

USING GENERATIVE AI TO PROMOTE CRITICAL THINKING: AN EXPERIMENT

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Abstract

Generative AI (GAI) has emerged as an important tool for education, but like all tools it has both positive and negative uses. It can help students to understand class material better or give them different ideas and inspiration when completing assignments. However, GAI can prevent students from developing their critical thinking skills when they use it to do their class work for them. We constructed a pilot experiment in economics and political science classes to measure whether students used GAI or their own thoughts as the basis of their response to a few discussion questions. We found that students who had to assess the GAI's answers used more critical thinking to make their arguments. Yet when replying to the discussion question without an included GAI response, the students often reverted to using GAI to answer the question.

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JEL Classification: A22

Introduction

For decades now, higher education has tried to find different ways to encourage student engagement in class material, ranging from redoing lectures to make them more exciting for students to embracing active learning techniques to focusing on service learning. However, the rise of Generative Artificial Intelligence (GAI) programs has created new concerns about student learning, especially in terms of developing critical thinking skills. All too often, students resort to completing their class work by having GAI do it, not in terms of acting as a prompt to help these students approach and understand their assignments, but rather as a replacement for their own efforts. GAI thus acts as a short-cut for students, preventing them from cultivating true critical thinking. As a result, colleges and universities have taken a variety of different approaches to the use of GAI in the classroom, with some encouraging professors to adapt it to their teaching and others outright banning GAI completely (Alasadi & Baiz, 2023). The problem, though, is that GAI programs are ubiquitous and programs to detect GAI usage are rare, allowing students to use GAI with impunity regardless of school policy. For higher education, the only alternative then becomes finding some way to incorporate GAI as an enhancement rather than a substitute for student learning.

We therefore wanted to include GAI as part of a learning strategy designed to achieve the most success in fostering critical thinking. Like many instructors, we experienced mounting frustration with the continued use of GAI by students in the past few years, particularly for

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discussion questions that should have revealed student understanding and application of the material but instead became just another opportunity for students to cut and paste from GAI. We decided to create a pilot study to make GAI an essential part of these discussions, encouraging students to evaluate not just their own perspective of the class material but also how tools like GAI approached it. In doing so, we crafted discussion questions that provided an initial question based on the material, added an answer from ChatGPT, and then asked students to evaluate the ChatGPT answer as it applied to the original question. As a control, we provided the same questions but without the GAI answer, thereby requiring students to provide a regular response to the discussion question. We found that students used more critical thinking when responding to ChatGPT but reverted to using GAI programs to provide answers for them with the control questions. We conclude that GAI can create beneficial outcomes for learning but only when used purposefully to enhance student skills.

Literature Review

Society has undergone constant change, transforming into service-based economies and then culminating in the information age. Each of these eras required their own types of knowledge and skills, but they all essentially relied on the same teaching technique – a learned individual taught the information to upcoming generations usually through oral and later written communication. Education currently, however, is far more advanced, with the development of a multitude of different teaching techniques. No longer do students need to rely just on lectures to receive information but they can participate in many ways in their own learning, whether that includes active learning in the classroom or service-learning outside of school. Hence students have many varied tools to help gain a better understanding of the knowledge available to them in schools and life.

One of the most recent tools for advanced learning came with the development of generative “Artificial Intelligence” programs that allowed students to tap into more resources to understand class materials as well as to support their own efforts in completing class work. Although GAI offers some distinct advantages for students, it also presents some difficulties for learning depending on how the students use these tools. Hence often schools and professors are hesitant to use GAI due to its newness and complexity (Crawford et al. 2023; Lee et al. 2024). Yet GAI remains only a tool for enhanced learning, one whose usefulness comes from how students and instructors incorporate it into learning.

At its core, GAI is a computer program; it only knows what it can access when it generates content. In this way, GAI does not take on the elements of true artificial intelligence; it is not self-aware. As a program, GAI is faster and more advanced than other learning techniques and information search engines, but it does not have its own experiences and understandings to provide new insights about what people ask of it (or even give correct answers sometimes). GAI instead works as a predictive program that finds patterns of language based on the extensive amount of information it has gathered from the internet and material supplied by users (Crawford et al., 2023; Geerling et al., 2023; Hutson, 2024). It is this predictive function that poses a concern, because its predictive ability is not 100 percent error free. Nevertheless, some advocates of GAI have praised it for its ability to create differently phrased, or “new,” content to questions for each reiteration that are “human-like” (Lim et al., 2023; Michel-Villarreal et al., 2023; Moorhouse et al., 2023; Xia et al., 2024). In doing so, users can receive and relate to its answers better than if they must search for those answers themselves through the internet, textbooks, or other information sources. GAI

not only saves time but also presents information in different ways than expected to help people understand that information better.

