

AI and Digital Literacy

Teaching and Learning Story

TASK DESIGN	
Learning Experience Title	<i>Redesign for Reconciliation</i>
Grade	10-12
Learning Area(s)	Arts Education - Media Arts
Curricular Competencies	<ul style="list-style-type: none"> • Refine skills and techniques in creating media artwork (11-12) • Demonstrate safe and responsible use of materials, tools and work space (10) • Communicate ideas and express emotions through art making (10-12) • Engage in digital citizenship throughout the creative processes (10-12) • Explore the relationships between media arts, culture, and society (11) • Examine the reciprocal relationships between media arts, culture, and society (12)
Curricular Content	<ul style="list-style-type: none"> • image development strategies (10-12) • ethical, moral and legal considerations associated with media arts technology (10-12)
Links to Core Competencies	<p>Thinking</p> <ul style="list-style-type: none"> • Critical Thinking - Discerning which tools to use, analysis of what AI has generated and changing the prompt to bring it closer to the desired outcome <p>Communication</p> <ul style="list-style-type: none"> • Communicating - Thinking about what you want to share in the world and using digital resources to do that. Ensuring you have considered bias and analyze the message being communicated.
Links to First Peoples Principles of Learning	<ul style="list-style-type: none"> • Learning involves recognizing the consequences of one's actions • Learning is holistic, reflexive, reflective, experiential and relational • Learning involves patience and time

AI and Digital Literacy Teaching and Learning Story

TASK SUMMARY

This lesson included the exploration of prior student experience with AI, discussions on ethical use, and collaborations to create AI-generated images. The lesson integrated aspects from the novel *Indian Horse* (written by Canadian author Richard Wagamese), with essential digital citizenship competencies inherent to Media Arts. Students reflected on the design and names of sports team mascots, looking specifically for images that could be stereotypical or offensive. Students utilized AI-generated images to create new versions, honing their ability to cite prompts and apply critical thinking in developing and refining them.

LEARNING STORY

PLANNING

Before instruction, familiarize yourself with the tools that are both available and approved by your district.

This lesson was conducted in a computer lab using a slideshow template designed to scaffold learning through activities and information about Digital Literacy and AI Generation. It included considerations for ethical use, bias, collaboration, and creation.

TEACHING

Step 1: Check in to share general knowledge about AI and prior experience with AI.

The following data was collected:

- Which AI tools students had tried?
- What are some important considerations students had for using AI?
- What potential benefits could students see with AI use?

Artificial Intelligence
What we know and what we should consider.

Which AI Tools have you tried?	What do you think the most important considerations are when students are using AI	What benefits do you think AI offers?
chat gpt	Cheating in writing assignments	you can write things quicker
ChatGPT	Does your school work for you	It Could Be Beneficial if People It Didn't Steal From Artists And Writers and Let People Ditch out on real artists and writers in favor for AI generated works
Chat GPT	cheating on assignments	Cons far outweigh the pros
N/A	You have to make sure that you are not handing in the work of ai	instant responses to information we don't know or can't find
chat gpt	Cheating on homework, tests, quizzes, etc.	you can get quick art
ChatGPT and AiChecker	Plagerism and using the AI how it was designed	Allows you to improvise and get new ideas
I have tried story generators and I have tried out image generation back when it was very obvious it was AI generated. I don't really know the names	cheating in assignments	Can be used as a tool to correct or add to the work you have wrote. Can also be used like google for more direct answers.
chat gpt	plagiarism	Allows you get an almost instant response to a question and get new ideas to work around
Bing ai :(students using ai for cheating	
Character.ai + Adobe Photoshop AI out of curiosity	I think consent is a very important thing. I personally don't really like AI for the most part because it takes the work of	
Bing is the best web browser...		

AI and Digital Literacy Teaching and Learning Story

TEACHING CONTINUED

Step 2:

Students were provided with information about the ethical use of tools, responsibility for citing, the importance of adding personal thoughts, respecting district guidelines, and considerations for general safety, privacy, and bias.



Responsible Digital Citizenship

- Using AI Tools ethically and responsibly
- Attribute sources! Giving credit to the original source is important.
- Verify Information - don't assume that AI is always correct.
- Combine AI with your own thoughts for analysis and a personal touch.
- Be sure to follow the guidelines of the school district and use tools which are approved and safe.

