Transcript for Collaborative Exploration of Ethical AI Use: A Case on Critical Classroom Practices
ETUG Fall 2024 Workshop: Navigating Ethics and EdTech – November 1, 2024
Presenters: Jenny (Jing) Mao and Jonathan Stone

MELANIE LATHAM:
All right. So I hope everyone is coming back from the break and making their way back to their computers. I know I'm about a minute early, but hopefully you're finding your way back. I would like to introduce our final session of today is titled Collaborative Exploration of Ethical AI Use: A Case on Critical Classroom Practices with Jenny Mao and Jonathan Stone. Jenny and Jonathan are both learning specialists at Coast Mountain College. Now, turn it over to Jenny and Jonathan. It looks like you've already got your slides up, so that's awesome and take it away.

JONATHAN STONE:
Okay. Amazing. Thank you so much, Melanie. Before we get started, I just wanted to express a message of gratitude for the organizers and facilitators that have gone into this conference, for all the presenters that have come and for all the people that have stuck it through to the last presentation on a Friday afternoon. We really do appreciate you. Just to introduce ourselves a little bit. My name is Jonathan Stone. I am a learning specialist at Coast Mountain College, and my portfolio focuses primarily on student perspectives, student models, and I'm also a doctoral student at the University of Calgary. Focused a lot on the incorporation of artificial intelligence models into education. From there, I'll pass it off to my co-conspirator Jenny, and she can introduce.

JENNY MAO:
Thank you, Jon. Yeah. Thank you, Melanie. And thank you, everybody, for staying with us. My name is Jenny Mao. I'm also a learning specialist at Coast Mountain College. A little bit different with Jon is that I'm more faculty-facing, and this also makes our collaboration meaningful and interesting. So we look forward to hearing from you, your perspective on our presentation. Thank you.

This is our beautiful campus. Jon, I am very honoured to join you from Terrace Campus of Coast Mountain College, which is situated on the traditional territory of Tsimshian People of Kitsumkalum, especially Laxyibuu clan. We are committed to endeavour ourself to work, live, and play on this territory. So grateful.

As for our agenda today, we'll cover four areas. First of all, we would like to introduce a little bit about our teaching and learning contest in our college. Then we'll talk about the ethical pedagogical problems in learning with AI. And lots of things have already been discussed so far, but we'll focus on that, have a little discussion on that topic. Then we'll have a brief walkthrough of the example in the classroom, how we collaborated together to talk about AI

with our students. Last, but not least, we're going to share a little of our reflections and suggestions. Okay.

Before we jump into the brief description of our learning teaching context, I'd like to bring your attention to this framework. It's the acronym TPACK. So refer to technological pedagogical and content knowledge. I think this framework also really helps educators to think about their role and your position to support learning and teaching from your own discipline or specialties. I felt like this could be helpful when I happened to read the article I listed for this citation. The sweet spot is the interplay, the intersection between the three domains. In Pena's article from the author, they talk about the features, characteristics of GenAI. It's general. It's different with other digital tools so far, it's social. It can be conversational and it's also unpredictable, unstable. Lots of features that bring you attention, bring our attention. So I would invite you to think about the question. What kind of impact AI's presence bring to the different three domains? Also, how does the interaction with AI change what we teach, how we teach, or the use of technology?

This is about our college. I'm still new in my second year, but I feel I really learned a lot in my position and interaction with people here. Adventurous, transformative, and integrity is our strategic plan in our college. We serve different geographical regions. We have campuses not only in Terrace, but also in Prince Rupert, Smithers, Hazelton, and Haida Gwaii. One of our top priorities is EPBL stands for experiential place-based learning. And we have lots of committed instructors. I can tell the really committed endeavour to bring our students to the real world experiential experiences. Another feature is the Indigenous integration. You can tell, we have a strong integration of the Indigenous culture, learning into our program and the disciplines. For example, the Freda Diesing School of Northwest Coast Art. We have really immersive learning program for our students to learn about the Indigenous cultures and arts. Last, but also not least, the community oriented, we have strong connections with the local communities and fostering the collaboration happening between our college and our community members. I will hand it over to Jon.

JONATHAN:
Okay. Thank you, Jenny. So one of the things that we talked about as we were preparing this presentation is that there are numerous ethical issues with AI, and we've talked a lot about them today. I know Emily's talked a lot about environmental issues. Ian has talked about harm. I've seen many comments about data protection on behalf of students. But what we want to focus in on today is something that I haven't seen discussed a lot in the literature, which is not necessarily about the technology of AI, but very much about our use of it in the classroom, what our current use of it is, and then an analysis of how that is affecting students.

