EDUC 5130: Technology and Pedagogy

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Product 04 | Critical AI Investigation

Website Presentation Planning

Critical AI Investigation: Completed Template and Recording Plan

Part 1: Explore

Your Content Area

Content Area / Field	Middle School Visual Art Education Grades 6-8
Specific Focus	How AI represents cultural identity in visual art

Brainstorming: What Patterns Might You Find?

What equity issues or societal patterns exist in your field that AI might replicate?
Art is subjective. At times it focuses more on specific cultures and traditions over others, almost like trends. People immediately associate certain elements (symbols, patterns, colors, etc.) with certain cultures. AI is able to replicate this pattern by relying on the cultural elements that are most recognizable when it is representing cultural identity. This can oversimplify a person's cultural identity by making certain symbols, patterns, colors, or other visual elements seem like they represent a culture or group of people.

What are some ways you could explore whether AI reproduces these patterns?
I plan to explore different cultures around the world by focusing on location. Everything else in the prompt will remain the same. My goal is to see how AI interprets and visually represents cultural identity.

Brainstorming Chat
AI Collaboration / Brainstorming Chat Excerpt

User:
I want to focus on how AI represents cultural identity in visual art. Some of the patterns I am thinking about are cultural stereotypes, representation and visibility, personal identity vs. generalized identity, and cultural authenticity/perspective.

AI:
Those ideas can connect together. A possible working question could be: “How does AI represent cultural identity in visual art, and what patterns or assumptions emerge in those representations?”

User:
Art is subjective. At times it focuses more on specific cultures and traditions over others almost like trends. So it feels. People immediately associate certain elements (symbolic, patterns, colors, etc) to certain cultures which can unintentionally distort or take away from the authenticity of it.

AI:
Your underlying idea seems to be that certain symbols, patterns, and colors can become automatic shorthand for an entire culture. That could lead to oversimplification or stereotyping because those recognizable elements may represent only part of a culture rather than the complexity of individual identity.

User:
Ooo, maybe it is stereotyping I am trying to say....because of those elements. I highlighted the sentence to go back to it.

AI:
Yes, stereotyping sounds closer to what you are describing. You don't necessarily have to force the terminology yet. Your investigation can help you determine whether stereotyping, oversimplification, or another concept best describes the pattern you find.

User:
I could explore different cultures around the world using specific countries/locations rather than broad racial categories.

AI:
That would give you a clearer variable to investigate. You could keep the rest of the prompt consistent while changing only the location or cultural context. That would allow you to compare how AI visually represents cultural identity in different contexts.

User:
Maybe vary middle school age too, but I think I should leave age out because location is the cleaner variable.

AI:
I agree that location gives you a cleaner experiment because changing multiple variables at once could make it harder to determine what caused a difference in the results.

User:
I am leaning toward asking AI to create a visual representation of a teenager whose cultural

identity is influenced by family, community, traditions, personal experiences, and where they live, and then vary the location.

AI:
That makes the prompt more specific and gives AI several aspects of cultural identity to work with. Keeping those elements consistent while changing the location would let you examine what AI changes in the visual representation.

User:
Image generation requires very specific prompts, and that can be aggravating. I think that is something I need to consider because if the prompt is too vague, I might just be testing whether AI understands the prompt instead of how it represents cultural identity.

AI:
That is an important consideration. Keeping the prompt as consistent and specific as possible will help separate prompt ambiguity from differences in cultural representation.

User:
I plan to explore different cultures around the world by focusing on location. Everything else in the prompt will remain the same. My goal is to see how AI interprets and visually represents cultural identity.

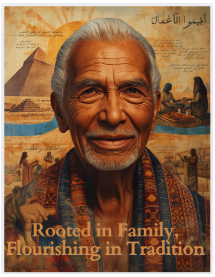
AI:
Yes. This directly answers the question about how you could explore whether AI reproduces patterns. You have identified the variable you will change—location—while keeping the rest of the prompt consistent, and you have identified what you will examine: how AI interprets and visually represents cultural identity.