For the academic realm, GAI programs have tremendous potential to enhance student learning in a variety of ways. First, students can use GAI to help them come up with ideas on how to complete class assignments (Abdelghani et al., 2023; Jensen et al., 2024; Xia et al., 2024). Like all in academia, students occasionally encounter difficulties in approaching class work, especially if they do not completely understand the material. GAI programs can provide some suggestions about how to proceed even as they can offer some guidelines and explanations to allow students to better grasp that material. The GAI programs essentially act as tutors for the students. Second, GAI programs can enhance student creativity by assisting the students to discover their own individualized approaches to class work (Alasadi & Baiz, 2023; Lee et al., 2024; Lim et al., 2023; Xia et al., 2024). These programs can introduce information in different, nonstandard ways to allow students to gain different perspectives on that information, resulting in them approaching class assignments more innovatively.

Third, students using GAI can receive specific feedback tailored to their own needs as learners, helping them with crafting their work (Abdelghani et al., 2023; Michel-Villarreal et al., 2023; Moorhouse et al., 2023; Xia et al., 2024). Students can input their responses to class work in the GAI programs, asking these programs to help them with language, concepts, and relevance. In addition, students can request that GAI point out errors in reasoning or information, allowing the students to present a more perfected product. Fourth and similarly, GAI can help students by tailoring information to the needs of the students, so the students receive a more personalized experience with the class material (Alasadi & Baiz, 2023; Lee et al., 2024). GAI then can aid with comprehension, leading to deep learning as students can interact with the information in more readily understandable ways. In doing so, it can surmount most limitations students might face, allowing them to perform better in class.

However, GAI programs do present some problems for academia, particularly in terms of how GAI accesses information and in how students use GAI programs. Occasionally, the GAI programs create “hallucinations” (Alkaissi and McFarlane, 2023; Lee et al., 2024) where they present false or inaccurate information and distorted answers to the questions users ask of it (Michel-Villarreal et al., 2023; Xia et al., 2024). The problem here lies with the information that the GAI programs retrieve; too much reliance on the internet can lead to significant errors in that information because the internet itself is full of such falsehoods. A similar situation existed with Wikipedia; users could change the information so that wiki pages showed wrong information. GAI programs still draw on information from the internet, true and false, but cannot distinguish between the two. Their answers then are prone to mistakes, some rather substantial. As Ortiz (2023) asserts, “ChatGPT is getting progressively dumber” due to the confluence of misinformation and the need to constantly enhance its programming. Students also rarely know how to distinguish between truths and falsehoods, so they risk presenting wrong information or giving poor answers in their class work.

A more fundamental problem occurs when students decide to use GAI programs to complete class work for them rather than have these programs help them with their assignments. Students can have GAI provide answers for them with exams, both multiple choice and essay (Michel-Villarreal et al., 2023). Proctoring the exams generally can solve these problems as students are monitored as they take the exam. Yet for essays and other writing assignments, the worry is that students will submit a paper entirely created by GAI with little or no actual input from the students. For discussions, students can substitute their own understanding of the

discussion question with the answer provided by GAI. Essentially, the students plagiarize their submissions (Alasadi & Baiz, 2023; Crawford et al., 2023; Hutson, 2024; Lim et al., 2023; Moorhouse et al., 2023; Xia et al., 2024). Such plagiarism occurs on two separate levels. Initially, the students plagiarize by taking what GAI has written and presenting it as their own work. In addition, since GAI uses information from the internet and other sources, students plagiarize those original sources as well. Instructors usually can detect when students use GAI instead of their own work, generally through the phrasing of sentences or the introduction of more advanced concepts beyond the scope of the class. Yet such usage remains hard to prove conclusively, especially as reliable and accurate GAI detection programs do not exist yet. Hence students tend to misuse GAI in favor of getting things done rapidly, thereby taking a short-cut to their own education.

