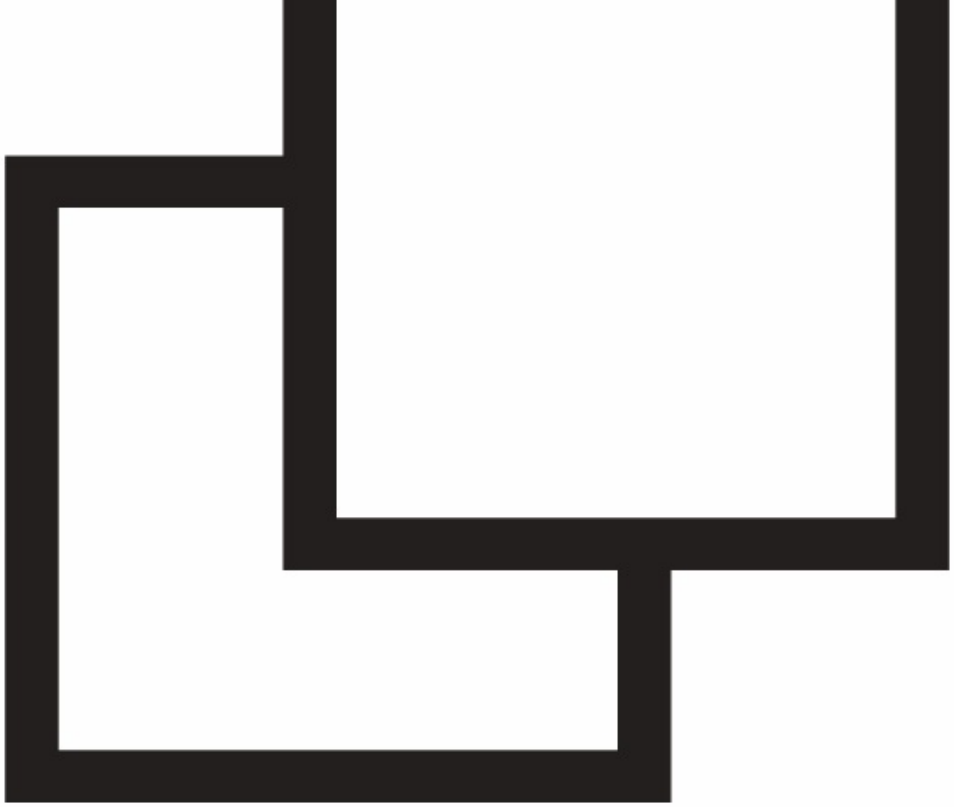
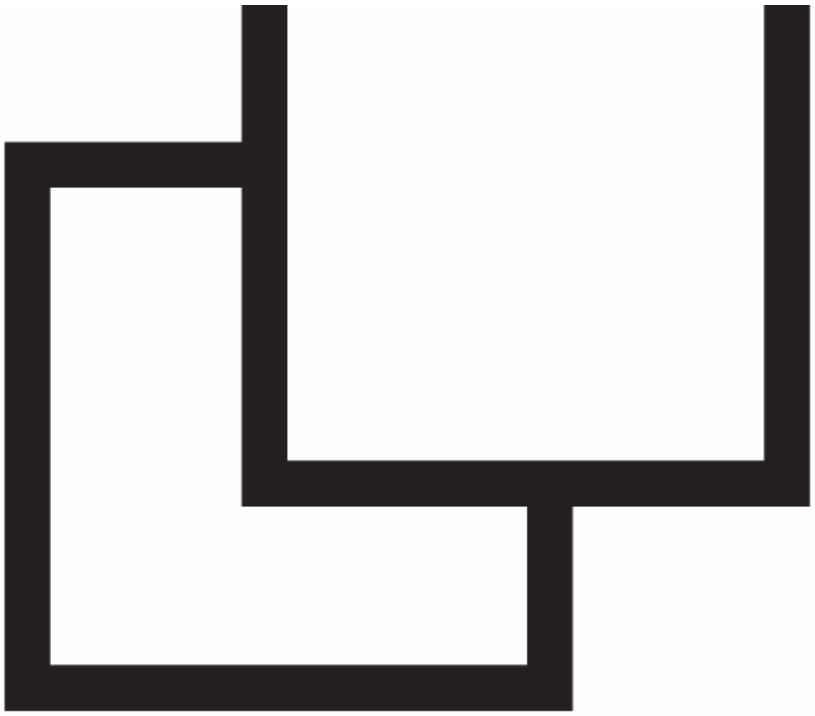


CHATGPT IN HIGHER EDUCATION

Artificial Intelligence and its Pedagogical Value

Rob Rose



CHATGPT IN HIGHER EDUCATION

Artificial Intelligence and its Pedagogical Value

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CHATGPT IN HIGHER EDUCATION

Artificial Intelligence and its Pedagogical Value

ROB ROSE

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Accessibility and Quality Control

Improving Accessibility and Inclusivity

Evaluating ChatGPT-Generated Content

INTRODUCTION

Higher education appears to be enveloped in an existential crisis at the moment, brought on by the recent advent of Artificial Intelligence and tools such as ChatGPT and Google Bard.

Much of the conversation by faculty and administration in higher ed has been concerned with answering questions like, *"How do we adopt an Academic Integrity Policy that will help to combat the inevitable cheating that will occur with these tools?"* and *"What tools exist or are being developed to help us catch students in the act of cheating?"*

ChatGPT logo

While these are certainly relevant questions, they are not the only ones we should be asking. We might also inquire about how we can use this tool to be better at our jobs as educators. We should investigate the application of AI in fields where we teach. Our students will likely be using this tool when they enter the career field and it is our job as educators to teach them how they might do that.

This book emerged from my own personal experimentation with ChatGPT as I sought to examine what functions I could get it to perform related to world of education. I asked it questions about what it was capable of doing and then I tried out various prompts within the context of actual courses with real learning objectives.