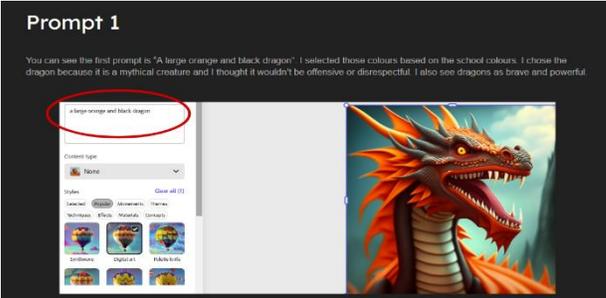
Safety (Warning icon)

Privacy (Lock icon)

Check for Bias (Magnifying glass icon)

Step 3:

Students were introduced to an AI Image Generator. Students watched a demonstration that included some of the ways bias could occur in the images created, and they learned about adjusting text prompts to refine image outcomes. Students participated in an engaging discussion about citing or giving credit to the resource.



Prompt 1

You can see the first prompt is "A large orange and black dragon". I selected those colours based on the school colours. I chose the dragon because it is a mythical creature and I thought it wouldn't be offensive or disrespectful. I also see dragons as brave and powerful.

Prompt 1: A large orange and black dragon

Context type: None

Values: Clear all (3)

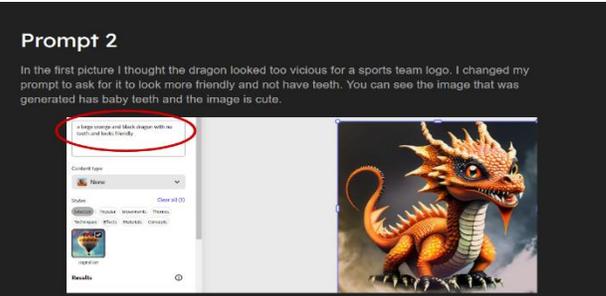
Selected: None (Advanced), Themes: Technical, Ethics, Metadata, Context

Results: 4 images



Step 4:

Students were shown an example with four different prompts and a final image illustrating proper citation.



Prompt 2

In the first picture I thought the dragon looked too vicious for a sports team logo. I changed my prompt to ask for it to look more friendly and not have teeth. You can see the image that was generated has baby teeth and the image is cute.

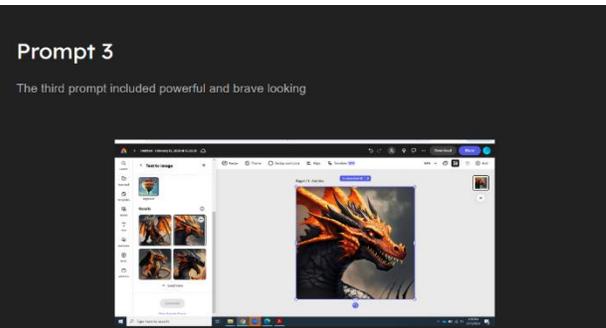
Prompt 2: A large orange and black dragon with no teeth and baby teeth.

Context type: None

Values: Clear all (3)

Selected: None (Advanced), Themes: Technical, Ethics, Metadata, Context

Results: 4 images



Prompt 3

The third prompt included powerful and brave looking

Prompt 3: A large orange and black dragon with no teeth and baby teeth, powerful and brave looking.

Context type: None

Values: Clear all (3)

Selected: None (Advanced), Themes: Technical, Ethics, Metadata, Context

Results: 4 images



AI and Digital Literacy

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TEACHING CONTINUED

Step 5:

Students researched team mascots and examined possible stereotypes and biases. The class brainstormed ideas for a branding image that would not be offensive to any groups of people. This allowed students to think about how they may need to modify their prompts to incorporate their own ideas into the creation.

Step 6:

Students created four slides. The first three slides incorporated images created by using the three prompts, and students provided reasons for any changes they made. The third slide displayed an image accompanied by a citation stating, 'This was created with an AI Image Generator,' followed by the prompt used for its creation. The fourth slide explained the process and indicated where and why they made changes or specific choices.

Using an AI Image Generator as part of this lesson allowed all students in the room to participate in a fulsome way. The text was simple, so it gave English Language Learners an easier access point. Use of an AI Language translator and teacher support also increased accessibility for all learners.

The use of an Image Generator in an initial lesson on ethical and responsible use of AI allowed students to easily process the human elements required to tweak, change, and add their own thoughts and opinions to their work.

REDESIGN FOR RECONCILIATION

Research sports team mascots. Which ones do you feel reflect stereotypes? Select an example of a current team who you feel, needs to change their image.

Create an alternate branding plan that is not offensive to any groups of people.

