Rise, Teach, Learn - Season 4 Episode 4

AI in Academia

00:03
Welcome to the Rise, Teach, Learn podcast. I am Dr. Chiara Ferrari, Director of Faculty Development at Chico State. And we are happy to make these resources available to our campus community and beyond. The podcast is hosted by Dr. Jamie Gunderson. And she will engage in timely conversations with faculty, staff, and students and give you a taste of the Chico experience. Subscribe to our podcast and explore the many resources available on our website. Thank you for listening.

00:34
Hello, and welcome to Rise Teach Learn. I'm your host, Jamie Gunderson. In this episode, we are going to explore the idea of artificial intelligence or AI in Academia. And I'd like to start by welcoming this episode's guests Dr. Kim Jaxon and Dr. Zach Justus and if you don't mind, Kim and Zach, I'm gonna have you say a little hello to the audience and tell them about who you are so that they can get to know your voice. So, take it away, Kim.

01:02
Hello, everyone. I'm Kim Jaxon. I'm a professor in the English Department who studies digital literacies and the teaching of science writing. And I'm now in a new role on campus as the coordinator of undergraduate research, which I'm enjoying figuring out as we go.

01:23
Hi, I'm Zach Justus. I'm a Professor of Communication Studies I regularly teach writing along with public speaking, so there are some different interactions where students express themselves. I have an abiding long-term interest in learning technologies and […] on campus.

01:42
So fun fact, prior to my time at Chico State, I worked in Las Vegas, Nevada, and I was an assistive technologist. So, in my role, I work directly with adapting and modifying technology to support the needs of a variety of learners. And so that being part of my experience, I tend to have like a pro accessibility lens when it comes to technology, like I'm normally like super geeked about any possibility that technology can provide. But when I was sitting down with Chiara and we were first talking about ChatGPT I kind of was a little reserved on that. At first, I was like, "Oh, wow, imagine the possibilities." But then, "Oh, wow, *imagine* the possibilities." And so we wanted to devote an episode to ChatGPT. And we wanted to have Kim and Zach on here to talk a little bit about some of the predictions we have, the opinions we have, the implications for our teaching.

02:38
So, Thanks Jamie Chat, ChatGPT is as you said, a lot of things the clunky name for it. And it's a good reason why we have the acronym is generative pre-train transformer, it just rolls off the tongue. So,

ChatGPT is a language generation tool. Some of the initial articles and podcasts about ChatGPT were a little bit confusing, because people confused it with what's called general AI, which is something that does not exist yet, which is an actual thinking machine. This has some attributes that make it seem like it is thinking but it's really because it is calling language from all over the internet and using a predictive algorithm to spit out sentences and sequences that it has found in other parts of the internet.

So, it is not thinking but it is generating language that is, that already exists, that's built on existing knowledge. And it's putting it together in really interesting ways. Not ways that are always accurate, but in really interesting ways. And one of the things that it seems really good at is providing quick written summaries of things that we already know a lot about. Specialized knowledge is not in its wheelhouse right now. But for instance, in my class, which was a class in freedom of speech, so there is a lot written about it, there's a lot published about it, and legal text and academic texts, on just random websites. It is really good at answering quick writes, which are the primary way that I would assess understanding and make sure that students had done reading for that week. And so, I am trying to lean into that this semester rather than fight that. May be a huge mistake. I really don't know we are all making this up as we go. But for right now, I'm trying to teach students how to use it encourage usage and in some cases mandate its usage, specifically in response to short written prompts.

05:06
You know, Zach, I think what you've touched on there, even by outlining what it is, is the fear is, from the faculty I've talked with, that the thing you just named, which is this is going to be really good at quick responses to known ideas. And so, you know, I think for those of us who teach writing, or think about teaching of writing or think about communication, to me, why I don't get as nervous perhaps about it is because it still goes back to assignment design. Right, it still goes back to how you think about your assignment design. So for example, if you use writing to see whether students know what you know, ChatGPT is going to be really good at doing that for them. If you use writing, to vet, to vet ideas, to, for them to push ideas forward, for students to ask questions, for students to then then it's not going to do as good of a job and they'll want to do you know, the writing themselves. I do think it'll be fascinating. And I'll be doing this with my capstone class and English Ed, who want to be future high school teachers. Because it would be a disservice to not be working with this with them going into K-12. We're actually going to design writing assignments off of the book in common and put and put it in ChatGPT and see what it can do with a draft. And then we're going to crowdsource that draft, we're going to revise that draft, we're going to annotate that draft and see where its limitations are. And in the service of thinking about assignment design, how can you design assignments? And to me, this is just another iteration of the five-paragraph essay that I don't want students to do anyway, you know.

