# Empowering

Teaching & Learning Experiences:

**Generative AI in Education** 



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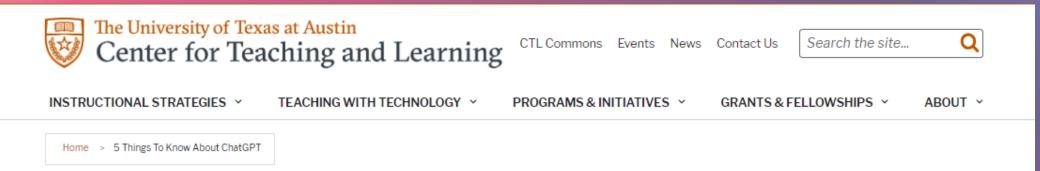
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Ministry of Higher Education, Science, Research and Innovation





ปัญญาประดิษฐ์ (AI) ส่งผล กระทบต่อการศึกษาในช่วง ระยะเวลาที่ผ่านมาอย่างไร



### 5 Things To Know About ChatGPT

While questions about the impact of artificial intelligence in higher education are not new, the emergence of a new tool called ChatGPT that uses increasingly popular chatbot technology to generate human-like, long-form writing has opened the door to new curiosities and concerns.

This document provides suggestions for instructors who wonder how this tool may affect their course design and teaching. The content has been generated by our team, our campus community, and nationally/internationally recognized teaching and learning professionals. Please note this is a rapidly evolving issue with new perspectives, articles, and resources emerging regularly. CTL will continue to monitor developments and share them with the campus community as we are able, as well as create new resources and opportunities for interactions to guide our collective thinking.

#### **▼** Beginning of the Semester

- Be clear on what you want your students to know and be able to do or demonstrate by the end of the course and why
  that knowledge is valuable to their lives. (See this resource for assistance in developing learning outcomes for your
  course.) Help students see that the ways you are assessing their learning are key to understanding what they are
  gaining from the course and where they may need extra coaching and support. (6)
- Talk to your students about how relying heavily on this tool may interfere with achieving the learning outcomes you hope they will achieve in this course (e.g., problem solving, developing an authentic writing voice, etc.).
  - In particular, "If you can explain to students the value of writing, and convince them that you are genuinely interested in their ideas, they are less likely to reach for the workaround." (7)
- Have an open discussion with your students about the ethical implications of ChatGPT and the value of authentic
  learning for students' lifelong development as learners. This may include having conversations around digital literacy
  and bias in research and scholarship, as AI writing tools like ChatGPT are limited to the public source material they have
  access to on the internet. Don't feel you have to have all of the answers, as this is a continually evolving issue. (6)

#### ▼ Assignment Design

- Ask students to reference and/or cite class materials, notes, and sources (particularly sources that are normally behind paywalls but available through the UT Libraries subscription databases and journals.) in their written assignments. This instruction is valuable because ChatGPT draws on text models from public websites.
- "Require students to reflect more deeply and critically on course topics. This tip is always a good assessment strategy and ChatGPT currently performs better on more superficial and less detailed responses." (8)
- Use in-class time for students to demonstrate knowledge and understanding in a variety of ways through low-tech, low stakes in-person activities like freewriting and live presentations.
- Craft an assignment where you generate a ChatGPT output based on a prompt and ask your students to critique the response, indicating where it did a good job of
  articulating key points and what nuances it missed. (For 10 other ways to creatively use ChatGPT in course assignments, see "Update your course syllabus for
  ChatGPT"; keep in mind that asking students to engage with ChatGPT may generate privacy concerns, so it may be better practice to provide them with a copy of
  ChatGPT responses that they can use.)
- Focus on critical skills that artificial intelligence struggles with. NPR education correspondent Anya Kamanetz describes three of these areas as:
  - · Give a hug: empathy, collaboration, communication, and leadership skills;
  - Solve a mystery: generating questions and problem finding; and
  - Tell a story: finding what's relevant in a sea of data or applying values, ethics, morals, or aesthetic principles to a situation. (9)
- Carefully scaffold assignments with time and space for students to complete each step along the way, and consider whether the number of time-intensive tasks might require more bandwidth than students have to spend. Students are more likely to utilize a tool like ChatGPT when they are short on time. (6)
- Treat ChatGPT as a tool that some students may want to use to help get started writing. For example, students who have difficulty starting writing assignments
  might be encouraged to generate a paragraph with ChatGPT as a stub that enables them to continue writing. As long as the student ultimately adds significant
  new material and thoroughly edits or ultimately eliminates the output from ChatGPT, they are producing a document that reflects their own work.

#### **▼** Classroom Climate

One way to help encourage students to make better decisions about using tools such as ChatGPT is to design your classroom climate to engender mastery approaches to learning, which involve a focus on deeply understanding the knowledge and skills rather than simply achieving a particular score on an assessment. In a mastery-oriented classroom, students are more likely to engage in strategies that will help them truly learn the material rather than for the goal of performing a task and receiving a grade for their work.

Three simple tips for encouraging mastery approaches in higher education classrooms include:

- offering flexible evaluation design: consider providing opportunities for students to revise and redo specific portions
  of assignments;
- focusing feedback on process and effort: offer feedback oriented toward student effort and their learning processes rather than on high grades and performance relative to others. When possible offer elaborative feedback rather than feedback based simply on correctness.
- 3. **building a sense of belonging:** discuss, emphasize, and model that making errors and mistakes is part of **everyone's** learning processes rather than something that only poor performers or people who "don't get it" do.







### **Center for Teaching and Learning**

Home / chatGPT and AI / Preliminary guidelines

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Student Learning Resources

chatGPT and AI

What is chatGPT?

#### **Preliminary guidelines**

### CTL's Evolving Guidelines for Dealing with chatGPT (last updated Feb 6, 2023)

[Note: this page was summarized as a handout for our chatGPT discussions on February 6th, 8th, and 10th.]

The following evolving guidelines are designed to help you address the challenge of teaching in the age of chatGPT while still emphasizing student learning and allowing for meaningful student assessment. Please treat these as preliminary guidelines as Brandeis develops its official policies.

Faculty members will differ on the extent to which they want to use or restrict the use of chatGPT in their courses. We recognize that every course is different and that every discipline will have unique concerns. Please reach out to the CTL at ctl@brandeis.edu with any specific issues you face or your feedback on these guidelines.

### Addressing AI tools in your syllabus

#### 4. Addressing AI tools in your syllabus

Different faculty will have different expectations about whether and how students can use AI tools, so being transparent about your expectations is essential. If you want to forbid using AI tools, be explicit about this on your syllabus. If you allow these tools, but want them to be acknowledged in the student's work, explain that on your syllabus and in class.

Here is some language you may consider including in your syllabus or using to discuss chatGPT with your students:

- It is important to remember that chatGPT and other AI tools are not a replacement for your own critical thinking
  and original ideas. The ultimate goal of this course and any tool used to submit work is to enhance your own
  learning and understanding, not to undermine it.
- As a college student, it is your responsibility to maintain the highest standards of academic integrity.
  Representing work generated by artificial intelligence as one's own work is considered to be academically
  dishonest. This includes (a) ensuring that all work submitted for grades is your own original work, and (b)
  properly citing any sources that you use.
- Having AI write your paper constitutes plagiarism. If the source of the work is unclear, I may require you to meet with me to explain the ideas and your writing process.
- If you consult with other students on an assignment, report this in the work that you turn in. If in your code you
  use a library or implementation from another source, indicate that as well (minimally by including a URL in a
  comment). Do not generate new content with prompt-based AI tools like ChatGPT or CodePilot without
  permission from instructors unless specifically allowed by the assignment. (Using, for example, Grammarly as a
  language aid is OK.) Instructors reserve the right to request an oral explanation of answers.



#### หลักการและแนวปฏิบัติในการใช้เครื่องมือทางปัญญาประดิษฐ์ ของจุฬาลงกรณ์มหาวิทยาลัย

#### หลักการ

- 1. จุฬาลงกรณ์มหาวิทยาลัยสนับสนุนให้นิสิตและบุคลากรมีความรู้ความเข้าใจและสามารถใช้เครื่องมือทาง ปัญญาประดิษฐ์ได้อย่างเหมาะสม
- 2. จุฬาลงกรณ์มหาวิทยาลัยสนับสนุนให้มีการปรับกระบวนการเรียนการสอนและการประเมินผลตลอดจน การทำงานให้เหมาะสมกับการใช้เครื่องมือทางปัญญาประดิษฐ์อย่างสร้างสรรค์และถูกหลักจริยธรรม
- 3. จุฬาลงกรณ์มหาวิทยาลัยให้ความสำคัญและเข้มงวดกับเรื่องจริยธรรมทางวิชาการ

#### แนวปฏิบัติ

- 1. การเรียนการสอนและการประเมินผล
- ผู้สอนควรเข้าใจถึงความสามารถและข้อจำกัดของเครื่องมือทางปัญญาประดิษฐ์ที่เลือกใช้ และออกแบบ กระบวนการเรียนการสอนและการประเมินผลที่เหมาะสมกับเครื่องมือนั้น
- ผู้สอนควรระบุในประมวลรายวิชาให้ชัดเจนถึงขอบเขตและแนวทางการใช้เครื่องมือทางปัญญาประดิษฐ์ เช่น ChatGPT, Google Bard ในรายวิชานั้น พร้อมทั้งอธิบายเหตุผลให้ผู้เรียนทราบ
- หากรายวิชาใดอนุญาตให้นิสิตใช้เครื่องมือทางปัญญาประดิษฐ์ ผู้สอนควรปรับวิธีการวัดประเมินผลให้ เหมาะสม ไม่ควรประเมินผลโดยตรงจากงานที่นิสิตสามารถใช้เครื่องมือทางปัญญาประดิษฐ์ตอบได้

#### 2. การใช้งานเครื่องมือทางปัญญาประดิษฐ์

- ปัญญาประดิษฐ์เป็นเพียงเครื่องมือ ผู้ใช้เป็นผู้รับผิดชอบความถูกต้องของข้อมูลและผลงานที่ได้
- หากมีการใช้เครื่องมือทางปัญญาประดิษฐ์ในงานใด ให้อ้างอิงและระบุให้ชัดเจนถึงขอบเขตการใช้ในงาน นั้น การปกปิดไม่แจ้งข้อมูลการใช้เครื่องมือทางปัญญาประดิษฐ์ถือเป็นการละเมิดหลักจริยธรรมซึ่งอาจ ถูกลงโทษตามระเบียบหรือข้อบังคับที่เกี่ยวข้องได้

#### 3. การปกปิดความลับและข้อมูลส่วนบุคคล

- ห้ามนำข้อมูลใด ๆ ที่เป็นความลับของหน่วยงานหรือเป็นข้อมูลส่วนบุคคลโหลดเข้าไปในระบบงาน ปัญญาประดิษฐ์โดยไม่ได้รับความยินยอมจากผู้เกี่ยวข้อง

