



WORKING PAPER :
HOW ARE FACULTY REACTING TO
ChatGPT?

Slowly and thoughtfully written
by two humans

Dr. Kriste Dukewich,
Kwantlen Polytechnic University
&
Carmen Larsen,
Langara College

March 15, 2023

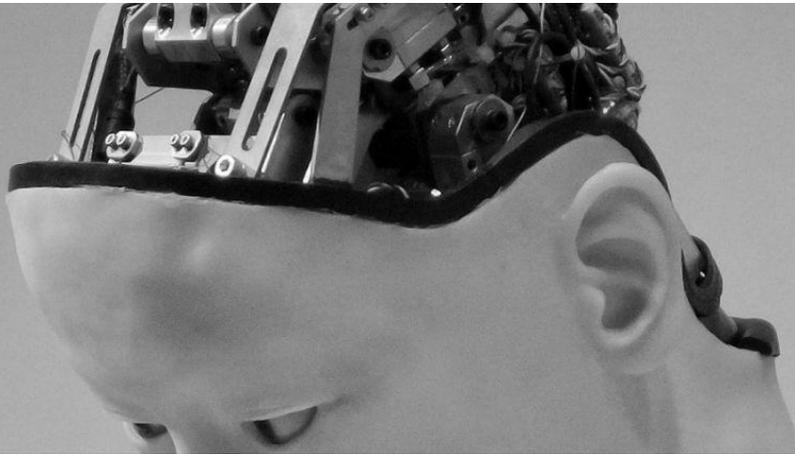
TABLE OF CONTENTS

ABSTRACT	3
INTRODUCTION	4
OPEN FORUM ACTIVITIES (METHODS)	6
Session Overview	6
Participants	6
OUTCOME OF THE ACTIVITIES (RESULTS)	7
1. Welcome Poll	7
Activity Summary	7
Poll Results	7
2. Testing ChatGPT	9
Activity Summary	9
Description of the Data Set	9
Responses	10
Q1. What Did You Ask It to Do?	11
Q2. What Did it Do Well?	12
Q3. What Limitations Did You Find?	12
Q4. Any Surprises? Other Thoughts?	13
3. Ignore It	15
Activity Summary	15
Description of the Data Set	15
Q1. In which circumstances might we be able to ignore generative AI?	15
Q2. What might be the consequences of ignoring generative AI?	16
4. Fight It	18
Activity Summary	18
Response Themes	18
5. Embrace It	19
Activity Summary	19
Description of the Data Set	19
6. Other Chat Discussions	20
(Non) Activity Summary	20
Selected Discussion Transcripts	20
Discussion 1: Academic Integrity	21
Discussions 2 & 3: What is lost?	21
DISCUSSION	22
CITED REFERENCES with selected annotations	24

ABSTRACT

Generative AI platforms like ChatGPT have exploded into our cultural awareness this year. Across post-secondary institutions, it was immediately apparent that faculty were eager to explore and discuss what this potentially disruptive technology might mean for them, their courses and their students. We wanted to create an opportunity for that discussion and to get a truer sense of initial faculty reactions than what sensational media headlines were offering. This working paper outlines the results of a facilitated online forum, open to faculty and staff from two institutions in the Lower Mainland of British Columbia in January 2023. Our session invited participants to test ChatGPT, reflecting on its strengths and limitations, and then talk through the potential impacts on instructors, our students, and post-secondary education in general of different approaches: ignore it, fight it, and embrace it. Analysis of participant contributions to polls, group discussions and a highly active chat space provide a snapshot of how faculty and staff were feeling and what they were doing in response to ChatGPT and other generative AI platforms. While the data seems to indicate a relatively optimistic take at this early point in the AI revolution, excerpts from discussions and debates do indicate a range of emotions and reactions—a range that will likely only continue to widen with the continuing release of ever more capable AI.

INTRODUCTION



ChatGPT launched on November 30, 2022, interrupting mainstream consciousness like a record scratch. ChatGPT, with its simple interface and conversational style, is one of the more sensational generative artificial intelligence (AI) platforms to have launched recently, but it is not alone. For several years, developers have been releasing systems that design and create new content in a variety of formats, including music, text, art, and computer code. All of these tools are able to take human-generated prompts and create novel responses based on massive data sets scraped from the internet and other databases (Fruhlinger, 2023). Using this expansive pool of information, these platforms can come up with high fidelity approximations of human-generated responses in seconds.

ChatGPT and other generative AI platforms seem poised to be hugely disruptive to traditional education. December 2022 and January 2023 saw an avalanche of opinion pieces being circulated about ChatGPT's inevitable, and significant, impact on education. The popular news media started the frenzy by publishing articles highlighting academic integrity concerns (Cassidy, 2023a; Jack, 2023) and institutions banning the use of this new technology (Johnson, 2023; Wood, 2023). These articles had a panicked undertone, with titles like the [Guardian's](#) *AI bot ChatGPT stuns academics with essay-writing skills and usability* (Hern, 2022), the [Atlantic's](#) *The college essay is dead: Nobody is prepared for how AI will transform academia* (Marche, 2022), and [Today.com's](#) article referencing social media posts like "So the robots are here and they're going to be doing our students' homework" (2023). Soon came articles on newly-created AI detection software aimed at fighting back against the unethical use of these tools by students ([ABC News](#), 2023; Cassidy, 2023b for the [Guardian](#)).

While the impact of ChatGPT on academic integrity is certainly a concern among educators (Bagg, 2022; Susnjak, 2022; Warner, 2022a), articles written by educators and academics have offered a more nuanced tone (Warner, 2022b). Some of the earliest articles provided course and assessment design strategies for mitigating the impact of ChatGPT in classrooms (Roose, 2023; Watkins, 2023). Others argued that an obsession with preventing academic dishonesty assumes our students are cheaters, creating an intellectual and motivational gap between educators and learners (M. Watkins, 2023). AI detection software was quickly tested and found to be inconsistent in its success (Khalil & Er, 2023; Leffer, 2023) with some authors contending that a push for AI detection software will inevitably only lead to the development of better and better AI, resulting in an arms race that nobody wins (M. Watkins, 2023).

The glass half-full crowd began publishing incredible ideas on how educators might use ChatGPT to enhance the learning process (D'Agostino, 2023; Kovanovic, 2022; Lemetti, 2023; McKnight, 2022;

Watkins, 2022), some even generated by the bot itself (Lalonde, 2022). From producing outlines that students can use as a starting point for writing assignments to manufacturing discussion responses that students can critique, the opportunities for innovation seem limited only by our imaginations.

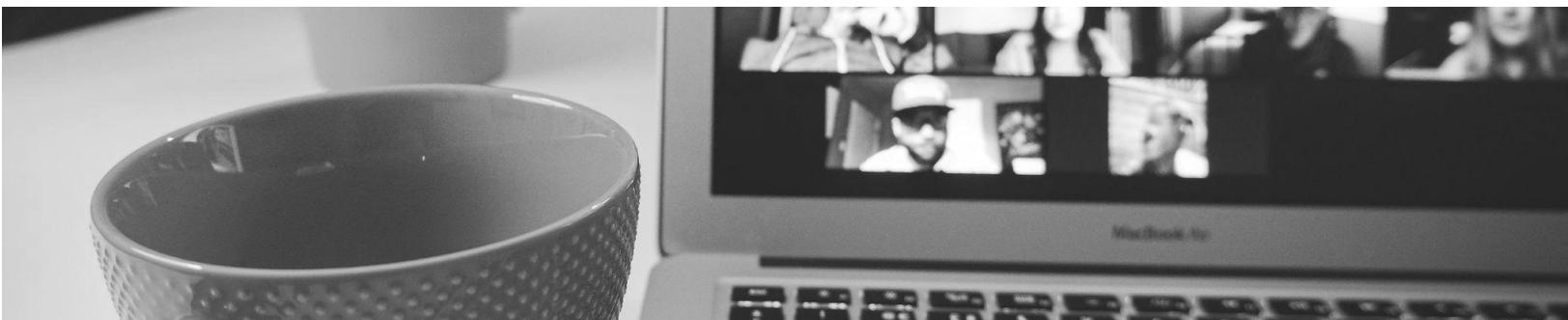
On the other hand, others have called our attention to the ethical implications of generative AI platforms that need to be considered before education fully embraces this type of technology (Bender et al., 2011; Lemetti, 2023). Some of these implications are clear, such as inequitable access among students based on socio-economic status and the perpetuation of discriminatory and oppressive biases that exist in the dataset, while others like the astronomical energy requirements inevitably contributing to climate change, may be less obvious (Bender et al., 2021).