Relatedly, higher education has begun to recognize another concern with GAI as more students have started to use these programs in school. Rather than focus on their own learning and developing their capacity to engage in critical thinking and other skills, these students have become too reliant on GAI to do their work for them (Abdelghani et al., 2023; Hutson, 2024; Jensen et al., 2024; Moorhouse et al., 2023). Students now realize that they do not have to put in as much effort as they can simply use GAI for most of their class work. Yet part of the purpose of higher education is to develop the ability of the students to think about ideas and class assignments thoroughly and critically. Without such skills, students become less knowledgeable overall and less able to solve problems both in and out of school (Alasadi & Baiz, 2023; Michel-Villarreal et al., 2023; Xia et al., 2024). They do not learn how to devote enough thinking to their responsibilities and cannot engage in the deep analysis that is required by many jobs in the information age.

Some in academia have embraced GAI to a full extent, preferring to focus on its good aspects rather than its negative consequences; others focus only on the bad, thereby missing out on its beneficial applications. Like all tools, though, GAI remains somewhere in the middle. Its benefits can outweigh its disadvantages when schools teach instructors and students how to use GAI appropriately and emphasize ethical behavior from the students (Crawford et al., 2023; Xia et al., 2024). For their part, instructors need to design new ways to evaluate students that do not lend themselves easily to the misuse of GAI. Such solutions can include requiring students to reflect on more personal aspects of the material or creating assignments that incorporate more critical thinking above standard responses. We focus on the latter, constructing a pilot study requiring students to go beyond just their reliance on GAI.

Methods

The economics and political science disciplines require a more nuanced understanding of topics by students for them to achieve success. Often, professors must ask students to discuss complex ideas with one another and with the instructor, encouraging them to use their own insights and experiences to approach an understanding of the material in diverse ways. Yet with the advent of GAI, students have begun to replace their own personal responses to class assignments with those created by the GAI programs. In the past, some students did use other tools like search engines or even each other to complete their required work but doing so entailed more effort, thereby limiting the frequency with which students would seek such short-cuts. With GAI, though, they can access immediate answers that sound professional and directly address the topic of the assignment. Instructors then face far more difficulties in evaluating the submitted work as they can no longer rely on a true demonstration of a student's understanding and application of the material.

Hence, we used a different approach to encourage students to show their critical thinking skills. As a pilot experiment in our introductory Microeconomics and American Government

classes, we crafted discussion questions that asked about key concepts but then gave the answer from ChatGPT as a guide for the students. We then asked them to evaluate both the concept and the GAI answer so that they had to genuinely think about the topics rather than copy from GAI. All discussion questions were graded, either as extra credit or as part of the normal class work.

The Microeconomics class used two separate discussions questions in the same course, with the first focusing on how changes in the price of substitute goods can affect demand; this question usually required students to demonstrate an in-depth understanding of the principles of demand to answer the question properly. The second discussion question involved a topic that normally would not lend itself to GAI usage by students, asking the students to evaluate their learning in the course. We wanted to use this question to evaluate a second potential technique to reduce GAI dependence. The American Government instructor compared answers from different classes using the same discussion question about hyper-partisanship, a normally complex issue that expected students to engage in considerable thought about the class material to evaluate its impact on politics. Some classes had ChatGPT provide an answer to the question, but other classes did not so as to allow a comparison between the classes. Nevertheless, once GAI programs emerged, students no longer had to develop their critical thinking to answer any of these questions but instead just submitted responses from GAI.

As a result, we modified the questions to include an answer from ChatGPT, except for the second Microeconomics question. We hoped to prevent students from simply inputting the questions into a GAI program to get a set response. Students instead had to evaluate the reply from ChatGPT, requiring them to understand the topic and to consider their response carefully so that they could offer a cogent analysis of the GAI answer as it related to the issue. Students had to use their reasoning ability and knowledge to determine why ChatGPT answered the questions in a specific way and whether ChatGPT provided an accurate response.