 So one of the things that I think we're all probably pretty familiar with are differing syllabi statements. I know I've seen numerous examples of these from many different institutions in which a teaching learning department, like mine, will offer a number of different statements

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you can include in your syllabus, which describe how you would like AI to be used in your course. You can say no use at all, a little bit, totally unrestricted with a number of flavours in between. I know this is still a very new emergent disruptive technology, and it certainly fits within requiring that instructional flexibility. But I'd also like to look even though that fits within the isolated context of one classroom, what are the systemic effects to students as a result of our divergent pedagogy. We're all going in different directions, and how does that affect the student? I think the fundamental question here is, does that pedagogy increase inequity when we talk about student achievement? We're not going to try to answer that question right now, but I just want you to think about it as we move through this presentation.

One of the models that we're working on helping students deliver is this human AI collaboration. A lot of this is based on the work of Seymour Papert, who was writing in 1980, but he was an AI researcher. It looked very different back then, but he was at the MIT Artificial Intelligence Lab. His primary argument was this idea that if we don't teach children to program computers, computers will program children, and I think that that exact argument can be applied to AI, which is that we don't teach our students to direct this technology what we're going to see is that it's going to end up directing them. Drawing on some more recent research, as Cukurova from 2024, talks about what is going to happen to our competencies as AI is applied on this large scale. And in an environment where we are not the ones directing, where we're offloading our tasks, our writing, our competencies, over time, will not only sit there, but they'll actually decrease over time. Meanwhile, if we look at an agency in which the learner is directing and using the AI, but as an assistant, not as the driver, we can see over time, it can actually function as a bit of a scaffolded support, at which point the AI models use can actually decrease over time.

What does that actually mean, if we were to apply this in the context of LLM like ChatGPT? What we need to think of is, we need to get the LLM to provide feedback and question, but not provide ideas, not provide outlines, not provide written work. Even though that seems like a small tweak, we can see that there's a number of different places.

For example, if we wanted to put this into a prompt, it might look something like this. We can place it in the context of a writing classroom, and this would be a prompt that I would encourage students to use. Our first piece, you're a writing coach. I'll provide you with the rubric in the next message, provide you with a rough draft, review it in the context of the rubric, identify strengths in specific places. But the key piece here is sort of this last statement, which is, for all identified issues, don't provide solutions, but just identify them as problems, questions or comments for improvement. In this, we can see we've adapted the AI to do something very similar that an instructor would do. We would always provide feedback on a student's assignment. We wouldn't tell them how to solve the problem. We wouldn't write the essay for them. But these in the same way that an instructor will help increase our learners' competencies over time. We can see in this, we can get feedback very quickly. If I'm writing an essay at two in the morning, my instructor is probably not going to be checking his email. But I

can get a response, I can address a comment and then immediately get another piece of feedback. We're not inhibiting our learning by providing answers, we're addressing it. The learner is maintaining high agency. One thing that we've also seen emerge from some student comments is that there's no fear of criticism. Submitting your writing is always a little bit of a vulnerable piece, and many students, certainly not all, but many feel that vulnerability as they ask for support. Support from someone like myself, support from their instructors, support from their friends. Submitting it to this artificial intelligence, in some cases, helps address that fear of criticism. They don't feel that there's an entity on the other side, just a program or a script.

That's the model that we're looking at, this idea of questions, not answers, and here's a little case study where we applied it. We went over to a first-year class. We were invited into this class and we delivered about a 45-minute interactive demo for first-year chemistry students of this model in action. What it would look like for you, what it would look like in the context of your specific classroom. One thing we do want to note here is this is a classroom where the instructor encouraged AI. And in fact, really emphasized on using it and then identifying how has it changed your writing? This is in the context of lab reports. And our demo was focused on, for example, that ChatGPT prompt we showed before, and then also using the notebook LM tool from Google, using it as a study aid. Pass it over to Jenny for some observations.

JENNY:
Yes. When Jon and I visited the classroom, especially when Jon demoed the use of LM notebook, I got the chance to observe the students, and I felt like our students really at varied level of AI familiarity. Some of them as Jon described are early adopters. They could really customized the use of AI. I remember one student described hallucination as confidentially makes things wrong. And I felt some students also are less prepared. They don't have the awareness of the use of any AI tools. Also, they have the fear, as Jon mentioned just now, the fear of the academic misconduct. So those worries make them make the decision to not to use it at all or even give it a try. Also, I see the high interest in using this tool or at least try it and to use it for their study support. For example, they feel interested in the podcast generated, or the summary generated from a PDF form to help them to review or summarize the main contents of their digital learning contents from the textbook. I'll hand it over back to Jon.