06:48
So much of this gets back to really foundational questions about why are we assigning writing? And what are we preparing students to do in our classes. And part of the reason why this has been uncomfortable for some faculty is because we've gotten really comfortable with the processes that we're in. And this has caused us to go back and ask ourselves some foundational questions that we don't always have great answers too, in terms of why we assign writing what it is that we're preparing students to do. So, like in the example that Kim used where you're preparing students to go into teacher education. And so this is going to be a part of that world. So, we better teach people how to do

it. And I have, I have a similar perspective with my students. They are graduating seniors, they are going into sales and recruiting and real estate and nonprofit management. All of those things are going to involve them writing copy and summarizing ideas and putting stuff together for a web site. And the truth of this is, this is being used in all those industries already. We're not talking about the future, we're talking about right now. I think there was an article from NPR, I'm sure Jamie can make it in the show notes that 40% of people engaged in knowledge work have experimented with this for work-related tasks. And so if we are fighting this, or pretending it doesn't exist, we are systematically disadvantaging our students from entering the workforce. Now, that's not the only reason why we're in higher ed, right we're not an assembly line to produce workers. I also want to produce thinkers and informed voters and people that change the world and think about the world differently and have a rounded understanding of some key concepts. But this will be a part of all of those things as well. So that, if we can ask ourselves, honestly, some of those foundational questions, why are we teaching writing? What are we preparing students to do? This is currently a part of all of those answers. And in the future, it will probably only be more so.

09:08

I have to call attention to two things you said there Zach. Number one, you mentioned that this technology is being used in other disciplines. And it so is, so I'll give an example. When Chiara and I sat down and started talking about ChatGPT and we decided to do an episode on this topic. I started to do research and one of the clips that I saw the announcers actually used ChatGPT to write their transition. And they literally it was very basic, like, do a TV transition from this and make sure to reference this and boom, and she read it and it was it was beautiful. It matched perfectly. And it was very conversational in nature. So what you say is absolutely true. It's being used. The funny thing is I thought what a cool idea for my podcast intro, and I was gonna have ChatGPT do that for me. But it's so popular right now that when I went to login, and this has never happened to me, in all my years of working with technology, I had to sign up with my email to be notified when their server space for me to get it. And so that tells me it's super popular, it is being used in different disciplines. But this other idea Zach that you brought up reminds me of this. And it's a thing that we use in K 12. Education, this idea of digital citizenship, and how we teach our learners to use technology in a meaningful, responsible way. And I wonder if maybe there are some implications for thinking about digital citizenship with these newer types of technology? What's okay, what's not okay? But as you were talking, I was like, Oh, wow, this is making that connection to this is another form of digital citizenship that we are going to have to teach.

10:50

You know, Jamie, you're making, you're reminding me, one thing I might recommend that people listen to, if they want to just a nuanced look, would be the podcast from the Ezra Klein show where Gary Marcus was, who's, uh, has thought about AI for his career. And one of the things that I was persuaded by that, that scares me more than the classroom space would be the political implications of a, of a ChatGPT that takes the worker, the writer off the table, it's not cost anymore to put out whatever non-factual thing you'd like to put out in the world at scale at scale, you know, you could. So I think, the political implications and us understanding who's doing the writing, what counts as writing, you know, whose writing counts are the big questions that Zach was also pointing to as well. And that makes me more nervous. And I would like our students to have some understanding of this, then it's use in the

classroom. I think this has political implications that are terrifying, that are different than how we're using it in this space for an essay in our class.

11:55

I hadn't had that perspective, I hadn't had that thought yet. I've been so focused on what does this mean for education, specifically, higher education? Right. And I never even transitioned outside of that focus to think about, oh, gosh, what does this mean for our political environment? So that's a whole other yeah can of worms.