Perhaps the most valuable element of this resource is the examples of ChatGPT prompts that are specifically written for faculty members in a higher education setting. You can view the prompts I provided ChatGPT and

the results it returned. The goal was to investigate the range of functions that could be performed to support faculty members in the execution of their duties.

Anytime you see a call out accompanied by an accordion within this book, you can open it up to view an example of a ChatGPT prompt and its responses. For example:

See it in action. View ChatGPT prompt and response below. –>

An interactive H5P element has been excluded from this version of the text. You can view it online here:

https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=19#h5p-1

You might consider cutting and pasting some of the prompts from this book into ChatGPT. You can replace some of the language with the names of your own courses and associated course objectives.

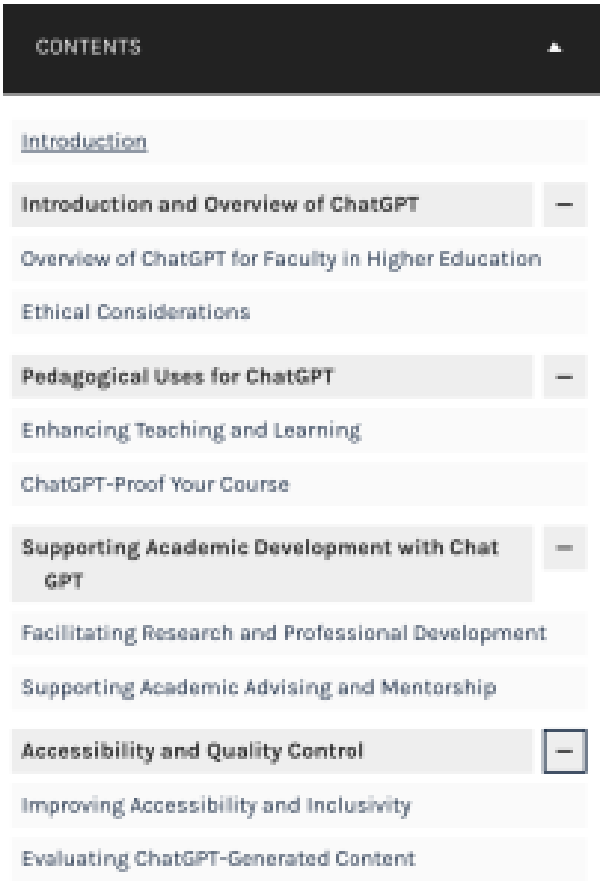
Note that there are also several prompts in the book where there is an extensive back-and-forth conversation with ChatGPT. I included all of the dialogue when instances like this occur, but you may need to continue scrolling to see it all:

See it in action. View ChatGPT prompt and response below. –>

An interactive H5P element has been excluded from this version of the text. You can view it online here:

https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=19#h5p-2

The organization of this book consists of the following sections and chapters. You can use the contents menu in the upper left corner of this books to navigate to the chapters that most interest you or to find relevant ChatGPT prompts:



- Introduction and Overview of ChatGPT
    - Overview of ChatGPT for Faculty in Higher Education
    - Ethical Considerations
- Pedagogical Uses for ChatGPT
    - Enhancing Teaching and Learning
    - ChatGPT-Proof Your Course
- Supporting Academic Development with Chat GPT
    - Facilitating Research and Professional Development
    - Supporting Academic Advising and Mentorship
- Accessibility and Quality Control
    - Improving Accessibility and Inclusivity
    - Evaluating ChatGPT-Generated Content

The chapter topics and most of the specific functions and their descriptions within each chapter were generated by ChatGPT. The prompts that were fed into ChatGPT were generated by me.

INTRODUCTION AND OVERVIEW OF CHATGPT

OVERVIEW OF CHATGPT FOR FACULTY IN HIGHER EDUCATION

Introduction

This chapter will provide an overview of ChatGPT's capabilities, limitations, and potential applications in higher education settings, equipping faculty members with the knowledge they need to effectively incorporate this groundbreaking AI tool into their courses and research.

This chapter is divided in the following sections. Click the links below to jump down to a section that interests you:

Capabilities of ChatGPT

1. **Natural Language Understanding and Generation:** ChatGPT can comprehend complex language structures and generate coherent responses, making it an ideal tool for facilitating meaningful interactions with students and aiding in their learning process.
2. **Information Retrieval:** With a vast knowledge base that spans multiple disciplines, ChatGPT can serve as a valuable research assistant, helping faculty and students quickly access relevant information from a wide range of topics.

3. **Multilingual Support:** ChatGPT's ability to understand and generate text in multiple languages allows for increased accessibility and inclusivity in higher education settings.
4. **Customizability:** ChatGPT can be fine-tuned to specific tasks or domains, enabling faculty members to tailor the AI's performance to meet their unique educational needs.

Limitations of ChatGPT

1. **Incomplete and Outdated Information:** ChatGPT's knowledge base only extends up to September 2021, meaning it may lack the most current information on certain topics.
2. **Potential for Bias:** As ChatGPT is trained on data from the internet, it may inadvertently reproduce biases present in the training data, which educators must be aware of and address accordingly.
3. **Inaccurate or Inappropriate Responses:** While ChatGPT can generate human-like responses, it may occasionally produce content that is factually incorrect or inappropriate, requiring supervision and discernment from faculty and students.
4. **Lack of Emotional Intelligence:** ChatGPT does not possess emotional intelligence or empathy, which can be a limitation when discussing sensitive topics or providing emotional support to students.

Potential Applications in Higher Education

Virtual Teaching Assistant

ChatGPT can be utilized as a virtual teaching assistant, addressing student inquiries, providing clarifications, and supplementing course materials with additional information.

See it in action. View ChatGPT prompt and response below. –>

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https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=21#h5p-3

Collaborative Learning

Faculty members can integrate ChatGPT into group projects or discussions to encourage critical thinking, problem-solving, and collaboration among students.

See it in action. View ChatGPT prompt and response below. –>

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https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=21#h5p-4

Writing Support

ChatGPT can help students with brainstorming, outlining, and editing their written work, providing constructive feedback and suggestions to improve their writing skills.

