

Your colleagues' Peer Reviews of your Op-Ed (Draft 1)

<p>Peer Reviewer Caroline Zimmer</p> <p>Propositional Content Mostly meets expectations <i>prop in paper is explanatory, maybe use the prop in the outline, but it nicely communicates a refutable argument</i></p> <p>Invention Meets and sometimes exceeds expectations <i>Use of personal accounts to create reasons for argument works well in some places</i></p> <p>Rhetoric Mostly meets expectations <i>Tone and voice works well, Some personal accounts don't add much to the argument, reasons reflect invention, maybe use more research-based evidence to further back argument in place of some personal accounts (ex. statistics of how students learn, effect of AI, effects of co-op experiences, etc)</i></p> <p>Genre Mostly meets expectations <i>Can include school administrations / school boards in the audience, might want to target op-ed less towards students themselves (goal strays from the motive) since the prop is more applicable to school administrators, shows expertise</i></p> <p>Presentation Consistently exceeds expectations <i>Good use of links, nice paragraph length</i></p> <p>Aesthetics/Reading Experience Meets and sometimes exceeds expectations <i>Interesting topic, format looks good, would like to see more research based evidence to support reasons</i></p> <p>Weighted Average A-</p>	<p>Peer Reviewer William Hong</p> <p>Propositional Content Mostly meets expectations <i>The Op-Ed centers around a justificatory proposition and there is a valid counterargument presented. I would bold the proposition for ease of identification.</i></p> <p>Invention Meets and sometimes exceeds expectations <i>The Op-Ed integrates a lot of personal anecdotes which I find compelling. It speaks to a current, timely debate about the hands-on effectiveness of school education. The writing also points to various articles which support his position.</i></p> <p>Rhetoric Meets and sometimes exceeds expectations <i>Paragraphs are short and readable. Clear title signals the writer's position.</i></p> <p>Genre Meets and sometimes exceeds expectations</p> <p>Presentation Meets and sometimes exceeds expectations <i>Sources are hyperlinked and it is written in a well-presented Op-Ed format.</i></p> <p>Aesthetics/Reading Experience Meets and sometimes exceeds expectations <i>The content was interesting and engaging to me.</i></p> <p>Weighted Average A</p> <p>General Comments <i>Great job overall. The only minor suggestions I have are to simply bold your proposition so it's easier for the reader to identify. Additionally, I think that you can have a better ending for your conclusion. You simply end off with saying Drexel and Northeastern have recognized the value. However, I think the ending sentence could be extrapolated to be more general and forward-looking.</i></p>	<p>Peer Reviewer Natalie Pan</p> <p>Propositional Content Partially meets expectations <i>Your proposition is clear in your outlines, but I think it got lost in your op-ed. I'm also not sure that your introduction fully sets up your proposition. For example, I'm not sure how your distinction of "students growing up in the age of artificial intelligence" relates to your argument. Furthermore, it is a bit confusing that your second paragraph starts with "One reason..." even though you have not yet introduced your proposition. Finally, I think it would be useful to have more evidence backed by outside sources rather than solely using your personal experiences to support your argument.</i></p> <p>Invention Mostly meets expectations <i>I think this topic is important and very relevant for any college student! I liked how you mentioned what other universities have done.</i></p> <p>Rhetoric Mostly meets expectations <i>I liked your use of a personal anecdote and the quote from Mark Twain. It might be useful to use some numerical data as well (ex. statistics about the number of students who...).</i></p> <p>Genre Meets and sometimes exceeds expectations <i>Your tone is appropriate for the op-ed genre. Your piece is persuasive/argumentative and informative.</i></p> <p>Presentation Meets and sometimes exceeds expectations <i>I liked how you broke up your op-ed into smaller paragraphs with clear signposting for the introduction of your reasons and counterargument.</i></p> <p>Aesthetics/Reading Experience Meets and sometimes exceeds expectations <i>I enjoyed reading this op-ed!</i></p> <p>Weighted Average B+</p>
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Your colleagues' Peer Reviews of your Op-Ed (Draft 2)

