The Future is Now:
Ethically Integrating
A.I. in Research
Methods



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Contents

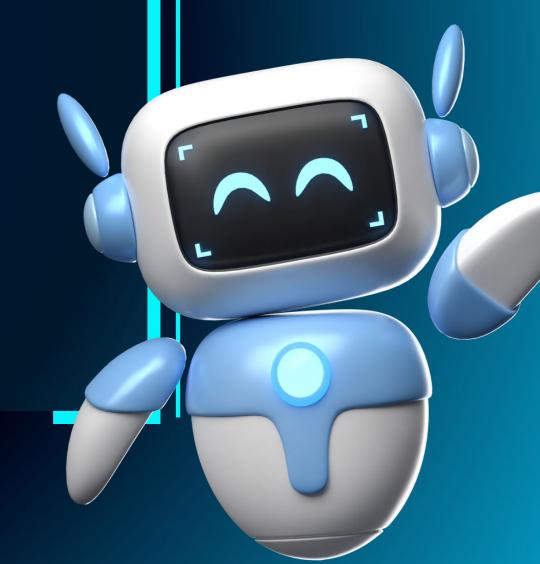
- 1. What is Artificial Intelligence (AI)?
- 2. Importance of AI in Research and at Work
- 3. Types of AI Tools Available
- 4. Creating a Pirate's Code
- 5. Student Responses to Acceptable uses of Al
- 6. Using Al in Research Methods
- 7. Addressing Bias in Image Generating
- 8. Sample Assignment

What is Artificial Intelligence (Al)?

Artificial Intelligence (AI) refers to the simulation of human intelligence processes by machines, allowing them to perform tasks that typically require human cognitive functions.

Al systems can analyze data, learn from it, and make decisions or perform actions based on that data.

Basically, Al machines are programmed to think and learn.





NARROW AI:

- "Weak" system
- Specialized in one task
- E.G.: Chatbots & recommendation systems



GENERAL AI:

- Performs any intellectual task that a human can still theoretically do
- E.G.: Autonomous cars & advanced robotics

Importance of AI at Work and in Research



Types of Al Tools Available

Automation Tools

- Robotic Process Automation (RPA)
- Automated Scheduling and Reminders

Communication Tools

- Chatbots
- Natural Language Processing (NLP) tools

Data Analysis Tools

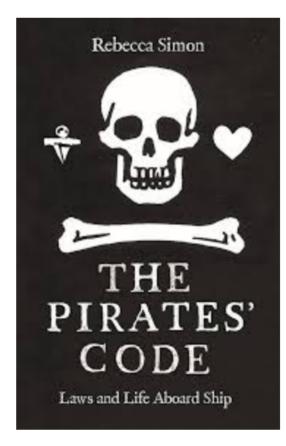
- Machine learning algorithms
- Predictive analytics platforms

Creative Tools

- Al-driven design and content creation
- Video and image recognition

Create a Pirate's Code for Plagiarism and Al

Instructions



What is the Pirate's Code for Plagiarism and AI?

That's a great question. The Pirate's Code is the code of ethics that all Pirate's subscribe to. I know none of us are pirates, at least I am assuming you aren't one. However, they take their code very seriously. It is the only thing they actually follow. As individuals living in today's world, we all know that AI is all around us. In fact, many jobs are looking for new employees to have some experience with using AI. I know you are all going to use it. So instead of punishing you for doing it, how about we, collectively, create some rules that we can abide by? Are you in? This

is the first time I've creating this. I undoubtedly forgot a bunch of stuff to ask that I will think about later.