JONATHAN:
So we have been able to get a few responses from students, of course totally optional. In terms of how they found using AI in their own studies using this method, where we're not getting answers, we're getting feedback. The first piece, we have a second-year nursing student who talks about using it to reassess the feedback. One of the things that I really, really like about her comment here is she mentions that she'll amend her work if necessary, which to me shows that critical thinking piece. In many cases, it's very easy for students to see something generated by ChatGPT or Google Gemini. The style of writing is generally high level, but it's not always ideal for you to use, and being able to address it at that level, I think is absolutely so important. Even

for first-year students, being able to have a conversation with a PDF of their instructor's PowerPoint, to be able to say, well, what would happen if this? It makes a really big difference for a lot of students, especially for students, where getting support is not always the easiest thing. But one of the big things that came out of this small project is what came out of our instructor feedback. So one of the things or the themes that really emerged here, after they had incorporated AI into their class. Imagine that the students who were already doing well, the students who were those A students, they were already really high achievers, they were the best and quickest adopters for the use of AI. Not only that, but it really increased the quality of their work, not only for products they're writing at home, but also products they're writing in class and tests. We can see here that those models are increasing their own competency over time. But at the same time, we see a group of students, and these are generally the students who are already struggling, being very apprehensive about admitting their use of ChatGPT and Google Gemini. I think this is the piece that goes back to our original question, which is this idea of, does all this divergence in our pedagogy create inequity? It creates complexity. Students need to navigate our systems of academic misconduct on a class by class basis, and these are extremely high-risk decisions. Students can face at the worst case, expulsion for using ChatGPT in the wrong place. But then they can use it with no risk at all in other classrooms. That complexity, particularly for students who for whatever reason, are struggling in school already, What we've seen is that that's something that they are still apprehensive or cautious about moving towards. But at the same time, if we can see that it is improving students' work, improving their competency over time, the logical conclusion of this would be that these divergent pedagogies will increase our achievement gap. Those students who are already doing well will do better, but the students who are apprehensive may be left behind. In many cases, that can be due to multiple barriers. So we really need to consider not only how does it work just in my own classroom, but how does this divergence affect the system that the students live and work. I'm going to pass it back to Jenny to bring this back into a theoretical framework.

JENNY:
Thank you, Jon. I think similar to our students who navigate complexities and have to deal with different systematic barriers or conditions the same for our instructors to navigate different domain of knowledge, right? So before we reflect on what we did in the classroom, I want to bring your attention back to this framework. And at the beginning, I didn't mention the dotted line. The circle being referred as contextual knowledge. It's not just the immediate context knowledge in the classroom, but also goes beyond the cultural knowledge, the systematic institutional, different type of knowledge and now with the AI. I'm bringing a new framework. It's not from me. It's from a scholar. Her name is Mairéad Pratschke. Just forget my pronunciation of her name. But she talked about from TPACK to TPAIK having AI considered as an intelligence. We hear different names to define AI, like facilitator, tutor, but we don't want to just regard AI as content generator. I agree I don't think AI has the consciousness, but how about intelligence? And really she has a book published, I think in April or May with the same name just to suggest to the educator to integrate the AI intelligence in the three domains. And really rethink how we can shift our teaching and learning approach and really to support our

students' effective learning. It's partially like the critical thinking, as Jon mentioned, and active learning. We put students at the centre of agents and to invite them in the learning and teaching journey. I won't elaborate too much on that one, but if you're interested, you can check out the framework and the book.

So we're going to share some of our reflections on the next steps and also some of our reflections.

Based on this collaboration, I think at this point, you may hear that it's not about the collaboration between Jon and I, learning specialist with the classroom instructors, maybe library and students, and also we have included AI and human collaboration in the different areas at different stages. Our thoughts on that, I felt like instructors really play an important role and we have the buy-in of the instructor to come into the classroom to collaborate, to introduce to have this ongoing dialogue and conversations for the collaboration. Also when we prepare our students in terms of the ethical use, I feel like it is helpful to help them have the hands-on experiences, but really in a safe environment with all the factors like privacy and data protection consider. Also, to discuss the discussion, especially on the limitation of the AI tools. As Jon just shared, some students discover that I don't want to use it to produce the piece of writing because I want to do it on my own. Those are the thoughts from our students by guided reflections and questions. Also, as I've already mentioned, that students are active participants in the process. Teachers, I would encourage instructors don't be afraid of discuss with students being a little vulnerable. Sometimes we don't know that much in that area, but we kind of interact with each other, have this conversation.

For our next step, we haven't put into action, but some plan is already there. Jon I will talk about probably during some break time, we can organize a boot camp on the topic, digital literacy or use of some AI tools or on that, to give students some guidance and resources. Also to create some training resources and modules. Jon will share an example later on. And also to find students as the ambassadors for us to promote the ethical, appropriate use of AI, if it is a lot in the classroom of instructors.