Peer Reviewer Charlotte Lew	Peer Reviewer Shubham Dixit
Propositional Content Meets and sometimes exceeds expectations <i>Proposition is justificatory and is properly set up with context and premises. I also really like the anecdote.</i>	Propositional Content Mostly meets expectations <i>Your introduction is beautifully written. While I don't believe that your proposition is bifurcated, I can see how one may find this statement to be far too lengthy. Additionally, maybe I'm being overly critical since this is a designated feedback session, but I don't believe that an audience is ever explicitly mentioned. Are you speaking directly to the university administration? Are you speaking to Penn's administration? Are you speaking to current college students? Are you speaking to parents? Are you speaking to prospective college students? After reading the entirety of your paper, it appears that you are targeting Ivy League universities - unfortunately, this was not apparent throughout.</i>
Invention Meets and sometimes exceeds expectations <i>I like how you used yourself as an example and reason. It was compelling and puts a personal voice to the op-ed</i>	Invention Mostly meets expectations <i>You pose many unique arguments that many college students think about and agree with - I doubt there's much literature about this. I appreciate you using personal experiences too, which is what the essence of an op-ed is, but I would highly recommend expanding on your last paragraph. You've left readers on a cliffhanger - tell us about what the benefits of these co-ops are; what are some interesting things about them?</i>
Rhetoric Meets and sometimes exceeds expectations <i>Premises address the knowledge of the reader and the selection of reasons and evidence are relevant to the target audience</i>	Rhetoric Mostly meets expectations <i>I would give you 4 points on this, but you need to include sufficient counterarguments, refutations, and concessions. I believe that you allude at this but that is not enough. Other than that, once you are able to identify and clearly refer to your target audience, I'm sure that this piece will be complete.</i>
Genre Mostly meets expectations <i>Visual and article heading are accurate. Is the small text under the photo a citation? Also, some paragraphs are a little long.</i>	Genre Meets and sometimes exceeds expectations <i>I'm not allowed to give you a 5, so I'll give you a 4, but your writing encapsulates the full essence of what an op-ed should be.</i>
Presentation Meets and sometimes exceeds expectations <i>No spelling or grammar errors and is attentive to the</i>	Presentation Meets and sometimes exceeds expectations <i>Hyperlinks are present and there don't appear to be any obvious grammatical errors.</i>
Aesthetics/Reading Experience Meets and sometimes exceeds expectations <i>it was very engaging all throughout and is persuasive throughout.</i>	Aesthetics/Reading Experience Meets and sometimes exceeds expectations <i>I'd say that this is pretty persuasive and compelling - I enjoyed reading your op-ed.</i>
Weighted Average A	Weighted Average A-
General Comments <i>I think you could add more to the counterargument as its a lot weaker than your other points.</i>	General Comments <i>Great overall, I'm sure that this will be at least an A after making the aforementioned edits.</i>

Your multiple reviews of classmates' Op-Ed work (Draft 1)

For Natalie Pan

Propositional Content: Meets and sometimes exceeds expectations

Prop is justificatory and very clear and concise. Counter-argument is valid and related to the prop. - My initial reaction would be to USE AI regardless of its current accountability concerns, because it offers greater accuracy in certain scenarios, and would save lives. Have you considered which POV argument works better for your case?

Invention: Meets and sometimes exceeds expectations

Lots of evidence (but little anecdotal evidence), but the topic at hand speaks to a very current and timely debate. The sources provided are relatively new, and the argument being presented is somewhat unique in its view: better accountability (ethical) policies for AI prior to AI. - Perhaps add additional anecdotal evidence.

Rhetoric: Mostly meets expectations

Short sentences and paragraphs, and a clear title that signals your position. The background is solid as it is aware of what the readers generally know about AI and its use in medicine. I would recommend a clearer or genre specific call to action, which I feel is missing in your op-ed.

Genre: Meets and sometimes exceeds expectations

Solid understanding of the op-ed genre. One recommendation to better hone into that genre is: - A better call to action, or a clearer one is needed in the conclusion is my rec, such that the conclusion is not simply just a rehash of the entire op-ed. The conclusion is also a built in counter-argument, which may be confusing. - Try splitting the conclusion into a counter argument and a proper call to action conclusion.

Presentation: Meets and sometimes exceeds expectations

Short paragraphs and sentences. Hyperlinked references. Not much comments but: - Fix some grammar and spelling, such as "lysis" instead of "analysis"?