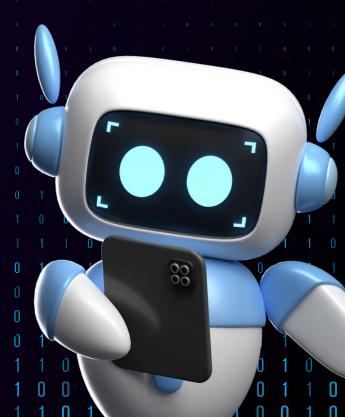
Instructions:

- 1. Review this padlet created by a bunch of university officials. They have posted their <u>Policies on using Generative Al</u> ⇒. This padlet should give you a starting point idea of some things.
- 2. Think about when is it ok to use AI for your assignments and when is it not ok? Are there certain AI programs that are ok to use and some that are not?
- 3. What about plagiarism? What are your thoughts on plagiarism?
- 4. What penalty should students receive if they violate the class pirate's code? I mean besides the obvious of walking the virtual plank.
- 5. Take the "quiz" to submit your responses. This isn't an actual quiz. It is just a tool for me to use to get your opinions so I can craft a class policy.

Which of the following generative AI programs do you think it is ok to use in our class for the purposes of helping on an assignment?

Goblin Tools	6 respondents	30 %	
Gemini	3 respondents	15 [%]	
Microsoft CoPilot	6 respondents	30 %	
Elicit	7 respondents	35 %	
ChatGPT	10 respondents	50 %	
Claude	3 respondents	15 %	
Grammarly	16 respondents	80 %	
No Answer	1 respondent	5 %	

Student Responses



My Al Syllabus Policy

Using AI in our class

Let's face it, Al is everywhere and has been for quite a long time. Rather than fight against it, we are going to embrace it and use it as part of our class. More and more employers expect their employees to use Al properly. There are a lot of cool generative Al tools available to us to help with the research process. Gone are the days that we need to know the exact right keywords to find the right articles in research databases. With generative Al tools like Elicit, we can simply use our research questions and get help finding articles that support the research process. Just a heads up, you will use generative Al for some of our assignments. If you do, make sure to give credit to the tool you used and explain how you used it. Each assignment will have instructions on how to cite when using Al. There are limitations to what you are allowed to do with Al.

These are some of the acceptable ways to use AI in our class. This list is not exhaustive as we will create our own Pirate's Code to use AI in our class.

- To streamline your brainstorming
- To generate ideas
- To evaluate your written work to check for grammar, tone, clarity, format, etc.
- To generate research articles for your research proposal
- To <u>finetune</u> your research question
- To summarize your notes
- To help you break down your assignments into a manageable to-do list.

These are some unacceptable ways to use AI in our class:

- Copy/pasting any exam question and asking AI for the answer
- Copy/pasting any assignment prompt, asking AI to generate a response, and then passing it
 off as your own work
- Asking Al to ghost write any assignment for you.

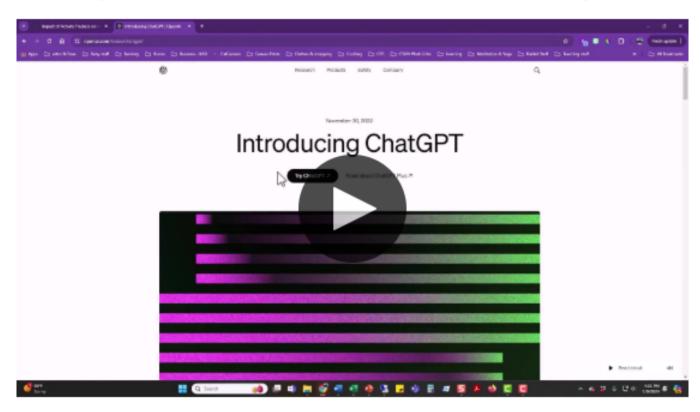
Now, it's important to remember that these Al tools are not always spot on with their content, since they gather data from limited and sometimes outdated sources. There's also a risk of accidentally plagiarizing, violating copyright, or making up data. And hey, these tools are meant to mimic human content creation, not necessarily super accurate. So, it's on you to make sure your work is top-notch.

Proposal Introduction

Your introduction should consist of the following information.

1. The Introduction

- Frame your topic
- Write your research question. Then use <u>ChatGPT</u> → to refine your research question. Make sure to watch my 1:50 min tutorial on how to use ChatGPT to refine your research question and to document the conversation. You have to upload this along with your introduction.