> สำนักบริหารวิชาการ จุฬาลงกรณ์มหาวิทยาลัย 17 กรกฎาคม 2566

Chula The Impact # 19 สุดยอดความรู้จากจุฬาฯ เพื่อสังคม



จุฬาฯ มุ่งหน้าด้วย GENERATIVE AI

จุดยืนจุฬาฯ นำการศึกษารุดหน้าด้วย GENERATIVE AI

🖮 17 ทรกฎาคม 2566 🕛 14.00 – 15.30 น. 🛡 PLEARN Space ชั้น 1 อาคารเปรมบูรฉัตร จุฬาฯ







รศ.ดร.โปรดปราน บณยพททณะ รศ.ดร.วิโรจน์ อรณมานะทล







ช่องทางการรับชม



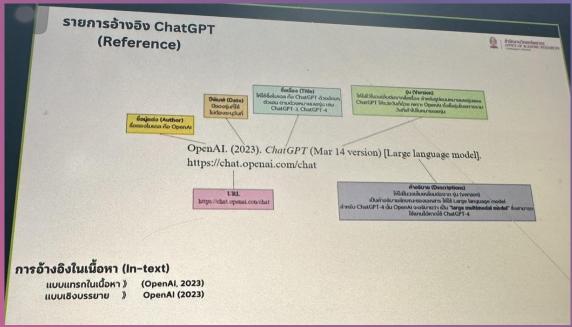
#### CHULA COMMUNICATION CENTER (CCC)















ChatGPT

อาจารย์ ดร.เอกพล ช่วงสุวนิช ภาควิชาวิศวกรรมคอมพิวเตอร์ คณะวิศวกรรมศาสตร์

มีข้อจำกัดอะโรบ้างนะ

จฬาลงกรณ์มหาวิทยาลัย

201A ชั้น 2 อาคารวิศวฯ 100 ปี

คณะวิศวกรรมศาสตร์ จฬาฯ

ผศ. ดร.ณรงค์เดช ถีรดิพรามมก

18 พฤษภาคม 2566

CHULA ENGINEERING



ในยุค

คิดอะไรไม่ออก บอก ChatGPT 🤧



31 พฤษภาคม 66 เวลา 12:00-13:00 น

ศ. ดร.จินตวีร์ คล้ายสังข์

ห้องประชุม 201 ชั้น 2 อาคารเจริญวิศวกรรม (ตึก 4) คณะวิศวกรรมศาสตร์ จุฬาฯ หรือ เข้าร่วมฟังการบรรยายในรูปแบบออนไลน์

ลงทะเบียนได้ที่ <u>bit.ly/chulalunchtalk66-03</u> หรือสแกน QR ออนไซต์จำกัดเพียง 120 ที่นึ่ง พร้อม lunch box ลงทะเบียนก่อนได้สิทธิ์ก่อน!!!



อนไซต์จำกัดเพียง 120 ที่นั่ง

กะเบียนก่อนได้สิทธิ์ก่อน!!



ออนใชต์จำกัดเพียง 120 ที่นั่ง พร้อม lunch box ลงทะเบียนก่อนใด้สิทธิ์ก่อน!!!







#### ประมวลรายวิชา

รหัสรายวิชา 2765341

หน่วยกิต 3.0 (2.0-2.0-5.0)

ชื่อรายวิชา ภาษาไทย การออกแบบเว็บแบบเรซสปอนต์ชีฟเพื่อการเรียนรู้

ภาษาอังกฤษ Responsive Web Design for Learning

หน่วยงานที่รับผิดชอบ คณะ/สถาบัน คณะครุศาสตร์ รายวิชา

**ภาควิชา** ภาควิชาเทคโนโลยีและสื่อสารการศึกษา

สาขาวิชา Educational Technology

หมายเหตุเกี่ยวกับการ ประเมินผลการเรียน ข้อกำหนดเกี่ยวกับปัญญาประดิษฐ์แบบรู้สร้าง (Generative AI) เป้าหมายสูงสุดของวิชานี้ คือการเปิดโอกาสให้นี้สิตได้มีประสบการณ์ผ่านการใช้ปัญญาประดิษฐ์แบบรู้สร้าง (Generative AI) เช่น ChatGPT, Google Bard, MS Bing เป็นต้น รวมถึง AI Tools อื่น ๆ ตามแนวทางที่จุฬาลงกรณ์มหาวิทยาลัยกำหนด อย่างไรก็ตามการใช้งานดังกล่าวจะต้องไม่ ส่งผลในการบันทอนความคิดเชิงวิพากษ์ การคิดสร้างสรรค์ หรือทักษะสำคัญที่จำเป็นสำหรับ นิสิตในอนาคต รวมถึงเครื่องมือ AI ในปัจจุบันยังไม่สมบูรณ์และข้อมูลยังไม่ถูกต้อง 100% จึง มีข้อกำหนดดังนี้ 1. ในรายวิชานี้นิสิตจะมีโอกาสได้ใช้เครื่องมือ AI แต่อาจารย์ผู้สอนจะระบุ อย่างชัดเจนว่าเมื่อใดและในความสามารถใดที่อนุญาตให้นิสิตใช้เครื่องมือเหล่านี้ 2. งานทุก ชิ้นที่ส่งภายในรายวิชาจะต้องเป็นผลงานที่นิสิตทำเองทั้งหมด จะมีการใช้ AI ได้เมื่อได้รับ อนุญาตจากอาจารย์ผู้สอนเท่านั้น 3. เมื่อมีการอนุญาตให้ใช้ AI ได้เมื่อใดและกับงานใดก็ตาม นิสิตจะต้องระบุว่าส่วนไหนได้รับการช่วยเหลือจาก AI และแนบ Prompt และผลลัพธ์มา พร้อมผลงานทุกครั้ง และผู้สอนอาจมีการซักถามถึงกระบวนการในการใช้งาน AI ตลอดจน กระบวนการได้มาซึ่งคำตอบ การเรียนรายงาน หรือการทำชิ้นงานที่ได้ส่งมา 4. การใช้ AI เขียนรายงานหรือทำงานโดยไม่ได้รับอนุญาตถือว่าเป็นการคัดลอกผลงานและไม่เป็นไปตาม ข้อกำหนดของรายวิชานี้

ประมวล

รายวิชา

## Students' Assignment using Google Bard



## Students' Assignment using Google Bard

### Google Site Contents Structure for High School Geography

https://g.co/bard/share/cf8a6ee384cd



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เผยแพร่เมื่อ 16 ตุลาคม 2566 เวลา 03:58



design the google site contents structure of high school geography subject



Here is a possible Google Sites contents structure for a high school geography subject:

#### Homepage

- Welcome message
- · Overview of the geography course
- . Links to important resources, such as the syllabus, assignments, and grading rubric
- · News and announcements

Course Content



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## Students' Assignment using Google Bard

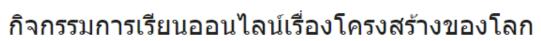
ดูข้อมูลอัปเดตล่าสุดของ<u>ฮับความช่วยเหลือด้านความเป็นส่วนตัว</u>





**4** 





https://g.co/bard/share/529e18902b5c





เผยแพร่เมื่อ 16 ตุลาคม 2566 เวลา 05:59



กิจกรรมการเรียนออนไลน์เรื่องโครงสร้างของโลก



กิจกรรมการเรียนออนไลน์เรื่องโครงสร้างของโลกสามารถออกแบบได้หลากหลายรูปแบบ ขึ้นอยู่กับวัตถุประสงค์การเรียนรู้และระดับชั้นของนักเรียน ตัวอย่างกิจกรรมการ เรียนออนไลน์เรื่องโครงสร้างของโลกมีดังนี้

กิจกรรม 1: การสร้างแบบจำลองโครงสร้างโลก

วัตถุประสงค์การเรียนรู้: นักเรียนสามารถอธิบายโครงสร้างภายในโลกตามองค์ประกอบทางเคมีใต้อย่างถูกต้อง

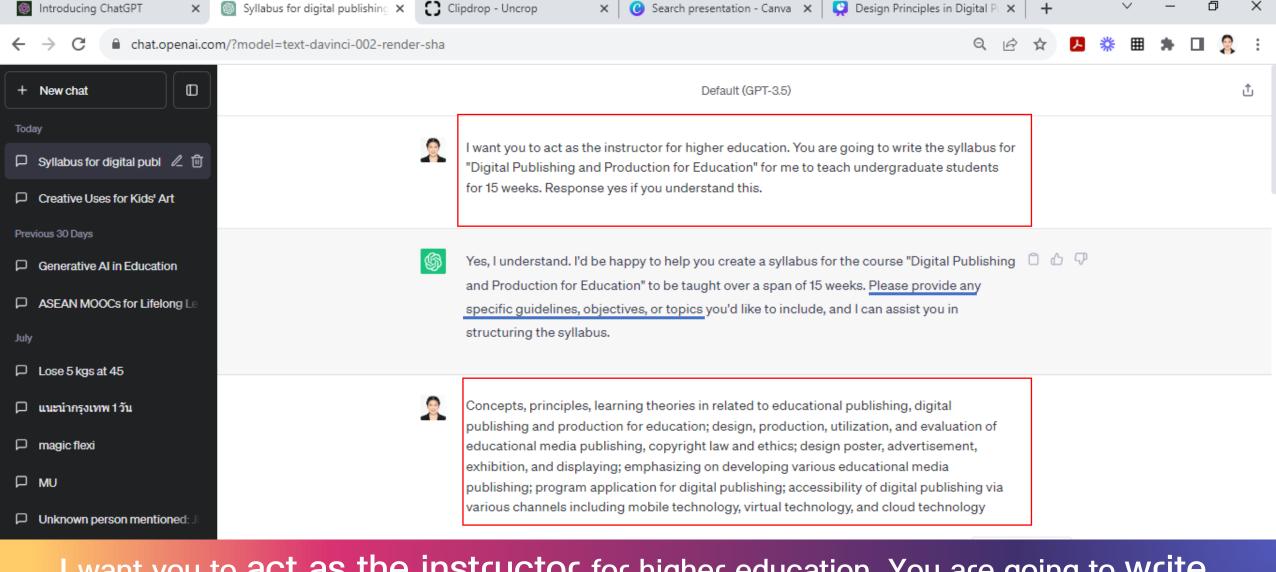
วัสดุและอุปกรณ์:

- ดินเหนียวหรือวัสดุอื่นๆ ที่สามารถนำมาปั้นได้
- สีระบาย
- กระดาษแข็งหรือแผ่นกระดาน

วิธีการ:

แชทต่อ

# ทักษะ & การเตรียม ความพร้อมที่จำเป็น



I want you to <u>act as the instructor</u> for higher education. You are going to <u>write</u> the <u>syllabus for "Digital Publishing and Production for Education"</u> for me to teach <u>undergraduate students for 15 weeks</u>. response yes if you understand this.

#### Week 1-2: Introduction to Digital Publishing and Education

- · Introduction to the course, syllabus overview, and expectations.
- . Understanding the role of digital media in education.
- \* Exploring learning theories and their implications for digital publishing.

