
CDTL Spotlight: On Fostering Responsible and Rigorous Learning with ChatGPT

With Jonathan Y. H. Sim, Department of Philosophy, Faculty of Arts and Social Sciences

Question #1

Share with us about your journey that led you to integrate AI into your teaching practices

(0:11)

Jonathan Y. H. Sim (JYHSim): “Yeah, so when ChatGPT first came out, I was actually very surprised at the strong negative reaction that came out. And in fact, it reminded me of the time when I was a student, [when] Google came out. And later Wikipedia came out, and it was very interesting because when these two technologies came out, people were so upset about it.

Now...fast forward to today, we're all okay with it, we say, ‘this is good, this is useful.’ And I thought, why can't ChatGPT and other AI tools be good and useful? Especially, you know, we say, the purpose of university is to prepare our students for the future. Then, shouldn't we educators be the ones to also prepare our students for the future?

So, I took it upon myself, I was like saying, ‘okay, you know, if so many teachers are going to be so negative about it, then maybe I should myself experiment and see how this could work.’ And then that way I can share with other teachers and say, ‘hey, you know, this is actually useful and good. And yeah, maybe this is the direction we can go with it.’”

Question #2

What are some of the most significant challenges you have faced as an educator when introducing AI tools into your classes, and how did you overcome them?

(1:08)

JYHSim: ""I first tried ChatGPT, I was actually not impressed by it at all. You know, I got it to write some essays, and I looked at the quality of the essay. I was like, 'Ah, this is terrible.' And I thought it was actually very gimmicky. But then one day I talked to some of my students. And then they'll say, 'Hey, 'cher[sic], you're doing it wrong.'

Some of my students were saying, 'No, you have to start the prompt like this. You have to say this, you have to do that.' The quality of the essays that you can produce after that was like, wow, at least one grade higher. And that got me thinking, 'You know, there's actually a skill involved in prompting the AI.'

And I thought to myself, 'I need to at least learn. How do I cultivate that skill? How do I cultivate a good working process for myself first before I can teach students? Can you imagine if you yourself don't even have it normalised in your own workflow, how can you teach students to adopt it in their workflow, right?

It was a huge struggle for me because...it was not natural. I was very, you know...I like to just rely on myself to get work done. So it was very interesting...as a journey to see how I integrated it. That was one struggle.

Another struggle was actually to discover that students were using it in ways that was slightly different from how I would use it. And again, I had to sit down with my students. In fact, I got some of them as my undergraduate teaching assistants. So I said, 'Hey, let's work together to create this tutorial activity', because I know they are using technology slightly different from me. How can we get students to use it effectively, and in a way that's natural to them?

So, that was the other struggle, and it was very eye opening for me to work with my students to develop this, because to see, oh, they use it differently, that they're sharing practices amongst themselves differently, and eventually, As I

see how they use it, and I try to mimic it in my own work process, it was very eye opening because it...started to feel more natural to me and, you know, I talk about...the importance of developing this kind of synergy. Like, you know, when we work in a group with people, right...it's one thing to know how to talk to people. It's another thing to know how to work in a team, just bouncing the ideas back and forth creates a lot of new ideas, and we get to go somewhere. We're able to do something that we could not have done alone.

And I was like thinking to myself, 'How do I create that synergy with ChatGPT?' So it was a lot of trial and error, until the point where now I'm very confident to say I've reached that stage...where I come up with a draft, and then I feed it into ChatGPT, just to see what new ideas it can generate. And it's like, 'Okay, oh, this way of phrasing it, oh, that's very impactful, I didn't think about it.' Then go back and forth, back and forth, My best example is last week, [when] I was trying to write something...three separate ideas, but I didn't know how to string it together. So I did this back and forth ten times until it came out with that beautiful one sentence that strung everything together very coherently. I was like, 'Yes! That is it!'

So the point is, it wasn't easy for me to get there and I got there largely because I worked with my students to understand how they were using it. I was learning from them and that really informed me a lot and I also started practicing later. And that eventually helped me to overcome a lot of these challenges."

Question #3

As an educator, where do you draw the line between using AI as an empowering educational tool and avoiding its pitfalls as a potential crutch for students?

(4:32)

JYHSim: “We need to take a step back and reflect on why do we have this deep distrust that our students are going to jump into ChatGPT to cheat. I talked to so many of my students and you know, I teach in a large cohort of like 400 students, right? They say that if we understand the purpose and value of the activity, we will not cheat because we will know that, that this is actually helping me, right?”

So if we give them enough time, we explain it to them, and we cultivate the connection so that they know that we genuinely care for them to learn and grow. That actually [is] half the battle won already; actually more than half the [battle won]...One other thing that I learned also is that students will use it to shortcut their learning only because they can't see other ways of using ChatGPT.

Right now, the news, the mainstream media, even social media, we still have a lot of discourse about it as a cheat tool, as an answer generator. So of course, people struggle with it. You know, like in the talk, I talk about binder clips, right? We are stuck thinking that binder clips are just meant to clip paper together. But if I show you other possible uses, you're going to go, 'Wow, I didn't know I can do so many things.' It's the same with ChatGPT. If we can teach students ways that they can enhance and support their learning, ways to help them learn more on their own, they are going to actually adopt that. Interestingly, many of our students really, really want to learn.