See it in action. View ChatGPT prompt and response below. –>

An interactive H5P element has been excluded from this version of the text. You can view it online here:

https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=21#h5p-5

Research Assistance

Faculty members and students can leverage ChatGPT's vast knowledge base to efficiently locate and retrieve relevant information for research projects, papers, and presentations.

See it in action. View ChatGPT prompt and response below. –>

An interactive H5P element has been excluded from this version of the text. You can view it online here:

https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=21#h5p-6

Language Learning

ChatGPT's multilingual capabilities make it an effective tool for language learning, providing students with opportunities to practice their skills and receive instant feedback.

See it in action. View ChatGPT prompt and response below. –>

An interactive H5P element has been excluded from this version of the text. You can view it online here:

https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=21#h5p-2

Throughout this book, you will find additional examples of uses for ChatGPT in higher education, including prompts that you can use to generate usable information.

Conclusion

ChatGPT offers a wealth of opportunities for enhancing the learning experience in higher education settings. By understanding its capabilities, limitations, and potential applications, faculty members can harness the power of this AI tool to foster innovation, collaboration, and engagement in their courses and research. As with any technology, educators should approach ChatGPT with a critical eye, ensuring that its use aligns with their pedagogical goals and promotes the well-being and success of their students.

ETHICAL CONSIDERATIONS

Introduction

The rapid advancements in artificial intelligence (AI) have transformed various aspects of modern life, including the domain of higher education. While AI-powered tools offer immense potential for enhancing teaching and learning experiences, they also present ethical challenges. Faculty members must be aware of these ethical implications, including privacy concerns, data security, and potential biases in AI-generated content, in order to responsibly integrate AI into the educational landscape.

This chapter is divided in the following sections. Click the links below to jump down to a section that interests you:

Privacy Concerns

The utilization of AI in higher education often requires the collection of vast amounts of personal data from students, such as learning behaviors, engagement patterns, and academic performance. This data is crucial for AI systems to deliver personalized learning experiences, but it raises significant privacy concerns.

Faculty members must consider the following when implementing AI in their

classrooms:

- **Transparent data collection:** Students should be informed about the types of data being collected and the purpose behind its collection. This transparency can help alleviate concerns about privacy invasion.
- **Informed consent:** Before using AI tools that gather personal information, obtain explicit consent from students. This demonstrates respect for their autonomy and privacy rights.
- **Data minimization:** Limit the collection of personal data to only what is necessary for the AI system to function effectively. Reducing the data collected can minimize the risk of privacy breaches.

Data Security

With the extensive collection of personal information comes the responsibility to ensure its security. Faculty members must be vigilant about the potential for data breaches, unauthorized access, or misuse of data by third parties. To address these issues, consider the following:

- **Secure storage:** Work with your institution's IT department to ensure that the data collected is stored securely, employing encryption and other security measures.
- **Access control:** Limit access to the collected data to only authorized personnel who have a legitimate need for it.
- **Regular audits:** Conduct periodic audits of the AI systems in use to identify and address potential security vulnerabilities.

Potential Biases in AI-generated Content

AI systems learn from the data they are fed, which means that biases present in the data can be reproduced in AI-generated content. This can lead to biased decision-making or recommendations that could adversely affect students from underrepresented groups. To mitigate the impact of biases, faculty members should:

- **Scrutinize data sources:** Ensure that the data used to train AI systems is representative of the diverse student population to avoid perpetuating existing biases.
- **Monitor AI-generated content:** Regularly review AI-generated content to identify and rectify any instances of bias. This can help ensure that the content remains fair and inclusive.
- **Encourage diversity in AI development:** Advocate for greater diversity in the teams responsible for developing AI tools to bring varied perspectives and minimize biases.

Conclusion

The integration of AI into higher education holds great promise for improving teaching and learning experiences. However, faculty members must be mindful of the ethical implications that accompany this technology. By addressing privacy concerns, ensuring data security, and mitigating potential biases in AI-generated content, educators can harness the power of AI while maintaining the ethical standards essential to higher education.

PEDAGOGICAL USES FOR CHATGPT

ENHANCING TEACHING AND LEARNING

Introduction

This section explores how faculty members can harness the power of ChatGPT to supplement traditional teaching methods, generate study materials, create discussion prompts, and provide personalized feedback to students.

This chapter is divided in the following sections. Click the links below to jump down to a section that interests you:

Generating Study Materials

ChatGPT can be utilized to create a variety of educational materials, including lecture notes, summaries, and study guides. By providing the AI with relevant information and specifying the desired format, faculty can generate concise and accurate study materials that are tailored to their students' needs. This not only saves time and effort but also ensures that students have access to consistent, high-quality resources.

See it in action. View ChatGPT prompt and response below. –>

An interactive H5P element has been excluded from this version of the text. You can view it online here:

https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=26#h5p-7

Creating Discussion Prompts

Engaging students in meaningful discussions is a critical aspect of learning. ChatGPT can help faculty members generate thought-provoking discussion prompts, questions, and debate topics. By inputting key concepts or themes, instructors can receive a list of potential discussion points that can be used during class or as a basis for online forum discussions.

See it in action. View ChatGPT prompt and response below. –>

An interactive H5P element has been excluded from this version of the text. You can view it online here:

https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=26#h5p-1

Providing Personalized Feedback

ChatGPT's natural language processing capabilities make it possible to provide personalized feedback to students on assignments, projects, and exams. Faculty members can use the AI to draft constructive feedback based on a student's performance, which can then be reviewed and edited to ensure accuracy and relevance. This can help faculty manage their workload while also providing timely, targeted feedback to students.

See it in action. View ChatGPT prompt and response below. –>

An interactive H5P element has been excluded from this version of the text. You can view it online here:

https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=26#h5p-8

Supporting Active Learning

Active learning techniques encourage students to engage directly with course material, fostering a deeper understanding of the subject matter. ChatGPT can be used to develop interactive activities, such as problem-solving exercises, case studies, or simulations. These activities challenge students to think critically and apply their knowledge, leading to a more profound grasp of the content. Furthermore, using ChatGPT-generated activities allows faculty members to diversify their teaching approaches and maintain student interest.