JONATHAN:
One of the ways we're looking at advancing our delivery. Right now it's been very informal, invited into an instructor's class or meeting one-on-one with the student. In terms of formalizing this, we're looking at a 15-hour one-credit course, developing this based significantly on the UNESCO's AI competency framework for students. If you haven't seen this, they also have one for teachers, it's really an amazing, comprehensive document. We have the link there, which will show up on slides or we can share it in the chat as well. In terms of where this short 15-hour course could be applied, we have similar courses at our college already. For example, we have a what's called a learning pathways course integrated at the start of one of our programs, our Social Service Worker Program, which is just their first semester. It's primarily focused on these ideas of like study skills. But we have a model to apply this. Now

looking at these new levels of digital and AI literacy, looking at integrating it with programs or with classroom practice, providing these resources to instructors, arriving in that classroom, but also allowing them the autonomy to do it themselves. In terms of something like Jenny mentioned like a boot camp or part of a return to studies program after academic probation, and then also making it available to both students and as instructors as an online asynchronous resource.

JENNY:
This is a resource I created for our faculty to check in. I also have another Padlet for Learning with AI but still in the process, so I haven't shared it here. It's ongoingly updated. I would be happy to share the link with anyone who is interested to tap into the resources. Some of our instructors say from time to time, they will check back to explore some tools and to see whether they can use it for their teaching. So this is an ongoing effort, and I also look forward to suggestions for the support for faculty for the AI resources, AI-related resources. Yeah. Yeah, I'll take a look at the time and we'll end it here.

This is a photo for you to think about. You can also read the article with the link there. How about the future? How do you think? We bring in an example of classroom visit collaborated by learning specialists, instructors, and students. We want to hear more from you about your best practices to support of students learning and success. Thank you so much.

MELANIE:
Thank you so much, Jenny and Jonathan. That was wonderful. And I know personally, you've given me a lot of things to consider and a lot of directions to explore, so I'm excited just to reflect and think more deeply on that. Any questions that we have for our presenters? It looks like there's a request to share the Padlet link. So if you do have that handy, feel free to post that in the chat. Otherwise, slides will be made available, too.

JENNY: Sure. I can share now.

MELANIE: Thank you.

JOHATHAN:
For the AI tools, we're looking at a mixture of ChatGPT and NotebookLM. I will say that most students have really been interested in NotebookLM as a study resource. Doing things like we mentioned uploading instructors PowerPoints. In that chemistry class, the instructor gave us permission and doing things like generating flash cards from it. Again, one of the big things about this is integrating that learning within the student, so I can appear without the AI. Yeah, NotebookLM has been a big draw. We've bounced back and forth between ChatGPT and Gemini for LLMs.

MELANIE:

Curious, I'll jump in here too. So strategy that you've shared where students are actively using it in spaces that maybe are encouraging the use of AI. I'm curious, have you looked at spaces where instructors are more resistant, more hesitant to use AI, if you've looked into that area, or you've just been focusing on the use of AI?

JONATHON:
We've only been invited into classrooms where instructors do that, but when we do, we also try to talk about a larger context. So one of the things that we also mentioned. This model is about intrinsic learning. Which truthfully cannot be regulated against. There is no product that would, for example, break academic misconduct rules. It is just about your own learning. One of the things that we do talk about is fundamentally can't ban different forms of learning. If it's internal to the student at the time they write the test, it's an unenforceable rule. Part of this is establishing things that students can use across their studies rather than just for this one, just for this one.

JENNY:
Yeah, I would point, as you described, I think we do have instructors, especially related to their discipline. They are more resistant or just ban the use of AI. We have that. But I also see the changes. Sometimes they are open for conversation. I think that's a good sign. And we have many informal connections with instructors. For example, in the cafe room or lunch and learn session. We like to have some discussion. I feel it's okay to have different perspectives. We are now, for example, me, I'm not the advocate for using that, but I want to see how in the field of education, if our students are using it and how we can support that, how can we get them to the direction to serve for their learning? I think those conversations have to be ongoing. And the changes happen from the awareness, but also take lots of time and practices to see what works for their classroom because they are instructors, the experts for their content, and they are so passionate about their content, their pedagogy. So we don't want to see bring any disruption for them. Yeah. So this is having an ongoing conversation with them.

MELANIE:
I think the strategies you've outlined really can help bridge that for those that are fearful to maybe implemented in their classroom. Yeah, it's wonderful. I'll do a last call for questions. We've got maybe time for one more, either type it in the chat, turn on your mic, or raise your hand. Well, think of it. Feel free to post it in the chat. But thank you again, Jenny and Jonathan, wonderful presentation. And I will then turn it over to Jamie for our final closing remarks.