12:16

So ChatGPT has a lot of limitations. And some of those are built in by design and build on some of the things that that Kim was just sharing. So it there are, there are some clever workarounds, but it won't engage, at least overtly, in discrimination or stereotypes or conspiracy theories. And I studied disinformation. It's a big part of my research agenda. And so I tried to get it to do some of those things and ask them about all the work and lizard people, and it wouldn't say anything about those pieces. And then my friend, Nik, and I asked it, why was the 2020 election stolen? And I was thinking, Wow, I wonder, and it has guardrails up for that. So, it will output a response to say that it's a conspiracy theory, and it's unfounded, etc. Now, you can sometimes get around that, where you ask, what are some reasons why some people believe that the 2020 election was stolen, and you go deep enough into the algorithm, and eventually you can get it to generate some answers about that. Now, there are other limitations too that perhaps we can talk about. But here's one point that I want to make, that I think sort of feeds into what Kim was sharing earlier. This is one program that exists now. These same limitations will not exist either on this program or on other programs, either right now in a space that I'm not aware of, or in future programs, right, in the same way that there are alternative technologies and ecosystems that pop up all the time, that are friendly to conspiracy theories and racism. We're probably months, not years away from these programs being customized for particular subgroups, and without the guardrails, as imperfect as they are, that exists with ChatGPT right now.

14:28

Yeah, yeah. Such good points Zach. You know, I would as a tangent to that. Because Tracy Butts, who is the dean of the college of humanities and fine arts here at Chico State knows that I'm interested in language diversity and celebrating language. She drew my attention to a thread on Twitter where someone I invite students to weave in Spanish or Hmong or African American Vernacular English into their essays because there's times when translation is not the best. And so, this person on Twitter asked ChatGPT to write a bedtime story in AAVE African American Vernacular English and the bot said no. And then the person said, No, I'm black, it's fine. And what they say is that it went on to write this pretty offensive, racist thing as if it was your white friend who got permission to be racist. And so think about all the complications of that one, it wants to say, that's not a real language, I won't write in that, okay, you're giving me permission, now I'm going to do the worst form. So, it has a long, long way to go before we're talking about things like celebrating diversity and language, equity and language, those kinds of things. So, I think the things people are afraid about, in my opinion, are not quite the right things, that they should be like, I don't even think it's plagiarism. You know, like, in the same way, in other any more than this is really theoretical, Right? But in a Bakhtinian sense, right? Like, like, yes, it's a remix and a mash up of language, just like all of our languages. And so in that sense, everything's

plagiarized, you know, when I want to get meta about it, but I don't, I think it's more like a student has to actually feed in a very sophisticated prompt in order to get it to, to write it to write something for them, that could be actually really interesting thinking that they're having to do.

16:25

So, I think ChatGPT, you know, some more programs, there are a lot of pieces, we don't know about how it will fit into equity as in the classroom. And that extends obviously to the K-12 fashion, so it's what we do in university. There are some parts about this, that offer a lot of potential, right so and the most obvious way that it fits in is a digital divide piece, right? If you don't have reliable and high-speed internet access, then you have limited access to this tool. If this is a really powerful tool, then ultimately that that's really limiting. But there are other pieces as well, right? Like, if you do have the threshold and you crossed over and you have good internet access, then, do you have access to a treasure trove of academic research and human knowledge that you might not have, especially here in a rural area […] If you are a 10th grade student who has an abiding interest in astronomy, and there's no astronomy program, within 100 miles of where you're at, and but that you know, that's what you'd like to study, then suddenly, are you going to be able to get answers to those questions. And there's this weird thing that happens to where the chat program has access to original academic research that is in protected databases, that then it will summarize and provide to the person who entered the prompt. You can't go read the originals, which is its own huge problem that I have extremely strong opinions about. But as a workaround, if you don't have database access, you can still get access to at least summarized information, even if you're not affiliated with the university, or even if you're a high school student that has access to a library, but your school doesn't pay for you to have access to the kinds of databases and information that you would like. So in some ways, it creates equity. Now we're starting to see inequity built in right, like there's a tiered model Jamie mentioned earlier, she wasn't able to get on well, now you can pay for premium access. And so now there is a class based tier. But I think that this is going to be a real disrupter to how we have traditionally thought about equity in the classroom.