See it in action. View ChatGPT prompt and response below. –>

An interactive H5P element has been excluded from this version of the text. You can view it online here:

https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=26#h5p-9

Enhancing Peer Learning

ChatGPT can also facilitate peer learning by generating questions or scenarios for students to discuss and collaborate on. These AI-generated prompts can stimulate peer-to-peer interactions, fostering a collaborative learning environment and promoting critical thinking and communication skills.

See it in action. View ChatGPT prompt and response below. –>

An interactive H5P element has been excluded from this version of the text. You can view it online here:

https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=26#h5p-10

Developing Rubrics

ChatGPT can assist faculty in developing comprehensive and well-structured rubrics for their assignments by providing customized criteria, performance levels, and descriptions based on the specific requirements of each task. Additionally, ChatGPT can offer expert guidance and suggestions to help faculty ensure their rubrics effectively assess student learning and promote clear expectations for performance.

See it in action. View ChatGPT prompt and response below. –>

An interactive H5P element has been excluded from this version of the text. You can view it online here:

https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=26#h5p-11

Here is a table version of the rubric that was created using the prompt above:

Criteria	Exemplary (5 points)	Proficient (3 points)	Needs Improvement (1 point)	Not Evident (0 points)
Understanding of Blended Learning	Demonstrates thorough understanding of blended learning concepts by clearly integrating both face-to-face and online/digital components in the lesson plan.	Demonstrates moderate understanding of blended learning concepts by integrating some face-to-face and online/digital components, but lacks clarity or balance.	Demonstrates limited understanding of blended learning concepts by barely integrating face-to-face and online/digital components.	Does not demonstrate an understanding of blended learning concepts.
Lesson Plan Content and Organization	Lesson plan is well-organized, with clear objectives, activities, and assessments for both face-to-face and online/digital components.	Lesson plan is mostly organized, with some clear objectives, activities, and assessments for face-to-face or online/digital components, but may lack in one area.	Lesson plan is poorly organized and lacks clear objectives, activities, or assessments for face-to-face and online/digital components.	Lesson plan is not provided or is missing significant components.

Use of Blended Learning Resources	Effectively uses blended learning resources from the Edutopia site in the lesson plan, demonstrating creativity and relevance to the topic.	Uses some blended learning resources from the Edutopia site in the lesson plan, but may not fully demonstrate creativity or relevance to the topic.	Uses limited or inappropriate blended learning resources from the Edutopia site in the lesson plan.	Does not use any blended learning resources from the Edutopia site in the lesson plan.
Challenges and Benefits Reflection	Provides a thoughtful reflection on both the challenges and benefits of blended learning design, drawing on personal experience and/or research.	Provides a reflection on challenges and benefits of blended learning design, but may lack depth or connection to personal experience and/or research.	Provides a limited reflection on challenges or benefits of blended learning design, lacking depth and connection to personal experience and/or research.	Does not provide a reflection on challenges and benefits of blended learning design.

Conclusion

Incorporating ChatGPT into higher education teaching practices can greatly enhance the learning experience for both students and faculty members. By generating study materials, creating discussion prompts, providing personalized feedback, and supporting active and collaborative learning, ChatGPT empowers faculty to better engage students and facilitate deeper understanding of course

content. As AI technologies continue to evolve, it is crucial for educators to stay informed and adapt their teaching methods to make the most of these powerful tools.

CHATGPT-PROOF YOUR COURSE

Introduction

While ChatGPT can be a valuable learning tool, it has also made cheating easier for students. To combat this, educators can develop strategies to "ChatGPT-proof" their courses. In this article, we will discuss best practices for minimizing academic dishonesty related to ChatGPT and other AI language models.

This chapter is divided in the following sections. Click the links below to jump down to a section that interests you:

Encourage Critical Thinking and Originality

One way to deter students from using ChatGPT to complete assignments is to design tasks that emphasize critical thinking, problem-solving, and originality. Here are a few suggestions:

Promoting Critical Thinking through Open-Ended Questions

Assign open-ended questions that require students to form their own opinions, analyze multiple perspectives, and provide evidence to support their viewpoints.

See it in action. View ChatGPT prompt and response below. –>

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https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=28#h5p-12

Applying Concepts through Real-World Scenarios

Incorporate case studies or real-world scenarios that challenge students to apply concepts to new situations.

See it in action. View ChatGPT prompt and response below. –>

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https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=28#h5p-13

Fostering Collaboration through Project-Based Learning

Use project-based learning, where students must collaborate to create unique solutions to complex problems.

See it in action. View ChatGPT prompt and response below. –>

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https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=28#h5p-14

Implement Student Collaboration and Group Work

Assignments that involve collaboration and group work can help discourage students from relying on ChatGPT. By working together, students can learn from one another and develop a deeper understanding of the course material. Here are some ideas for group-based assignments:

Collaborative Learning through Group Presentations

Assign group presentations, where students must collaboratively research, analyze, and present on a topic.

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https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=28#h5p-15

Developing Products through Group Projects

Create group projects that require students to develop a product, such as a research paper, website, or prototype, based on their collective knowledge and skills.

An interactive H5P element has been excluded from this version of the text. You can view it online here:

https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=28#h5p-16

Fostering Academic Integrity through Peer-Review Sessions

Organize peer-review sessions, where students provide feedback on one another's work, promoting a culture of academic integrity.

Utilize In-class Assignments and Exams

In-class assignments and exams can reduce the likelihood of students using ChatGPT to complete their work. Consider these strategies:

- Implement short in-class writing assignments, where students must respond to prompts and provide thoughtful analysis.
- Use timed exams or quizzes that make it difficult for students to rely on AI-generated assistance.

- Include application-based questions that require students to analyze and interpret specific examples from course material.