Immediately following its launch, ChatGPT became one of the most popular topics of discussion among educators, generating intense discussion on institutional listservs, in departmental meetings, and during chance encounters with colleagues in hallways. The intensity of the debate and discussion that was happening in small pockets at both of our home institutions indicated a hunger among faculty to talk to each other about ChatGPT and generative AI. We wanted to provide that space for faculty to talk, and our open forum on ChatGPT served that purpose, prompting over a hundred of our colleagues to sign up.

How institutions decide to address AI technology will depend a lot on faculty—faculty determine pedagogy and at most institutions they determine curriculum. Therefore, another goal was to provide administrators with a better sense of what faculty are feeling, thinking and doing when it comes to generative AI technology. It seemed reasonable that if we did not know what faculty were thinking about ChatGPT writ-large, neither did our institutions.

In this short working paper, we have summarized the discussions from the open forum to provide evidence-based insights on some of the themes that are on the minds of faculty in these early days of generative AI.

OPEN FORUM ACTIVITIES (METHODS)



Session Overview

We hosted the open forum on Friday, January 27th from 11:00am to 12:30pm via Zoom Video Conferencing Platform. We followed a pre-planned sequence of activities that (a) aimed at helping faculty explore their own thoughts and assumptions around ChatGPT, and (b) provided us a snapshot of how faculty were feeling and approaching ChatGPT in these still early days.

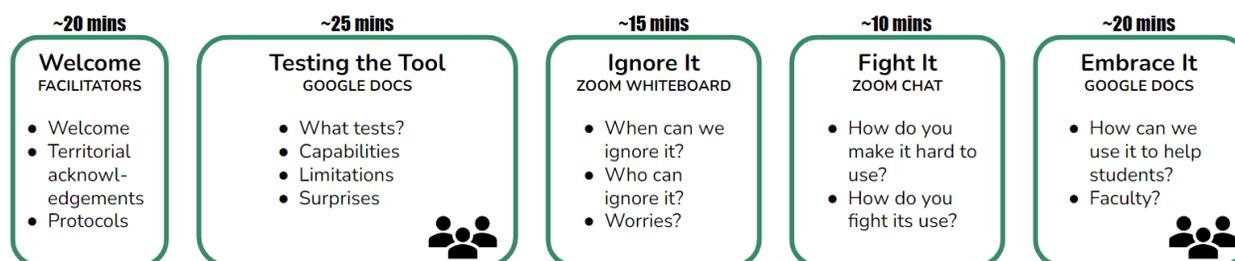


FIGURE 1. Outline of the Open Forum Session

Participants

We brought together educators from both of our home institutions. While snəwəyət lələm' Langara College hosted the Zoom space, faculty from Kwantlen Polytechnic University (KPU) were also invited to participate in the open forum. Both institutions are located in the Lower Mainland of British Columbia, Canada.

Eighty-four out of 105 of those signed-up participated in the forum (80%). Of those registered to participate, 89% were identified as faculty members and 11% were identified as administrators or staff. It did not occur to us until after the open forum that attendance was not automatically recorded in Zoom. While we can't speak to exactly who attended, it is fair to assume that the majority of our participants were faculty members from one of the two institutions.

TABLE 1. ANALYSIS OF OPEN FORUM REGISTRATIONS

Kwantlen Polytechnic University (51)		Langara College (54)	
Faculty	Admin or Staff	Faculty	Admin or Staff
48	3	45	8

OUTCOME OF THE ACTIVITIES (RESULTS)



1. Welcome Poll

WHOLE GROUP ACTIVITY / FORMAT: ZOOM POLLS

Activity Summary

As a welcome activity to get everyone engaged, we asked participants to respond to a poll asking if they had tried ChatGPT or any other generative AI platforms and how they were currently feeling about this technology. Recognizing that individual participants would likely be experiencing a wide range of emotions, we provided 10 adjectives ranging in affect from positive to negative and invited participants to choose all descriptors that were true for them. Just under half of our participants (49%) chose more than one answer to this question.

Poll Results

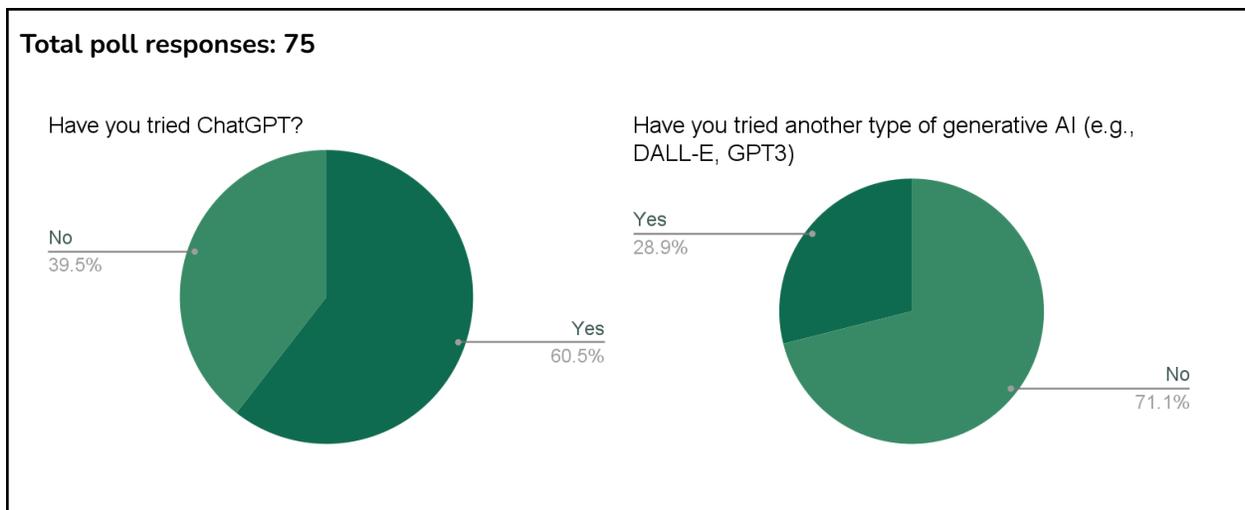


FIGURE 2. Results from the poll during the Welcome section.