Results

We evaluated student responses to these discussion questions in a very informal way, as it remains difficult to actually prove students copy answers from GAI. Nevertheless, some indications of GAI use do exist that can point to students forgoing their own personal attempts to answer questions with critical thinking in favor of readily available responses created by GAI. For example, often students provide answers that suddenly change in font, showing a high probability of some argument copied from other sources. The structure of an answer also can reveal GAI as students rarely follow the structure of the question dutifully, but GAI almost always does. More importantly, the quality of the language and the discussion of topics occur at a more advanced level well beyond expectations for undergraduate students (particularly for freshmen and sophomore students), hinting at an answer provided by GAI (although some students might have this natural ability). In addition, the lack of personal references or a very generalized response suggests some reliance on GAI. On the other side, students who answer discussion questions based on their own thoughts and critical thinking often reference their own experiences more frequently, making their response more personal. With the questions that included the ChatGPT answer, students also often referred to its arguments when making their own points.

We illustrate the differences between the two approaches students have taken to answering discussion questions by creating simple tables based on the above criteria. We evaluate each answer from the discussion questions according to whether students used GAI or their own thoughts to complete the assignment. Table 1 shows the results from the Microeconomics courses, revealing that the use of GAI did indeed decline when questions already included an answer from

ChatGPT. In some cases, the reliance on GAI decreased by almost half. For example, students for discussion 1 provided additional examples to the ones given by ChatGPT and made critical comments about the ChatGPT response to the question (please see appendix B for student responses). They thus exhibited some critical thinking.

TABLE 1: DATA SUMMARY OF MICROECONOMICS COURSE

Semester/Class	# Students who Responded	Answers with GAI	Answers without GAI	% using GAI
Fall 2024 A D1 (Hybrid)	8 (of 34)	2	6	25
Fall 2024 A D2 (Hybrid)	9 (of 34)	5	4	56
Spring 2025 A D1 (Hybrid)	36 (of 40)	8	28	22
Spring 2025 A D2 (Hybrid)	35 (of 40)	12	23	34
Spring 2025 OA D1 (Online)	15 (of 25)	2	13	13
Spring 2025 OA D2 (Online)	18 (of 25)	8	10	44

Note: D1 included ChatGPT response in question; D2 did not use ChatGPT response.

Importantly, the Fall 2024 Microeconomics course included the discussion questions as extra credit assignments, which then became required discussion questions for later semesters; hence the number of responses for Fall 2024 was low. The second discussion, though, used a separate technique than embedding an answer from ChatGPT to try to reduce GAI usage; it made the question more personally relevant to students rather than having them provide a straightforward assessment of a particular topic, asking them to evaluate the course in terms of their own specific experiences with it. Interestingly, some students still relied on GAI to answer even this question, often using very generic language rather than providing personal responses. For example, students would reply with an initial statement about the topic they thought was most important but then did not explain why it was so important to them. At times, the students using GAI did not even reply directly to the question but took a more general approach to make comments about the importance of these topics as they applied to the discipline of economics rather than to themselves. The implication is that students who want to use GAI to provide answers rather than offer their own arguments will find a way to do so regardless of the question.

Table 2 shows similar patterns for the American Government courses, where the number of students using GAI to answer the question declined considerably from class to class once the question included a response from ChatGPT. Students in these courses needed to evaluate hyper-partisanship in terms of the danger it could pose to the government, which was a straightforward

question that did lead to a significant abuse of GAI. Yet once ChatGPT's answer was included, students offered answers that incorporated their own perspectives. As with the Microeconomics students, some American Government students again took the further step of criticizing the ChatGPT answer as inadequate (please see appendix B for student responses).

TABLE 2: DATA SUMMARY OF AMERICAN GOVERNMENT COURSE

Semester/Class	# Students who Responded	Answers with GAI	Answers without GAI	% using GAI
Spring 2024 A (Hybrid)	21 (of 31)	11	10	52
Spring 2024 OA (Online)	27 (of 39)	12	15	44
Fall 2024 B (Hybrid)	19 (of 32)	4	15	21
Fall 2024 OB (Online)	19 (of 39)	6	23	21
Spring 2025 A (Hybrid)	21 (of 33)	4	17	19
Spring 2025 OA (Online)	31 (of 39)	6	25	19

Note: Spring 2024 did not include ChatGPT response; Fall 2024 & Spring 2025 included ChatGPT response.