Use Plagiarism Detection Software

While ChatGPT-generated text may not always be detected by traditional plagiarism checkers, these tools can still help identify instances of academic dishonesty. In addition to using plagiarism detection software:

- Encourage students to submit drafts of their work for review, making it more difficult for them to rely on ChatGPT.
- Provide clear guidelines on citation practices and emphasize the importance of academic integrity.

Foster a Culture of Academic Integrity

Promoting a culture of academic integrity can help prevent students from seeking AI-generated assistance. To do this:

- Clearly communicate the expectations and consequences related to academic dishonesty, including the use of AI-generated content.
- Encourage open dialogue about the ethical implications of using AI tools like ChatGPT for cheating.
- Integrate discussions about academic integrity into your course and emphasize its importance in the broader context of higher education and professional life.

Lean Into the Creative Use of ChatGPT

Instead of preventing students from using ChatGPT, consider structuring assignments that require them to use the platform in ways consistent with their future profession.

For instance, I teach an Introduction to Educational Technology course, primarily for undergraduate education majors aspiring to become teachers. They must complete various assignments that involve designing lesson plans for any grade level and subject area, integrating suitable educational technology tools.

I aimed to create several assignments so that students learn to utilize ChatGPT effectively in their future teaching careers.

Here are a few examples of assignments I developed:

Assignment Instructions #1

For this activity, you will revisit the Lab 6 activity from several weeks ago where you had to craft a lesson plan that used some form of blended learning. This time around, however, I would like you to try using ChatGPT (or some other Chat AI tool) in order to generate and refine a lesson plan.

Using a Chat AI tool, develop a prompt that will generate a usable lesson plan in your grade level and subject area on a topic of your choosing that integrates some form of blended learning (like you created in the initial assignment from week 6).

After GPT generates a response, read it over and consider the following questions: *Where are the weak spots in this lesson plan that it created? What additional resources would you need in order to actually teach this lesson with students?* Ask ChatGPT a series of follow up questions in order to refine/revise the output and the resources that you have available to actually teach this lesson.

Your final submission should include all of the back and forth conversation that

you had with ChatGPT to generate this outcome. You can simply cut and paste the responses into a Word document like you see in the attachment below. You should include at least four follow up questions after your initial prompt along with ChatGPT's responses.

At the end of the submission, include your own reflection (not generated by ChatGPT) where you consider the following:

- What are the major benefits and challenges that this Chat AI technology provides to students?
- What are the major benefits and challenges that this Chat AI technology provides to teachers?

See it in action. View ChatGPT prompt and response below for this revised assignment. –>

An interactive H5P element has been excluded from this version of the text. You can view it online here:

https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=28#h5p-17

Assignment Instructions #2

For this activity, perform the following steps:

1. *Decide on a function related to teaching and training that you would like the LLM to perform.* This can be related to the role of an educator (i.e., learning designer, teacher, etc) or the role of a learner. For example, you might want the LLM to help you to do one of the following tasks:

    1. **Educator Role:** Develop a lesson plan for a grade level and content area of your choosing.
    2. **Educator Role:** Prepare a presentation on a topic that you could be asked to deliver.
    3. **Educator Role:** Create a series of learning objectives based on the title of a course.
    4. **Educator Role:** Develop an activity or assessment for a specific lesson you might teach.
    5. **Learner Role:** Provide feedback on a piece of writing you drafted.
    6. **Learner Role:** Ask for assistance with studying for topic you are interested in learning.
    7. **Learner Role:** Help you to learn a foreign language by conversing with you and providing corrective feedback.
2. *Develop a prompt that you will provide the LLM in order to execute the task.* Click on the expander below to open it up and read a note about generating better content in an LLM.
3. *Feed the prompt you developed into the LLM.* You might try out more than one prompt with varying degrees of specificity in order to examine how they differ and which ones you like better.
4. *Evaluate the results it produces in order to see what you like and what you don't like.* This step does not need to be documented in your final submission.
5. *Ask a series of follow-up requests that attempt to refine and improve on the output.* For example, if you asked to generate a student activity, you might ask it to create a rubric that could be used to evaluate the assessment. You might ask it to revise certain parts or develop other parts in greater detail. Some of the best output that LLMs like ChatGPT produce occur in these follow up requests that help it to refine the final product in a manner that matches precisely what you are looking for. You should include a minimum of three follow up requests that occur after your initial prompt.

6. Copy and paste all of your prompts, follow-up questions, and the output that is generated into the template included below.
7. Finally, write up a personal reflection about how the process worked for you. **This should not be generated by the LLM but reflect your own thoughts and experiences**. You might reflect on some (or all) of the following questions in your response:
    1. Was the output better or worse than what you expected?
    2. What surprised you?
    3. How might you see yourself integrating this tool in your work as an educator?
    4. How does this experience affect your perception about the extent to which AI and LLMs are either a net positive or net negative for the field of teaching and training?

An interactive H5P element has been excluded from this version of the text. You can view it online here:

https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=28#h5p-18

Conclusion

To minimize the potential for cheating with ChatGPT and other AI language models, faculty members in higher education must adapt their course designs and assignments. By promoting critical thinking, originality, collaboration, and academic integrity, educators can create a learning environment where students are less likely to rely on AI-generated assistance. Ultimately, these strategies can

help ensure that students develop the skills and knowledge necessary for success in their academic and professional lives.

INSTRUCTIONAL DESIGN

Introduction

This section explores how faculty members and instructional designers might use ChatGPT to complete a complex instructional design task that requires the completion of many steps. The prompt included below combines many of the individual steps described in previous chapters. Through trial-error and feedback from ChatGPT, I was able to create a prompt that can be used to analyze a course module regarding the alignment between objectives, content, and assignments. This prompt will provide both instructional feedback and suggestions for improvement.

The prompt can be reused for each module in the course.

Initial Prompt

> Cut and paste the following information below into ChatGPT. Note that there are a few items [*in brackets and italicized*] that must be edited before you submit:

I am an instructional designer who helps university faculty to build courses for delivery. [*Or you could also replace this last line with: "I am a university faculty working on building a course that I will be teaching"*].