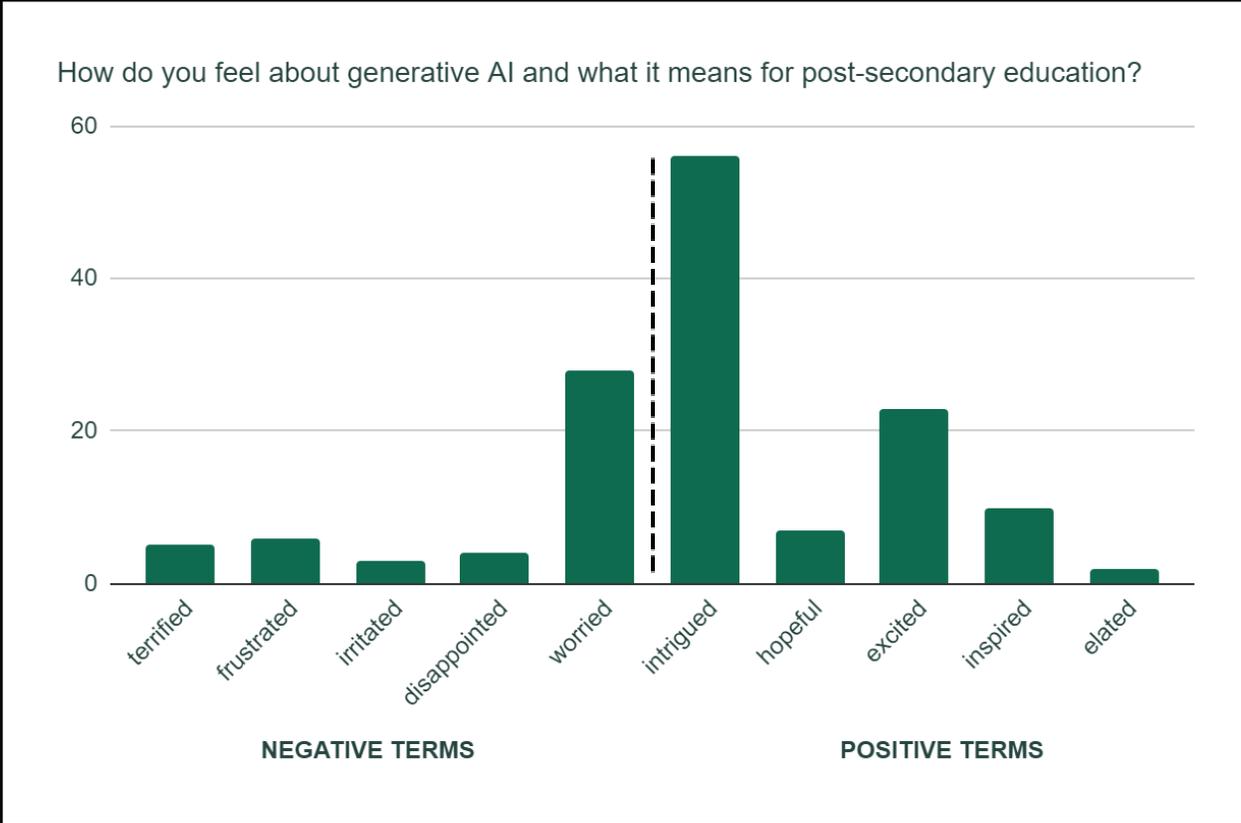
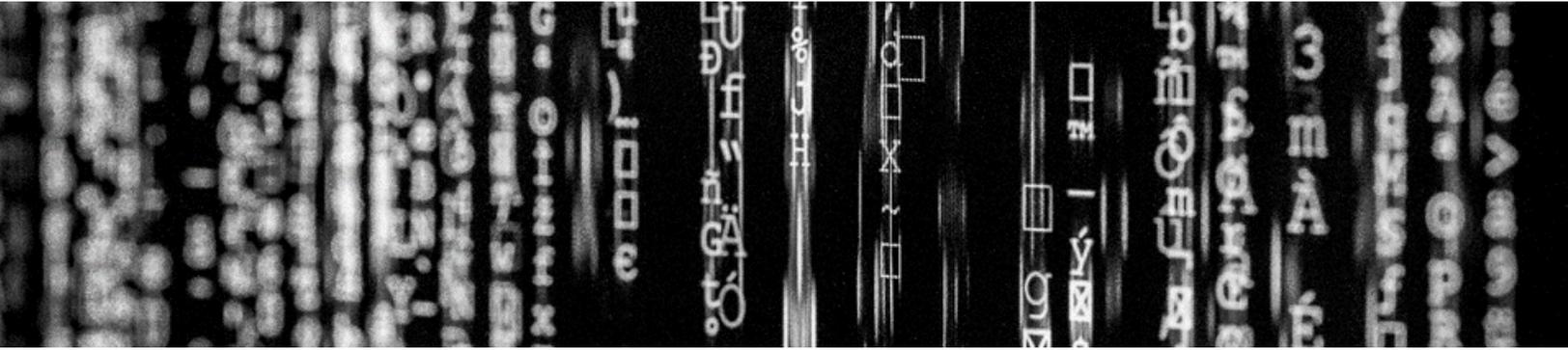


FIGURE 3. Number of times each adjective was selected. Participants were asked to select all terms that applied to them.

The results of our poll questions about experience with ChatGPT and other generative AI tools aligned with our expectations. The majority of participants who completed the poll had used ChatGPT previously (60%); however, less than 30% of respondents had tried another type of generative AI.

The surprise came when we analyzed responses to our question about how people were feeling about this new technology and what it means for post-secondary education. Although media headlines have been touting the sheer panic of educators, and institutions have been banning the use of this technology, our participants indicated feeling much calmer. In fact, four of the top five answers indicated positive emotions: intrigued (39%), excited (16%), inspired (7%) and hopeful (5%). Less positive emotions were selected far less: worried (19%), frustrated (4%), terrified (3%), disappointed (3%), and irritated (2%).



2. Testing ChatGPT

SMALL GROUP ACTIVITY / FORMAT: ZOOM BREAKOUT ROOMS + GOOGLE DOCS

Activity Summary

Recognizing that some participants may not have used ChatGPT previously, we randomly placed participants in Zoom rooms and asked them to experiment with the bot in groups, reporting their findings on a shared Google Docs page. Participants were given 20 minutes in their Zoom rooms before being called back to the main room for a large group debriefing. We were interested to see the types of prompts they would use and hear about the crowd-sourced insights they discovered.

Some groups accessed and tested the tool with several different types of prompts. However, not all groups were able to engage in the activity as planned because ChatGPT was at capacity for much of the time. These groups pivoted to discuss results of previous testing they had done, and this became an unexpected learning opportunity as several participants commented on the implications of this happening during a class designed around using this tool.

Description of the Data Set

Following the open forum, we organized the written comments in the Google Docs page according to question and conducted a thematic analysis for each one. In terms of the overall comments submitted for this activity:

- Of the 20 groups, 13 provided some level of responses to the questions, and
- Of those 13 groups that provided responses, 5 provided robust commentary to most or all of the questions.

The following sections report the thematic analysis, including noteworthy responses from participants that represented particularly insightful comments or interesting examples.



Responses

GROUP-LEVEL IMPRESSIONS

Five groups provided enough feedback to allow us to characterize the group's overall position towards generative AI:

- **Group A.** Cautious but realistic: *"Just like they don't teach handwriting anymore because we expect students to type, maybe we won't expect students to do basic, ready-made texts, such as writing a particular type of letter."*
- **Group B.** Cautious, worried: *"Students aren't doing the same amount of reasoning if they get the basic text from an AI. Right now the responses are flat and clearly need to be edited, but what about future iterations."*
- **Group C.** Worried, especially about implications for workload: *"We shared that there has been an immense increase in workload trying to revise assignments and assessments every term to avoid plagiarism"*
- **Group D.** Innovative prompts but group sounds like they were worried about workload implications: *"...there has been an immense increase in workload trying to revise assignments and assessments every term to avoid plagiarism"*
- **Group E.** Optimistic; found specificity is the key: *"It is not as negative as previously perceived. There are implications for academic integrity but it is also like a more sophisticated Google."*

Q1. What Did You Ask It to Do?

Total comments to this question: 34

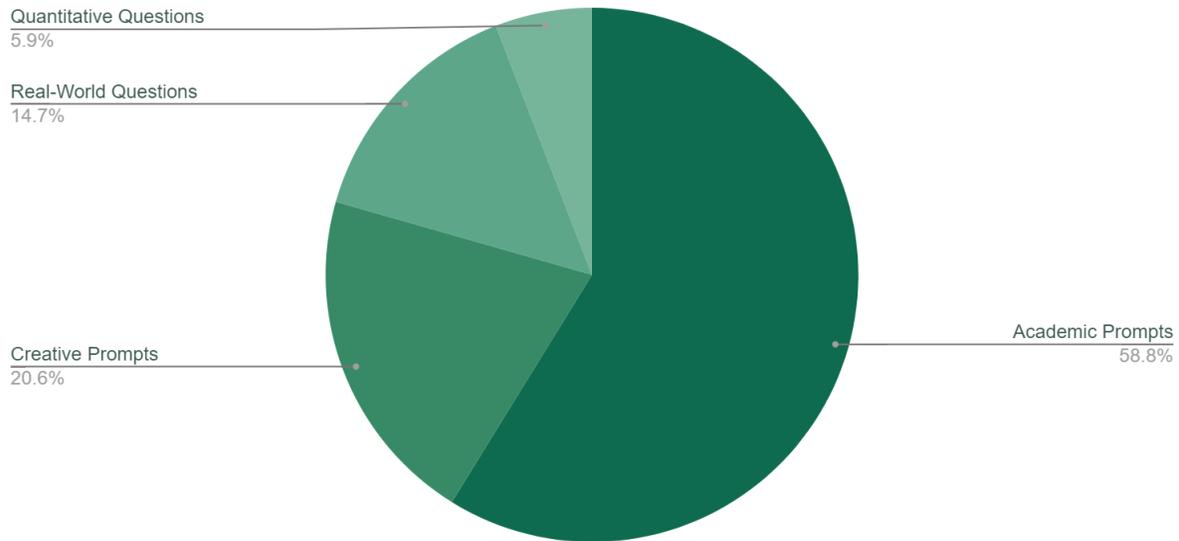


FIGURE 4. Themes emerging from the question, “What did you ask it to do?” Academic prompts (20) e.g., prompts to write essays and respond to academic questions; Creative prompts (7) e.g., prompts to generate poems, ad campaigns and fake news articles; Real-world questions (5) e.g., both the mundane (“what languages do you know?”) and the personal (“How do I tell my mother I’m getting married?”); Quantitative questions (2) e.g., math and computer programming prompts.