Your Exploration

Exploration Log

#	Prompt / What You Tried	AI Tool	Repeated/Prominent Elements	Other Observations
1 Japan	Create a visual artwork representing the cultural identity of a 13-year-old teenager whose identity is shaped by their family, community, traditions,	Gemini	Modern teen life, technology, soccer, family photos, urban settings; some Japan-specific cues such as 7-Eleven, cherry blossoms, city/subway imagery	Cultural identification varied considerably between trials
2 Korea			Modern teen life, technology, family/community, city life; Korean flag appeared in some images	One image had strong Korean identifiers; another had only a tiny flag; one had no obvious Korean identifier

3 New Mexico	personal experiences, and where they live. The teenager lives in [Location].		Southwest landscape, adobe, Zia symbol, UNM, chile, Native/Indigenous imagery, textiles, family/community	Strong combination of specific regional markers and contemporary teen life
4 Egypt			Pyramids/Sphinx, soccer, markets, textiles/patterns, family, water/sailboats, traditional clothing	Soccer and ancient/Egyptian visual markers appeared repeatedly
5 Nigeria			African clothing/patterns, Lagos/Nigeria labels, markets, family, drums, soccer	Some images relied heavily on explicit labels; modern teen elements also repeated
6 Papua New Guinea			Woven bags, traditional clothing/adornment, drums, mountains/water, community, crafts, sports	Strong repetition of both cultural markers and contemporary teen elements
7 Japan Korea Mexico Nigeria Egypt Papua New Guinea Alaska New Mexico	Create a visual artwork representing the cultural identity of a 65-year-old adult whose identity is shaped by their family, community, traditions, personal experiences, and where they live. The adult lives in [Location].	Gemini	I repeated the experiment using the same prompt structure but changed the age from 13 to 65. I generated three images for each of the same eight locations (the above I only mentioned 6 of the 8), creating another 24 images to compare. I wanted to see whether the patterns I noticed in the teen images would continue with adults. Looking at all the images, I continued to notice similarities in the overall visual presentation. Some of the adult images looked very similar, especially the three images of the Nigerian man. The backgrounds also seemed the same across the images, even when the style or some of the details changed. This stood out to me because I had generated each image separately using the same prompt. It made me wonder how much variation was actually happening between the generations.	
8 Japan Korea Mexico Nigeria Egypt Papua New Guinea Alaska New Mexico	The above two prompts	Canva	I repeated the experiment using Canva to see how another AI image generator represented cultural identity. I generated two images for each location using the age 13 prompt and one image for each location using the age 65 prompt. This gave me another set of images to observe and compare, although the number of trials differed from Gemini. I did not use the Canva experiment to make direct conclusions about which tool was more accurate or biased. Canva used a similar layout across the locations I tested, with the person positioned in the center of the image. The images had a poster-like composition, with the person filling most of the page. Compared to Gemini, the Canva images appeared	

			less busy, with less surrounding space as well as fewer visual elements competing for attention. Below are some examples for Egypt to compare the two tools using the same location and age.     

Your Findings

Finding 1: What AI Combines	
What is the pattern?	AI repeatedly used similar visual elements to represent a 13-year-old teenager by including modern clothing, backpacks or bags, technology, sports, school, music, friends, and family. It also added visual elements associated with the specified location, such as flags, architecture, landscapes, textiles, symbols, food, and other cultural markers. This created a combination of generalized teenage life and location-specific imagery.
Evidence	**Evidence** This pattern appeared across multiple locations: Japan, Korea, New Mexico, Egypt, Nigeria, and Papua New Guinea. These locations included modern clothing and visual clues that connected to the specified location. Some of these visual clues included, but were not limited to, backpacks, jeans/casual clothing, technology, sports, family, and social activities. Each location also had its own cultural or geographic markers. For example, New Mexico included the Zia symbol, adobe buildings, hanging chile, and UNM/NMSU. Egypt repeatedly included pyramids, markets, and traditional clothing, although the traditional clothing was not worn by the teenager.
Why does it matter?	**Why does it matter?**

	This matters because AI-generated representations of cultural identity may combine actual or recognizable cultural elements with a generalized idea of what a teenager is supposed to look like or do in their free time. When students use AI to explore culture through art, it is important to recognize that the image is an interpretation created by AI, not a representation of an individual's cultural identity.