I think we don't emphasise enough, you know...many students actually take pride in the work that they do. And if we give them a chance to really do it well and take pride and gain from it, they actually will do that.

I have this very wonderful story...you know, after I trial run[sic], I piloted this tutorial activity where I teach them how to use it to augment their learning. During the summer break in May, June, right, I had one student actually reach out to me and say, 'Hey, thanks so much for teaching us how to take our

learning further on our own with ChatGPT.' You know, I just teach very introductory coding, right? But it gave him so much confidence that he applied for a coding position in internship. He's new to coding, right? Uh, econs[sic] major. He's new to coding, but he told the boss, 'Please give me [a]coding project.' And he's able to work with ChatGPT, to learn as he is trying out these projects, but also it helps him to work faster, learn faster, work faster. And he's so proud of how...he's so grateful of how the lesson actually empowered him that he's able to take on something so daunting and scary, so new. Now he's so confident about it. So I'm very proud of him. And he is just one of many stories of students who are empowered after we teach them how to augment [their learning]."

Question #4

What are some tangible examples of assessment methods do you think will encourage our students to engage AI in a meaningful and responsible manner?

(7:16)

JYHSim: "There's actually two broad categories of learning activities or assessments that we can come up with. One is what I call AI-enhanced learning. So basically, we get the students to do the work on their own, and then they get ChatGPT or other generative AI tools to evaluate, give feedback for suggestions.

One thing we can do is we train the students to think about the feedback that ChatGPT gives, right? So just because the computer can give you feedback

doesn't mean it's the right feedback or the best feedback. So we want them to reflect on it, to evaluate. Like, is this feedback really accurate? Is it really good for me? So then that way, as they do it, they are more reflective, but they also develop what we call evaluative judgment. That means they're able to evaluate the work of the AI. And if we train them to do this, then it becomes more second nature. They start to realise that, 'I cannot take the answers by an AI at face value. I should always be probing to see how I, as a human, can add value or enhance it.' So, in many ways, it's like the AI enhances my work while I see how I can enhance what the AI does. So that's AI enhanced learning.

The other one is AI collaborative learning, which I thought was very fun because, I like to do role plays in the classroom. I get my students to imagine they're in this scenario. And I thought, wouldn't it be great if we can automate this process? And then we can, practice and train our students to refine a lot of soft skills that normally would require a human being to sit in front of them and give them live feedback.

So actually in this area, I actually sat down with some of my...my undergraduate TAs, and we really worked on this, you know, like, 'How can we make this into a learning activity?' So we came up with ideas like, oh, we can get ChatGPT to role play as a confused student. We can even get it to engage in Socratic dialogue. So either [ChatGPT] becomes the questioner, or the student becomes the questioner; so they can do this. Yeah, of course, later on, in recent times, I work with people in social work, in dentistry, and then we come up with activities to role play, how to be a better, more effective communicator, to calm the patient down so that they don't get anxious hearing all this technical jargon, or how to be effective and more empathetic social worker. So things like this, yeah."

Question #5

As the educational landscape continues to evolve with the advancement of AI, where do you foresee the role of generative AI tools in the classroom in the next 3-5 years? What opportunities or challenges should educators be particularly aware of and prepared for?

(9:36)

JYHSim: “So I think what's really fascinating and scary at the same time is the, is how fast, uh, ChatGPT and all these other AI tools are developing. It's very rapid. It came out at the end of November 2022, right? And now we are in August already, right? August 2023. The way AI is going to develop is going to be so rapid, we are not going to have the luxury to normalise all these changes. Just as how ChatGPT produced strong knee jerk reactions at the start of the year, we are going to see even more strong knee jerk reactions with every new development that generative AI is capable of doing.

So, how then can we prepare ourselves for that? I think we need to start having discussions early about what kinds of learning objectives we are willing to let go. Now, I know ‘let go’ sounds very strong, right, but in the sense that we are okay to say, ‘It's fine for an AI to do it’, or for us to say, ‘I think we're happy to allow for a reinvention of this learning examples’.

Of course, in the talk, I talked about writing. Like if we want the super most fool-proof way to prevent cheating, uh, then how, how, what, what do we do? We get the AI to generate an essay, and then we get students to edit the essay on Microsoft Word. You know, they enable track changes. So then everything they do will be locked; that way there can be no cheating, right? But notice what has happened. We do an activity like that, it becomes...[about] editing skills, it's not writing skills anymore.

Of course, some people say, ‘Oh, if a whole generation of students do that, maybe they will lose their writing voice.’ Now, that's a scary thought. Uh, that actually kept me awake for a few nights. Then I talked to my friend who's an engineer and he says, ‘I never had a writing voice to begin with!’ And it got me thinking, you know, like maybe some of these values...is coming from, from a position where, you know, we as academics, we enjoy it a lot and we privilege

some of these values more than other people do. So that's one. But again, I talk to other people, like some people that do editing work, they say, actually it's not true, it's not true that people are going to lose their writing voice. Even as an editor, I have my own unique writing voice. So, then if we accept this, then what are we seeing? It's a transformation of the writing voice. One from writing from scratch to one that involves editing. Are we okay with this, with this kind of changes?

We should start having this kind of discussions, here and now. Because if we don't, then when it comes, it hits us very hard. We're going to struggle and resist it very strongly. Yeah, so at least...I think we should be prepared for the future by talking about this with our colleagues now.”