Aesthetics/Reading Experience: Mostly meets expectations

Overall persuasive, but does not personally connect with the readers. - I think it is hard for a reader to feel very personally connected with AI and medical malpractice. It seems very foreign. Perhaps you could present a theoretical scenario... "how would you feel if ..." and add an example related to AI and medical diagnosis. - Text is enjoyable to read, but perhaps try to make the text read less like a formal academic article? Still shorter sentences in some areas, more distinct style of writing that isn't like a formal academic paper, etc

Weighted Average: A

For Caroline Zimmer

Propositional Content: Mostly meets expectations

Assuming this is the prop: In order to counteract this growing issue, schools must implement structured, effective nutrition education programs in primary and secondary schools to instill foundational knowledge of healthy nutrition in children. I'm not sure if you have to: 1. replace must with should 2. it reads justificatory 3. it might be logically incoherent/more so hard to argue, as you need to argue "structured" vs "effective", why in both "primary and secondary schools", and possibly what "foundational knowledge" entails. I think the counter argument could be expanded more: - You could also tie in how better nutrition can significantly improve mental health of students (? unknown), and argue that if students are hungry, they don't learn as effectively anyways. - Maybe reference Japan which has an amazing nutrition system and still supports the other things mentioned. But I think the counter-argument is a valid counter-argument (it's what I thought about too).

Invention: Partially meets expectations

It's hard for me to think of actionable advice to increase the "invention" of your paper. I feel that many of the arguments made here are similar to articles you can find online - that is, without a unique take. Regardless, some advice: - Is there a way to tie in personal anecdote with "why" you are writing this or the relevance of this work to you and your audience? - The reasons and evidence are standard, but there are a lot of reasons and evidence (but no anecdotal ones!), which is good. If you could approach it from a new angle, such as tying in a potential rise in misinformation among the internet or something. - But the problem you are addressing does speak to a timely and current debate as misinformation rises + growing number of eating disorders.

Rhetoric: Meets and sometimes exceeds expectations

I think overall good rhetoric: - Easy to read, expects a reasonable amount of information from what the readers might know or believe. - Writing style is varied and not simply long sentences. However, some paragraphs could be broken down, especially starting with "nutrition education doesn't..." - Possibly a more substantial counterargument needed? - Shorter paragraphs in some areas. Particularly "nutrition education doesn't..." Some sentences should be shorter (the counterargument graph is 2 very long sentences). - Clear title, no comments.

Genre: Mostly meets expectations

- Unsure if your prop should be rephrased with "should" instead of "must". They are both justificatory to me though. - Conclusion should be more in align with an op-ed in my opinion, not simply a summary of the article but more of a call to action. - Lots of good examples and sources but since you have a personal experience with this topic, perhaps tie in anecdotal evidence to not make it sound like an academic essay?

Presentation: Meets and sometimes exceeds expectations

- Sources are hyperlinked. - Fix some grammar and spelling and extra spaces: "an effective" or "addresses"

Aesthetics/Reading Experience: Meets and sometimes exceeds expectations

Text is persuasive and compelling and not a boring read based on the evidence provided, but I feel that it does not cause the reader to personally connect with the idea presented in the text. - I would say try an anecdotal evidence if possible? - Have a better clearer actionable call to action that allows a reader to connect and understand the ideas you are trying to push. - Maybe be more in tune with the readers' reading experience, such as adding rhetorical questions for engagement.

Weighted Average: B+

General Comments: Overall very nice and only a few minor and quick corrections in my opinion to make this op-ed engaging and clear.

Your multiple reviews of classmates' Op-Ed work (Draft 2)

For Shubham Dixit

Propositional Content: Mostly meets expectations

I assume the prop is: As educators and parents... unleash the full potential of VR... its ability to create immersive, interactive... bridge gap between education... Consider: - Combining into 1 sentence and simplifying. "As educators and parents, we must embrace/adopt VR technology for its ability to create ... that can make learning better?" - Maybe move the concession/refutation paragraph (the 2nd one?) lower down until after you stated your points already?

Invention: Mostly meets expectations

- Good mix of sources (Stanford studies, other studies). - Very timely problem since VR is new and this is definitely a topic of concern in education Consider: - Hyperlink references? - Anecdotal evidence?