I would like to take a course I am working on and provide you with a list of the following components for one module at a time: the course name, the course

learning objectives, module learning objectives, course readings for the module, and the complete instructions for all assignments in the module.

I would like for you to then complete the following actions:

1. Analyze the language of the course level objectives to make sure they are measurable and that they include at least some higher verbs according to Blooms taxonomy.
2. Analyze the language of the module level objectives to make sure they are measurable and that they are in alignment with the course level objectives.
3. If there is any misalignment between the course and module level objectives, provide suggestions and feedback for improvement.
4. Analyze the readings to ensure that there is alignment between the content and the module level objectives.
5. Provide suggestions for additional readings that might be incorporated into the module based on the module objectives and the level of the course (e.g. undergraduate or graduate-level course). When you provide suggestions for these additional readings, I would like you to provide either open educational resources or journal articles that are accessible through a university's library.
6. Analyze the assignment instructions to ensure that there is alignment between the module objectives and the activities that are being used to assess student mastery
7. Provide feedback on each assignment regarding what is good about it and if there are any revisions that could improve the activity.
8. Offer suggestions for alternative assignments that could also be used to measure the module objectives. When you provide suggestions for alternative assignments, I would like for these to be activities for which students would have difficulty using ChatGPT to cheat.
9. Provide feedback on the entire module regarding technology that might enhance the learning experience.

Please keep in mind that this course will be delivered in a [*identify one of the*

following: face-to-face, hybrid, fully online] delivery modality. Let me know if you have any questions before I provide you with details for this course.

Response Prompt

After you provide the information above, ChatGPT will likely generate a response that says something like: "Thank you for the detailed explanation of your requirements. I understand the tasks and am ready to help you analyze and provide feedback on the course module you're working on. Please provide me with the details for the course, including the course name, learning objectives, module learning objectives, course readings, and assignment instructions. Once I have this information, I will be able to complete the requested actions and provide you with my analysis and recommendations."

> At this point you will want to cut and paste the following prompt into your response. Note that there are many items [*in brackets and italicized*] that must be edited before you submit:

Please analyze the following course module:

- Course name [*enter the course name (e.g. EME2040: Introduction to Educational Technology for Learning Professionals*]
- Course learning objectives: [*cut and paste each of the course objectives, separated by a comma in between each one*]
- Module learning objectives: [*cut and paste each of the module objectives, separated by a comma in between each one*]
- Course readings: [*cut and paste each of the course readings, separated by a semi-colon. If possible, include the reading in proper citation format (APA,*

MLA, Chicago, etc.)]

- Assignment 1 instructions: [*cut and paste the entirety of the assignment instructions (even if it is long)*]
- Assignment 2 instructions: [*cut and paste the entirety of the assignment instructions (or delete Assignment 2 if there is only one assignment)*]
- Course level: [*provide information here about whether this is a graduate vs. undergraduate, freshman vs. senior level course (e.g. "This is a freshman level undergraduate course" or "This is a graduate level course.")*]

Follow-up Responses

I am not including the response generated by ChatGPT here, since it will likely be lengthy and specific to your course. At this point, you can feel free to enter any follow-up questions that may arise in response.

For example you might say something like: "One of the alternative assignments that you recommended included the following: 'Students could analyze a case study of a real-world event." Could you provide a detailed description of this assignment using a specific event and including a rubric that could be used to assess students' submissions?"

Analyzing Additional Modules

When you are ready to analyze additional modules in the same course, cut and paste the following prompt to continue. Note again that there are many items [*in brackets and italicized*] that must be edited before you submit:

Let's continue performing the same analysis and the same set of steps for other modules in this course.

- Course name [*enter the course name (e.g. EME2040: Introduction to Educational Technology for Learning Professionals*). **This information should not change.**]
- Course learning objectives: [*cut and paste each of the course objectives, separated by a comma in between each one.* **This information should not change.**]
- Module learning objectives: [*cut and paste each of the module objectives, separated by a comma in between each one*]
- Course readings: [*cut and paste each of the course readings, separated by a semi-colon. If possible, include the reading in proper citation format (APA, MLA, Chicago, etc.)*]
- Assignment 1 instructions: [*cut and paste the entirety of the assignment instructions (even if it is long)*]
- Assignment 2 instructions: [*cut and paste the entirety of the assignment instructions (or delete Assignment 2 if there is only one assignment)*]
- Course level: [*provide information here about whether this is a graduate vs. undergraduate, freshman vs. senior level course (e.g. "This is a freshman level undergraduate course" or "This is a graduate level course.")*]

Analyzing Additional Courses

When you have finished analyzing all of the modules in this course and you are ready to move on to a different course, repeat the same steps listed above, starting at the beginning.

You should start a new thread or conversation whenever you begin work on a new course. Note that ChatGPT does not have the ability to remember past interactions across different sessions or threads, which is why you are starting back over from the beginning.

SUPPORTING ACADEMIC DEVELOPMENT WITH CHAT GPT

FACILITATING RESEARCH AND PROFESSIONAL DEVELOPMENT

Introduction

Faculty members can harness the power of ChatGPT to streamline their research activities, augmenting their capabilities and efficiency. This article explores the best practices for using ChatGPT in higher education research by examining its role in literature review, idea generation, and personalizing professional development.

This chapter is divided in the following sections. Click the links below to jump down to a section that interests you:

Literature Review

The process of reviewing the existing body of knowledge is a critical component of any research project. ChatGPT can greatly assist faculty members in higher education by:

Identifying relevant sources

ChatGPT's extensive knowledge base enables it to quickly identify pertinent

literature and other resources based on user input. Faculty can utilize this feature to discover sources they may have otherwise missed.

See it in action. View ChatGPT prompt and response below. –>

An interactive H5P element has been excluded from this version of the text. You can view it online here:

https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=33#h5p-6

Summarizing key findings

ChatGPT can distill complex information into concise summaries, saving faculty time and effort. It's important to corroborate these summaries with the original sources for accuracy.

See it in action. View ChatGPT prompt and response below. –>

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https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=33#h5p-19

Identifying knowledge gaps

By analyzing the existing literature, ChatGPT can help identify potential areas for further research, enabling faculty to formulate innovative research questions.

