student uses of AI, which is published in *Inside Higher Ed*, shows that more than half of them are using AI for brainstorming purposes. So I assume that means something like, you know, come up with ideas for papers. You know, your teacher assigns you an essay project or a research project, and you say, okay, help me come up with good ideas for this or, you know, solutions or problems.

So, my question to you, let's start with this. Should they be doing that? Should they be using AI for brainstorming? Is that a skill we can develop, that we can get better at? Is it a skill that we

should sort of, you know, use in totally analog ways? Should we partner with AI for that? What do you think about brainstorming as a test case for AI use?

[DEREK BRUFF]
I think it's a great test case. And I'll say in the version of that question you sent me in advance, you used the term “offload.” Is brainstorming a skill that makes sense to offload to AI? And I like that you didn't use that term this time, because I think--should we offload brainstorming to AI? No, we shouldn't offload it, right? That's not a, that's not a productive way. I mean, you're certainly not gonna get better at brainstorming if you offload it to AI.

I think the more interesting question is more of what you just asked, which is how and when might AI be helpful in our brainstorming process? Can it be, could it be, right? Is the kind of human plus AI more useful or a better learning context than the human alone, right? And so I think of--so I'm gonna come back to brainstorming, but there's a notion I heard, I learned in the last year that I think has been very helpful for me in thinking about AI, and it's called the rubber duck effect.

And this comes from the world of computer programming. The idea is that, you know, I'm some software engineer, I'm writing some computer code, I can't get it to do what I want. I'm stuck. So I look around my desk, and I find some inanimate object, like a rubber duck. Apparently computer programmers like to keep rubber ducks on their desks (laughs). And you pick up the duck, and you just explain your problem to the duck, right? And the duck doesn't talk back. Maybe if you squeeze it, it quacks or something, right? But like, it's the, it's the act of articulating your problem that helps you find a solution to the problem.

[JIM LANG]
Actually, there's a great example—sorry. There's an example of this, great example of this is Sandra McGuire's work, and she talks about a student who learned to actually explain their reasoning to their pet goldfish as a way to sort of understand, you know, help them better understand the concepts of the course.

[DEREK BRUFF]
Yeah. And so I found this very useful in thinking about how I interact with an AI chatbot of any kind. It's better than a rubber duck, right? It's gonna give me something back other than just a quack. But really the work, the important work is what I'm doing as I'm thinking, as I'm articulating, as I'm trying to get it to do something useful, I have to articulate what I want it to do, right? And so there's a lot of value, I think, in focusing on our part of that conversation with the AI chatbot. And so, there was one study that's kind of, certainly a form of brainstorming that I wanted to mention.

This is a 2024 study by Sabrina Habib of the University of South Carolina and some colleagues. And they had a course, a hundred students in a course. The course was called Creative Thinking and Problem-Solving. So it was a course on creative thinking. They used something called the alternative use test, which I've heard about here and there. This is the idea that you give people

a common object like a paperclip or a pencil, and you ask them to come up with as many different things they could do with that as possible. And so there's kind of obvious, what we would call non-creative uses of a paperclip. And then, you know, the sky's the limit in terms of creative uses. And so the students in this course did one of these alternative use tests early in the semester without any AI help. And then four weeks later, they did it again with an AI, and I think they were using ChatGPT 3, so not a current model, but, you know, two years ago, a model.

So then they looked at the kinds of ideas that the students brainstormed with the AI, and then they also talked to the students about kind of how they felt about the process. And the big takeaway was things were mixed (laughs). Like, with AI, the students came up with more ideas, and they came up with the ideas faster, but they kind of judged that the ideas weren't quite as, like, pie-in-the-sky creative as what the students came up with without the AI, right? So that was mixed. And then when they asked the students about their experience, some of the students were like, this was great, the AI helped me get out of my box and think about new perspectives. And other students were like, once the AI came up with 20 good ideas, I couldn't come up with anything. Like, I just froze. Like, how could I improve that?

[JIM LANG]
Yeah, let's stop right there. Hold on. I'm gonna ask about this.

[DEREK BRUFF]
Yeah.