Even with such positive outcomes, some students still used GAI in full or part to answer the initial question even though ChatGPT already had presented complete arguments about hyper-partisanship. Some of these students completely ignored the ChatGPT answer and provided a response obviously based on GAI, with more advanced language and changes in fonts. In other cases, multiple students used similar to exact phrasing and concepts to answer the question, suggesting not that they worked together but that they individually relied on GAI to help them answer the question. This pattern suggests that some students still prefer an easier way to complete their class work, making it more difficult for them to truly understand the material.

Overall, the modified discussion questions prompted considerable differences in how the students approached their answer from the basic questions. Previously, a substantial number of students used answers from GAI programs as their submission to the discussion questions. Although these students might have taken the time to carefully rewrite the answer so it did not appear as coming from a different source than the students themselves, the effort for them to do so was far less than that required from them to submit an original answer based on their critical thinking. Students could take five to ten minutes with GAI and be done, not even having taken the time to consider the question at all. Such answers did appear more professional, exhibiting an understanding of the topics beyond the undergraduate level. However, the instructors could not

prove the use of GAI beyond a reasonable doubt, which gave the students the opportunity to continue to use GAI programs in this way.

The inclusion of the ChatGPT answer for the discussion questions, though, encouraged the students to focus on their own thoughts and words more frequently, leading them to carefully analyze the discussion questions for each class. We did see students once again using and further developing their critical thinking skills as they took a more considered approach to these questions. Although the language use and coverage of the topics frequently were not as advanced as that seen in the responses coming from GAI, the students' answers nevertheless represented the actual work of these students. These students would reason out their answers and incorporate class material to do well on the discussion assignments. As a result, the students gained a deeper understanding of the topics as they evaluated the ChatGPT reply and pondered how to answer the questions.

By removing GAI as an option, the students benefited more from class assignments, which served to enhance the learning they received in the classroom. Conversely, by introducing ChatGPT in the classroom via discussion questions, students gained the opportunity to learn how to use GAI properly rather than blindly follow the GAI outcomes. They developed the skills to have GAI help them with their own work even as they obtained an understanding of the limitations of GAI, particularly with hallucinations.

Conclusion

The arrival of GAI programs has already begun to transform higher education in varied ways. Although some students have used GAI to help expand their education, others have used these programs to short-circuit their learning. It becomes far easier for these students to allow GAI to complete class assignments than to spend much more time and effort in doing so themselves. Although they take the risk of failing their class work due to plagiarism and other concerns, these risks remain relatively low due to the inability of detection programs to account for answers from GAI. These students therefore have not developed their critical thinking skills well, which leaves them less able to complete their job responsibilities after their formal education has ended. Yet other students took the opportunity to present their own thoughts as they evaluated the topic and the ChatGPT answer. These students were able to verify the answer provided by ChatGPT based on their knowledge of the topic they had already studied, gaining a better ability to think critically and benefit from the class material.

As a pilot experiment, this study provides some basic insight into the impact of GAI on student answers, but it does not seek to provide a comprehensive look that would include demographic information and possible self-reporting by students in an anonymous survey. Such considerations could be incorporated into later studies to see how different student characteristics can influence the likelihood of GAI use. Nevertheless, this study does show the usefulness of incorporating GAI into class assignments, especially discussions. In particular, instructors using this technique can motivate students to complete the work by themselves. Although such modifications might require more effort from the instructors, they can lead to substantial benefits in student learning. This exercise thus achieved two goals for the students, first by introducing them to the ChatGPT program as an aid to their own studies and second in encouraging them to use their own perspectives and thoughts when thinking about questions critically. GAI programs then become a tool for students that can help them to kindle new thoughts and gain new understanding of the class material. As a result, students can more fully develop their critical thinking abilities, allowing them to gain success in school and in the real world.

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APPENDIX A: Discussion questions

1. Microeconomics

Discussion Question with ChatGPT response included:

Compose a written response to the prompt provided below. Your initial and original post should contain 150 - 250 words. After you have posted your discussion, respond thoughtfully to the Discussion Topic posts of at least two other classmates, in a minimum of 75 words each.

Prompt:

Explain how changes in price of substitute goods can affect demand?

Below is the ChatGPT answer. Please answer if you agree or disagree that this is the correct analysis or answer. Provide examples of why you agree or disagree.