See it in action. View ChatGPT prompt and response below. –>

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https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=33#h5p-20

Best Practice: To ensure quality results, faculty should provide clear and specific search parameters when using ChatGPT for literature reviews.

Idea Generation

Generating novel and compelling ideas is a crucial aspect of research. ChatGPT can support faculty in higher education by:

Brainstorming

By leveraging its vast knowledge base, ChatGPT can suggest a range of possible research ideas and approaches in response to a user's query.

See it in action. View ChatGPT prompt and response below. –>

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https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=33#h5p-21

Exploring interdisciplinary connections

ChatGPT can help faculty discover connections between seemingly disparate fields, fostering cross-disciplinary innovation.

See it in action. View ChatGPT prompt and response below. –>

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https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=33#h5p-22

Evaluating ideas

Faculty can use ChatGPT to assess the feasibility and novelty of proposed research ideas by comparing them to existing literature.

See it in action. View ChatGPT prompt and response below. –>

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https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=33#h5p-23

Best Practice: Faculty should approach ChatGPT-generated ideas as starting points, combining them with their own expertise and critical thinking to develop well-rounded research proposals.

Personalized Professional Development

ChatGPT can support personalized professional development by:

Targeted Training Resources

Identifying skill gaps and suggesting targeted training resources, such as online courses, webinars, or workshops.

See it in action. View ChatGPT prompt and response below. –>

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Customizing Pedagogy

Recommending pedagogical strategies and instructional design techniques based on an individual's teaching style and discipline.

See it in action. View ChatGPT prompt and response below. –>

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https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=33#h5p-25

Refining Instruction through Personalized Feedback

Offering personalized feedback on teaching materials, such as syllabi, course outlines, and assignments, to help faculty members refine their approaches.

See it in action. View ChatGPT prompt and response below. –>

An interactive H5P element has been excluded from this version of the text. You can view it online here:

https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=33#h5p-8

Supporting Professional Development

Recommending relevant conferences, workshops, and networking events that align with faculty members' professional goals.

See it in action. View ChatGPT prompt and response below. –>

An interactive H5P element has been excluded from this version of the text. You can view it online here:

https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=33#h5p-26

Conclusion

ChatGPT holds immense potential as a research tool for faculty members in higher education. By effectively employing ChatGPT for literature review and idea generation, faculty can enhance their research productivity and unlock new avenues for discovery. As with any powerful tool, it is crucial to use ChatGPT responsibly and critically, combining its capabilities with human expertise to achieve the best possible research outcomes.

SUPPORTING ACADEMIC ADVISING AND MENTORSHIP

Introduction

This chapter explores the best practices for using ChatGPT to provide personalized guidance to students on academic matters such as course selection, degree planning, and career paths.

This chapter is divided in the following sections. Click the links below to jump down to a section that interests you:

Understanding ChatGPT

ChatGPT is a powerful AI language model that can understand and generate human-like text responses based on a given input. Its applications range from answering questions and offering suggestions to composing entire documents. By incorporating ChatGPT in academic advising and mentorship, faculty members can provide students with tailored guidance, improve communication, and streamline the advising process.

Best Practices for Integrating ChatGPT in Academic Advising and Mentorship

Course Selection Assistance

ChatGPT can be used as a virtual assistant to help students explore and select courses that align with their academic goals and interests. Faculty members can create a knowledge base containing course descriptions, prerequisites, and schedules. Students can then interact with ChatGPT to obtain recommendations and insights on courses that best match their needs.

Best Practices

- Keep the knowledge base updated with the latest course offerings and prerequisites.
- Train ChatGPT with relevant data to ensure it understands academic terminology and concepts.
- Encourage students to provide feedback on course recommendations to improve the accuracy and relevance of ChatGPT's suggestions.

Degree Planning Support

Degree planning can be a complex and time-consuming process for students. ChatGPT can assist students in creating a comprehensive degree plan, factoring in course requirements, transfer credits, and academic goals.

Best Practices

- Work with academic departments to provide accurate and up-to-date program requirements for ChatGPT.
- Train ChatGPT to recognize different degree requirements, such as core courses, electives, and general education.
- Incorporate a feedback mechanism for students to report discrepancies or outdated information in their degree plans.

Career Path Exploration

ChatGPT can help students explore potential career paths based on their major, interests, and skills. By integrating information from job market trends and industry data, faculty members can guide students in making informed decisions about their future careers.

Best Practices

- Collaborate with career services to provide ChatGPT with accurate and up-to-date career information.
- Train ChatGPT to recognize transferable skills and recommend relevant careers based on a student's major and interests.
- Encourage students to engage in career-related conversations with ChatGPT to help them develop a well-rounded understanding of their career options.

Privacy and Ethical Considerations

While ChatGPT offers numerous benefits, it is essential to consider privacy and ethical concerns. Faculty members should ensure that student data is protected and that the AI tool is used responsibly.

Best Practices

- Establish clear guidelines on data usage and privacy, ensuring compliance with relevant regulations and institutional policies.
- Regularly monitor ChatGPT's interactions to identify and rectify potential biases or inaccuracies in its responses.
- Educate students on the limitations of AI tools and the importance of critical thinking and human judgment in decision-making.

Conclusion

Incorporating ChatGPT into academic advising and mentorship can greatly enhance the support and guidance provided to students. By following the best practices outlined in this article, faculty members can harness the power of ChatGPT to revolutionize their approach to academic advising and empower students to achieve their academic and career goals.

ACCESSIBILITY AND QUALITY CONTROL

IMPROVING ACCESSIBILITY AND INCLUSIVITY

Introduction

With the advent of artificial intelligence, specifically ChatGPT, educators can now leverage technology to generate alternative formats, simplify complex concepts, and provide translations. This chapter explores best practices for using ChatGPT to enhance accessibility and inclusivity in higher education.