#### Week 3-4: Design Principles for Educational Materials

- · Principles of effective design for educational media.
- Visual and instructional design concepts.
- . Creating engaging layouts and visual hierarchy.

#### Week 5-6: Copyright Law and Ethical Considerations

- Copyright laws and fair use in educational publishing.
- . Ethical considerations in content creation and sharing.
- · Creative Commons licenses and open educational resources.

#### Week 7-8: Accessibility in Digital Publishing

Designing for accessibility and inclusivity.

G Regenerate

Send a message

Free Research Preview. ChatGPT may produce inaccurate information about people, places, or facts. ChatGPT August 3 Version

#### Week 15: Final Projects and Reflection

- . Presentation and exhibition of final projects.
- \* Reflecting on the learning journey and growth throughout the course.
- . Discussion on the future of digital publishing in education.

#### Assessment and Grading:

- Class participation and engagement: 10%
- Assignments and projects: 50%
- Midterm project: 20%
- Final project and presentation: 20%

#### Required Readings:

. [List of relevant textbooks, articles, and online resources]

Please adjust the schedule, readings, and assignments based on your preferences and the specific needs of your students. Good luck with teaching the course!





# Please Create an analytical rubric for assessing assignments and projects for me



then, please Create an analytical rubric for assessing final project and presentation for me



Certainly, here's an example of an analytical rubric you can use to assess the final project and  $\Box \Box \Box \Box \Box$  presentation for the "Digital Publishing and Production for Education" course. This rubric is designed to evaluate various aspects of the project and presentation, providing clear criteria for assessment.

#### Final Project and Presentation Rubric

Criterion	Excellent (4)	Good (3)	Satisfactory (2)	Needs Improvement (1)	Unsatisfa (0)
Content Knowledge	Demonstrates deep understanding of concepts, principles, and theories related to digital publishing and education.	Shows solid understanding of key concepts and principles.	Displays basic understanding of some concepts and principles.	Demonstrates limited understanding of concepts and principles.	Shows a la of understar of essenti concepts.
Design and	Exceptional	Displays	Incorporates	Presents a	Designis

Send a message	>

Design and Creativity	Exceptional creativity and innovative design choices that effectively engage the audience.	Displays creative design choices that engage the audience.	Incorporates some creative elements into the design.	Presents a design that lacks creativity and originality.	Design is unappeali and fails to engage the audience.
Accessibility and Inclusivity	Demonstrates a thorough consideration of accessibility and inclusivity, ensuring all users can engage with the content.	Addresses accessibility to a satisfactory level.	Includes basic accessibility considerations.	Lacks proper attention to accessibility and inclusivity.	Ignores accessibil requireme entirely.
Technical Proficiency	Expertly utilizes a wide range of tools and technologies, showcasing advanced technical skills.	Demonstrates proficient use of tools and technologies.	Navigates tools and technologies with some difficulty.	Struggles to effectively use required tools and technologies.	Fails to us tools and technolog correctly.
Presentation	Delivers a	Presents	Presents with	Presents	F G Regenerate
Skills	polished and	content	adequate	content	incoheren

# Please Create an analytical rubric for assessing assignments and projects for me

Analysis	depth analysis of the project's strengths, weaknesses, and potential improvements.	analysis of project's strengths and weaknesses.	limited analysis of project's strengths and weaknesses.	meaningful analysis of project's strengths and weaknesses.	analyze th project effectively
Overall Quality	Exceptional work that exceeds expectations in all aspects.	Good work that meets expectations in most aspects.	Satisfactory work that meets minimum requirements.	Work that falls below expectations in multiple aspects.	Poor work fails to me the requir standards

Total Possible Points: 24

#### Grading Scale:

- 21-24 points: A (Excellent)
- 17-20 points: B (Good)
- \* 13-16 points: C (Satisfactory)
- \* 9-12 points: D (Needs Improvement)
- \* 0-8 points: F (Unsatisfactory)

Please adapt this rubric to fit the specific criteria you have set for the final project and presentation in your course. This rubric will provide students with a clear understanding of the expectations and help you evaluate their work consistently and fairly.

# Then, help me create a list of active learning activities for each topic.



Then, help me create a list of active learning activities for each topic.



Absolutely, incorporating active learning activities can greatly enhance student engagement  $\Box \Box \Box \Box \Box$  and understanding. Here's a list of active learning activities for each of the main topics in your "Digital Publishing and Production for Education" course:

#### Week 1-2: Introduction to Digital Publishing and Education

- Think-Pair-Share: Have students individually reflect on the role of digital media in education, then pair up to discuss their thoughts, and finally share their insights with the whole class.
- Jigsaw Activity: Divide the class into small groups and assign each group a learning theory.
   Have them research and become experts on that theory, then regroup to share their findings with classmates.

#### Week 3-4: Design Principles for Educational Materials

- Design Critique: Show examples of educational materials and have students analyze them based on design principles. Discuss as a class what works well and what could be improved.
- Design Challenge: Provide students with a scenario (e.g., creating an infographic on a specific topic). Have them work individually or in pairs to design the material, explaining their design choices afterward.

#### Week 5-6: Copyright Law and Ethical Considerations

- Copyright Debate: Divide the class into two groups for a debate on a copyright-related topic (e.g., the balance between fair use and copyright protection in education).
- Case Study Analysis: Present real-world cases involving copyright issues in educational publishing. Have students analyze each case and discuss the ethical implications.

#### Week 7-8: Accessibility in Digital Publishing

- Accessibility Audit: Assign students a digital resource and have them conduct an
  accessibility audit using online tools. They can present their findings and suggest
  improvements.
- Inclusive Design Workshop: Organize a workshop where students collaborate to redesign an existing educational material to make it more inclusive and accessible.

#### Week 9-10: Tools and Technologies for Digital Publishing

- Tool Exploration Stations: Set up stations with different software tools for digital publishing.
  Have students rotate through stations, experimenting with tools and sharing their
  experiences.
- Design Challenge with Tools: Provide students with a design challenge (e.g., create a digital poster) and let them choose which tools to use. They can compare results and discuss tool preferences.

## Then, help me generate a quiz for each topic in every week.



Then, help me generate a quiz for each topic in every week.



Of course! Here's a set of quiz questions for each topic in your "Digital Publishing and Production for Education" course. These questions are designed to help assess students' understanding of each week's material. Feel free to use, modify, or expand upon them as needed.





#### Week 1-2: Introduction to Digital Publishing and Education

- 1. What are some key advantages of using digital media in education?
- Briefly explain two learning theories that are relevant to digital publishing for education.
- 3. How can understanding learning theories enhance your approach to creating educational materials?

#### Week 3-4: Design Principles for Educational Materials

- List three design principles that are crucial for creating effective educational materials.
- 2. How can visual hierarchy contribute to the usability of educational media?
- 3. Describe an example where the use of color can enhance the learning experience in digital publishing.

# Then, suggest me learning resources for this class in APA format.



Then, suggest me learning resources for this class in APA format.



Certainly, here's a list of learning resources for your "Digital Publishing and Production for Education" class in APA format:

#### Textbooks:

- Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. Educational Researcher, 18(1), 32-42.
- 2. Mayer, R. E. (2001). Multimedia learning. Cambridge University Press.

#### Articles:

- Jonassen, D. H., & Land, S. M. (2012). Theoretical foundations of learning environments. Routledge.
- Puentedura, R. R. (2013). SAMR: Moving from enhancement to transformation. [Blog post].
   Retrieved from http://www.hippasus.com/rrpweblog/archives/000093.html

#### Online Resources:

- Creative Commons. (n.d.). About The Licenses. https://creativecommons.org/licenses/
- Web Accessibility Initiative (WAI). (n.d.). Introduction to Web Accessibility. https://www.w3.org/WAI/fundamentals/accessibility-intro/

#### Tools and Software:

- 1. Adobe Creative Cloud. (n.d.). https://www.adobe.com/creativecloud.html
- 2. Canva. (n.d.). https://www.canva.com/

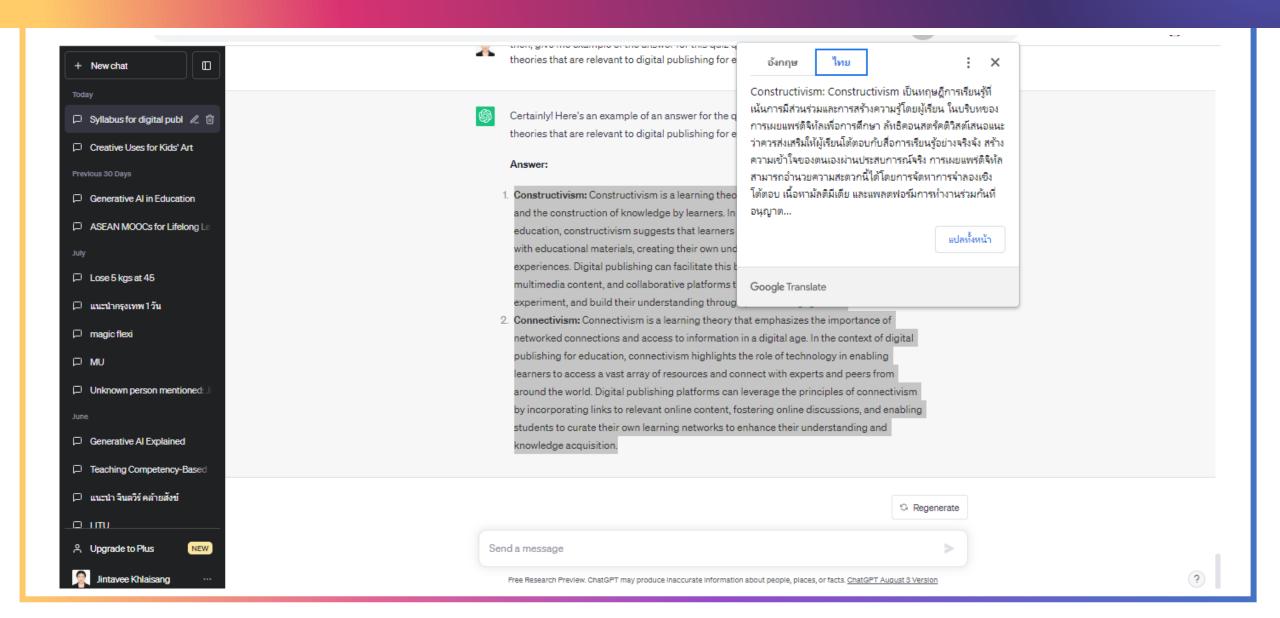
#### Video Resources:

- 1. TED-Ed. (n.d.). Lessons Worth Sharing. https://ed.ted.com/
- 2. Lynda.com (now LinkedIn Learning). (n.d.). https://www.linkedin.com/learning

Remember that APA format includes the author's last name followed by initials, the publication year in parentheses, the title of the work in sentence case and italics, the source (such as journal title or URL), and additional publication details if applicable. Make sure to check the specific formatting guidelines and details for each type of resource, as formatting can vary based on whether the source is a book, article, website, etc.