ChatGPTAnswer:

Changes in the price of substitute goods typically lead to a shift in the demand curve rather than a movement along the curve.

1. **Substitutes and Demand Shifts:** When the price of a substitute good changes, it affects consumer preferences and purchasing decisions. For instance, if the price of butter rises, consumers may switch to margarine. This shift in preference causes the demand curve for margarine to shift to the right, indicating an increase in demand at every price level.
2. **Movement vs. Shift:** A movement along the demand curve occurs when the price of the good itself changes, leading to changes in quantity demanded. In contrast, a shift of the demand curve occurs due to external factors, such as changes in the prices of related goods (like substitutes), consumer income, or preferences.
3. **Example:** If the price of coffee decreases, the demand for tea may decrease as some consumers switch to coffee. This would cause the demand curve for tea to shift to the left, reflecting a decrease in demand at every price level.

In summary, changes in the price of substitute goods result in shifts of the demand curve for the affected products, rather than movements along the demand curve.

Discussion Question without ChatGPT answer included:

Compose a written response to ONE (1) of the prompts below. Your initial and original post should contain 150 - 250 words. After you have posted your discussion, respond thoughtfully to the Discussion Topic posts of at least **two** other classmates, in a minimum of 75 words each.

Please DO NOT USE CHATGPT to answer this question. This is based on your personal knowledge and your experience.

Prompt:

1. What is the most important thing you learned thus far in Microeconomics? And why?
2. What is the most surprising thing you learned in this course?
3. What is one Microeconomic concept you think is important for others to learn about?
4. What economic concepts will help you the most in your major or future career?

2. American Government

Discussion question with ChatGPT response included:

"Hyperpartisanship refers to an extreme form of political partisanship where members of different political parties are intensely polarized, leading to a breakdown in cooperation and increased conflict. This phenomenon is characterized by a rigid adherence to party lines, often resulting in an unwillingness to compromise or engage with the opposing side."

Does *hyperpartisanship* create a danger to the American government? What would you suggest would be the best way to eliminate it?

ChatGPT offers the following answer:

"Hyperpartisanship poses significant dangers to the American government, affecting its functionality, stability, and the quality of democratic governance. Here's a detailed look at the risks posed by hyperpartisanship and potential strategies to address and mitigate these dangers."

Dangers of Hyperpartisanship

****1. Legislative Gridlock:**

- **Inaction on Key Issues:** Extreme partisan divides can lead to legislative gridlock, where essential policies and reforms are stalled due to an inability to reach consensus. This can result in critical issues such as infrastructure, healthcare, and education remaining unaddressed.
- **Short-Term Focus:** Hyperpartisanship often prioritizes short-term political gains over long-term solutions, leading to inconsistent and reactive policymaking.

****2. Erosion of Trust in Institutions:**

- **Institutional Integrity:** Persistent partisan conflict can erode public trust in governmental institutions, making it harder for these institutions to function effectively and diminishing their authority and legitimacy.
- **Public Cynicism:** The perception of a dysfunctional government can foster public cynicism and disengagement, reducing overall civic participation and undermining democratic health.

****3. Polarization and Social Fragmentation:**

- **Increased Division:** Hyperpartisanship can exacerbate social divisions, as political conflict spills over into personal relationships and community dynamics. This can lead to increased hostility and a fragmented society.
- **Cultural and Social Conflict:** Deepening partisan divides can heighten cultural and social conflicts, making it harder for diverse groups to find common ground and work together.

****4. Threats to Democratic Norms:**

- **Attacks on Democratic Processes:** Extreme partisan conflict can lead to efforts to undermine democratic norms, such as questioning the legitimacy of elections or attacking the independence of the judiciary.
- **Political Violence:** In the most severe cases, hyperpartisanship can contribute to political violence and extremism, as heightened tensions may lead to more aggressive and sometimes violent behavior.

Strategies to Address Hyperpartisanship

****1. Electoral Reforms:**

- **Redistricting Reform:** Implement independent redistricting commissions to reduce gerrymandering and create more competitive electoral districts. This can help moderate partisan extremes and encourage more representative policymaking.
- **Ranked-Choice Voting:** Adopt ranked-choice voting systems to reduce the impact of extreme partisan primaries and encourage a broader spectrum of political participation.