19:08

The most recent MacArthur report that came out on digital divide was not around people having access to things like smartphones or, or computers, but what you get to do with it. The kinds of creative work you get to do with those devices, is where now our divide is, right. And so and Internet has a big part of that, right, obviously rural areas like even like ours. And so Zach Justus, that's the thing that makes me nervous that we shouldn't be the gatekeepers for new technologies. We should be the place where there's a curiosity around it and we're trying it out and sorting it out and asking the hard questions about it as opposed to you know, putting it aside.

19:48

Jamie, I thought I might offer one practical example of assignment design. Because I teach writing I get asked a lot about assignment design, and I have worked for many years with a wonderful colleague, Leslie Atkins, who was at Chico and is now at Boise State, to think about teaching of writing and science. And we have a paper we end with in this scientific inquiry class where we studied light, color and the eye. And the class ends with a paper that sounds like it would be very easy to plagiarize, which is, how does the eye work? How's the eye work? You can Google that. You'll get all kinds of and so Leslie and I put that prompt into ChatGPT, how does the AI work, and we got what you'd expect a very

Wikipedia entry looking, you know, the eye, blah, blah, blah, and the retina. And here's what the lens does. But then we started feeding it all the things that our class does around that. And the one thing it could play with was we do this pinhole theater, camera obscura, where you put a box on your head, and you can see an image across from you. It's just Google pinhole theater. And it could play with that, like it could play with that prompt as a way to incorporate it into how the eye works. But there is not a student who could turn in that final paper for our class where we wouldn't recognize that that is not the thing we do you know, they they're drawing on. Well, my group worked with lenses. And my group worked with pigment. And my group worked with understanding the rainbow as a way to understand the eye. So all the work of the course is what shows up in that "how the eye works" paper, you couldn't write it without being in our class. And so I think I'd think about that, like how is your course in the service of the writing and specific to "Can anyone say this?" like, this is specific to the ideas you've all been vetting as a community in your class. And so we weren't as worried we thought it was fun to play with. And we probably have students play with that putting that prompt into what is and and it could be really fun to have students annotate that like what does ChatGPT get wrong in your field? What where's the inaccuracies? Because pointing out wrong? Leslie said this a lot pointing out wrong ideas is actually harder than knowing when something's right, you really understand a topic when you can say that something this is wrong, right? So so might be ways to think about, you know, assignment design that can alleviate fears of plagiarism, and I know Zach's doing some really cool work with his students on that.

22:21

I really like how you talked about assignment design, but you kind of brought it back to that idea of like digital citizenship, like this idea that like, yeah, it is more difficult to point out the wrong answers. And we should be teaching our students to discern between right and wrong answers, right and wrong information or not right and wrong. But yeah, you know, like what, good information versus bad. And so that's interesting. And, and then to tie it back to that idea of equities, Zach, I'm thinking. So my background is special education. And I've worked a lot with technology that that takes the readability of a document and makes it more digestible for somebody who struggles in that area. And as we're talking, I'm thinking about how this might have the potential Kim with your designing of your lessons, to give students that kind of summary that they need for comprehension, but then to push them forward to develop something. So, I think it comes back to the two things that we've kind of like highlighted this idea of digital citizenship, teaching our students how to use technology responsibly. And then also this idea of designing your assignments to make sure that there isn't space for somebody to just put a prompt in and just turn in a paper.

23:39

Yeah. So I'll offer one assignment piece for this that, I believe also supports what, what Kim you shared earlier. So later in the semester, for one of their quick writes, it's going to be required that students use the program. So they're going to enter the prompt, and they are going to submit the prompt, the response from ChatGPT. And then they are going to submit a response that is their revisions. Because I need the students to know that it is up to them to assess the factual accuracy, to change language that's awkward. Sometimes there are typos that show up. What ChatGPT is really good at is style. I had described an academic theory, and that I said, now do it with more academic jargon. And it does that. And I said now write it for a fifth grader. And it does that. Stylistically, it's really good so if you give it first