[JIM LANG]
Because I see where you're going, but I'm gonna raise a different point right here.

[DEREK BRUFF]
Okay.

[JIM LANG]
My concern about something like this is, and you know, we'll keep talking about these things, but my concern is that people accept the authority of the AI response.

[DEREK BRUFF]
Sure. Yeah.

[JIM LANG]
And then you talked about like the, the sort of--I think you actually had a recent podcast where you talked about trust. For me, it's more about authority. People sort of accept the idea that this--this is a very human thing to do, right? So, like, I pose this thing to this machine, the machine gives me a very confident answer, and I'm like, okay, I mean, this is just me and my stupid little brain. How could I do better than this thing which is drawing from the entirety of the internet behind it? So why would I then have trust or even, like, confidence in my answer?

That, to me, is the deeper philosophical issue here, is that how do I help myself, like whether I'm de-skilled or not, continue to have confidence in my ability to do things?

[DEREK BRUFF]
Yeah. I think part of the problem is--so yes, there is a lot of human intelligence that has been analyzed and systematized and turned into a giant mess of statistics that then can output through AI and make useful, sensible things, right? Like, like once you map out--Mike Caulfield talks about mapping out the kind of patterns of human thought as expressed through language, you get kind of an approximation to actual thought. It's not intelligence, it's not thought, but there's a lot there, right? So you're not wrong that these tools can be very powerful and can produce really interesting and useful things.

On the other hand, in that podcast episode you were referring to, we talked about this one study that looked at one trait of these chatbots--I hesitate to call it a personality trait, but it feels like a personality trait--and that many of them are sycophantic. They want to agree with you no matter what, right? They're friendly, they're sycophantic, and that's because the language models running underneath are--I mean, they have their inherent biases, and we can talk about that, but a lot of it is just math, right? Just predicting words based on statistical patterns. But then the companies that make the AI chatbots build a chatbot interface on top of that and make a lot of design decisions about how that chatbot is gonna interact with customers. And so, you know, a company might want you to keep coming back and feel good about your interactions. So they're gonna design a chatbot that is gonna agree with you and be friendly and warm, right? And so that may or may not be what I need from my chatbot (laughs).

The advantage of the rubber duck if it just sits there (laughs), right, I give it any kind of personality I want to. And so what that means is we also--as powerful as these language models can be, we also have to be very careful about what we're receiving from them. And we kind of always have to take it with a grain of salt and be skeptical of what we're getting, and be aware that there may be kind of algorithms at play that are trying to manipulate us. Just like when we go on Facebook or any social media, there's algorithms at play that are trying to do things that may or may not be aligned with our goals.

So this is hard, right? Your question is hard because I know lots of people, students and adults alike, who are like, yeah, ChatGPT said X, Y, Z, so I just, I just believed it, right? And it's presented with authority, and it tells you what you want to hear, right? And so I think part of our job as educators is to help, at least our students, if not the wider public, understand that these tools are designed in particular ways to do particular things. And that's not always helpful. Students are often surprised when they learn how these tools actually work and how they generate text and how they've been designed. And so it's not obvious that you should distrust your chatbot (laughs).

[JIM LANG]
Yes. Good point.

[DEREK BRUFF]
So I think it's part of our job to help students understand why that's important to approach these tools with some skepticism.

[JIM LANG]
Interesting. Talking to the rubber duck versus talking to the AI, it may be the case that sometimes it's better to do one or the other, right? Depending where you are in your formation. And this is another thing I want us to think about is this notion that, you know, the sequence in which we help people interact with AI might be different from person to person, right? So in other words, like, it depends what I'm doing. Am I trying to form myself or am I trying to get something done?

[DEREK BRUFF]
Yeah.

[JIM LANG]
And it is worthwhile remembering that those of us who are educators, we're trying to form people. And so, like, they're in these formative development stages, stages of development, and so it may be the case that the rubber ducks are more important to do in education as opposed to in work life.

Now, having said that, you still have to do the AI so people can understand it. They can't do rubber ducks and then go out in the world and just start interacting with AI in their jobs.

[DEREK BRUFF]
Right.