This chapter is divided in the following sections. Click the links below to jump down to a section that interests you:

Generating Alternative Formats

ChatGPT can be utilized to create multiple formats of learning materials, making them accessible to a broader range of learners. Best practices include:

Summarizing lengthy text

Use ChatGPT to create concise summaries of long articles or book chapters, allowing students with limited time or attention spans to grasp the main ideas.

See it in action. View ChatGPT prompt and response below. –>

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https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=38#h5p-27

Creating audio and visual content

Convert text-based materials into audio and visual formats, benefiting students with different learning preferences and those with visual impairments.

See it in action. View ChatGPT prompt and response below. –>

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https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=38#h5p-28

Developing interactive materials

Transform static content into interactive quizzes, flashcards, or games, catering to various learning styles and promoting engagement.

See it in action. View ChatGPT prompt and response below. –>

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https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=38#h5p-29

Simplifying Complex Concepts

Students often struggle with understanding complex concepts, and ChatGPT can help break down these ideas into more digestible information. To achieve this, consider the following strategies:

Rewriting technical jargon

Use ChatGPT to rewrite complex terms or phrases in plain language, making the content more understandable for students with varying levels of expertise.

See it in action. View ChatGPT prompt and response below. –>

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view it online here:

https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=38#h5p-30

Providing analogies and examples

Request ChatGPT to generate relatable analogies or real-world examples, helping students grasp abstract concepts more easily.

See it in action. View ChatGPT prompt and response below. –>

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https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=38#h5p-31

Offering step-by-step explanations

Utilize ChatGPT to create detailed, step-by-step guides for complex problem-solving, enabling students to follow along and better understand the process.

See it in action. View ChatGPT prompt and response below. –>

An interactive H5P element has been excluded from this version of the text. You can

view it online here:

https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=38#h5p-32

Providing Translations

Language barriers can hinder students' ability to learn and engage with the course material. ChatGPT can be an invaluable tool for addressing this issue by:

Translating course materials

Use ChatGPT to generate translations of learning resources into multiple languages, accommodating students who are non-native English speakers.

See it in action. View ChatGPT prompt and response below. –>

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https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=38#h5p-33

Offering multilingual support

Create a virtual ChatGPT teaching assistant to provide support in multiple

languages, making it easier for students to ask questions and receive feedback in their native tongue.

See it in action. View ChatGPT prompt and response below. –>

An interactive H5P element has been excluded from this version of the text. You can view it online here:

https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=38#h5p-34

Facilitating cross-cultural communication

Encourage students to interact with peers from diverse linguistic backgrounds by using ChatGPT to facilitate conversations and group work in multiple languages.

See it in action. View ChatGPT prompt and response below. –>

An interactive H5P element has been excluded from this version of the text. You can view it online here:

https://openfl.pressbooks.pub/unfchatgptinhighereducation/?p=38#h5p-35

Conclusion

The integration of ChatGPT in higher education offers promising opportunities for enhancing accessibility and inclusivity. By leveraging this advanced AI technology, faculty members can create a variety of learning materials, simplify complex concepts, and provide translations to accommodate students with diverse needs and preferences. As educators, it is our responsibility to continue exploring and adopting innovative tools like ChatGPT to create inclusive, accessible, and engaging learning experiences for all students.

EVALUATING CHATGPT-GENERATED CONTENT

Introduction

As educators and researchers, it's essential to critically assess the accuracy, relevance, and quality of AI-generated content. This chapter provides guidelines for evaluating ChatGPT-generated content and offers tips for integrating human judgment into the evaluation process.

This chapter is divided in the following sections. Click the links below to jump down to a section that interests you:

Establish a Clear Purpose

Before using ChatGPT-generated content, identify the purpose and objectives of the information. Determine whether the AI-generated content is intended for research, teaching, or administrative purposes. Having clear expectations will help in evaluating the content's relevance and appropriateness.

Assess the Accuracy

AI-generated content may contain factual errors, outdated information, or inaccuracies due to biases in the training data. When evaluating ChatGPT-generated content, consider the following:

1. Cross-reference the information with reliable sources, such as scholarly articles, textbooks, and government websites.
2. Look for inconsistencies or contradictions within the text.
3. Be aware of the AI's knowledge cutoff date, as it may not have the most recent information.

Evaluate Relevance

AI-generated content may not always be relevant to the context in which it's intended to be used. To ensure that the content aligns with the desired topic, follow these steps:

1. Compare the AI-generated content with the initial prompt or question to ensure that the output is on-topic.
2. Check if the content addresses the specific needs of the target audience, including students, faculty, or administrators.
3. Ensure that the content is appropriate for the intended educational level.

Examine the Quality

Quality assessment involves evaluating the coherence, organization, and language of the AI-generated content. Consider the following criteria:

1. Coherence: Check for logical flow and consistency of ideas within the text.
2. Organization: Assess the structure and organization of the content, including the presence of clear headings and logical progression of ideas.
3. Language: Evaluate the grammar, punctuation, and vocabulary used in the text for correctness and readability.

Integrate Human Judgment

The evaluation process should always involve human judgment to ensure that AI-generated content meets the desired standards. Here are some tips for integrating human judgment into the evaluation process:

1. Collaborate with colleagues to evaluate the content, as multiple perspectives can help identify potential issues.
2. Encourage critical thinking and skepticism when assessing AI-generated content, as it can help identify inaccuracies and biases.
3. Consider using AI-generated content as a starting point or supplementary material, rather than the sole source of information.

Address Ethical Considerations

Ethics play a crucial role in evaluating AI-generated content. Consider the following ethical aspects:

1. Acknowledge the limitations of AI-generated content and be transparent about its use in educational settings.
2. Be aware of potential biases in the training data and ensure that the content aligns with the principles of diversity, equity, and inclusion.
3. Respect intellectual property rights and adhere to academic integrity standards.

Conclusion

As AI-generated content becomes increasingly prevalent in higher education, faculty members need to be equipped with the skills to critically assess the accuracy, relevance, and quality of such content. By following these guidelines and integrating human judgment into the evaluation process, educators can ensure that they are using AI-generated content responsibly and effectively.