Rhetoric: Partially meets expectations

Your intended call to action is pretty clear. Title defines the op-ed well. Tone and voice works well, albeit some suggestions: - Make some paragraphs shorter. Especially the 3rd. - It doesn't read entirely conversational, almost robotic. I have a feeling it is attributed to phrases like "VR in education is more than just a brief fascination. It is a fast track to a world of opportunity." or "As we chart the course of education's future, let us anchor our decisions in the belief that the integration of VR in early education is a necessary stride toward excellence in learning." - In relation to the above suggestion, you should add more variation to your sentence lengths. Partly why it sounds kinda robotic is the sentences are all generally really really long.

Genre: Partially meets expectations

I think the social purpose is there: to convince educators (the venue/audience) about the benefits of VR. The prop is good and the counterargument makes sense to me. However, some formal features need fixing: - Hyperlink references as mentioned before - More informal and conversational tone, possibly done by using more first person, varying sentence lengths (overall need shorter sentences), and make some paragraphs shorter.

Presentation: Partially meets expectations

Easy fixes: - Add masthead, by-line, images, and bio? - Add hyperlink references?

Aesthetics/Reading Experience: Mostly meets expectations

It is well written with statistics but doesn't connect at a personal level. Mirroring suggestions provided above: - Sentence lengths, shorter paragraphs, more first-person and how you think rather than as a research based op-ed. - I would very definitely consider removing these long intro phrases throughout your essay: "As we chart the course of education's future, let us anchor

our decisions in the belief that the integration of VR in early education is a necessary stride toward excellence in learning." They're very long and monotone sounding. Not sure how to un-monotone it though.

Weighted Average: B-

General Comments: Besides easy fixes like hyperlink references, adding visuals to get a perfect presentation score, some more pressing issues should be: - Rewriting some sentences to be shorter and making some paragraphs split into 2. - Consider more first-person, anecdotes, and what you think about the problem, making it more like an op-ed genre than a research based, stating the facts type paper.

For Charlotte Lew

Propositional Content: Meets and sometimes exceeds expectations

Assuming your prop is: The effects of human-caused climate change is undeniable and it is time for animal agriculture corporations to take responsibility for their environmental impact by implementing sustainable practices. - I would split the first half. I think it is easy to do something like: The effects of human-caused climate change is undeniable. It's time for animal agriculture corporations to take responsibility for their environmental impact by implementing sustainable practices. The prop is well-written and clear. Your concession makes sense. No further comments there.

Invention: Meets and sometimes exceeds expectations

Very densely inter-linked references with a heavy focus on stat evidence over anecdotal. Which makes sense. Topic is also timely. The synthesis of your references and your assumptions from it make a lot of sense, especially "Despite the fact that these methods can reduce emissions up to 60% and are easy to implement, no large corporations are making changes due to loose policies and loopholes."

Rhetoric: Meets and sometimes exceeds expectations

Clear awareness of targeted readers who are concerned about the env while not knowing much of the factory farming industry. Suggestions: - Some sentences and paragraphs are quite long.

Genre: Mostly meets expectations

Social purpose is fine - audience via venue is clear and the call to action is clear. For the formal features, consider: - More informal and conversational tone. What do you think about the solution, rather than presenting it as a research based paper? It is your opinions after all. - Shorter sentences and paragraphs overall. - Perhaps try using more first-person? - Might not be significant, but what is the call to action? I think a lot of people, myself included, understand that climate change and the farming industry to be env damaging, but this seems to not have a defined call to action. Which again can be fine, but might want to consider. Revise conclusion if so.

Presentation: Consistently exceeds expectations

No fixes. You have all the visuals required. Aesthetic suggestions below.

Aesthetics/Reading Experience: Mostly meets expectations

The content was interesting and engaging to me. Suggestions: - Pretty information dense. - Remove accidental double spaces " " between words. - Why do some paragraphs have spacers and others don't? - It's hard to connect on a personal level when its purely factual/based on statistical research. This can be totally fine and may be graded without this concern in mind, but

just letting you know. - Your conclusion falls off. I would recommend straight up removing "In conclusion." The phrase "the time is now" or "now is the time" is repeated 3 times in similar ways, which seems repetitive.