Regenerate

## Chat GPT, then Google Translate...



## How to write (more effective) prompts...

### Define clear ...

### ROLE

Marketer

Inventor

Theropist

Journalist

Advertiser

Copywriter

Ghostwriter

Accountant

Enterpreneur

Mindset Coach

Project Manager

Prompt Engineer

Website Designer

Best Selling Author

Chief Financial Officer

Act as a ..(ROLE)..

### TASK

Essay

Recipe

Article

Headline

Blog Post

Analysis

Summary

Sales Copy

Video Script

SEO Keywords

**Book Outline** 

Email Sequence

Social Media Post

**Product Description** 

Ad Copy

Create a ..(TASK)...

### **FORMAT**

A list

PDF

XML

HTMI

Code

Graphs

A Table

Rich Text

Summary

Markdown

Word Cloud

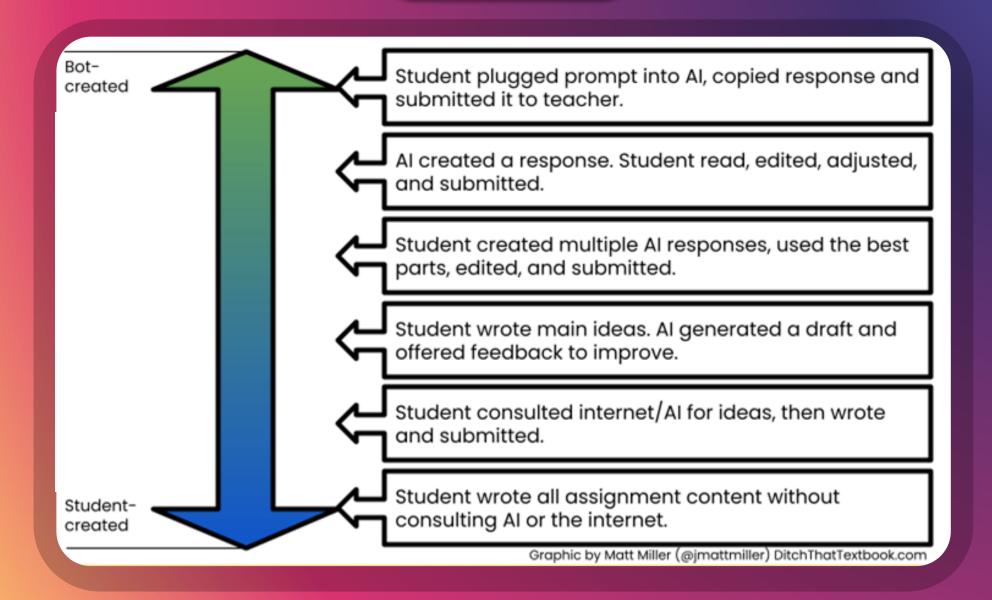
Spreodsheet

Gantt Chart

Plain Text fle

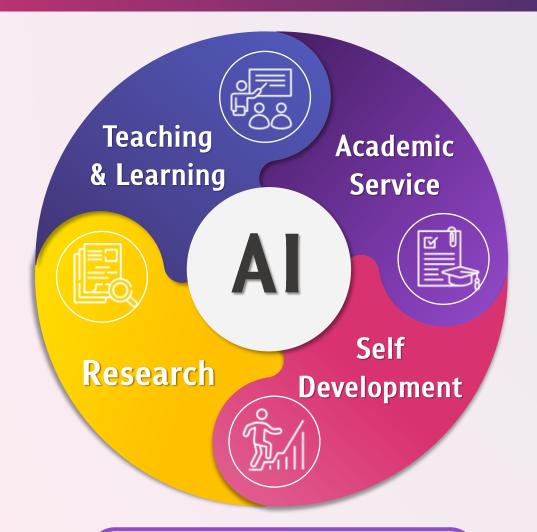
show as (FORMAT)

## Solution..



# การใช้งานปัญญาประดิษฐ์ (AI) อย่างสร้างสรรค์

Guide
on the side
Ideas
Solutions



### Co-designer

Text Image Sound

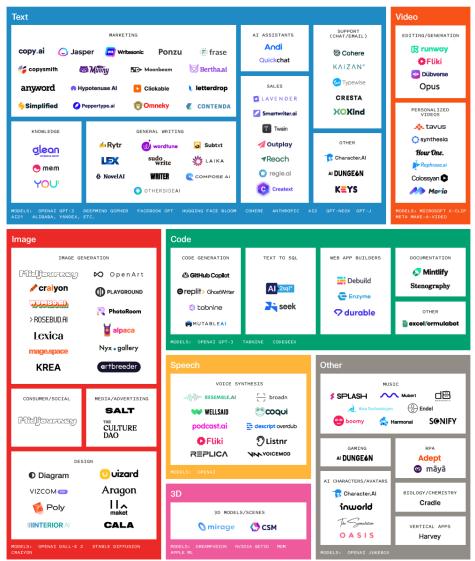
#### Personal tutor

Self initiative
Learning on their own pace
Personalized learning environment

# The Generative Al Application Landscape •



A work in progress



### **Application Landscape**

- Text
- Image
- Video
- Code
- Speech
- 3D
- Other

# Bing image creator > Bing.com/Create





Image Creator ขับเคลื่อนโดย DALL·E 3

PREVIEW

### สร้าง ภาพ จาก ถ้อยคำกับ Al

อธิบายสิ่งที่คณต้องการสร้าง



#### Image Creator จะสร้างรูปภาพ AI ตามข้อความของคุณ <u>เรียนรู้เพิ่มเดิม</u>

คุณจะได้รับอีเมลเกี่ยวกับ Microsoft Rewards ซึ่งรวมถึงข้อเสนอเกี่ยวกับผลิตภัณฑ์ของ Microsoft และคู่ค้า นอกจากนี้ คุณยังจะใต้รับการแจ้งเตือนเกี่ยวกับ Bing Image Creator อีกด้วย เมื่อดำเนินการต่อ ถือว่าคุณยอมรับข้อกำหนดของ Rewards และข้อกำหนดของ Image Creator ดำแล่วงนี้

ความเป็นส่วนตัว | ข้อกำหนด Rewards | ข้อกำหนดของ Image Creator

<sup>\_」</sup> ค้นหา แชท และสร้างทั้งหมดได้ในที่เดียว <u>ลองใช้ Image Creator ใน Bing ใหม่</u>

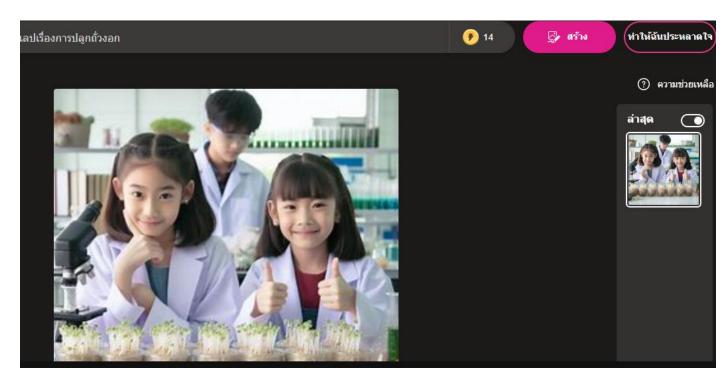








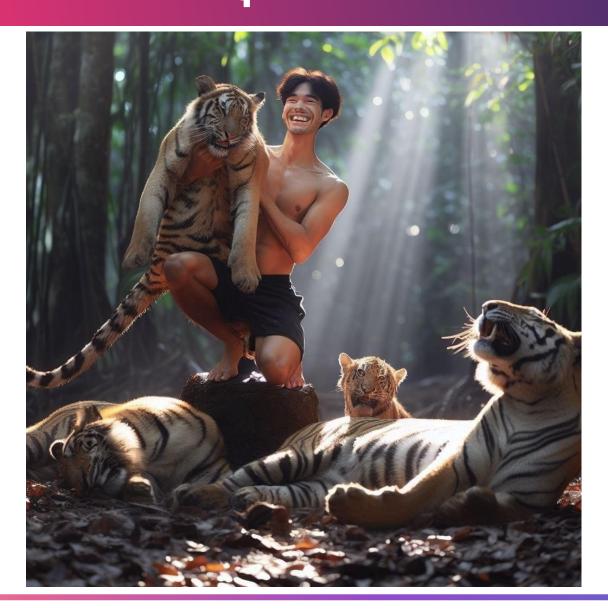
# Bing image creator > Bing.com/Create





เด็กไทยทดลองวิทยาศาสตร์ในห้องแลปเรื่องการปลูกถั่วงอก (anime style)

# ขอบคุณภาพจากกลุ่ม FB "AI CREATIVES



### Possible uses of ChatGPT in the research process



### Writing up

- Improve writing quality
- Reformat citations and references
- Translate writing



### Data analysis

- Code data
- Suggest themes or topics for analysis



### Research design

- Generate ideas for research questions or projects
- Suggest data sources



### Data collection

- Search archives and datasets
- Translate sources into other languages

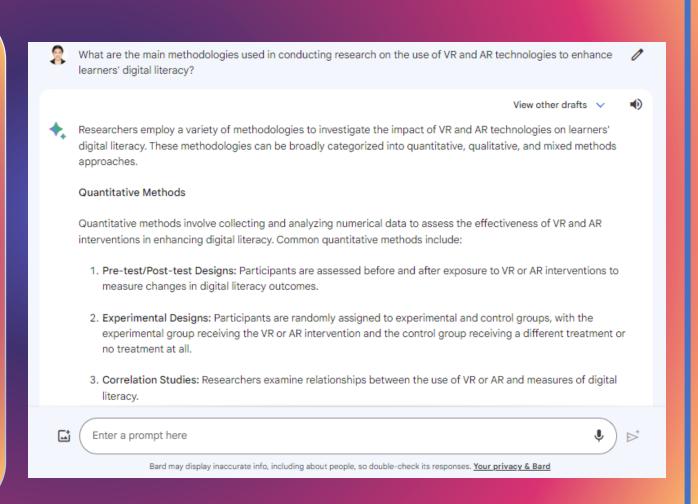
Image created by UNESCO IESALC

# How to Use Google Bard to assist your with Data collection & Data analysis?

"What are the main methodologies used in conducting research on [your research topic]?"

"Can you provide a critical analysis of the existing literature on [your research question]?"

"Are there any gaps or areas of controversy in the literature on [your research topic] that need further exploration?"

