OER OPEN EDUCATIONAL RESOURCES INITIATIVE

ACADEMIC SENATE FOR CALIFORNIA COMMUNITY COLLEGES

The Intersection of Artificial Intelligence and Open Educational Resources

ASCCC OERI Friday Forum; Friday, November 3, 2023; 10:30 am – 11:30 am

Description

- As advances in artificial intelligence (AI) create new challenges and opportunities for academia (and society), how can faculty harness the power of AI to create open educational resources? Is it ethical to employ AI to generate content? What can we do and what should we do? Join this session for an exploration of the possibilities and boundaries.

Presenters

- Michelle Pilati, ASCCC OERI Project Director

- Anna Mills, ASCCC OERI English Discipline Lead

- Shelli Wynants, Quality Online Inclusive Learning Design Coordinator, CSU Fullerton

Photo by Andy Kelly on Unsplash

Overview

- What is AI and why are we so obsessed with it?

- How could AI support OER development?

- Challenges for academics who wish to use AI

- Effective uses of AI

- What can we do and what should we do?

What is Artificial Intelligence?

- Artificial intelligence (AI), the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings. (Britannica)

- Absolutely not new.

- How does AI impact your daily life?

- Have you interacted with AI today?

The 10 Best Examples Of How AI Is Already Used In Our Everyday Life (Forbes, 2019) (1-5)

1. Open your phone with face ID

2. Social media

3. Email – spell-check, suggestions, filters

4. Internet searches

5. Digital voice assistants – Siri, Alexa

The 10 Best Examples Of How AI Is Already Used In Our Everyday Life (Forbes, 2019) (6 – 10)

6. Smart home devices

7. Commuting

8. Banking

9. Amazon recommendations

10. Netflix

Who is recognized with offering a real vision of what AI could be?

The History of Artificial Intelligence

- A. M. Turing (1950) Computing Machinery and Intelligence. Mind 49: 433-4

- I propose to consider the question, "Can machines think?"

- Proposed the "imitation game" or "Turing test"

- "The Turing Test is a concept in the field of artificial intelligence and computer science, proposed by the British mathematician and computer scientist Alan Turing in 1950. The test is designed to evaluate a machine's ability to exhibit intelligent behavior indistinguishable from that of a human." (ChatGPT, 11/2/23)

And today we can ask – Can today's AI really pass the Turing test?

- AI has the capability to pass the Turing Test under certain conditions, particularly in text-based or chatbot scenarios.

- However, passing the Turing Test does not necessarily indicate true human-level intelligence or understanding, as AI systems may rely on pattern recognition and pre-programmed responses rather than genuine comprehension.

- The test's relevance in assessing the depth of AI intelligence remains a topic of debate in the field of artificial intelligence.

- ChatGPT (11/2/23)

Today's AI

- Why is AI suddenly something that does more than help you spell, shop, or pick a movie? What's different?

- Per Wikipedia: ChatGPT, which stands for Chat Generative Pre-trained Transformer, is a large language model-based chatbot developed by OpenAI and launched on November 30, 2022, which enables users to refine and steer a conversation towards a desired length, format, style, level of detail, and language.

- Per OpenAI.com: We've trained a model called ChatGPT which interacts in a conversational way. The dialogue format makes it possible for ChatGPT to answer followup questions, admit its mistakes, challenge incorrect premises, and reject inappropriate requests.

Who is using AI?

- "Nearly have of college students are using AI tools this fall, but fewer than a quarter of faculty use them"

- Coffey, L. (n.d.). *Students Outrunning Faculty in AI Use*. Inside Higher Ed. Retrieved November 3, 2023, from https://www.insidehighered.com/news/tech-innovation/artificial-intelligence/2023/10/31/most-students-outrunning-faculty-ai-use

- APA Citation Generator

How could AI support OER development?

ChatGPT and OER

- Prepare 1st drafts.

- Generate ideas.

- Modify tone.

- Write feedback.

- Create examples.

- Write exam questions, sample answers, book chapters, etc.

- Proof writing.

- What can't it do?

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Challenges for academics who wish to use AI

The Intersection of AI and OER

- See OERI resource collection at

- [Pre-recorded presentation by Anna Mills](#)

AI + OER

Instructor Use

Created with Bing AI

Effective Uses of AI

Presenter: Shelli Wynants, Ed.D., Faculty, CSU Fullerton

Concerns about AI

Hallucinations	Bias	Copyright & IP	Security & privacy
Answers that are factually incorrect, irrelevant or nonsensical, because of limitations in their training data and architecture	Answers that display discriminatory behaviour resulting in prejudiced or unequal treatment of a particular group or groups	The rights of content creators from whom training data is collected remains uncertain and is currently being challenged	Some model providers use and store data for training purposes. Entire end-to-end data pipelines require security and data privacy controls.
"The world record for crossing the English channel on foot is 15 hours"	*"Generate a picture of a person cleaning" returns overwhelmingly women*	*Getty suing creators of Stable Diffusion alleging the improper use of its photos*	*Samsung engineers accidentally releasing source code by putting into ChatGPT for debugging*

I acknowledge and wrestle with these concerns, but I am using it for certain things because

- I'm fascinated!

- It's useful!

- I want to understand what my students have access to.

- I think AI will be a part of students' daily lives and futures, and it's my job to promote 21st-century digital literacy skills.