Weighted Average: A

General Comments: Very minor fixes, overall very good. - Probably change conclusion a bit - Shorter paragraphs and sentences - More informal and conversational tone.

Op-Ed Revision Plan(s)

Draft 1

I think a lot of suggestions revolved around fitting my prop earlier in the argument and adjusting it to be shorter and more concise, which is what I want to do. Now, it should be more clear what I am trying to argue for.

A lot of people have said that my anecdotal evidence was very compelling (something that is working well); however they wanted to see more numbers based evidence. For my next revision, I would include my statistics, but I don't want to overdo it because it should be an op-ed with my voice and opinions, and I would want to keep it that way.

My presentation seems to be pretty good - it was engaging, interesting, and had nice paragraph lengths. I will keep it that way for the next revision.

For my future revisions, based on some feedback, I would remove some of my anecdotes that are less related with what I am arguing for (such as the AP Bio example), and I would remove AI from the proposition since that confuses the readers and make it more complex than necessary.

Draft 2

Regarding my prop, my reviewers agree that the prop is well set up with the context and premises.

However, my target reader and audience were not as well established. For my next revision, I would explicitly mention my audiences and who I am targeting. That would be university administrators specifically. I would also cater my language more towards university administrators over university students.

My paragraphs also got slightly longer, so I will need to split them up or remove them to keep my op-ed shorter.

The anecdotes continue to be doing well, people find it engaging and give my op-ed a unique voice rather than a bunch of statistics. This is something I will continue to do.

Finally, there is a general consensus to expand on my conclusion and counterarguments, which is what I will do for my next draft. I will add more about what Drexel and Northeastern is already doing with their co-op programs, and end with a call to action on how universities should be following Drexel and Northeastern in how they implement co-op learning to allow students to pursue independent and real-world projects.

White Paper Pre-Outline - Rhetorical Outline

Proposition: AI training, deployment, and research needs to be made significantly more energy efficient to align with climate change goals.

Audience: Chip companies, deeptech venture capitalists

Genre: White paper

Motive of the Author: To promote biologics-based computing for investment and R&D

Motive of the Reader: To recognize the climate problems caused by AI & to fund biologics-based computing and support climate tech solutions in the long-term

Plan: Publish as a company white paper research (similar to Bitcoin's whitepaper: <https://bitcoin.org/bitcoin.pdf>), publish in TechCrunch or related site

Rhetorical Strategies: No idea what this means!

Keywords: AI, climate, energy, biologics-based computing, biocomputing, neuromorphic computing

White Paper Pre-Outline - Logical Outline

Premise

Given that AI has undergone recent explosive growth in the past 5 years

Given that AI development shows no sign of slowing down and is actually accelerating

Given that AI research requires computers (GPUs) to train, which requires energy

Climate change is a major problem which is mainly caused by carbon emissions from human activities

Proposition

Thus, AI training, deployment, and research needs to be made significantly more energy efficient to align with climate change goals.

Reasons & Evidence

(How) Current silicon chip design should be abandoned in favor of newer technologies

- Because Silicon chips are not inherently energy efficient due to the memory gap problem
- Because Silicon is unsustainable as the world enters into a silicon shortage
- Because Silicon chips requires massively amounts of energy in order to cool
- Because Silicon technology is reaching the limits of physics and can no longer be advanced at a rate suggested by Moore's Law

(How) Focusing on massive clean-energy supplying technologies is a long-term goal that will make AI training more climate friendly

- Because Developments in solar and nuclear technologies are decades away from feasible scalability
- Because Clean energy from solar and nuclear technologies will be a long-term solution for supplying clean energy for data centers
- Because Clean energy from solar and nuclear technologies is not favored or implemented by companies currently due to high upfront costs and low efficiencies and a lack of pressure to reduce their climate impact

(How) Biologics based chips should be developed for AI specific training and deployment

- Because Biologics-based chips are inherently 10000x more efficient than silicon chip
- Because Biologics-based chips uses less silicon and is thus sustainable in the long term future
- Because Biologics-based chips do not generate heat and thus use less energy
- Because Biologics-based chips have undergone 4 billion years of evolution, resulting in both energy efficiencies and fast processing power

White Paper Early Draft

Attached below.