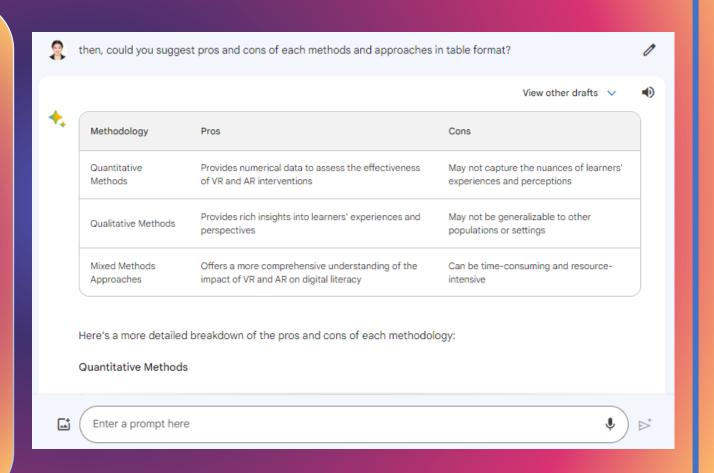


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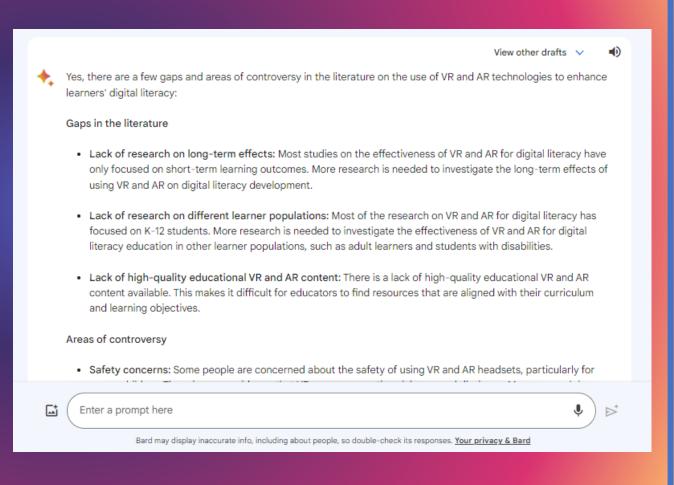


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"Are there any gaps or areas of controversy in the literature on [your research topic] that need further exploration?"



# How to Use Google Bard to assist you while writing a Literature Review?

"What are the key findings and conclusions from the most recent studies on [your research topic]?"

"Can you suggest some reputable journals or publications explore for relevant literature in [your research field]?"

"What are the different perspectives or schools of thought in the literature on [your research topic]?"

"Can you provide a summary of the historical background and evolution of research on [your research topic]?"



VR and AR in education.

VR and AR can be used to create engaging and immersive learning experiences. VR and AR can transport
learners to virtual worlds where they can interact with objects and environments in a realistic way. This can help
learners to become more engaged and motivated in their learning. For example, a recent study by GirardieOuane and Boire (2023) found that AR improved students' spatial reasoning skills, which is an important
component of digital literacy. The study used an AR app that allowed students to interact with 3D models of
geometric shapes.



# How to Use Google Bard to assist you while writing a Literature Review?

"What are the key findings and conclusions from the most recent studies on [your research topic]?"

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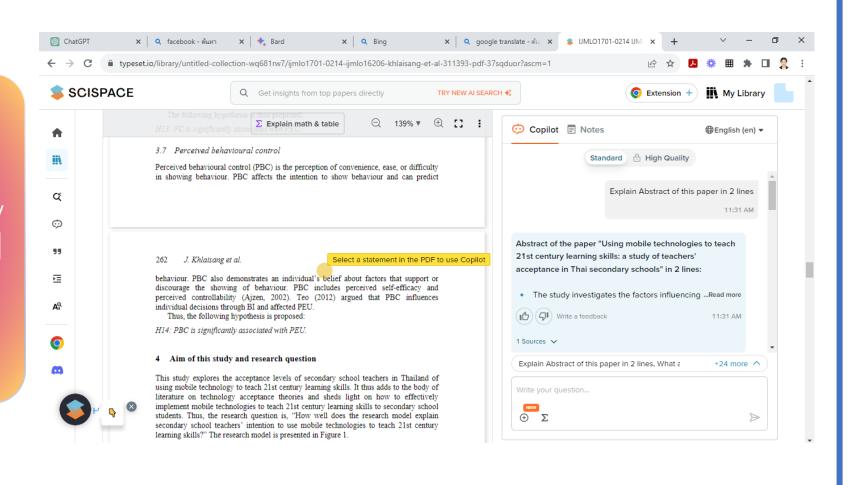
"Can you provide a summary of the historical background and evolution of research on [your research topic]?"



# How to Use other tools to assist you while writing a Literature Review?

- Provide a summary of [research topic]
- Explain the methodology used in [research study]
- Outline the key findings of [research study]

www.learnprompt.org

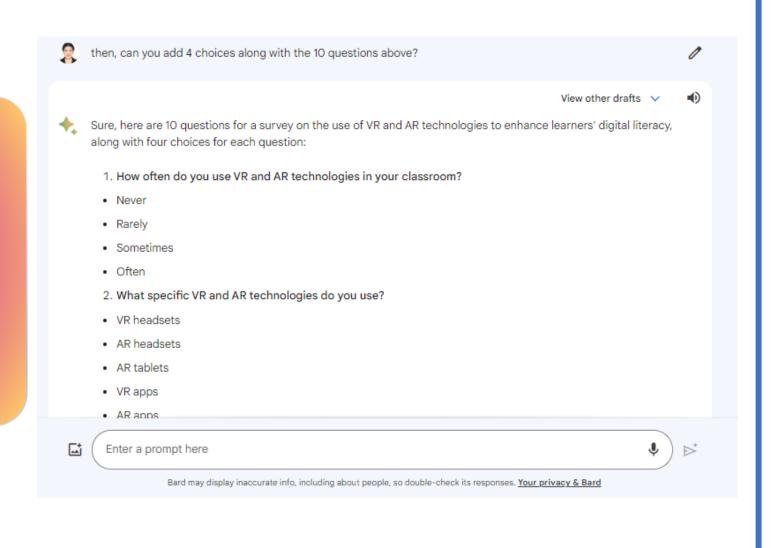


# How to Use generative AI to Conducting surveys and analyzing data With Prompts?

then, can you add 4 choices along with the 10 questions above?

- Provide a list of [number] questions for a survey on [topic]
- Summarize the results of [survey name]
- Analyze the data collected from [survey name]

www.learnprompt.org



ปัญหาด้านจริยธรรม การคัดลอก ผลงาน การเผยแพร่ข้อมูลต่าง ๆ

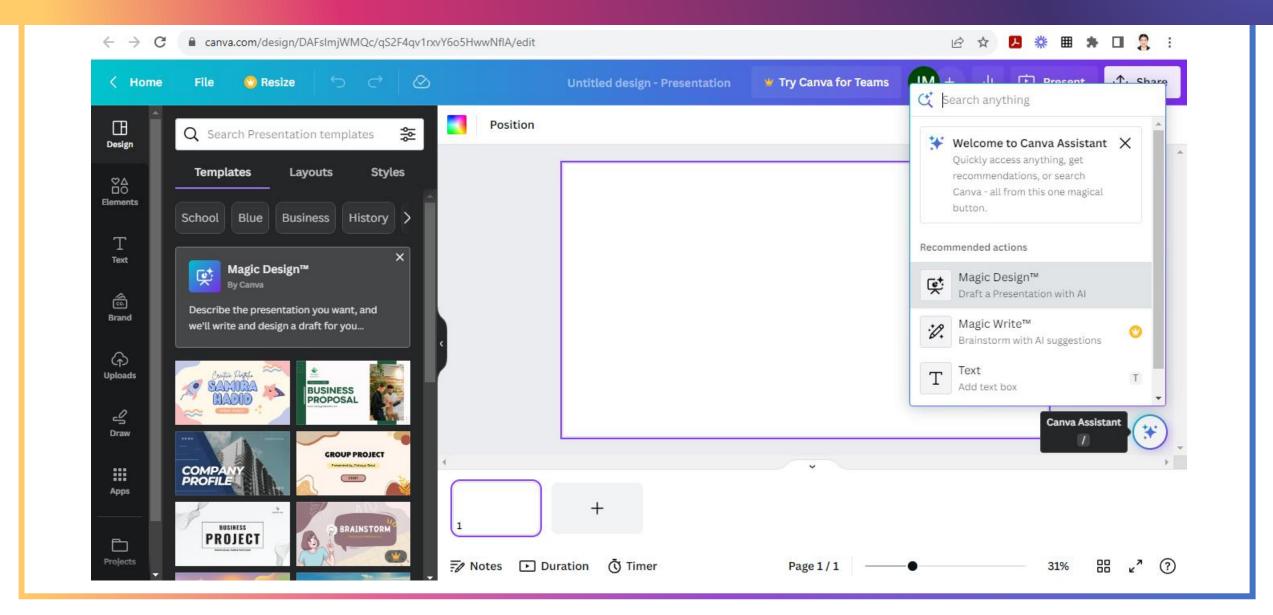
### **Ethical Considerations and Challenges**

#### Al hallucination

is when a large language model (LLM)
generates false information. LLMs are Al
models that power chatbots, such as
ChatGPT and Google Bard.
Hallucinations can be deviations from
external facts,
contextual logic or both.



## https://clipdrop.co

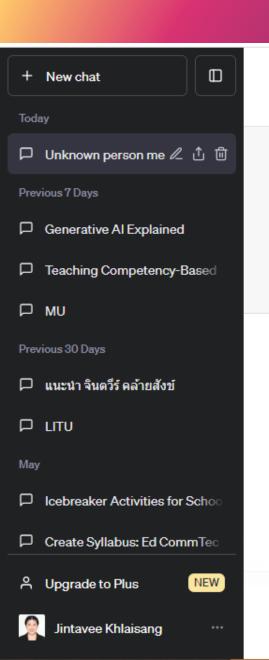






https://clipdrop.co

#### Result from Chat GPT





who is Jintavee Khlaisang



I'm sorry, but as of my knowledge cutoff in September 2021, I couldn't find any information about an individual named Jintavee Khlaisang. It's possible that this person may not be widely known or recognized at that time, or they might have gained prominence after my knowledge cutoff. If Jintavee Khlaisang is a relatively recent public figure or someone from a specific field or context, please provide more details, and I'll do my best to assist you further.



Sure, let's me provide you more details. Here is her academic title, position, and affiliation

- Professor, Department of Educational Technology and Communications
- Deputy head of Educational Invention and Innovation research unit (EDII) Faculty of Education, Chulalongkorn University, Thailand
- Deputy Director, Thailand Cyber University Project

  Ministry of Higher Education, Scier Regenerate response ion, Thailand



0 0 7

Send a message

#### Result from Google Bard

+ New chat

Recent

who is Jintavee Khlaisang







Jintavee Khlaisang is an Associate Professor at the Department of Educational Technology and Communications, Faculty of Education, Chulalongkorn University, Bangkok, Thailand. She is also the deputy director of Thailand Cyber University Project, Ministry of Higher Education, Science, Research and Innovation, Thailand. Her research interests include ubiquitous learning, flipped/blended learning, virtual learning environments, smart learning environments, and MOOCs.