- · The introduction should give the reader a general idea of what the topic is about and draw interest.
- · A good introduction leaves the reader feeling excited about reading the rest of the piece.
- · A poor introduction is vague and unfocused, leaving the reader feeling unsure about what the topic is.

2. The Problem

- What exactly is the problem or issue that you want to study?
- · Why is it worth studying?
- · Does the proposed study have practical significance?
- · Does it contribute to the construction of social theories?
- 3. The Reference page is your last page. You are to cite the article provided using correct APA formatting. Do not forget the DOI if there is one provided.
 - · Use this APA 07: Compose a Reference Page as a resource to help guide your reference page formatting.
 - Make sure you are also providing proper in-text citations for any direct quotes and when you have paraphrased information.

Here are some introduction examples for your review.



ChatGPT in Research Example

Original Question: "Are trans men who conform to masculinity norms happier than trans men who do not?"

 ChatGPT Revised: "How does adherence to traditional masculinity norms affect the well-being and life satisfaction of trans men?"

Revision prompt: "Can you make clear my research question of "How does adherence to traditional masculinity norms affect the well-being and life satisfaction of trans men?"

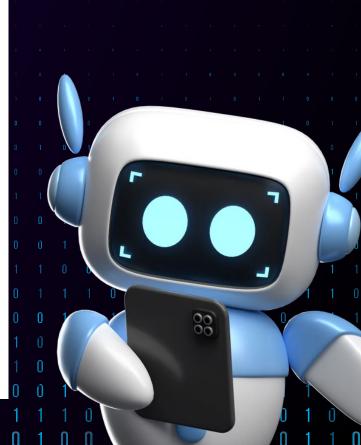
 ChatGPT 2nd Revision: "What is the impact of conforming to traditional masculinity norms on the well-being and life satisfaction of trans men?"

Elicit in Research

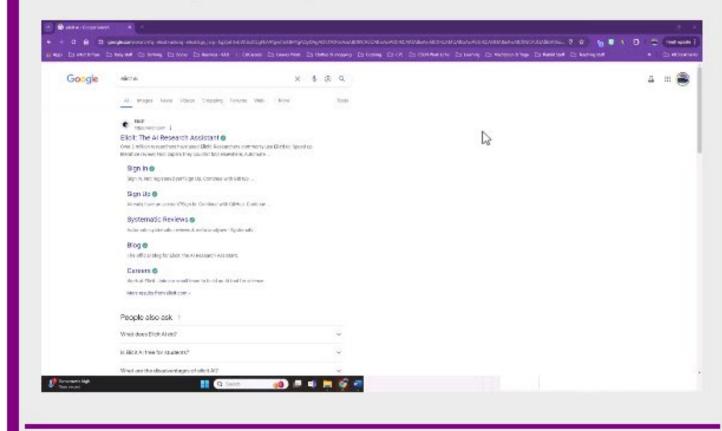
We will use Elicit in our class to gather literature for our literature reviews. Let's work smarter, not harder. There are still many ways that you can use Elicit unethically.

Which of the following ways do you consider unethical ways of using Elicit?

Using Elicit to write your literature review for you	18 respondents	86 %	
Using the abstract summaries for the literature review	11 respondents	52 [%]	
Not reading the articles	15 respondents	71 %	
None of these.	1 respondent	5 %	



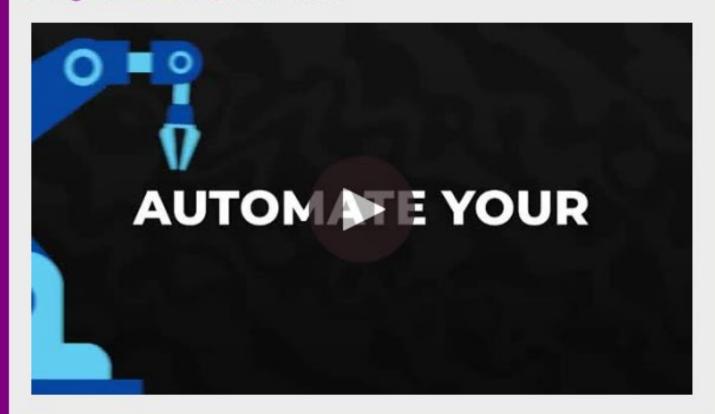
Elicit Tutorial (4:30 min)