Noteworthy:

- Example prompt to assess a student’s essay with constructive comments: “create a rubric, write an essay, evaluate a past essay, improve that essay per the rubric”
- Example prompt to write an academic integrity policy for BC: “Write an Academic Standing policy for a college in British Columbia that would maintain the integrity and the quality of the programs but also help to support student success.”
- Wariness on engaging with the technology: “Some of us also intentionally chose not to sign up to ChatGPT because we didn’t want to “feed the Bjorg” (i.e., feed the MS-owned corpus).” and “I feel that when we are asking these programs to summarize an article, we are feeding this algorithm. Every interaction that we have is also adding to GPT’s knowledge (it’s the Machine that’s Learning)”

Q2. What Did it Do Well?

Total number of responses to this question: (30)¹

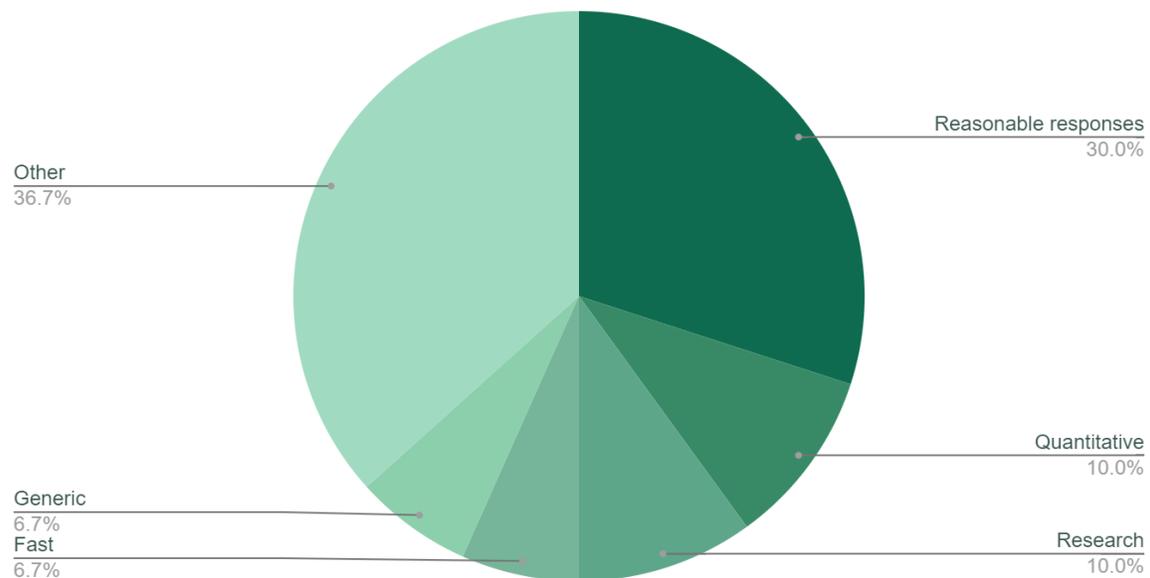


FIGURE 5. Themes emerging from the question, “What did it do well?” It does a reasonably good job of answering prompts (9); It can write computer code and solve quantitative problems reasonably well (3); It can do a passable lit search and cite references (3); It is fast (2); It generates generic responses that can be revised (2); Other Comments (11)

Noteworthy:

- Can generate responses tailored to audience and level “[Generated] A-grade paper or C-grade depending on prompt.”
- It responds to multiple choice questions robustly: “Answered [multiple choice] questions correctly and gave reasons.”

¹ While we asked “What did it do well?” second in the Testing ChatGPT activity and “What limitations did you find?” third, when we reviewed the comments we found that some groups had included limitations under Q2, and some groups had included capabilities under Q3. We opted to rearrange the comments into Capabilities and Limitations, rather than presenting by the literal question number, preserving the order of activities as they were presented in the open forum.

Q3. What Limitations Did You Find?

Total number of responses to this question: (25)¹

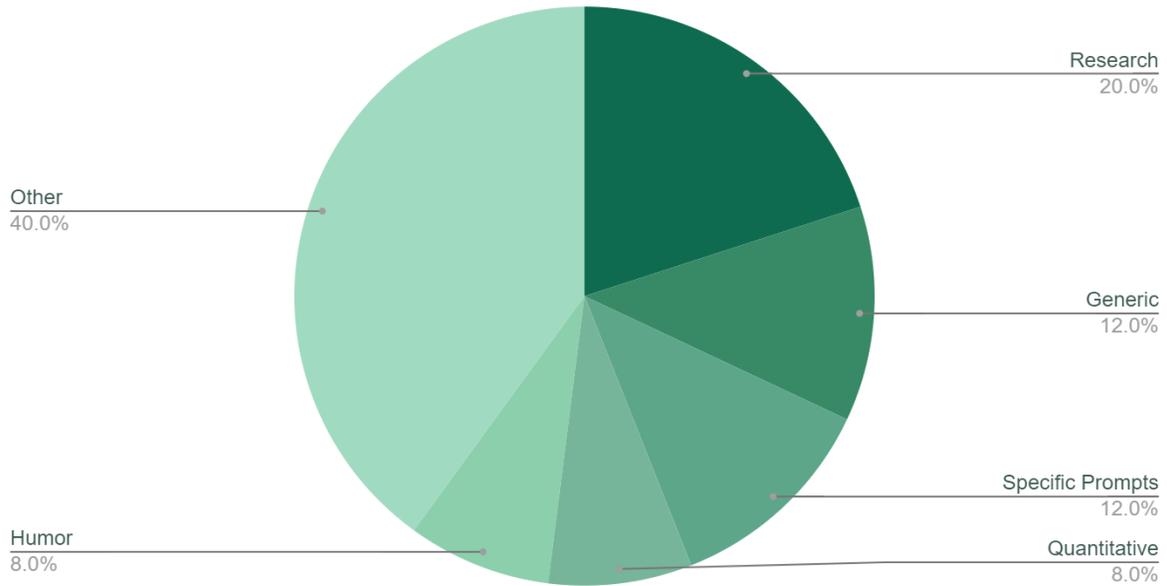


FIGURE 6. Themes emerging from the question, “what limitations did you find?” It cannot perform a lit search or effectively cite real references (5); It gives very generic responses that would need revision (3); It struggles with answering specific prompts (3); It is bad at optimizing computer code and solving quantitative problems (2); It struggles with humor (2); other comments (10).

Noteworthy:

- You can make it doubt itself (“As you interacted and prompted it if it was certain, it changed its opinion.”)
- It is text-based only: “I asked it to design a chair and very politely told me it cannot interact with the physical world”



Q4. Any Surprises? Other Thoughts?

Total number of responses to this question: (23)

(No specific themes emerged from these comments.)

Noteworthy:

- Concerns about the unintended down-stream consequences: *“Example of social media where there was no stopping the development and roll-out of the technology, but now we are dealing with the mental health consequences for the younger generation which adopted quickly and fully.”*
- It graded an essay! *“Asked it [to] create a rubric for an essay in a first year business course. Then asked it to write an essay with citations for a contentious topic. Then asked it to grade the essay using the rubric. It wrote a solid essay and gave itself a score of 26/40 with excellent comments.”*
- The sheer variety of responses, including the following observations:
 - *“Some aspects of working with AI can be fun or cut down on basic legwork in some jobs.”*
 - *“We shared that we didn’t want to feed the beast and make it even better.”*
 - *“It is not as negative as previously perceived. There are implications for academic integrity but it is also like a more sophisticated Google.”*
 - *“It is convincing even when it is not correct.”*
 - *“This can make work easier in some cases, more efficient, so we can focus on being more creative and critical rather than be bogged down by generating basic or task-focus written work.”*



3. Ignore It

INDIVIDUAL RESPONSES / FORMAT: ZOOM WHITEBOARD

Activity Summary

In our second activity, we invited participants to spend 10 minutes considering the circumstances in which we, as post-secondary educators, might be able to ignore generative AI and what the ramifications of doing so would be for us, for our students and for post-secondary education. Participants responded to these prompts using both the Zoom whiteboard tool and the chat.