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glance and you and you're not an area expert, it sounds right, but it's up then to the person who's going to attach their name to it, either out in the world or in the space of our classrooms, to assess the accuracy of that piece. And I have one quick anecdote for you that I'm not sure it will make it into the final cut but I want to share it anyway. My mother and father live in Yuba City and my mom has a deep interest in local Chinese history, especially the history of the Chinese in Yuba City. There's a lot of research and a lot of work done about the history of the Chinese in Marysville. It's specifically because of goldmine. There's much less done in Yuba City. And so she's kind of made that her interest, she's made contributions to the worker Museum and helped designed exhibits and has lots of connections in the community. So, I asked the program write a 500-word history of Chinese immigrants in Yuba City. To me, it sounded totally reasonable, but I sent it to her. And what it did was it conflated Yuba City and Marysville together, because where it's harvesting language, those things are most often together, I would have never known that. But she knows that because she has such a deep well of knowledge to draw on. And so especially in these specialized areas, factual inaccuracies abound. So it's a it is it places a different kind of responsibility on the, whether we're going to call up the author or the producer or the editor, I think blogger reshape all that language in the coming years. But in our case, is that of the student that we're asking to use this, you know, they are in a different role than they were before. And in some ways, it's a harder role. Because when they read the stuff, it sounds like their textbooks sound. Because that's, those are the inspiration for the language, and it's drawing from.

26:53
Yeah. Zach, that's such a good example. I think it should make it to the. And I also think, I mean, I don't I feel like just an extension of what we should be doing should be doing all along, which is vetting any source any source, we should see if other people say that, too. I mean, anytime we're having students look at any kind of news media right now, I would think that we're having them go to multiple sources, we hope, looking to, you know, not maybe not even truth with a capital T, but at least a lowercase t. This is just a next next level of another maybe this maybe this is pushing us towards like, no, really, we need to like vet the information that we're getting for real.

27:36
I have lots of conversations with lots of faculty about this program, and how it's going to change things. And I've sent somewhat alarmist emails to people about: No, you really need to pay attention. This is this is quite important. The disposition immediately changes if they create an account and use it. And I think if you want to understand the power and potential and disruption that this and similar programs are going to pose, the strongest advice that I can give is, stop reading, maybe stop listening, and go create an account and try it out. Yeah. And it is it there's no teacher like the experience of doing that and seeing the limitations and the possibilities, but I just know firsthand that the conversation changes with people once they have gone in and gotten their hands on the program themselves. So I can't even if even if you think that this is our doom, and the end of higher education. Okay, go try it out. If you think this sounds like the best thing ever, okay, go, go try it out.

28:58
I like that advice Zach. And as a prompt for what to do for when you go to try it out, it is really fun to put in something you already use in your class. But you know, try writing letters of recommendation.

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29:13

Nik made that exact point, he was like, your conversation about this is gonna shift radically once we realize we can use this to draft letters, letter, letters of rec, some boilerplate language, a little specifics to the student. Or put in a lesson plan, ask it to write you a lesson plan for something in your class. It's, it's fascinating. They're not great lesson plans, you'd give them a C but, there, they'd be a thing to start from. You could revise, make your work easier. Try it out by making your work easier.

29:42

That whole adage of work smarter, not harder. Harder. Yeah, right. We're going to have a link for the ChatGPT webpage on our FDEV podcast webpage along with a link to a website and Zach, do you want to kind of share what that website is?

29:59

Yeah, the website has been developed and it's curated by my friend and colleague, Nik Janos. And we're placing our own writing there, along with some key pieces that we're finding about ChatGPT and academia. I'm sure there's overlap also with some of the resources that Kim has so carefully curated from some of our colleagues.

30:20

Yes, and we will be providing a link to Kim's resources as well, which is a total treasure box of everything you wanted to know about ChatGPT. In addition, because this is such a popular topic on our campus, the Office of Faculty Development will be hosting a ChatGPT forum. It's not scheduled yet. We are going to put that on the calendar for March. So keep a lookout for that.

All right. And there you have it, folks. Today we explored AI in academia, specifically ChatGPT. I'd like to thank Drs. Jaxon and Justus for their contribution to this episode, and I'd like to remind everybody please don't forget that you can access all previous episodes of Rise Teach Learn, as well as the resources associated with this and other episodes of our podcast on our FDEV podcast webpage. A big thank you to you for listening and until next time, we got this Wildcats!

31:16

We would like to thank the Mechoopda on whose traditional lands this recording is taking place. Without their support and continued positive presence in our community, we would be unable to afford the cultural and educational work that is at the heart of this recording.