****2. Promoting Bipartisanship:**

- **Encouraging Cross-Party Dialogue:** Foster opportunities for bipartisan cooperation and dialogue. This can include bipartisan committees, joint projects, and forums that encourage collaboration between parties.
- **Building Relationships:** Support initiatives that build relationships and mutual understanding between members of different parties, such as cross-party retreats and collaborative policy workshops.

****3. Improving Civic Education and Engagement:**

- **Enhancing Civic Education:** Strengthen civic education programs to improve understanding of democratic processes, the importance of compromise, and the value of civic engagement.
- **Promoting Public Discourse:** Encourage public discourse that focuses on shared values and common goals rather than partisan conflict. Support media and educational initiatives that foster informed and constructive debate.

****4. Media Literacy and Responsibility:**

- **Combating Misinformation:** Promote media literacy to help individuals critically assess information and navigate partisan media landscapes. Support efforts to combat misinformation and provide balanced reporting.
- **Encouraging Responsible Journalism:** Advocate for responsible journalism that emphasizes accuracy, context, and balanced coverage, rather than sensationalism and partisan bias.

****5. Strengthening Democratic Norms:**

- **Supporting Democratic Institutions:** Reinforce the importance of democratic norms and institutions, such as the rule of law, the independence of the judiciary, and the integrity of electoral processes.
- **Promoting Transparency and Accountability:** Increase transparency and accountability in government actions and decision-making processes to build trust and counteract partisan influence.

****6. Fostering Inclusive Politics:**

- **Encouraging Diverse Participation:** Promote policies and practices that encourage diverse political participation and representation, helping to ensure that a broader range of perspectives is considered in policymaking.
- **Supporting Local Initiatives:** Support local and grassroots initiatives that bridge partisan divides and foster community engagement.

Conclusion

Hyperpartisanship presents a significant challenge to the American government, impacting its functionality, stability, and democratic health. Addressing this issue requires a multifaceted approach that includes electoral reforms, promoting bipartisanship, improving civic education, enhancing media literacy, and reinforcing democratic norms. By implementing these strategies, it is possible to mitigate the negative effects of hyperpartisanship and foster a more cooperative and effective political system."

Do you agree with ChatGPT's answer? Why or why not? (please explain in detail)

Your initial discussion postings (250-300 words) should demonstrate an understanding and analysis of the assigned readings. It may be helpful to reference the assigned material in your response demonstrating connections between your thoughts and the course resources.

Discussion question without ChatGPT response included:

Does *hyperpartisanship* create a danger to the American government? What would you suggest would be the best way to eliminate it?

Your initial discussion postings (250-300 words) should demonstrate an understanding and analysis of the assigned readings. It may be helpful to reference the assigned material in your response demonstrating connections between your thoughts and the course resources.

DO NOT USE CHATGPT OR OTHER AI PROGRAMS TO ANSWER THIS QUESTION!

APPENDIX B: Selected Student Answers (2 per class)

Microeconomics Fall 2024 Hybrid

D1

“Changes in the price of substitute goods can affect demand by causing the demand curve to shift for the good with the increased price and the substitute good, which is why I agree with the ChatGPT answer/ analysis to this prompt”

“I agree with the chatGPT answer because it shows consumers will likely switch to a different product with the same result for a cheaper cost.”

D2

“I think the most important microeconomic concept that others should learn about is the elasticity of demand. This idea explains how sensitive the quantity demanded of a good is to changes in its price.”

“Scarce resources are what creates competition between firms, making business owners force prioritization and smart decision making skills. The effect of scarcity on a resource in-turn affects its value.”

Microeconomics Spring 2025 Online

D1

“Since I am in the restaurant business, I see how the price of substitute goods can affect demand. We order our food from four different food services and see which products we can get the cheapest or which company has the better product.”

“I believe that Chat GPT was correct in saying that when the price of a substitute good changes, it causes a shift in the demand curve rather than a movement along it. A movement occurs when the price of a good itself changes and leads to a increase or decrease in demand.”

“I agree with ChatGPT’s answer because it explains really well how the price of one product can affect the demand for another similar product. When the price of a substitute goes up, people look for a cheaper option, which makes more people buy the other product.”