Description of the Data Set

In response to these prompts we received 16 comments in the chat and 26 comments on the Zoom whiteboard.



Q1. In which circumstances might we be able to ignore generative AI?

Total number of responses to this question: (20)

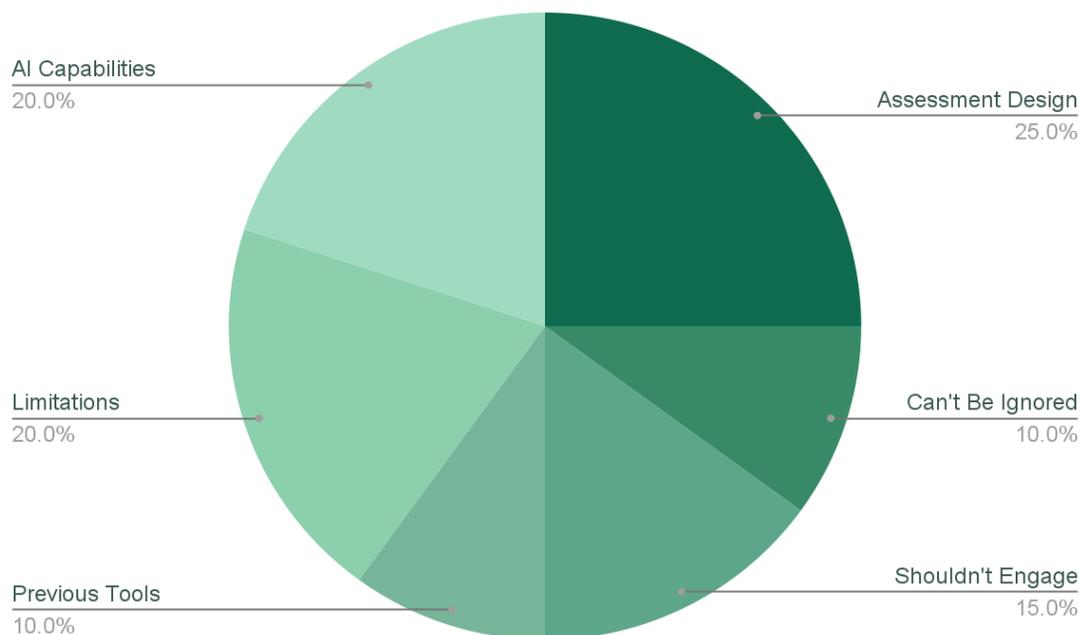


FIGURE 7. Themes emerging from the question “in which circumstances might we, as post-secondary educators, ignore generative AI”: When assessment design mitigates impact (e.g., authentic assessment) (5); stating the surprising capabilities of generative AI (4); limitations of generative AI (4); feeling we just shouldn’t engage with it (3); stating it can’t be ignored (2); wondering about instructors reactions to previous new tools (e.g., web crawler) (2).

Noteworthy:

- In reaction to responses that we can ignore generative AI when using authentic assessment: *“Assuming our assignments are authentic may be a leap unsupported. A skillful ChatGPT user can go far.”*
- Concerns about the future:
 - *“Important we understand that what we see right now from AI is not going to remain the same. AIs in 5 years could be orders of magnitude more powerful than what we see today.”*
 - *“We need to be careful about the limitations because it’s learning by the day. So something it cannot do now it might be able to do in some months from now. It’s improved even in a few months since it launched.”*

Q2. What might be the consequences of ignoring generative AI?

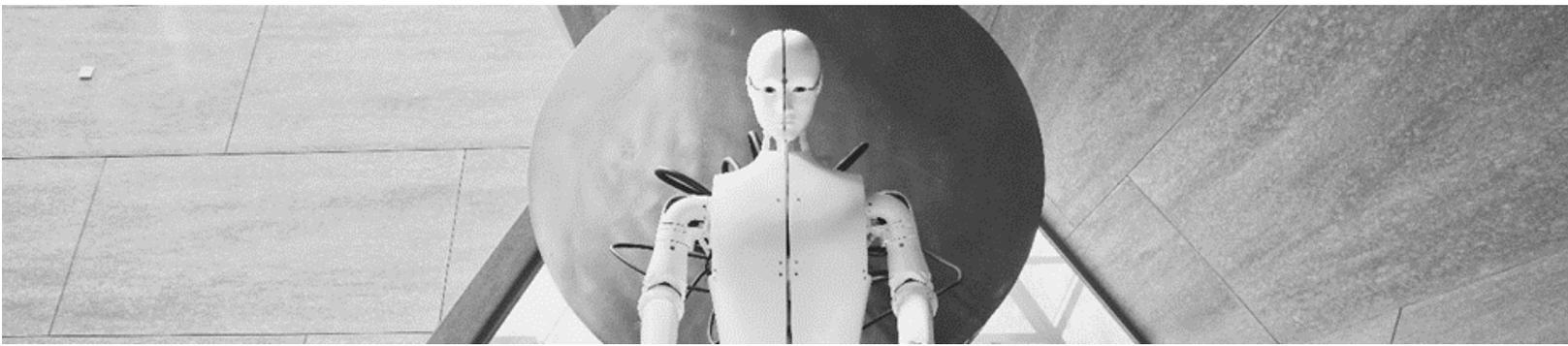
We asked participants to consider the potential consequences of ignoring ChatGPT and other AI content generators. Only two responses addressed the prompt of impacts to post-secondary education, both suggesting loss of credibility of post-secondary credentials, and one suggesting a reduction in post-secondary education. The responses to the prompts of impacts to educators and students are captured in the tables below.

TABLE 2: CONSEQUENCES OF IGNORING GENERATIVE AI FOR EDUCATORS

WHAT WOULD BE THE CONSEQUENCES OF IGNORING GENERATIVE AI FOR US AS EDUCATORS?	
THEME: OUR CREDIBILITY & RELEVANCE	<ul style="list-style-type: none"> • Credibility • If we choose to ignore, we become Blockbuster and think Netflix is not a [threat] • We can't ignore it. If we do not use it ourselves we will place ourselves in the wilderness. • If we ignore AI as a technology we run the risk of becoming irrelevant. See Kodak and how they didn't respond to digital cameras. • If we choose to ignore, we become [obsolete]
THEME: NOT FULFILLING OUR ROLE AS EDUCATORS	<ul style="list-style-type: none"> • Our students will use it and we will be unable to measure their performance meaningfully. It would be disastrous and an abdication of duty. • As educators we need to focus on the outcomes of education - how will AI affect everyday work and life, and how may we enable students to use these tools well • My perspective is that we shouldn't ignore it but look at it as a way for us to enhance our way of teaching and learning and doing our work. It really is here to stay so why fight it? And part of our jobs as educators is really to prepare students for the real world right? and this is part of the real world.
THEME: JOB LOSS	<ul style="list-style-type: none"> • Why hire humans instead of ChatGPT? • This is the beginning of the end of education.. • ... and employment

TABLE 3: CONSEQUENCES OF IGNORING GENERATIVE AI FOR STUDENTS

WHAT WOULD BE THE CONSEQUENCES OF IGNORING GENERATIVE AI FOR OUR STUDENTS?	
THEME: LOST CHANCE FOR MEANINGFUL LEARNING	<ul style="list-style-type: none"> • Ignoring it means students might not be learning about ethical considerations • If we ignore it, students might not be able to discern a 'good' GPT answer from a poor one. • If we ignore it, we miss the chance to teach students a tool they can use in life
THEME: STUDENT ACHIEVEMENT WON'T REFLECT ABILITY	<ul style="list-style-type: none"> • If we choose to ignore it, students may not achieve LOs and still pass a course if using it • We should not ignore it. The consequences will be that our students may be using it without our knowledge, and we will not be able to assess learning appropriately
THEME: STUDENTS WON'T BE PREPARED FOR WORK	<ul style="list-style-type: none"> • Students won't be prepared for the workforce • Students will be ill prepared to problem solve or present solutions or recommendations based on critical thinking on the spot (client presentations, crisis situations)
THEME: UNABLE TO ACCESS CREDIBILITY OF SOURCES	<ul style="list-style-type: none"> • With google we can choose from a range of sources (cbc not cnn) but with chat it throws info with no links • Students will only get right wing info
THEME: ACADEMIC DISHONESTY	<ul style="list-style-type: none"> • Students will cheat even more than ever



4. Fight It

INDIVIDUAL RESPONSES / FORMAT: ZOOM CHAT

Activity Summary

We wanted to acknowledge that some faculty are feeling a strong urge to fight the use of this new technology and provide the opportunity for this discussion. However, we deliberately chose not to spend a lot of time exploring the ‘fight it’ pathway because fighting it is likely an up-hill battle as the AI continues to get better. For this activity, we asked participants to write out strategies for fighting or mitigating the impact of ChatGPT in their classes using the Zoom chat. Participants were asked to hit the ‘send’ button at the same time, producing a ‘chat avalanche’ of responses. We took a few minutes to review and discuss some of the examples that were provided.