[JIM LANG]
But thinking more like, maybe we lean one way or the other in the classroom or in the course design, whatever it might be, right? So that's worth thinking about. The other thing I wanna just, and I've gotta critique my own question here to say, okay, let's say we're doing brainstorming activities, stay with brainstorming with me for a second. Let's say it's a brainstorm in class. Okay? It's a class, and we're gonna talk together, and we're, you know, we're gonna come up with ideas for your papers. So I'm gonna, I want to throw this question out to 20 people, start coming up with ideas, and I'm gonna put them on the board. Now, yes, this happens. I've done this many times in my teaching life, right? And then students will often grab one of those ideas from the board and then use it to write their paper. Is that anything different than having them using just AI for it? I don't know. Like, what do you think?

[DEREK BRUFF]
Right? Well—(laughs)

[JIM LANG]

I mean, in that case, I'm helping them. I'm giving them a tool to brainstorm. It's a classroom tool, though, in which we're doing it together with other brains. Yeah.

[DEREK BRUFF]
So I'm a student in your class, and I came up with nothing myself.

[JIM LANG]
Yes.

[DEREK BRUFF]
And I see this idea on the chalkboard. I'm like, that sounds good, I'll run with that, right? So did I brainstorm? No, I did not brainstorm. Right? The collective brainstormed. And there's gradations of this. So often in my writing classes, we've been documenting our work throughout the course using whatever digital tool I like using that semester (laughs). And so when it comes time to write the paper, I encourage students to go back and look through all the things we bookmarked, all the conversations, all the blog posts, whatever it is, and look for ideas for their final paper. Right? And I telescope—telegraph? Telescope that?

[JIM LANG]
(both laugh) Either way.

[DEREK BRUFF]
Either way, either way. As we're going, I tell them to kind of keep this in mind as we're kind of collecting ideas and working with ideas. And so that student who now sits down to come up with a paper topic, they're not just looking at an empty sheet of paper and pulling things out of their head. They're going to a set of resources that we have, that they have collected, that we have collected as a group, and kind of working through that. Is that brainstorming? I think so. But it's brainstorming with some input. And so I think the question, and it's why I mentioned that study from the USC professor, is that it, it just depends a lot. (laughs).

Sometimes I wanna sit down and think about something independently without any input and see what I can come up with and then get some input and compare it, right? And other times I'm like, I've already taken notes on this, I wanna go back through all this. And so I think part of the challenge is that I've gotten pretty good in my professional career, I think, of keeping track of inputs and circling back in thoughtful ways when I need to do brainstorming. That's the skill, right? That's knowing ourselves about how we brainstorm, what tools we like to use, what approaches work best for us, and when to use different approaches for different tasks. That's what our students need to learn.

And AI can play a role in that. But there's a lot of metacognition that's needed about kind of knowing how we learn and how we operate and whatever this task is. And also a fair amount of self-regulation to say, I'm not gonna go straight to AI because for this task, I need to take another route. And maybe I'll check AI later after I've come up with 20 good ideas and see if it

can kind of spark something different. But there's some self-regulation involved in knowing to kind of not take the easy way and to kind of take the harder way because you know you're gonna end up in a more useful place at the end of it.

[JIM LANG]
Yeah. So obviously that's the role of the teacher, is to help create the situations in which people have to think about the right process for them, which gives me another--you know, I'm sort of, my journey with AI is evolving, as all of ours are, and I'm thinking a lot now about the principle of variety, which for me is a core principle of teaching. Give people different sort of various approaches or exposures to materials, to knowledge, to skill development. And so I'm trying to think more now about, you know, one of the reasons we might say we use AI or don't use AI is just because we want to have varied approaches to developing a skill: writing, speaking, thinking, brainstorming, whatever it might be.