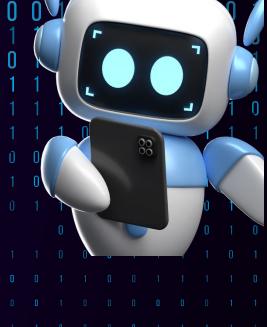
How to Write a Literature Review (3:04 min)



How to Automate Your Literature Review ETHICALLY Using ChatGPT (17:19 min)







Tutorials

Elicit.Com - Literature Review

Get a research report

What is the impact of conforming to traditional masculinity norms on the wellbeing and life satisfaction of trans men?

Great question!





Status



50 papers found

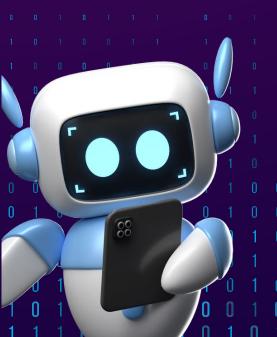
) Screen papers

Filtering studies based on inclusion criteria

Extract data

Capturing key metrics and findings from every paper

Generate report
 Summarizing findings



Elicit.Com - Results

- Identified 50 relevant papers using search
- Screened in 8 papers utilizing criteria
 - Population Trans Identity
 - Population Exclusive Focus
 - Core Concept
 - Outcomes
 - Participant Age
 - Study Scope
- Extracted 48 data points covering
 - Study Design Type
 - Sampling Method
 - Participant Demographics
 - Masculinity Norm Measurement
 - Key Findings on Masculinity Norms
 - Well-being and Life Satisfaction Outcomes

- Population Trans Identity and does study include populations beyond cisgender men, trans woman, or non-binary?
- Core Concept Does study examine traditional masculinity norms or masculinity identity conformity?
- Outcomes Does the study measure psychological well-being, life satisfaction, or related mental health outcomes?
- Participant ages 18+
- Study scope include psychological aspects of masculinity norms beyond medical transition processes?

Elicit.Com - Abstract

Abstract

Conformity to traditional masculine norms appears modestly linked with reduced well-being among trans men. Wong et al. (2017) report that higher endorsement of norms—especially self-reliance, power over women, and playboy behavior—correlates with unfavorable mental health outcomes. In a large Canadian survey, pressure to conform, experienced by 56.4% of GBT2Q respondents including trans men, relates to increased depression, anxiety, and poorer self-rated mental health (Cooper et al., 2023). Anzani et al. (2022) show that trans masculine individuals tend to score higher on norms of emotional control and self-reliance, a finding consistent with the noted adverse associations.

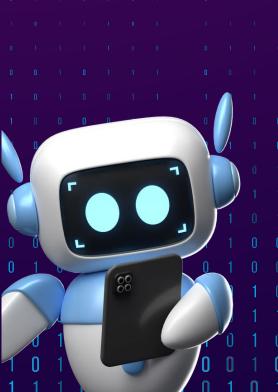
In contrast, trans men who achieve greater gender congruence through affirming interventions report higher life satisfaction, as measured by the Gender Congruence and Life Satisfaction Scale (Jones et al., 2018). Qualitative evidence (Green, 2005; Vegter, 2013) supports the view that trans men may embrace masculinity in diverse ways that do not require strict adherence to traditional norms.