Response Themes

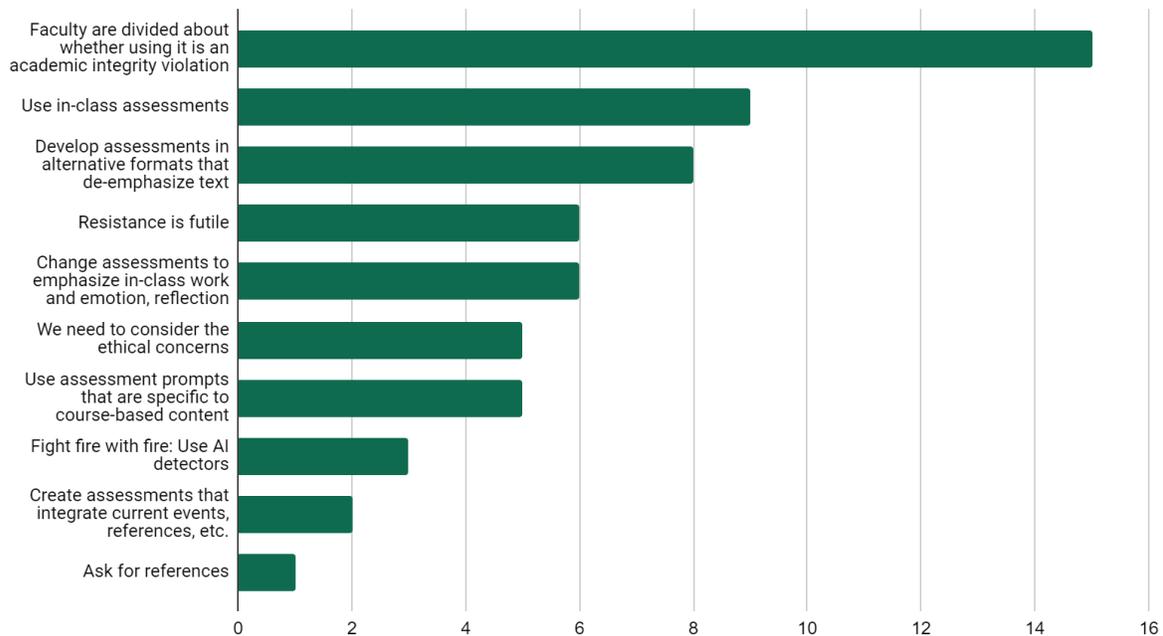


FIGURE 8. The major themes that emerged from the chat avalanche activity asking participants for ways to fight or neutralize the impact of ChatGPT in the classroom.



5. Embrace It

INDIVIDUAL RESPONSES / FORMAT: BRAINSTORM IN GOOGLE DOCS

Activity Summary

The last approach we explored was embracing ChatGPT as part of our teaching toolkit. For this we invited participants to share the ways in which they were already using ChatGPT, or ideas on how we might integrate it into our courses. Using an online document, faculty provided answers to two prompts: 1) ideas for using generative AI to support students and learning, and 2) ideas for using generative AI to support our work as instructors. After 15 minutes, we collectively reviewed and discussed the ideas that were recorded.

Description of the Data Set

To support the broader purpose of this working paper it made sense to include the suggestions from our peers in their entirety. The efficiency of this activity is that the organization of the information is largely done for us. We maintained the original division between ideas meant to support students and ideas meant to support educators. We went on to conduct a light thematic analysis, clustering related comments together within each category.



TABLE 4. IDEAS FOR USING GENERATIVE AI TO SUPPORT STUDENTS AND LEARNING

<p>THEME 1: STARTING POINT</p>	<ul style="list-style-type: none"> ask students to use ChatGPT to create outlines for their essays. Once the outlines are generated, students put their laptops away and write their essays longhand Used ChatGPT to generate three versions of a cover letter to assist students with creating resume or work histories. These were not perfect, but they were a start for students! “Turn this into something that is YOUR voice”. ChatGPT can be used as a starting point - ie to create an outline, etc. Ask students to show what they have asked ChatGPT to do, and cite this in their assignments
<p>THEME 2: OPPORTUNITY FOR CRITIQUE</p>	<ul style="list-style-type: none"> Get students to enter info and have them correct it Ask a text generator to write a short historical article that contains bias and ask students to analyze and discuss the bias, where it comes from, what is missing etc. Ask students to give the ChatGPT specific prompts and then critiquing the answer Criticize ChatGPT responses to look for bias or missing perspectives
<p>THEME 3: MENTOR</p>	<ul style="list-style-type: none"> serve as an after-hours tutor (“explain the Doppler effect, using language an eighth grader could understand”) Explain a difficult concept (e.g. data analytics) so that students can understand better Ask for applied examples of abstract concepts
<p>THEME 4: DIALOGUE PARTNER</p>	<ul style="list-style-type: none"> a debate sparring partner (“convince me that animal testing should be banned”) Ask ChatGPT to play a role in a conversation with students to help them critically thinking and discuss a topic at a deeper level <ul style="list-style-type: none"> E.g., role of a patient with a certain illness E.g., role of client with a certain preference that will not work for a project E.g., role of someone who has a different ideological perspective

TABLE 5. IDEAS FOR USING GENERATIVE AI TO SUPPORT EDUCATORS AND TEACHING

<p>THEME 1: CONTENT GENERATION</p>	<ul style="list-style-type: none"> Ask ChatGPT to write a summary on a topic that students use for a fill-in-the-blanks activities ChatGPT has already been used to help write peer-reviewed research articles Ask ChatGPT to write definitions for key vocabulary at a certain reading level and then drop those into H5P or another flash card tool for retrieval practice for students Ask it to write examples of different opinions on a particular topic to use for discussion in class Ask ChatGPT to write complex case studies for students to analyze and discuss in class Ask image generator to create images needed for lecture slides, LMS pages Ask ChatGPT to write a variety of example answers to questions (at different levels of accuracy) for students to analyze and critique and revise
<p>THEME 2: LESSON PLANNING</p>	<ul style="list-style-type: none"> generate ideas for classroom activities generate lesson plans for specific topics, length of class, demographic of student using specific methodology (e.g., inquiry-based learning, team-based learning, problem-based learning) Generate draft syllabi, exams, grant proposals, etc.
<p>OTHER COMMENTS</p>	<ul style="list-style-type: none"> Help to come up with rubrics or assessment material Teach more skills like brainstorming and critical thinking



6. Other Chat Discussions

WHOLE GROUP DISCUSSION / FORMAT: ZOOM CHAT

(Non) Activity Summary

For the duration of the forum, the Zoom chat was left open to allow for questions and comments. Unexpectedly - although not unpredictably - there were several conversations that emerged directly between participants in this space. These discussions were spontaneous and indicative of the variety of faculty perspectives. We thought these conversations were relevant to our goal, so we decided to capture some for this working document.

Selected Discussion Transcripts

Below are the three thought-provoking discussions captured from the chat transcripts. Note that in some places comments have been reordered for clarity to reflect the continuity of comments and replies. Although only one person commented about student cheating when we explored consequences of ignoring generative AI, this topic lit up the Zoom chat with faculty hotly debating the relationship between generative AI and academic integrity (see discussion 1).