And sometimes, we wanna use the analog skills, and sometimes we wanna use the digital ones or the tools, and sometimes just wanna use my brain and your brain together to come up with some. And I think the more that we do that, we offer those various approaches, people can find their way to the one that works best for them in the future, right? But at the same time, having said that, I wanna think about the notion of, what are people experiencing in their lives outside of school and what belongs in school itself? I've kind of already mentioned this notion. Maybe if it's the case that, and I've made this case in, when it comes to, for example, digital tools in the classroom, given that our tools are around us all the time—like, we're on our laptops right now, I've got my phone right here, you know, people are recording this, all that kinda stuff. Maybe the classroom is a space to do something else. Not all the time, but to make this--because again, like, we're trying to get different kinds of experiences for people. So, I don’t know, what are your thoughts about that?

[DEREK BRUFF]
(laughs)? I like what you said about variety. And I mean, there's the whole myth of the learning style, that some of us are verbal learners and some of us are visual learners, right? And actually we, most of us, learn better through multiple modalities.

[JIM LANG]
Absolutely.

[DEREK BRUFF]
If we encounter the same material through different ways and different approaches.

[JIM LANG]
Absolutely.

[DEREK BRUFF]
It helps us kind of triangulate what's actually happening, right? And so, to that degree, to occasionally have a classroom space that is screen-free and tech-free, because today we're

gonna approach the topic through these entirely analog strategies, and maybe on Friday we're gonna use some digital strategies.

[JIM LANG]
Yeah.

[DEREK BRUFF]
But--because I think about the role of AI, and there's the metacognition and the self-regulation that I mentioned; there's also knowing how to use the tool and whether that's an analog tool or a digital tool. Like, if you're bad at using the tool, it doesn't help so much that you're metacognitively aware, right? Like, you need to get good at using the tool optimally and then figure out, now that I know what the optimal use is, when is that gonna be helpful for me and my goals and my learning? And when is that gonna be kind of undercutting what I'm trying to do?

[JIM LANG]
Absolutely. That's a really good point. So if you want people to be able to make good decisions, they have to understand how to brainstorm in class at their notebooks and also with AI, right? They won't be able to make a good decision unless they know they've experienced all those different ways to do that, under the guidance of a teacher, hopefully, right? That's part of our role, right?

[DEREK BRUFF]
Yeah. And the folks that I think who are--so I'll share an example from the University of Virginia, where I work now. Kiera Allison is a professor who teaches communications courses, kind of business communications. And she shared this example of an activity in one of her communications courses; she calls it Do Something Impossible with AI. And so this comes, I think, later in the semester, students have been doing the kinds of things you might expect in a kind of public speaking communications course. And they've been dabbling with AI throughout. And then later in the semester she says, find a persuasive task that you don't feel you're up for (laughs) or that you've tried in the past and failed. Then see if you can use AI in some thoughtful, clever ways to help you accomplish this persuasive task.

And again, they're not coming in cold. They've been kind of practicing their AI skills throughout, so there's some kind of AI knowhow that they're drawing on. But the assignment asked students to document their use of AI, share some of the chat logs to reflect on their use of AI. Where was it helpful? Where was it not helpful? Right? What did you bring to this project? What did the AI bring to this project? And in fact, it's not just kind of for the professor to see. When they do the communications task in class, when they give their persuasive argument or whatever it is, they have to talk about the role of AI and how they prepared.

So what I like about this is it's kind of a green light assignment where students are encouraged to explore AI and see where it may be helpful, but it's got some built in documentation and

reflection to help students move to that metacognitive place where they start to understand, oh, here's somewhere where it could be useful. Here's somewhere where it's not useful. And it has that AI knowhow layer kind of built in throughout the course. So students are actually kind of using the tools in productive, thoughtful ways and not kind of offloading ways.

[JIM LANG]
Yeah, that's a great example. And I'm gonna come back to this notion that sometimes AI can help us reach new places that we haven't been able to reach before. So we're gonna come back to that in just a second.

[DEREK BRUFF]
Okay.

[JIM LANG]
Let me ask you this, because I keep posing challenging questions to you and ask you to respond, which might not be fair, but (laughs), but I'm gonna pose you a question about this one, this example. So let's say the students use AI to complete a task like that, helps them reach a new, you know, experience in their lives. And then they realize, well, it does it really well. Why should I go back to my old ways of doing things? And maybe I, the skill that I was developing, I really don't need it because I can use it. How do we help them in that moment? Or is it with, do we just say, okay, no, it did it well, so let's just go ahead with this and we'll help you develop some other skill, or do we go some other place with it?