Elicit: Com + Data Extraction

Study	Study Design	Population	Primary Outcomes	Key Masculinity Measures	Full text retrieved
Anzani et al., 2022	Cross-sectional survey	100 trans masculine individuals, 100 cisgender men; all White Italian; aged 18-72	Conformity to masculine norms	Conformity to Masculine Norms Inventory CMNI-30	Yes
Bockting et al., 2016	Review article	Transgender and gender nonconforming adults	Development and quality of life	No mention found	Yes
Cooper et al., 2023	Cross-sectional survey	8,977 Gay, Bisexual, Trans, Two-Spirit, and Queer (GBT2Q) individuals in Canada, aged	Depression, anxiety, self-rated mental health	Pressure to conform to masculine norms	No

- Study Design as outlined in methods section
- Sampling method including recruitment strategy, inclusion/exclusion criteria, and recruitment sources
- Participant demographics
- Masculinity Norm measurement
- Key findings on masculinity norms
- Well-being and Life satisfaction outcomes

Elicit.Com— Thematic Analysis



Thematic Analysis

Conceptualization of Masculinity

Theme	Key Findings	Supporting Evidence	Contrasting Perspectives
Masculinity as a set of norms	Conformity to masculine norms associated with mental health outcomes	Wong et al. (2017) found conformity to masculine norms modestly and unfavorably associated with mental health	Vegter (2013) suggests masculinity is not a requirement for male identity
Pressure to conform	Pressure to conform to masculine norms linked to negative mental health outcomes	Cooper et al. (2023) found pressure associated with increased depression, anxiety, and poor mental health	Not explicitly mentioned in other studies
Variation in masculine traits	Masculinity viewed as traits varying naturally in all humans	Vegter (2013) conceptualizes masculinity as traits varying in all humans	Anzani et al. (2022) focuses on specific masculine norms and their endorsement
Embodiment of masculinity	Trans men possess masculinity without traditional paths to maleness	Green (2005) notes trans men often possess undeniable masculinity	Not explicitly contrasted in other studies

Conformity to masculine norms

- · Associated with mental health outcomes (1 study)
- Association described as modest and unfavorable

Pressure to conform

- · Linked to negative mental health outcomes (1 study)
- · Outcomes: increased depression, anxiety, poor mental health

Variation in masculine traits

- · Conceptualized as traits varying naturally in all humans (1 study)
- · Contrasts with views of masculinity as fixed norms

Generate P

Report

Status

Gather papers

50 papers found

Screen papers

8 papers included

Extract data

48 data points extracted

Generate report

Save PDF

Details 7

Details 7



Masculinity Norms and Trans Men's Well-Being

Trans men's well-being is negatively impacted by conformity to traditional masculine norms, but positively influenced by gender-affirming interventions and flexible approaches to masculinity.

Abstract

Conformity to traditional masculine norms appears modestly linked with reduced well-being among trans men. Wong et al. (2017) report that higher endorsement of norms—especially self-reliance, power over women, and playboy behavior—correlates with unfavorable mental health outcomes. In a large Canadian survey, pressure to conform, experienced by 56.4% of GBT2Q respondents including trans men, relates to increased depression, anxiety, and poorer self-rated mental health (Cooper et al., 2023). Anzani et al. (2022) show that trans masculine individuals tend to score higher on norms of emotional control and self-reliance, a finding consistent with the noted adverse associations.

In contrast, trans men who achieve greater gender congruence through affirming interventions report higher life satisfaction, as measured by the Gender Congruence and Life Satisfaction Scale (Jones et al., 2018). Qualitative evidence (Green, 2005; Vegter, 2013) supports the view that trans men may embrace masculinity in diverse ways that do not require strict adherence to traditional norms.

Paper search

Using your research question "What is the impact of conforming to traditional masculinity norms on the well-being and life satisfaction of trans men?", we searched across over 126 million academic papers from the Semantic Scholar corpus. We retrieved the 50 papers most relevant to the query.