The two discussions in the second excerpt explore the more abstract theme of the transformative learning that happens during post-secondary education and what is potentially lost with the use of generative AI. This topic came up throughout the open forum.

Discussion 1: Academic Integrity

From Carmen Larsen (Facilitator): How can we prevent its use, neutralize it?

From VL: It is not a violation of academic integrity policy as of now. On what basis would an instructor "fight" it?

From JM: In my syllabus, and in the first class, I basically ask students whether they have heard of ChatGPT. Only a few hands, if any, went up this January. Then I tell them that they will come to hear more of it in the months to come. If they are tempted to use and afraid of academic integrity violations, they should refrain for the time being. However, if they are going to use it they must show their searches, produce any content created in quotes and use screenshots to demonstrate.

From VL: Why, [JM]? It's not a violation of academic integrity policy.

From JM: It is not their own work. It is the production of algorithm.

From VL: So is using a calculator.

From CR: I think a lot of students know about chatGPT but they don't want to admit it.

From IS: My understanding is that this is a violation of academic integrity policy.

From VL: Where is the line about ChatGPT in academic integrity policy?

From VL: Point to it.

From KK: In essays, show students how to cite AI generated content (needs to include the prompt) and put limits on the # of words generated by AI. Let them know there are AI detectors and the consequences of cheating. Put more emphasis on presenting and debating content vs. writing.

From AR: I would agree with [JM] - if it is unauthorized and unacknowledged, it misrepresents a student's mastery of the content

From JM: Combined with marketization of education, neoliberalism, exploitation of [international] students it makes it a complex terrain. [CR] is correct.

Discussions 2 & 3: What is lost?

From SL: When we ask a student to write an essay, we are really asking students to demonstrate their understanding of the question and its significance. My fanciful caffeine-infused hope is that one day I will teach my students to give all the right prompts and search frameworks to get ChatGPT to pump out a good essay.

From CG: @SL, but where do the writing skills develop then? There is a difference between finding facts and source material and coherently linking it together. If ChatGPT does that, then how do students develop their communication skills? I had a bright student last term who seemed to have no skills whatsoever in terms of linear organization and thought.

From CS: In our group, we talked about how we still teach elementary school kids times tables even though calculators exist, and spelling even though spell-check exists. I think ChatGPT can be a useful brainstorming or “assistant” tool but I do worry what that looks like if the person using it has no foundation in original thought or writing to begin with.

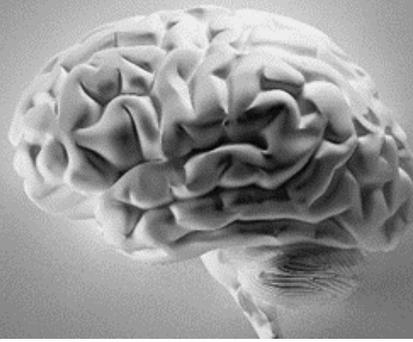
From JF: Another way to look at it is that calculators encouraged play with numbers and numeracy. Perhaps AI will encourage us to play with how we organize our thinking?

From DB: I think the math analogy is misleading... apples and oranges

From VM: One comes to university to become someone different, that requires “re-wiring” the brain... using tools like this won't allow this, we need to be open and clear with students about their expectations on getting higher education

From CS: I think writing through revising is super useful, and I did it a lot as a journalist — get something down, even though it's junk, and then clean it up after. And I think that's a valuable skill to teach our students too. But if the original text we're revising is from ChatGPT, then there's a risk that we're all revising the same generic thoughts rather than having our students come up with new ideas.

DISCUSSION



This open forum provided faculty with the opportunity to connect and discuss the potential impacts of ChatGPT (and other AI content generators) on post-secondary education and collaboratively identify ways to address this technology in their own pedagogical practice. The comments and discussions that arose provide a snapshot of how faculty are feeling in the first few months of the generative AI revolution. Across the different activities, a few key themes emerged.

We're Not Panicking. First, by and large, faculty are not panicking about this technology. There is certainly some trepidation about the potential implications, and there is definitely a cohort of faculty who are very worried about the uses of generative AI, but the outcomes from our session demonstrate that there is also excitement and curiosity about what this technology might allow educators to do in their classes.

Perspective is Everything. Second, when we asked our participants to discuss the capabilities and limitations, similar themes emerged from both discussions. For example, one of the responses added to the capabilities list was "It generates generic responses that can be revised" while one of the responses contributed to the limitations list was "It gives very generic responses that would need revision." These results suggest that faculty's reactions to ChatGPT will be strongly influenced by individual psychological traits like optimism, openness, and neuroticism. The fact that these themes emerged during the group discussions suggest that our peers (and institutions) will likely have a significant impact on how faculty think about generative AI.

The Academic Integrity Debate. Third, views diverge on whether or not student use of ChatGPT and other generative AI platforms is a violation of academic integrity. Some faculty feel that institutions should be outright banning this technology, while others see it as a potentially powerful tool for teaching and learning. The lack of consensus means that, for now, it is up to faculty whether or not using generative AI will constitute an academic integrity violation. Faculty will need to be crystal clear with their students about what is and is not permitted because those parameters will not be the same from course-to-course (but see next section).

Working Out the Ethics. Finally, there were concerns about the ethics associated with using this technology. Questions came up around how much it will cost people to use these platforms once they become monetized and the inequitable access for students based on income levels. Privacy is also a concern. KPU has already explicitly asked instructors not to use ChatGPT because of privacy and confidentiality issues associated with students' providing data that will be housed on US servers, violating the Freedom of Information and Protection of Privacy Act. Moreover, students using this

technology to complete assignments also raises concerns about the intellectual property of faculty members. The inputs into ChatGPT are integrated in the model to improve its responses. As a result, these platforms are using this data without the author's knowledge or consent, and without due compensation for the author's work.

Perhaps more concerning is the way that these generative AI tools are perpetuating and potentially amplifying the biases that exist in the data set. Generative AI and machine learning requires huge data sets, often scraped from the internet. We need to consider how these inputs will bias the outputs, further amplifying white Euro-centric ideologies and worldviews and oppressing and negating others (Bender et al., 2021; Lemetti, 2023).

This is not merely a theoretical concern. Hiring algorithms that were meant to eliminate the subjective biases of human observers in the employee selection process use data from historically biased hiring practices (see [Harvard Business Review](#)). As a consequence of a biased learning data set, Amazon's machine-learning specialists found that their new recruiting engine "did not like women" (see [Reuters](#)), learning through example to avoid candidates who were members of women's organizations or who graduated from women's colleges.

What's Next? With the availability of easy-to-use AI content generators, we are on the cusp of reimagining how we accomplish day-to-day tasks at home, at work and at school. Post-secondary education will need to adapt to reflect this change and adequately prepare students for this new reality. From faculty, this will require experimentation, trial and error, and the ability to be comfortable with ambiguity and uncertainty as these technologies continue to improve. From institutions, it will require resources and structures to be put in place to support and capture the results of this faculty-led action research.

The experimentation currently taking place in post-secondary courses across the country will help answer the questions we have about how best to respond to AI content generators and the other potential disruptors that are right around the corner. These changes faculty are making to learning activities and assessments, and the impacts of those changes, need to be systematically researched and widely reported, rather than simply shared anecdotally between colleagues.

But who will design, implement and report out on this valuable action research? The faculty in the throws of this massive shift, madly scrambling to adapt their courses? The understaffed teaching and learning centres struggling to support those instructors? Institutional research departments?

The institutions that quickly put the necessary plans and resources in place to support and disseminate this flurry of classroom-based research will prove themselves proactive, nimble leaders in this rapidly evolving post-secondary educational environment.