[DEREK BRUFF]
So you opened by talking about GPS, right? And so, you know, I use GPS all the time, and frankly--so my 3-year-old is going to a new preschool this fall. And so I have a new commute every morning to take him there. And it's always the same drive. Like, there's no better way to get there, but I pull it up on the maps all the time because it has live traffic reports. And so maybe today's the day I need to take some crazy detour, right? And so, am I, like, should I not use that tool, right? It's just a practical tool that I will generally have access to. And you know, in this case, if the GPS isn't working for some bizarre reason, I still know which road to take, right? It's not the end of the world.

My wife several months ago was lost in rural Alabama and had no signal whatsoever. She was only able to kind of send an emergency SMS text to me. She had no map. And so I had to, like, figure out where she was and where she was going and how to direct her via text.

[JIM LANG]
it does happen (laughs)

[DEREK BRUFF]
It does happen, right? But that's quite rare. And I, you know, I think about, some of the math teachers I had in middle school who were like, well, you don't need to depend on your calculator because what if you're somewhere and you don't have a calculator? And I'm like, I

have a calculator with me every day all the time (Jim laughs). So, you know, I think there's a continuum here, right? And I think part of it is trying to figure out in my life, for my professional and personal goals, is this a skill I want to get better at or not.

[JIM LANG]
Right. Yeah. Yeah. Good question. Yeah.

[DEREK BRUFF]
And if I wanna get better at this skill, then I need to be thoughtful about how I use these tools. If this is something where, I'm looking (laughs)--I mentioned I'm in my basement. I'm looking at my washing machine. I'm not good at hand washing laundry. Like, I don't have skills there (laughs). But I'm okay with that, right? I have a machine to help me do that. And so I think what makes AI feel more challenging is that the skills we're talking about feel more core to who we are as humans, the identities and how we understand the world, right? It's one thing to have a machine help you navigate or wash clothes. It's another thing to have it help you shape the words you're using to express your thoughts, right? And that's where I think we have to have a lot more intentionality and awareness of when we are letting go of something that may actually be important

[JIM LANG]
Now that--okay, now this is a very interesting point. I mean this, I think this is a great idea and a great notion here that--you're right. We identify ourselves as, I'm a good writer, I'm a good speaker, I'm a good sort of thinker. And this feels like it, it might feel like it is encroaching upon these core parts of who we are when we sort of allow this machine to help replace some of these things that we think are really essential to who we are. That's a really good point.

[DEREK BRUFF]
I write a newsletter, right? And I write all of those myself with no AI help. I want to use that as a way to shape my ideas and to communicate with people who want to hear from me. And sure, maybe it would be different if I used AI, but who I am as a professional, part of that is the writer that I am. And so I don't want AI help for that. Now, if I need to find five good resources on a particular topic, will I use an AI tool to search some scholarly databases and try to get me to those articles faster? Sure. I don't--that's just an efficiency for me. And so that's a choice I've made given my skillset, what I value about me and my skillset and my profession, right? And the tools that I have access to, all of that's kind of contextual. Someone else may make a different decision. But I'm trying to be intentional about kind of, what are the skills that I want to kind of keep and own myself and continue to hone. And sometimes AI can help me do that, and sometimes it's not helpful in doing that.

[JIM LANG]
Yeah. I think there's two core ideas here, which I think are coming out, which I think are really important. The first is this notion that, do you care about it? And do you wanna get better at it? And so that's what might be one way to sort of drive people's decisions about AI, not only the

individuals, but also the teachers, right? And so we're trying to help them understand which ones we want them to get better at and why. And so that's, I think, a first part of that.

The second is this notion that, you know, does it matter to me as, like, my formation as a person, my growth, my development, my sense of who I am as a person? So those things I think are really important to keep in mind as we make these kinds of decisions. And I'm gonna go back to your GPS example here, just for a second here, because this notion that you used your GPS for a very familiar route that you drive every single day, on the one hand, it seems like, you know, an easy example. On the other hand, it's worth noting that if you look at--your eyes will always be drawn to your phone in that case, right? Or your dash. What are you not looking at when you're doing that? What are you not seeing? And so again, there is a choice being made there, and you're sort of choosing, in this case, I don't care that much about, you know, noticing what's going on in the neighborhood right around me as much as I am just trying to get to my destination.