She has published over 50 papers in international journals and conferences. She is also the author of the book "Ubiquitous Technology Enhanced Learning: The Outcome-Based Learning Design for 21st Century Learners" (2018).

Here are some of her notable achievements:

- · She was awarded the Outstanding Young Researcher Award from the National Research Council of Thailand in 2017.
- She was the recipient of the Fulbright Scholarship to study at Texas A&M University-Commerce in 2011.
- . She is a member of the editorial board of the Journal of Educational Technology and Society.

Jintavee Khlaisang is a highly accomplished scholar and researcher in the field of educational technology. Her work has made significant contributions to the understanding of how technology can be used to enhance learning. She is a role model for young researchers and educators in Thailand and around the world.

I hope this answers your question. Let me know if you have any other questions.



Enter a prompt here





# ขอคำแนะนำที่ท่องเที่ยวในกรุงเทพ 1 วัน



ขอคำแนะนำที่ท่องเที่ยวในกรุงเทพ 1 วัน



หากคุณมีเวลาท่องเที่ยวในกรุงเทพฯเพียง 1 วัน ฉันขอแนะนำสถานที่ท่องเที่ยวหลายแห่งที่คุณอาจ สนใจดังนี้:

- วัดพระแก้ว: เริ่มต้นวันท่องเที่ยวของคุณด้วยการเยือนวัดพระแก้ว เป็นวัดที่มีความสำคัญทาง ประวัติศาสตร์และศิลปวัตถุ เดินชมวัดและชีมความงามของพระพทธมาลัยแก้วในภายในวัด
- 2. พระบรมมหาราชวัง: อยู่ใกล้กับวัดพระแก้ว เป็นที่ตั้งของพระบรมมหาราชวังที่เป็นที่พักอาศัยของพระ มหากษัตริย์แห่งประเทศไทย คุณสามารถเยือนพิพิธภัณฑ์แห่งนี้และเรียนรู้เรื่องราวประวัติศาสตร์ของ ประเทศไทยได้
- วัดอรุณราชวราราม: เป็นวัดที่มีสถาปัตยกรรมและสีสันที่น่าทึ่ง ภายในวัดมีพระบรมศพของพระบาท สมเด็จพระพุทธยอดฟ้าจุฬาโลกมหาราช
- ตลาดนัดจตุจักร: ถ้าคุณสนใจในการซ้อปปั้งและลิ้มรสอาหารไทย คุณควรมาเยือนตลาดนัดจตุจักร ที่นี่ คุณจะพบสินค้าที่หลากหลายและอาหารถนัดที่อร่อยมาก
- 5. สวนลุมพินี: เป็นสวนสาธารณะที่ใหญ่ที่สุดในกรุงเทพฯ มีพื้นที่กว่า 500 ไร่ คุณสามารถสัมผัสกับ ธรรมชาติและผจญภัยในสวนได้
- 6. ย่านเยาวราช: เป็นย่านที่มีประวัติศาสตร์มายาวนานของกรุงเทพฯ ที่นี่คุณสามารถเยี่ยมชมวัดชนบทที่ สวยงาม ชีมอาหารไทยแท้ๆ และเข้าชมอาคารสถาปัตยกรรมโบราณได้
- 7. ห้างสรรพสินค้าและถนนชอปปิ้ง: ถ้าคุณชื้นชอบการช้อปปิ้งและชื้อของฝาก คุณสามารถเดินเล่นในห้าง สรรพสินค้าชั้นนำที่มีทั้งสินค้าแบรนด์เนมและผลิตภัณฑ์ท้องถิ่น นอกจากนี้ยังมีถนนชอปปิ้งเช่น และพระรามที่ 1 ที่นี่คณจะพบสินค้าที่หลากหลายและทั้งสินค้าแบรนด์ชั้นนำและผลิตภัณฑ์ท้อง

Send a message

Free Research Preview. ChatGPT may produce inaccurate information about people, places, or facts. ChatGPT August 3 Vers



ขอคำแนะนำที่ท่องเที่ยวในนนทบุรี 1 วัน



หากคุณมีเวลาท่องเที่ยวในนนทบุรีเพียงวันเดียว นี่คือคำแนะนำสถานที่ท่องเที่ยวที่น่าสนใจที่คุณอาจ สนใจ:

- สวนสยามนนท์: เป็นสวนสาธารณะที่สวยงามและกว้างขวาง มีพื้นที่เหมาะสำหรับการพักผ่อนและ พิธีกรรมสำหรับชาวบางกอกที่อยู่ใกล้เคียง คุณสามารถเดินเล่นในสวนสยามนนท์และเพลิดเพลินกับ การชมวิวและสวนดอกไม้ที่สวยงาม
- 2. ตลาดนัดเทศบาลนนทบุรี: เป็นตลาดนัดที่คุณสามารถสั่งชื้ออาหารสดและของที่ระลึกต่างๆ มีอาหาร ตามสั่งและของกระจายให้เลือกมากมาย นอกจากนี้ยังมีร้านค้าที่ขายเสื้อผ้า แฟชั่น และสินค้าท้องถิ่น อื่นๆ
- สาลากลางจังหวัดนนทบุรี: อยู่ใจกลางเมืองนนทบุรี เป็นอาคารที่มีความสำคัญทางประวัติศาสตร์และ วัฒนธรรมของจังหวัดนนทบุรี คุณสามารถเยี่ยมชมสถาปัตยกรรมที่สวยงามของศาลากลางและเรียนรู้ เรื่องราวประวัติศาสตร์ของจังหวัดได้
- 4. สวนสาธารณะบางปูใหม่: เป็นสวนสาธารณะที่มีพื้นที่ใหญ่และที่จัดงานก็ฟ้าและกิจกรรมต่างๆ คุณ สามารถเดินเล่นหรือจัดกิจกรรมกลางแจ้งในสวนได้
- 5. สวนสาธารณะสระโบสถ์: เป็นสวนสาธารณะที่อยู่ในพื้นที่สระโบสถ์ มีบรรยากาศเงียบสงบและร่มรื่น คุณ สามารถเดินเล่นในสวนและสัมผัสกับธรรมชาติได้
- หอศิลปวัฒนธรรมนนทบุรี: หอศิลปวัฒนธรรมนนทบุรีเป็นสถานที่ที่จัดแสดงภาพประวัติศาสตร์และ วัฒนธรรมของจังหวัดนนทบุรี คุณสามารถเรียนรู้เรื่องราวท้องถิ่นและชมการแสดงศิลปะต่างๆใด้

🖰 Regei

อย่าลืมตรวจสอบสภาพอากาศและการจราจรก่อนออกเดินทาง และแนะนำให้เตรียมเวลาและงบ



If you're planning a one-day trip to Nonthaburi, Thailand, here are some recommendations for places to visit:

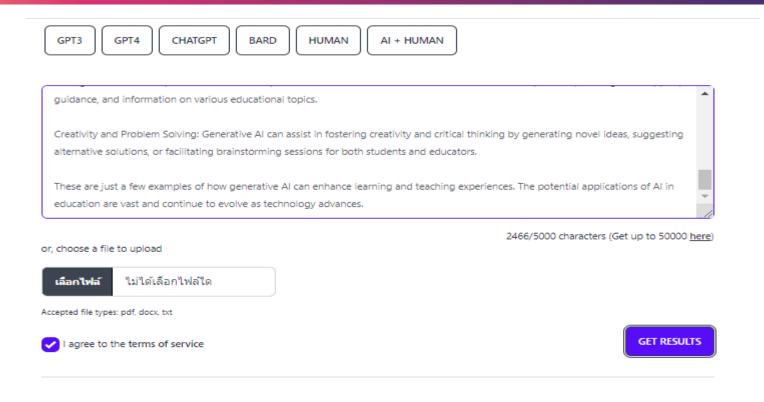


>



- Wat Chaloem Phra Kiat Worawihan: Start your day by visiting this beautiful temple located. on the bank of the Chao Phraya River. Explore the intricate architecture, stunning murals, and the peaceful atmosphere of the temple grounds.
- 2. Koh Kret: Take a boat ride to Koh Kret, a small island known for its traditional pottery and unique Mon culture. Walk around the island, visit the pottery workshops, and enjoy the local food and snacks. Don't forget to try the famous "Khanom Wan" (sweet desserts) of Koh Kret.
- Talad Nonthaburi: Visit the local market of Nonthaburi to experience the vibrant atmosphere and taste local delicacies. The market offers a wide variety of fresh fruits, vegetables, street food, and authentic Thai dishes. It's a great place to immerse yourself in the local culture and try different flavors.
- Wat Chotikaram: This temple is renowned for its massive reclining Buddha statue, which is one of the largest in Thailand. Admire the intricate details of the statue and explore the serene temple grounds.
- Nonthaburi Pier: Take a relaxing boat ride along the Chao Phraya River from Nonthaburi Pier. Enjoy the scenic views of the river and witness the local way of life along the riverbanks. You can also hop off at different piers to explore other attractions such as the Grand Palace or Wat Arun.
- 6. The Mall Ngamwongwan: If you're in the mood for shopping, head to The Mall Regenerate Ngamwongwan, a popular shopping complex in Nonthaburi. It offers a wide range of snops,

#### Al Content Detector tools



### Your text has a moderate likelihood of being written by AI

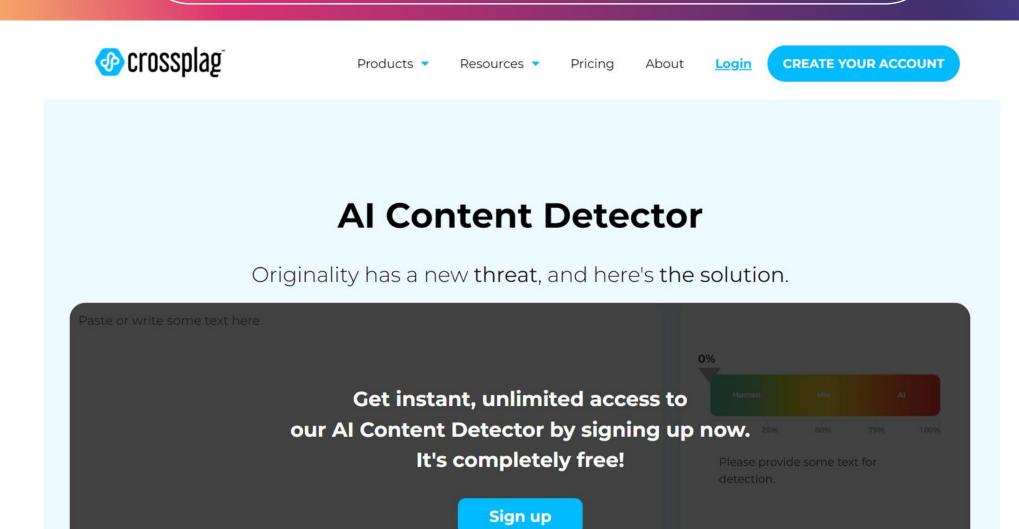
The nature of Al-generated content is changing constantly. As such, these results should not be used to punish