Finding 2:	
What is the pattern?	The artistic style of these images was the "same." There was very little variation in the illustration style, and the artwork appeared as though one person created all of them. The prompt left "artistic illustration" wide open for interpretation, yet it consistently generated a similar digital illustration style. Photography and/or photographic elements were also incorporated into the locations I tested even though the prompt asked for visual artwork.
Evidence	There is a recurring artistic style across the board. When I compare the digital illustrations from Japan, Korea, New Mexico, Egypt, Nigeria and Papua New Guinea the style is very consistent. It does not look like six different artistic interpretations and photography appeared in all of the locations in some form. Some images were solely photographs, some had a photograph incorporated into the illustration. There were only two locations where one of the three trials did not include a photographic element into the design.
Why does it matter?	It would have been nice to see different artistic styles represented from the locations I tested to show an emphasis on the cultural identity for each teenager. Just like every artist has their own unique style, teenagers have their own unique style, not just in art. Cultural identity is a beautiful and important thing because it is part of what makes everyone unique. Art is not about one medium; it is about a variety of mediums and ways of expressing ideas. If I showed these images to my students, I would want them to understand that the images did not show much originality from one another. AI was given an open-ended prompt and produced something that appeared complete, but in reality

	there were things that needed to be questioned and observed, such as repetitive elements within a single image, including the three hands. It is important to not stop questioning AI, to think critically, and to really observe what they are seeing. Students should not trust AI simply because they believe it is capable of thinking for them.

Part 2: Communicate

Shaping Your Story

What is the most interesting or surprising thing you discovered?

The biggest surprise for me was when I explicitly asked for "...a visual artwork representing…cultural identity…" and got results that were photographs. I was not expecting all of the compositions (including the photographs) to have the same layout. All of the generated images have the teenager as the central focus, with everything else placed around them. I wanted cultural identity to be the influence for the prompt, so I expected/was hoping to see a variety of artistic styles that reflected the different cultures and countries. I was hoping for authenticity, not cookie cutters or sameness. I don't know yet whether the sameness came from AI defaulting to a familiar visual formula for representing cultural identity, from location/culture not having enough influence on the artwork, or both.

Who is your audience, and why should they care?

My audience is my fellow colleagues (teachers) as well as students. From my observations at work, teachers have become so complacent with using AI for everything: grading, lesson planning, budgeting for their own personal home projects, etc. They are using AI to replace their thinking instead of using it as a tool to enhance their thinking.

Students are dedicating their class periods to finding loopholes in the chatbots built into education programs that are meant to guide and direct students when they struggle, rather than using them to help them think through a problem. When the chatbot doesn't give them the answers they want, students get mad.
They need to see the bias and misinformation that can occur when using AI because they cannot assume that it is pulling accurate information, even when generating images. For history teachers especially, this is important because cultural representations could be misconstrued.

How will you hook them at the start and leave them thinking at the end?

Can a person both read and play the guitar simultaneously with only two hands? What if they had three?

/show the first generated image of Japan. Zoom-in on black and white sketch of a girl with three hands.



I want my audience to understand that AI is not 100% accurate all of the time. It makes mistakes more often than not. There are biases, cultural biases, and misinformation. When you use AI, you have to use it diligently and use it as a thinking tool, not a replacement for your thinking.

Choose Your Format

Your Choice	☐ Option A: Webpage (HTML page built with AI as coding collaborator) ☐ Option B: Screen Recording (5-minute visual walkthrough of your findings)
Why this format?	I feel doing a recording is the best way for this investigation because there are a lot of visuals. Within these visuals, there are things one could easily miss. I think by talking through them, the viewer will be able to notice things better by hearing and seeing simultaneously, as opposed to reading and looking at a website.

Option A: Webpage

You will build your investigation page as an HTML webpage using AI as a coding collaborator. You do not need to know HTML. The point is to work with AI to build the page, prompting it for code, reviewing what it produces, and iterating.

Building Your Page

Start with your content, not the code. Write up your findings first (your work in Part 1 is a great start). Then give the AI your text and ask it to build an HTML page. This is much more effective than writing content and code at the same time.

Describe the layout you want in plain language. Say things like "I want a two-column comparison" or "Put each finding in its own section with a colored heading." The AI can translate this into code.