Now that might be the right choice because you're doing it every single day, it's 10 minutes, you're getting your kid to school. Like, so that might be the right choice. But if I do that every single time, it might detract from my sense of this place where I live and trying to understand, like, being a patient person who pays attention to my surroundings and be more present to myself and to the world, whatever it might be, right? So just noting that, right? It's not only just things about like, you know, thinking and writing. It is every decision we make can just have this kind of implications to it, you know?

[DEREK BRUFF]
I think the answer is to be aware of that choice and make it intentionally, right? Like you say, sometimes it's fine, that's what you want. And you know, I go birdwatching. If I want to experience my surroundings and pay deep close attention to them, I go birdwatching with my camera. And between my eyes and my camera and my ears, I am experiencing that environment. I don't usually need to do that when I'm driving through this busy intersection in Nashville, Tennessee.

[JIM LANG]
Yeah. Okay. So I know you're actually a birder, I know you're a birder. You're also a boardgame player.

[DEREK BRUFF]
I am.

[JIM LANG]
You have these analog hobbies (laughs). But like, let's say, pick birding just for a--we're almost done here, but the notion of birding, right? You could use AI to help identify birds. Do you use it for that?

[DEREK BRUFF]

Yes. So (laughs), and it's funny, I think it's helped me identify birds by sight. So I usually have my camera with me. So I'll try to take a pretty good photo of the bird, and then I can give it to Merlin, the app, and it'll look at the photo and try to tell me what it is. And I feel like I'm getting better at identifying birds by sight as I practice with this app. I don't think it's helping me by sound. Because it also has a sound feature where you can just let it, let it listen, and it will try to identify the birds that are in the area. I think it does a good job of identifying the birds; I don't know that I'm getting better at identifying those birds. I feel like I learn a lot more about sound identification when I'm out with my friend Jim, who is an expert at birding by ear.

And as he talks through his process and his mnemonics, that's far more helpful to me. I'm still a slow learner in that part. But again, part of that is that awareness of like, oh, do I want to get better at this? Actually I do (laughs), right? And so that's a place where I need to go out with Jim more and go birding with someone who can already do it. And it's fine to have my app when I'm out, but if I really wanna develop that skill, like, I need to use the strategy that's gonna make sense for that.

[JIM LANG]
Yeah. That's great. Okay. You know, I had a bunch of questions I was gonna ask you, but we've talked a lot about (both laugh)--these are deeper questions, which is great.

[DEREK BRUFF]
Can I throw in one more wrinkle? Because I—

[JIM LANG]
Yeah, absolutely. Yes. Yes.

[DEREK BRUFF]
I thought of this as I was preparing, and it's this kind of, it's back to your variety and your different strategies, right? And so we could spend a whole nother hour talking about the use of AI to help read.

[JIM LANG]
Yes.

[DEREK BRUFF]
And so two quick thoughts on this that I think are helpful. One is, I heard from a UVA student in the spring who said, when all of my peers don't do the reading, they just have AI summarize the reading, and that's how they prepare for class, class discussions are terrible (laughs). And that seemed that it was, it was really great to hear that from a student, like she wants her peers to actually do the reading so they can have good class discussions. If they're just relying on the AI summaries, the class discussions are thin. And then I thought, okay, well yeah, we want students to do the close reading. We want them to do the hard work of making sense of the text, right? And then we have them come to class and talk about it with their peers. It's not like

the close reading independently done is all of the ways that we grapple with texts. We also do it through conversation with others.

And so I think, what I appreciate is you kind of complexifying that for any of these learning tasks, there's probably multiple ways to go about it. Some ways that we kind of lean into as educators, some ways that we've classically valued, but we also need to think about maybe there are some other ways that could be more or less helpful for different students.