#### Al Content Detector tools

HUMAN CHATGPT BARD AI + HUMAN The COVID-19 pandemic has driven significant transformations worldwide, necessitating rapid technology adaptations in daily life and reshaping work and education. This accelerated global digital transformation has exceeded expectations, enhancing operational effectiveness and efficiency while fostering organizational resilience against potential digital disruptions. This plenary session comprehensively analyzes the implications of the current situation, empowering future sustainable lifelong learning with a focus on fostering global citizenship. The discussion centers on three pivotal aspects that highlight the transformative potential unleashed by the pandemic. 1683/5000 characters (Get up to 50000 here) or, choose a file to upload ไม่ได้เลือกไฟล์ใด Accepted file types: pdf, docx, txt **GET RESULTS** I agree to the terms of service

Your text is likely to be written entirely by a human

#### Al Content Detector tools



https://crossplag.com/ai-content-detector

## Bloom's Taxonomy



#### Produce new or original work

Design, assemble, construct, conjecture, develop, formulate, author, investigate

evaluate

#### Justify a stand or decision

appraise, argue, defend, judge, select, support, value, critique, weigh

analyze

#### Draw connections among ideas

differentiate, organize, relate, compare, contrast, distinguish, examine, experiment, question, test

apply

#### Use information in new situations

execute, implement, solve, use, demonstrate, interpret, operate, schedule, sketch

understand

#### Explain ideas or concepts

classify, describe, discuss, explain, identify, locate, recognize, report, select, translate

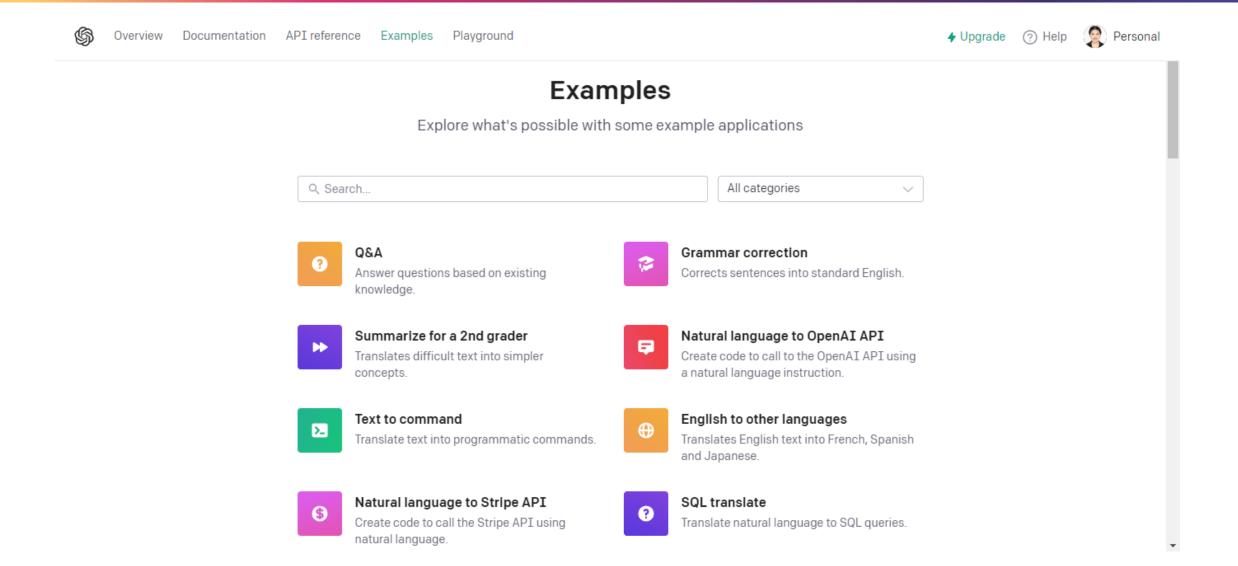
remember

Recall facts and basic concepts define, duplicate, list, memorize, repeat, state

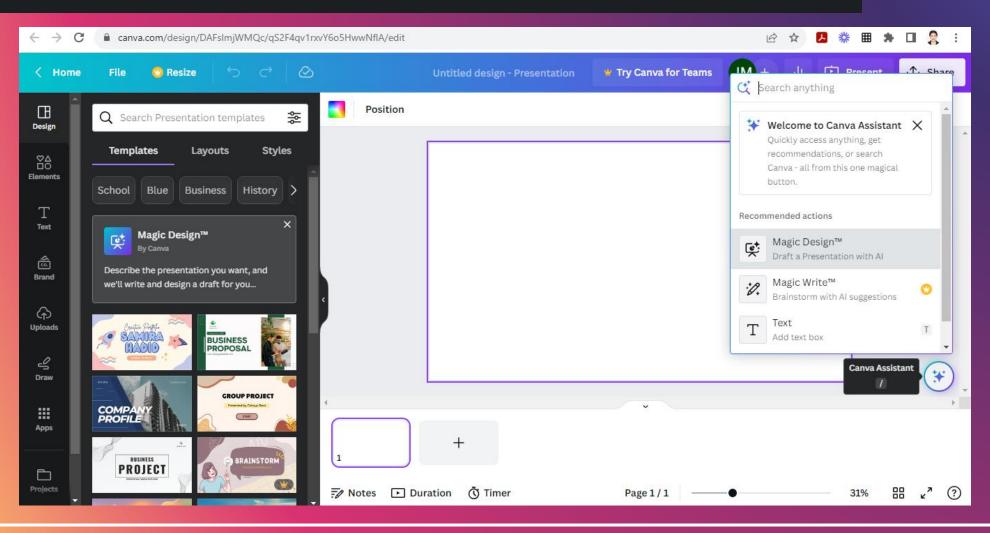


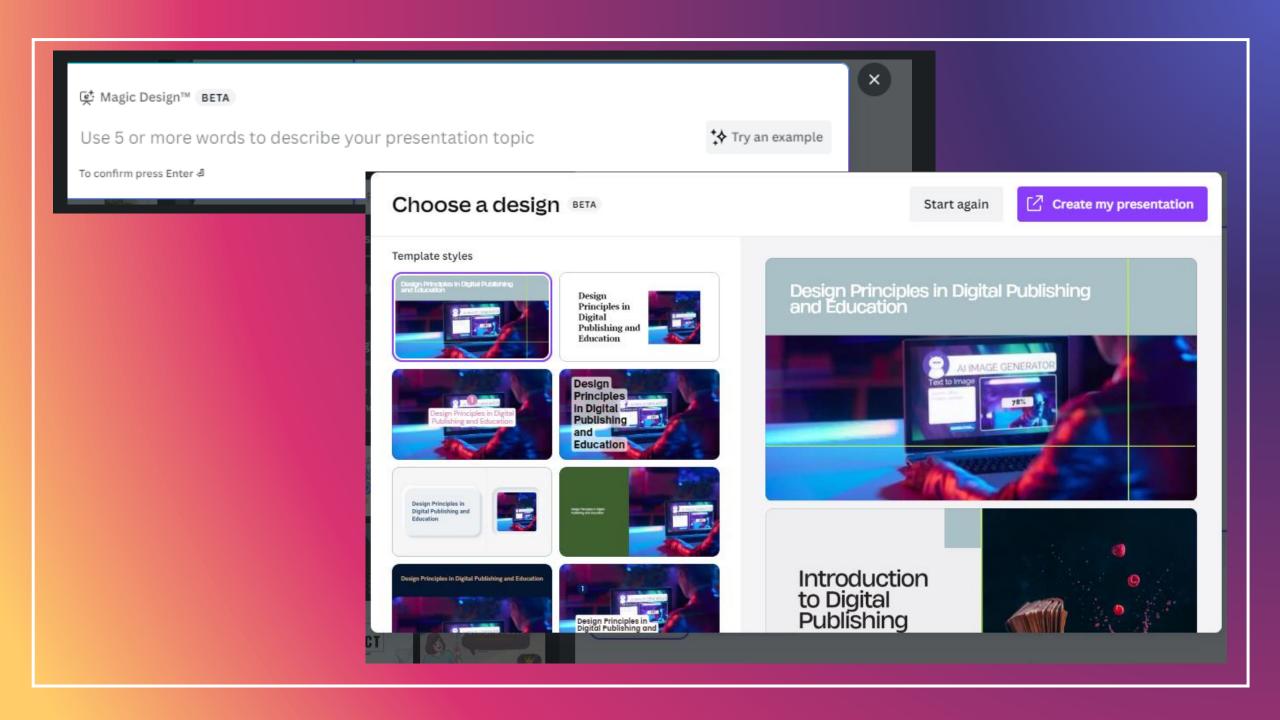
แนวโน้มในอนาคตของการนำเอาปัญญาประดิษฐ์ (AI) มาใช้ในบริบททางด้านการศึกษา