Iterate. Your first version will not be your final version. Review what the AI produces, tell it what to change, and go back and forth. This iterative process is part of the assignment.

Including Screenshots and Images

Screenshots and AI-generated images are essential evidence. Here's how to include them:

1. Upload all your screenshots to a Google Drive folder.

2. Share the folder so anyone with the link can view it (right-click → Share → Anyone with the link).

3. Get the direct link for each image (right-click → Share → Copy link).

4. Tell the AI which images go where. Provide the links and describe placement: "Place this screenshot under Finding 2."

To share the page, copy the HTML code onto your portfolio website using embed or HTML features in your webpage editor tool.

Option B: Screen Recording (5 minutes max)

Recording Plan

Section	What You'll Say (voice)	What You'll Show (screen)	Approx. Time
Hook / Intro	Can a person both read and play the guitar simultaneously with only two hands? What if they had three? This was one of the first things that made me stop and question what AI was generating.	 	30 seconds
Experiments: Data Finding 1	**Sameness across locations** - I asked AI to represent cultural identity but instead of getting different artistic	The generated images (thumbnail size) side by side Images Side by Side	1:15

	interpretations, I saw similar compositions, poses, activities and visual styles. - The photographs followed the same basic layout as the illustrations. - I was looking for individuality but the images felt like different versions of the same thing. The culture changes, but the visual language used to represent that culture stays surprisingly similar. All these images look similar. Where is the culture I was hoping to see? Yes, there is evidence of some, but why do they all look like one artist created them? *Visual language repetitive*	Show a selection of teen images from different locations side by side. Not all 24, just enough to show repeated compositions, poses, activities and visual styles.	
Finding 2	**Individuality within locations** - I viewed each generated image as if it had been created by a different "student". I expected each person to have their own individual characteristics. - When I created the 65 year old images, I noticed some locations had the same if not [very] similar people appearing in multiple images. - I cannot say for certain that the images depict the same person, but the similarities stood out to me.	Images Side by Side Show 2-3 examples from the 65 year old image set where people appear very similar. Place images side by side so viewers can compare facial features, clothing, and other visual details.	1:15

	- I was surprised and somewhat disappointed because the repetition took away from some of the individuality I expected to see. - From a teacher's perspective, some of the images looked like one person had looked at their neighbor's work and copied it.		
Implications	- AI can produce images that look convincing and culturally detailed. - A quick glance may make us think the representation is thoughtful and accurate - Looking closely revealed repetition, limited visual choices and individual differences being flattened. - Teachers and students need to look critically rather than accept the first AI-generated representation as truth. - AI should be a thinking tool, not a replacement for thinking.	- Side-by-side selection of teen images showing repeated compositions and activities. - Two or three adult images showing similar-looking people across separate generations. - A final view of images from several locations to reinforce both the cultural details that vary and the visual patterns that repeat.	1:00
Closing	I went into this investigation looking for cultural representation, and I came away from it noticing how similar the images are despite the different locations. I can't say that every similarity is evidence of bias, but I do think it's important to question what AI generates instead of automatically accepting it as accurate. AI should be a tool to	Cultural Identity Through AI Lens - SKirk	

	help us think, not a replacement for our thinking.		

Google Doc Notes:
AI Investigation Notes / Images Side by Side

Google Slides Doc:
Cultural Identity Through AI Lens - SKirk

Script for Recording:
Critical AI Investigation Script

AI Disclaimer:

ChatGPT was used as a sounding board to help organize ideas, refine wording, and develop the presentation script. AI-generated suggestions were reviewed, revised, and adapted to reflect my own thinking and voice. The observations, interpretations, and conclusions reflect my own review of the generated images and my perspective as an art educator.

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Image Sources and Attributions

- **Google Gemini:** Images generated using Google Gemini for this Critical AI Investigation, 2026. Images were created using the investigation prompt and variations in location and age.
- **Canva:** Images generated using Canva's AI image-generation tools for this Critical AI Investigation, 2026. These images are included in the investigation document for comparison.
- **Google Slides template:** Presentation template provided through the educational program. AI-generated images from this investigation were added to the presentation.

The images generated with Gemini and Canva are presented as investigation materials for analysis and comparison. Observations and interpretations are my own.