CITED REFERENCES with selected annotations

ABC News. (2023, February 1). ChatGPT's creator Open AI launches new tool that detects if text is written by artificial intelligence as schools ban use. *ABC News*.
<https://www.abc.net.au/news/2023-02-01/chatgpt-launches-new-tool-to-detect-artificial-intelligence-text/101915938>

Bagg, S.. [@samuel_e_bagg]. (2022, December 2). OK so I'm usually on the skeptical side of things when it comes to AI stuff [Tweet]. *Twitter*.
https://twitter.com/samuel_e_bagg/status/1598714509031374849?s=20&t=XDIQRN3vFQLi4AiS6m3LhQ

Bender, E. M., Gebru, T., McMillan-Major, A., & Shmitchell, S. (2021, March). On the Dangers of Stochastic Parrots: Can Language Models Be Too Big?. In *Proceedings of the 2021 ACM conference on fairness, accountability, and transparency* (pp. 610-623).
<https://dl.acm.org/doi/10.1145/3442188.3445922>

- **This paper includes thoughtful and scholarly discussions of some of the ethical problems associated with generative AI, including financial and environmental implications, a lack of diversity in the learning data sets, recapitulating and amplifying existing biases, and other real-world harms that these platforms risk. This is an excellent source for understanding ethical concerns.**

Cassidy, C. (2023a, January 16). Lecturer detects bot use in one-fifth of assessments as concerns mount over AI in exams. *The Guardian*.
https://www.theguardian.com/australia-news/2023/jan/17/lecturer-detects-bot-use-in-one-fifth-of-assessments-as-concerns-mount-over-ai-in-exams?CMP=Share_iOSApp_Other

Cassidy, C. (2023b, February 6). College student claims app can detect essays written by chatbot ChatGPT. *The Guardian*.
<https://www.theguardian.com/technology/2023/jan/12/college-student-claims-app-can-detect-essays-written-by-chatbot-chatgpt>

D'Agostino, S. (2023, January 12). ChatGPT advice academics can use now. *Inside Higher Ed*.
<https://www.insidehighered.com/news/2023/01/12/academic-experts-offer-advice-chatgpt>

- **This article provides a succinct list of some of the big picture variables that educators should be considering early on in the generative AI revolution. Ideas have been collected and curated from a variety of contributors, including several faculty, an administrator and a grad student.**

Future Learn. (2023, January 20). An introduction to ChatGPT: Uses and what makes it a unique AI chatbot. *Future Learn*. <https://www.futurelearn.com/info/blog/introduction-to-chatgpt>

- **This article provides a succinct summary of ChatGPT, what it does, why it's special, the business model, and the potential implications. It is an excellent resource for background information on ChatGPT.**

Fruhlinger, J. (2023, March 10). What is generative AI? The evolution of artificial intelligence. *InfoWorld*.
<https://www.infoworld.com/article/3689973/what-is-generative-ai-the-evolution-of-artificial-intelligence.html>

- **This article serves as an excellent primer on generative AI writ-large. It describes how generative AI works, and goes on to explore more nuanced topics like sentience and negative impacts.**

Hern, A. (2023, February 6). AI bot ChatGPT stuns academics with essay-writing skills and usability. *The Guardian*.
<https://www.theguardian.com/technology/2022/dec/04/ai-bot-chatgpt-stuns-academics-with-essay-writing-skills-and-usability>

Jack, A. (2023, January 21). AI chatbot's MBA exam pass poses a test for business schools. *Financial Times*.
<https://www.ft.com/content/7229ba86-142a-49f6-9821-f55c07536b7c>

Johnson, A. (2023, January 31). ChatGPT In Schools: Here's Where It's Banned—And How It Could Potentially Help Students. *Forbes*.

<https://www.forbes.com/sites/ariannajohnson/2023/01/18/chatgpt-in-schools-heres-where-its-banned-and-how-it-could-potentially-help-students/?sh=b470746e2c68>

Khalil, M., & Er, E. (2023). Will ChatGPT get you caught? Rethinking of Plagiarism Detection. arXiv preprint arXiv:2302.04335. <https://arxiv.org/abs/2302.04335>

Kovanovic, V. (2022, December 14). The dawn of AI has come, and its implications for education couldn't be more significant. *The Conversation*.

<https://theconversation.com/the-dawn-of-ai-has-come-and-its-implications-for-education-couldnt-be-more-significant-196383>

Lametti, D. (2023, January 31). AI and Academia: The end of the essay? *Maple League of Universities*.

<https://youtu.be/geKsTy8QKhY>

- **In this thought-provoking webinar, experimental psychologist, Daniel Lametti, attempts to quell fears about generative AI by comparing the processes involved in human thinking and large language models, offers intriguing suggestions for ways to use AI in our courses, and shares concrete strategies for AI-proofing our multiple choice questions.**

Lalonde, C. (2022, December 8). Write a blog post with three suggestions on how teachers can use ChatGPT for teaching and learning. *EdTech Factotum*.

<https://edtechfactotum.com/write-a-blog-post-with-three-suggestions-on-how-teachers-can-use-chatgpt-for-teaching-and-learning/>

- **This delightful article includes a piece generated by ChatGPT, followed by a thoughtful and human-generated response from Lalonde. Lalonde's reflection is more interesting than the ChatGPT-generated content, and the article serves as an interesting example for discriminating between AI- and human-generated content.**

Leffer, I. (2023, February 1). OpenAI's New AI-Detector Isn't Great at Detecting AI. *Yahoo! News*.

<https://news.yahoo.com/openai-ai-detector-isn-t-120000091.html>

Mann, G., & O'Neill, C. (2016, December 9). Hiring Algorithms are not Neutral. *Harvard Business Review*.

<https://hbr.org/2016/12/hiring-algorithms-are-not-neutral>

Marche, S. (2022, December 16). Will ChatGPT Kill the Student Essay? *The Atlantic*.

<https://theatlantic.com/technology/archive/2022/12/chatgpt-ai-writing-college-student-essays/672371/>

McKnight, L. (2022, October 14). Eight ways to engage with AI writers in higher education. *Times Higher Education*.

<https://www.timeshighereducation.com/campus/eight-ways-engage-ai-writers-higher-education>

- **McKnight identifies some ways for faculty to start engaging with AI writers to support their own teaching and writing. These suggestions are a good starting point for educators who are just getting familiar with ChatGPT.**

New AI technology ChatGPT raising questions about human creativity. (2023, January 5). *Today.com*.

https://www.today.com/parents/teens/chatgpt-ai-teachers-students-cheat-essays-rcna63352?utm_source=substack&utm_medium=email

Roose, K. (2023, January 13). Don't Ban ChatGPT in Schools. Teach With It. *The New York Times*.

<https://www.nytimes.com/2023/01/12/technology/chatgpt-schools-teachers.html?login=email&auth=login-email>

Shankland, S. (2023, February 19). Why we're all obsessed with the mind-blowing ChatGPT AI chatbot. *CNET*.

<https://www.cnet.com/tech/computing/why-were-all-obsessed-with-the-mind-blowing-chatgpt-ai-chatbot/>

Susnjak, T. (2022). ChatGPT: The End of Online Exam Integrity? arXiv preprint arXiv:2212.09292. <https://doi.org/10.48550/arXiv.2212.09292>

Warner, J. (2022a, December 5). Freaking Out About ChatGPT—Part I. *Inside Higher Ed*. <https://www.insidehighered.com/blogs/just-visiting/freaking-out-about-chatgpt%E2%80%94part-i>

Warner, J. (2022b, December 11). ChatGPT can't kill anything worth preserving: If an algorithm is the death of high school English, maybe that's an okay thing. *The Biblioracle Recommends*. <https://biblioracle.substack.com/p/chatgpt-cant-kill-anything-worth>

Watkins, R. (2022, December 26). Update Your Course Syllabus for chatGPT. *Medium*. https://medium.com/@rwatkins_7167/updating-your-course-syllabus-for-chatgpt-965f4b57b003

- **In March 2023 this is still one of the best sources out there for a relatively complete list of variables to consider and strategies for dealing with ChatGPT in the classroom, from ways to avoid it and ways to exploit it. This is an excellent start for any educator looking to jump-start their pedagogical approach to generative AI.**

Watkins, M. (2023, January 6). Our Obsession with Cheating is Ruining Our Relationship with Students. *Marcwatkins.substack.com*.

https://marcwatkins.substack.com/p/our-obsession-with-cheating-is-ruining?utm_campaign=post

- **Watkins tests some of the AI detection platforms, demonstrating their relative lack of accuracy. He argues that AI detection is not going to work, and using AI detection will erode trust from students who approach their education earnestly and honestly. This article is useful for discussions around AI, ethics, and values in education.**

Wood, P. (2023, March 2). Oxford and Cambridge ban ChatGPT over plagiarism fears but other universities choose to embrace AI bot. *Inews.co.uk*.

<https://inews.co.uk/news/oxford-cambridge-ban-chatgpt-plagiarism-universities-2178391>