[JIM LANG]
That's a great point. And, and when it comes to, you know, reading especially, like, sitting quietly in my chair and just absorbing is one way to do that. Taking a pen out and highlighting, taking notes in the margins, is another way to do that. Social annotation tools like Perusall or Hypothesis, there's another way to do that. And then coming in class and actually reading out loud--you know, actually in K-12 education, they read the text out loud.

[DEREK BRUFF]
Yeah.

[JIM LANG]
And they discuss it. Like, all these are ways to engage with reading. And you're right, there's multiple ways to do that. And one of those ways might be supplemented by or enhanced with the use of AI. But again, my core principle here is do more than one, right? And I think that the case that we have to make sometimes to students now going forward might be do more than one (laughs) because the first default might be AI. And we have to try to find the ways to build the other ones in to help them see the value of the different things they might be able to do.

So, okay. So we've talked a little bit about the--and obviously you and I have different sorts of perspectives on technology and experiences and attitudes. I'm definitely a person who has much, much more traditional views on, you know, higher education and interacting with texts and all that kinda stuff. But I'm trying to learn and, you know, develop my own understanding of AI and places that I might use it in my own life. I really don't use it for anything right now. But give me a sense of like, you know, a few things that I might use it for in my work and my life that might be useful for me to explore. And assume that you have other listeners in this podcast, which are like me, who are sort of, you know, not really engaging with it too much. Where should we start?

[DEREK BRUFF]
I don't know if this is a great answer, but I mean, my main answer is to kind of experiment. But I think you need to be thoughtful about how you experiment with it. And so something I tried a few weeks ago, which was kind of fun, was I imagined a particular class session I was gonna be teaching, and I jotted down a lesson plan for that class session on a Post-It note. So a very kind of low resolution (laughs) version of my lesson plan. Just, you know, 30 words tops, right? Probably not even that many. Just got it on a Post-It note. And so then I took out ChatGPT on my phone, although any of the apps will do some version of this, and I took a photo of the Post-It

note and I said, I'm teaching this class, here's a draft of a lesson plan, turn this into a full lesson plan for a 50-minute class session.

And you know, it spews out this thing that is a halfway decent lesson plan that is actually based on a lot on my Post-It note. And so here's where the rubber duck comes in, right? Try this, look at what it produces. It probably has some useful things. It probably has some less useful things or maybe some elements of a lesson plan that might be useful for someone else, but not for you because it's not your priority. So then use that as a moment to reflect on what you want to accomplish in this lesson, right? That's the kind of rubber duck effect. And then give it some feedback, right? More of this, less of that. Scratch that, right? It'll--the other thing about these tools is that if you just ask for something and get an output, you're usually gonna get a much worse result than if you go back and forth a few times.

So give it feedback, let it revise, and then see what it gets. And what I would argue is that one, you might end up with an interesting lesson plan. It might have an idea or two that you wouldn't have thought of otherwise. Two, the process itself helps you clarify your goals for that lesson plan. And so there's some value in that. And I think that's a nice way to get a little more sense of what these tools can do. And then you're in a better position to decide, is this something that would be helpful for lesson planning or for other things that I do on a regular basis?

[JIM LANG]
That's a great example because, you know, many times in my life I've walked down the hallway to a colleague's office and said, here's what I'm thinking about today, I have no ideas what to do, and we have that conversation with just that person, right? And it's useful. You get a tip or something like that, but sometimes you don't, you don't really push yourself to say, but why? Like, what's my goal? So actually, if I'm thoughtful about my AI use, it might remind me to say, okay, yeah, what's my goal here? What am I trying to accomplish here? And articulating that back to the AI might help me become more thoughtful about what I'm trying to accomplish in that particular class period. So we have these opportunities, we can use them, and we have to experiment and learn and grow. Not only the students, but the teachers, as well. Okay, Derek, it's been a great conversation.

[DEREK BRUFF]
Yeah, this was fun. Thanks for having me.

[JIM LANG]
We've got into some deep issues here. But I really appreciate your thoughtful perspective on all these issues. So, we'll keep talking, buddy.

[DEREK BRUFF]
Absolutely. Absolutely. Thanks Jim.

[JIM LANG]

(cheerful upbeat music)
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