Photo by ValeriaLo on Pixabay.com

Acknowledgement: I got the slide idea & the photo from Anna Mills

AI & OER Together - Positive Optimism

"Solutions to address generative AI build on trends where assessment has been going – involving students, addressing equity, developing authentic and alternative assessments."

- Disclaimer: Unsure who said this (I've read too many AI articles and too many AI presentations to remember =P)

"AI should be used to augment your expertise, not replace it!"

"Use it as a brainstorming partner, a teaching assistant, and a guide on the side."

"Practice, 'prompting' patience, verification, and your expertise made a huge difference in the quality of AI output use!"

- Shelli's caveats to the next few slides on what AI can do

Created with Bing AI

What Can It Do? (To Compliment OER)

Created with Bing AI

1. **Planning Instruction Assistance & Brainstorming**
   - Lesson Plans: Create draft lesson plans with activities & scaffolding
   - Discussion Questions: Produce engaging, higher-order prompts
   - Pedagogy: Generate suggestions of effective teaching strategies & provide tailored instructional material examples

2. **Augment Learning Materials**
   - Create good and bad models (e.g., run-on vs complete sentence)
   - Create applied examples or scenarios of theories and concepts
   - Find supplemental resources or needed resources for OER gaps (suggest additional articles, websites, etc., on a certain topic)
   - [Create visual aids]

AI Prompt: Write me an example of a run-on sentence and a complete sentence, both of which could be written by a college student explaining an example of authoritative parenting. Label each sentence as Run-On or Complete and then provide an explanation of why the run-on sentence is a fragment and how it could be fixed.

- Run-On: Authoritative parents are strict but also supportive they set clear rules and expectations for their children but also provide them with warmth and guidance.

- Complete: Authoritative parents are strict but ~~also~~ supportive. They set clear rules and expectations for their children ~~but also~~ as well as provide them with warmth and guidance.
  - The run-on sentence is a fragment because it contains two independent clauses that are joined without a semicolon or a coordinating conjunction (such as and, but, or, etc.). A run-on sentence can be fixed by adding a coordinating conjunction or by using a semicolon or a period to separate the two clauses. For example:
    - Authoritative parents are strict but ~~also~~ supportive; they set clear rules and expectations for their children ~~but also provide~~ while providing them with warmth and guidance.
    - Authoritative parents are strict but ~~also~~ supportive. They set clear rules and expectations for their children ~~but provide~~ while providing-them with warmth and guidance.

Bing AI output

What Can It Do? (To Compliment OER)

Created with Bing AI

3. Add Differentiation
- Summarization and simplification: Articulate advanced concepts in simpler terms ("explain it to a 5th grader")
- Generate analogies, additional ways of describing content
- Suggest active learning activities for the classroom

4. Increase Diversity/Inclusion
- Provide diverse examples and explanations that are contextually relevant and culturally sustaining
  - Identify diversity examples, articles, etc., and provide references for you to examine
  - [Diverse representation of images]

AI Prompt: Provide me 3 analogies for AI to help a novice adult understand how it functions.

AI stands for artificial intelligence, which means the ability of machines or computers to perform tasks that normally require human intelligence, such as understanding language, recognizing images, solving problems, and learning from data. Here are three accurate analogies for AI to help a novice adult understand how it functions:

- AI is like a recipe book that contains instructions for different dishes, but also has the ability to create new recipes based on the ingredients, preferences, and feedback of the cook. It can learn from its own experiments and improve its cooking skills over time.

- AI is like a GPS navigation system that can guide you to your destination, but also has the ability to find the best route based on the traffic, weather, and road conditions. It can learn from its own experience and optimize its travel plans over time.

- ~~AI is like a translator that can convert one language to another, but also has the ability to understand the context, tone, and intention of the speaker. It can learn from its own mistakes and enhance its communication skills over time.~~

Bing AI output

What Can It Do? (To Compliment OER)

5. Assessment Ideas

- Quizzes: Develop test questions with answer key
- Reflections: Generate interesting, engaging reflection questions
- Rubrics: Craft rubrics for evaluating student work, including analytic, holistic
- Checklists: Create a list of tasks/steps to assist students in completing an assignment
- Feedback Prompts: Construct common feedback improvement suggestions (even using wise feedback framing)
- Gamification Elements: Create questions or examples you can put easily into a game format (e.g., Kahoot game, H5P activity)

AI Prompt: Write me an applied scenario example multiple choice question that tests understanding of acceptable evidence for a learning outcome for a course on how to create a podcast using Audacity.

- **Question:** You have asked students to create a podcast episode about the history of chocolate using Audacity. You want them to demonstrate that they have achieved the learning outcome of "editing audio files using basic tools in Audacity". Which of the following would be the best evidence to show achievement of the learning outcome?

- **Options:**
    A) A screenshot of their Audacity project file with the audio tracks and effects applied.
    B) A transcript of their podcast episode with annotations of the audio editing techniques they used.
    C) A reflection essay on their podcast creation process and the challenges they faced with Audacity.
    D) A link to their published podcast episode on a platform of their choice.

- **Answer:** A) A screenshot of their Audacity project file with the audio tracks and effects applied.

- **Explanation:** Option A is the best evidence because it shows the actual output of their audio editing skills using Audacity. It also allows the instructor to see the tools and effects students used and how they applied them to their audio files. Option B is not a good evidence because it does not show the actual audio editing process or the final result. Option C is not a good evidence because it is too subjective and does not show the specific audio editing techniques they used. Option D is not a good evidence because it does not show the original audio files or the changes they made using Audacity.

Bing AI output

What do you think?