Screening

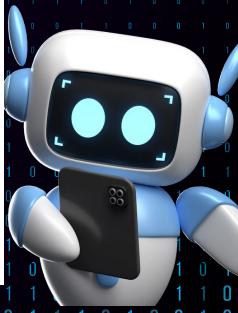
We screened in papers that met these criteria:

- Population Trans Identity: Does the study include transgender men and/or transmasculine individuals as primary participants?
- Population Exclusive Focus: Does the study include populations beyond just cisgender men, transgender women, or non-binary individuals?
- Core Concept: Does the study examine traditional masculinity norms or masculine identity confor-
- Outcomes: Does the study measure psychological well-being, life satisfaction, or related mental health
- Participant Age: Are all study participants 18 years or older?
- Study Scope: Does the study address psychosocial aspects of masculinity norms beyond just medical transition processes?

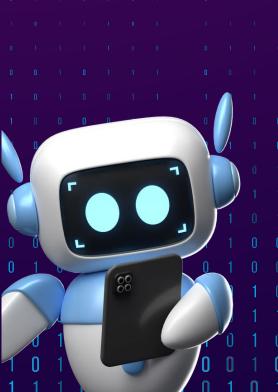
We considered all screening questions together and made a holistic judgement about whether to screen in each paper.

Data extraction

We asked a large language model to extract each data column below from each paper. We gave the model the extraction instructions shown below for each column.



Elicit.Com— Thematic Analysis



Thematic Analysis

Conceptualization of Masculinity

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Dr. Chelsea Starr, Eastern NMU

Discussion Board Experiment: How to come up with a social research question

How to Use ChatGPT to test whether you've got a good research question.

After reading Ch 1 of your text, and referring to the rules for a good social research question there, **think of a research question**. It should be something that interests you, that you'd like to research and know more about. It should be on a topic related to sociology or criminal justice.

Do not ask ChatGPT to generate your research question.

Go to https://chatgpt.com/ and create a free account.

NOTE: ChatGPT limits you to a certain number of prompts per hour. If you run out, just switch to the free version of Google Gemini (https://gemini.google.com/app). It requires you to have a Google account (gmail, other) but that's free, too, so just create one.



Dr. Starr (cont.)

Further instructions to students

Cut and paste the following at the prompt, filling in your research question at the end:

I am trying to test whether my research question for a sociology research methods course meets the requirement of the course. The rules for an acceptable research question in the course are as follows: It should be on a topic related to sociology or criminal justice; it cannot be answered with yes or no, nor with one or two words; the answer is not obvious, and not readily available with a quick web search nor already known; it cannot have sub-parts and can only be one sentence with a question mark at the end; it cannot assume the answer to the question in the way it is phrased; it cannot be phrased in a way that would bias the outcome by making underlying assumptions about the outcome; it must be feasible, and can be answered using empirical methods in sociology. Does my research question meet all of these requirements? If it misses some requirements, which of the requirements above are they? My research question is [insert your research question here].

AlTranscript



Your research question, "How mental healthiness affects the crime rates?" does meet some of the requirements, but it doesn't fully satisfy all of the criteria set out in your course. Let's go through them step by step:

1. Sociology or criminal justice topic:

This question is related to sociology and criminal justice as it deals with the relationship between mental health and crime rates.

2. Not a yes/no question or answerable in one or two words:

∘ ✓ The question is open-ended, and its answer would require more explanation and analysis than just a simple "yes" or "no."

3. Answer is not obvious or readily available with a quick web search:

The relationship between mental health and crime rates is a complex one, and while there is literature on it, it's not an easy or quick answer. It would require research and empirical data collection.

4. No sub-parts; only one sentence with a question mark:

5. Cannot assume the answer in the phrasing:

This is where your question misses the mark. The word "affects" implies that there is a relationship between mental health and crime rates, assuming an effect without leaving room for exploring whether or not there is one. A more neutral phrasing would avoid implying that an effect exists, and would allow for the possibility that there might not be one.