AI and Digital Literacy Teaching and Learning Story

ASSESSMENT

STUDENT A

TEACHER OBSERVATIONS AND STUDENT WORK

Teacher provided summary: This student worked through the task carefully, learning how to change the prompts with the image generator. They did a lot of research on different teams and the reasons why some team names or logos should be changed. Their changes were made by analyzing the information for any instances of bias, stereotype, or racism, and incorporating these findings throughout the entire process. The student was able to provide good reasons for the prompt changes and complete a very proficient rationale.



My exact prompt for this final image was: Hawk wearing bright red jersey holding a hockey stick cartoon.



I chose to redesign the Chicago Blackhawks team logo, the reason I decided to change the image from a First Nations man from their logo to an actual hawk to eliminate confusion as to if this sports team logo was actually racist. After some digging around I found out that some First Nations people found the logo offensive as it was called the Chicago Blackhawks with an Indigenous man on it, but the coach of the Chicago Blackhawks said it was to honor a very special person, that had passed away, so ultimately their name was actually to honor someone very close to them who they lost.

I just decided to take black out of Chicago Black Hawks, and looked at some of their other sports team logos, I found out that a common color was red so I redesigned their name to "The Chicago Redhawks". And changed it to an actual bird, to get rid of any potential ideas of racism.

AI and Digital Literacy Teaching and Learning Story

STUDENT B

TEACHER OBSERVATIONS AND STUDENT WORK

Teacher provided summary:

This student redesigned the Toronto Maple Leafs' logo because they really like the team. They found the task enjoyable due to their passion for sports and the engagement it offered. They provided a strong rationale for the various changes they made and the logo they created is interesting and aesthetically pleasing. Their rationale clearly outlines their proficient understanding of the task.

Prompt Creation

This image was created with Generative AI and the prompt was "Polar bear mascot playing hockey"

The reason I chose a polar bear is because the Toronto Maple Leafs mascot is a polar bear but I couldn't get the logo onto the bear so I figured I'd make it as close as possible.



Prompt Creation

This image was created with Generative AI and the prompt was "polar bear hockey mascot wearing a jersey and looking happy"



Reasoning

I chose a hockey playing polar bear because my favourite team's mascot is a polar bear and initially I had wanted to have the bear with a Maple Leafs logo on it but I guess they aren't allowed to use the logo because of copyright. So those are my reasonings and I wanted to make it look like a hockey mascot so I put the jersey on it and made it look happy, and then I made it look powerful because that's what I picture a polar bear being. And the last one was a strong polar bear who broke his because they are really strong, and then I decided to add fire to the stick because I thought it looked cool. Another reason I picked the polar bear is because it is one of my favourite animals and in my opinion shows dedication and strength when trying to catch animals and fish.

Prompt Creation

The image was created with Generative AI and this is the Prompt I used "polar bear hockey mascot wearing a jersey and looking powerful while breaking a flaming stick in anger"



Prompt Creation

This image was created with Generative AI and the prompt was "polar bear hockey mascot wearing a jersey and looking powerful with a hockey stick"



Teacher reflections

At the end of the lesson students completed a Google Form containing four questions. Overall, students gained a clear understanding of AI usage and received practical training on its implementation.

What are three things you took away from the lesson on AI that you could bring into all subjects?]

- Three things that I took away from the lesson on AI is that: first, AI is not perfect and can make mistakes. Second with AI, there is no easy way to check the work of AI to check for accuracy as information that is generated is based on the materials that the AI was trained on. Lastly, AI has bias based on the materials that it was trained on, for example, in North America, the word football can mean two different sports and could easily be confused between American and European football.
- AI is hard to fact check, has similar bias to the person who coded it, and should not be trusted
- AI image generators can't write words, it is always somewhat biased by the info you put into it, it is not always correct information.
- AI can be used for the creation of concept rough drafts for assignments. It must also be regulated, however, due to students who will exploit it. It could also be used for accessibility for students less able to complete assignments due to mental inhibitions or roadblocks.
- Computer basics,
- AI is useful for assisting and speeding up written works, but you can't have AI create your work for you otherwise that's plagiarism. AI can be easily incorrect, and can be biased based on what data it was trained off.
- I learned that AI can be used as a tool to come up with ideas or help fix stereotypical and ethical problems. I learned that AI isn't always perfect. For example Adobe Express had a really hard time generating hockey sticks. It would either add too much curve or the stick would be completely straight. Lastly I learned that AI can be misused for example cheating in school or plagiarizing .
- I think if you were making a slide show you could ask AI to create an appealing template for you. You can also use it for researching information, but while doing so not copying it directly from the text. Also along the lines of research, AI is also faster, and might have information that is otherwise harder to find, you can also ask it to simplify what it has stated so it makes more sense to you or others.