D2

“Opportunity cost is looking at the bigger picture of what you are missing or gaining by making one decision with your money over another. An example of this is someone having \$100 and deciding to go out and have fun getting dinner and drinks with friends. Although this may have been fun, what could have happened if you had chosen to invest that money.”

“When we learn about production costs, individuals can better manage resources, improve processes, and improve overall profitability. For businesses, knowing production costs helps in setting appropriate pricing strategies. If costs are too high, a company risks selling products at a loss, while not charging enough can lead to missed profit opportunities.”

Microeconomics Spring 2025 hybrid

D1

“I believe the ChatGPT answer for this prompt does technically answer the question asked, but it also adds more information than I believe is necessary.”

“From reading through the response generated by ChatGPT, I agree with the statement provided. Fundamentally, consumers have a limited amount of income and resources on hand. Consumers must engage in deciding what they will need overall.”

Student who ignored the ChatGPT answer: “Yes, with “ceteris paribus,” a change in the price of a substitute good will normally cause a shift in the demand curve of the primary product. Though some consumers are economically inclined to continue buying their favored product regardless of changing market forces, a large enough number of consumers will now choose a different product if theirs is no longer as budget-friendly, leading to some transfer of demand between the two products.”

D2

“Opportunity cost is also a big deal in the marketing world because smart decisions are required to determine the best places to spend the company’s money and time. If the marketing manager spends more time boosting posts on Instagram, that might mean they miss out on potential customers on TikTok.”

“A key microeconomic concept that everybody needs to understand is opportunity cost. Opportunity cost refers to the value of the next best alternative that is forgone when a decision is made. It is a fundamental concept because it illustrates the trade-offs in every decision, whether in personal life, business, or public policy.”

American Government Spring 2024 Hybrid

“Erosion of Trust in Institutions Hyper-partisanship undermines public trust in governmental institutions and elected officials. When politicians prioritize party loyalty over the interests of their constituents, it fosters disillusionment and cynicism among the electorate.”

“By promoting a better understanding of the political process and encouraging active participation in public affairs, individuals can develop a more nuanced perspective that transcends party lines.”

American Government Spring 2024 Online

“Hyperpartisanship seriously threatens the functionality and credibility of the American government, jeopardizing its capacity to tackle pressing issues and eroding public confidence in democratic processes. To tackle this issue, a comprehensive approach is necessary, combining structural reforms with shifts in societal attitudes.”

“Firstly, it fosters gridlock and dysfunction within legislative bodies, impeding the passage of necessary legislation and comprising the government's ability to address pressing issues. When politicians prioritize party loyalty over the common good, compromise becomes increasingly rare, leading to legislative stalemates and a failure to address critical challenges facing the nation.”

American Government Fall 2024 Hybrid

“I agree with ChatGPT's answer regarding hyperpartisanship and the way it could affect the United States government. If the people that are basically running the entire country cannot even get along and work together, how can our country be successful?”

“I agree with ChatGPT's answer fully because we are currently living in a hyper-partisan time and are actively watching these things happen more and more every day.”

American Government Fall 2024 Online

“Yes I agree with ChatGPT's claim and assertion on the topic. It correctly defines the problem of hyperpartisanship and why it can be so dangerous. We can lose so much because of hyperpartisanship.”

“I mostly agree with ChatGPT's answer about the dangers of hyperpartisanship in American government, but I think there are some points that could be considered differently from a student's perspective.”

American Government Spring 2025 Hybrid

“Before even reading chatGPT's response to the question I immediately knew that hyperpartisanship could pose a great threat to the American government. I wholeheartedly agree with all of the information proposed. There are many dangers that can occur as a result of extreme conflict between political parties.”

“So, I disagree with the statements chatgpt makes because what it is suggesting is not practical with today's political environment.”

American Government Spring 2025 Online

“I agree with ChatGPT's answer for the most part. The dangers of hyperpartisanship, like grid lock and lack of trust in institutions are definitely real. We have all seen it play out in congress, where nothing gets done because everyone is too busy fighting over party lines.”

“I agree with ChatGPT's answer, Hyperpartisanship would most definitely impose significant dangers upon our democratic government. I agree with the dangers ChatGPT lists in their argument such as, increased division. Like ChatGPT says, Hyperpartisanship can create more hostility between people.”