For example, instead of "How mental healthiness affects crime rates?" you could rephrase it as, "What is the relationship between mental health and crime rates?" or "How does mental health impact crime rates?" This would remove the assumption that mental health definitely affects crime rates and allow for more open exploration.

6. Cannot be biased or assume an outcome:

As mentioned, the phrasing of your question assumes that mental health affects crime rates, which could introduce bias. It's important to phrase it in a way that doesn't suggest a particular outcome.

7. Feasibility; can be answered using empirical methods:

This question seems feasible for empirical research. You could collect data on mental health statistics and crime rates to analyze whether any patterns or relationships exist.



Student Reflection

- Using this as a learning tool honestly helped me understand what a good research question should be, it shows and explains to
 me how my question was so spread out. What I mean by that is it gives me a solid research question that helped me understand
 it a lot easier as well, it is more straightforward and simple to answer.
- I found that the tool was helpful in identifying parts of the question that needed to be refined and helped me understand how a question could have "sub-parts" without realizing it. I think that the AI tool could be very helpful in narrowing down aspects of research so that proper studies can be conducted.
- It was interesting how precise and accurate ChatGPT was in following the rubric.
- This was a beneficial exercise for me. This is my first class, where I have to come up with these types of research questions. I am learning a lot, and it was very helpful to have a program break down the criteria for me and give me suggestions on refining the question. It was so helpful to read how it fits the requirements, and it showed me how my first question was already biased based on how it was phrased. I didn't realize this, so I am grateful to have this exercise show and explain how to rephrase my question.
- I'm 42 and I had a self-imposed bias against it, but thanks to this project I'm over it now and can clearly see the benefits when used as a tool like this. I appreciated the straightforward feedback which helped me continue tweaking the way I'm wording it, clarifying age, and addressing the need to include parental involvement.
- The process of using AI chat to refine this question was quite useful. What was interesting was the AI's ability to break down and analyze each part of the question, making sure it was unbiased and feasible for research. Overall, the experience was helpful.

Bias in Image Generating

Prompt: create an image of a African American girl age five with a white dress on sitting on a brown chair on a porch of a house in California









Lack of Representation























Sample Assignment using Generative Al



Have students generate an image about your research topic.

Then have students analyze the image:

- 1. What stereotypes are reinforced in the generated image?
- 2. What are the underlying or latent messages?
- 3. What social norms does your image reinforce?
- 4. How do images like this impact perspectives on current or future research projects based on your topic?

Resources

Books:

- "Teaching with AI: A Practical Guide to a New Era of Human Learning" by Jose Bowen (https://a.co/d/gWH0B9G)
- "Artificial Intelligence: A Guide for Thinking Humans" by Melanie Mitchell

Articles:

- Latest trends and case studies from reputable sources like Harvard Business Review
- MIT Technology Review Covers emerging technologies and their impact, including Al.
- Wired Provides insights into technology trends and innovations. Forbes
- Technology Features articles and case studies on Al applications and trends.

More Resources

Presentations:

- Lee-Perry, D. (2025, January 15). Work Smarter Not Harder: Al and You in the Workplace [PowerPoint slides]. LACCD
- Starr, C. (2025, March 28). Undergraduate Views and Use of AI/ChatGPT (And what
 to do about it) [PowerPoint slides]. PSA Conference, San Francisco

Websites:

- Al-related courses on Coursera, Udemy, Vision Resource Center, Canva, and ChatGPT
 - TechCrunch Offers news and updates on technology startups and Al innovations.
 - (TechCrunch AI)
 - The Verge Provides coverage on technology and science trends, including AI (The
 - Verge AI)
 - ZDNet Features news and analysis on enterprise technology, including Al trends (ZDNet Al)

Attribution

Canva:

- Designed using Canva.
 - Canva is a graphic design platform that offers a wide range of templates and design tools. For more information, visit <u>Canva's website</u>.

ChatGPT:

Generated by ChatGPT, an Allanguage model developed by OpenAl. "ChatGPT is

- a language model developed by OpenAI. For more information, visit
 - OpenAl's website."