### Chat GPT api, extensions & plugins...

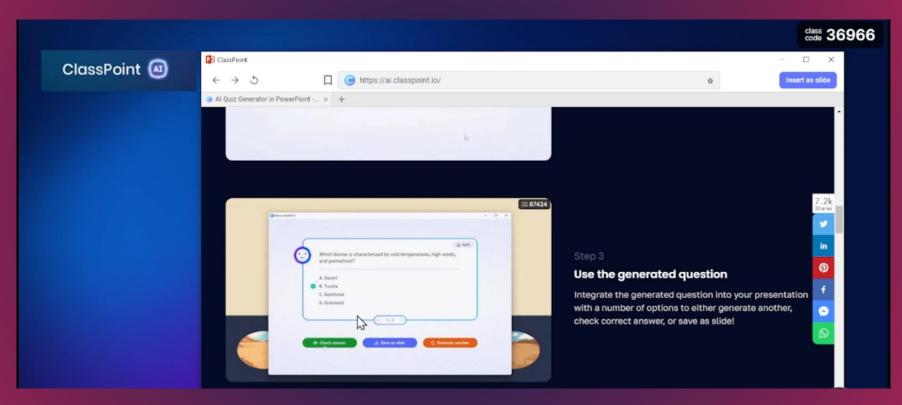


### www.canva.com (magic design)



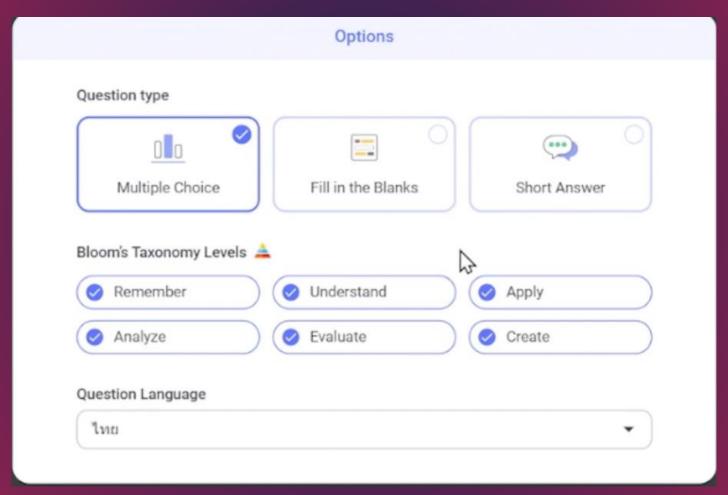


## **Generative Al: Classpoint**



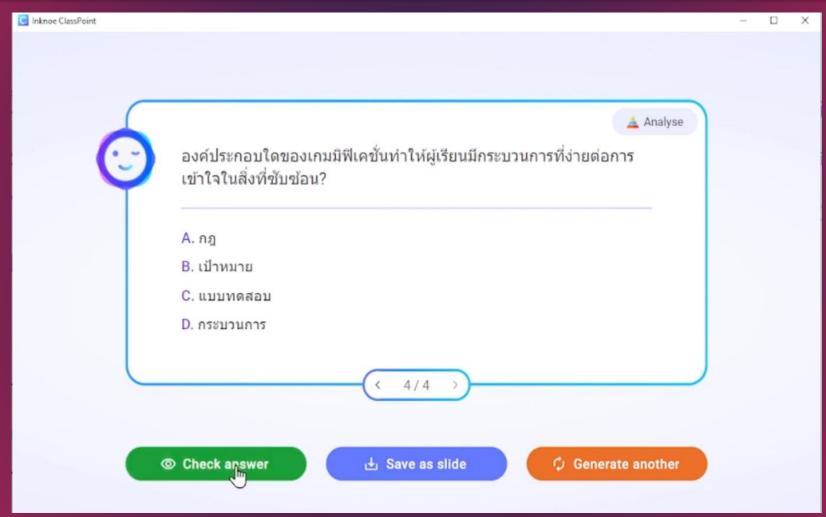
https://blog.classpoint.io/introducing-classpoint-ai-quiz-generator-in-powerpoint

## **Generative AI: Classpoint**



https://blog.classpoint.io/introducing-classpoint-ai-quiz-generator-in-powerpoint

### **Generative AI: Classpoint**



https://blog.classpoint.io/introducing-classpoint-ai-quiz-generator-in-powerpoint

## AI กับผลกระทบในระยะยาวต่อ บริบททางด้านการศึกษา

# Empowering Teaching & Learning Experiences: Generative AI in Education

## ChatGPT 'experimentation' puts universities in 'dangerous position'

Experts tell *THE* and Leeds event that institutions are facing risks they don't understand

April 18, 2023

John Gill

Twitter: @JG THE

The frenzy of excitement surrounding ChatGPT has led to "enthusiastic experimentation" that might be opening universities up to risks they are not in a position to fully understand, experts in digital learning have warned.

The potential uses and abuses of generative AI tools have provoked lively debate within higher education in recent months, with a particular focus on how



the new technology will challenge and change modes of assessment.

"only a problem if your assessment is designed for recall and summarization"

"The invention of the calculator was an example of that happening: allowing us to do more complex maths because of a new invention.

"What can we now do that is more complex because of generative AI tools, but still with a human at the heart of that process, allowing us to move four, five or six steps ahead of where we were before? Trying to stop generative AI would be a lost cause and a waste of effort; we need instead to think about how we use them as humans and educators."

Dr Highton added a note of caution about making assumptions about students' use of emerging AI technologies: "We have to be very careful not to discriminate against students who most need assistive technologies by suggesting that their use is always cheating," she said.

john.gill@timeshighereducation.com

• Read more about: Academic life THE events

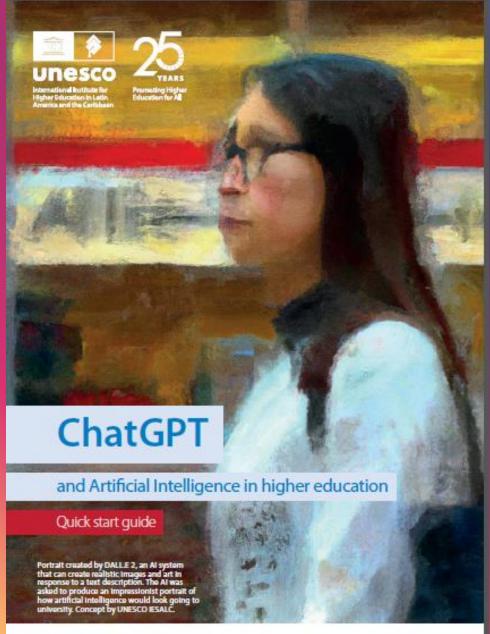
.... highlighted the risk that an Al arms race could emerge if issues of academic integrity and assessment were not handled in an appropriate way.

### More complex/advanced prompts...

You are a world's top professor in educational technology. You are also a research expert and a top academic paper writer. You are now acting as a reviewer for an international conference .....

You are known to be very critical, harsh, and straight forward.
These are topics of this paper:
This is Paper Category:
Now, please start the your evaluation :
Evaluate the paper for the following based on scale of 1 to 5 where 5 is the best :
1) Relevance to the conference.
2) Technical content and scientific rigor.
3) Quality of presentation.
······

Lastly, you will write critical, constructive, meaningful, and straight forward Confidential remarks for the program committee. This should support your evaluation.





Role <sup>6</sup>	Description	Example of implementation	
Possibility engine	Al generates alternative ways of expressing an idea	Students write queries in ChatGPT and use the Regenerate response function to examine alternative responses.	
Socratic opponent	Al acts as an opponent to develop and argument	Students enter prompts into ChatGPT following the structure of a conversation or debate. Teachers can ask students to use ChatGPT to prepare for discussions.	
Collaboration coach	Al helps groups to research and solve problems together	Working in groups, students use ChatGPT to find out information to complete tasks and assignments.	
Guide on the side	Al acts as a guide to navigate physical and conceptual spaces	Teachers use ChatGPT to generate content for classes/courses (e.g., discussion questions) and advice on how to support students in learning specific concepts.	
Personal tutor	Al tutors each student and gives immediate feedback on progress	ChatGPT provides personalized feedback to students based on information provided by students or teachers (e.g., test scores).	
Co-designer	Al assists throughout the design process	Teachers ask ChatGPT for ideas about designing or updating a curriculum (e.g., rubrics for assessment) and/or focus on specific goals (e.g., how to make the curriculum more accessible).	
Exploratorium	Al provides tools to play with, explore and interpret data	Teachers provide basic information to students who write different queries in ChatGPT to find out more. ChatGPT can be used to support language learning.	
Study buddy	Al helps the student reflect on learning material	Students explain their current level of understanding to ChatGPT and ask for ways to help them study the material. ChatGPT could also be used to help students prepare for other tasks (e.g., job interviews).	
Motivator	Al offers games and challenges to extend learning	Teachers or students ask ChatGPT for ideas about how to extend students' learning after providing a summary of the current level of knowledge (e.g., quizzes, exercises).	
Dynamic assessor	Al provides educators with a profile of each student's current knowledge	Students interact with ChatGPT in a tutorial-type dialogue and then ask ChatGPT to produce a summary of their current state of knowledge to share with their teacher/for assessment.	

Assessment of, for, as Learning:

# the principle

Formative Evaluation

AoL

AfL Aal

Summative Evaluation

## Research study 3: Science Education

Examining Science Education in ChatGPT: An Exploratory Study of Generative Artificial Intelligence

- Example of ChatGPT prompt
- What are key Characteristics of effective science teaching?

[ChatGPT Prompt 1]: What Are Key Characteristics of Effective Science Teaching?

1. Active and inquiry-based learning: Effective science teaching encourages students to actively engage in the

- learning process through hands-on activities, experiments, and inquiry-based projects. This approach allows students to make connections between what they are learning and the world around them.
- Real-world connections: Effective science teaching makes connections between what students are learning in the classroom and real-world applications. This helps to make the subject more relevant and engaging for students.
- 3. Differentiation: Effective science teaching takes into account the diverse needs and learning styles of students. Teachers use a variety of strategies to differentiate instruction, such as providing multiple ways to access information and using a variety of assessment methods.
- 4. Collaboration: Effective science teaching fosters a collaborative learning environment where students work together to solve problems and share ideas. This helps students to develop important skills such as communication, problem-solving and teamwork.
- Use of technology: Effective science teaching incorporates technology to enhance student learning. This can include using simulations and virtual labs, online resources, and other digital tools to support the learning process.
- Assessment: Effective science teaching uses a variety of assessment methods to measure student understanding and provide feedback to guide instruction. This includes formative and summative assessments, as well as performancebased assessments.
- 7. Professional development: Effective science teaching requires ongoing professional development for teachers to stay current with the latest research, best practices and new technologies in the field of science education.

## Research study 3: Science Education

Examining Science Education in ChatGPT: An Exploratory Study of Generative Artificial Intelligence

- Example of ChatGPT Prompt
- Create a teaching Unit Using the 5Es Model that is challenging for

students who have a strong understanding of renewable and

non-renewable energy sources at a Year 7 Level. Also Provide support and scaffolding for students who are struggling with

#### the material

#### Engage:

- Begin the unit by posing a real-world problem related to energy sources such as "How can we ensure a sustainable future for our community?"
- Show a video or pictures of a community facing energy challenges, such as a power outage during a heatwave, or an oil spill
- Encourage students to brainstorm and share their prior knowledge about energy sources

#### Explore:

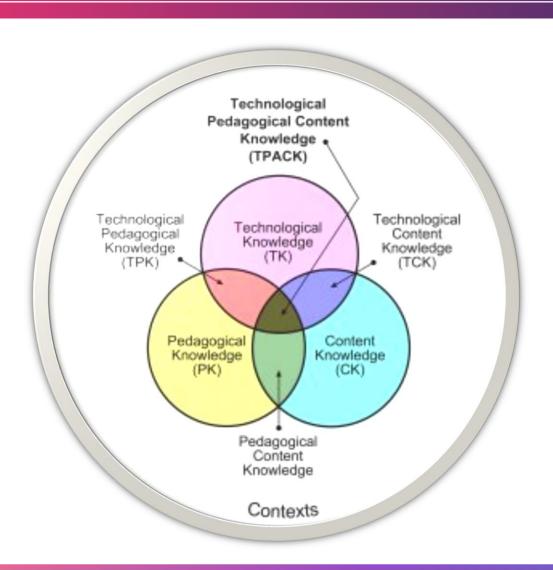
- Divide the class into small groups and assign each group a different renewable or non-renewable energy source to research.
- Provide students with a set of guiding questions to help them focus their research. (e.g. What are the advantages and disadvantages of this energy source? How is it produced? What are the environmental impacts?)
- Give students time to conduct their research and gather information.
- Students can use a variety of resources such as books, articles, videos, and websites to research their topic.
- Provide additional support and resources for students who are struggling with the material, such as providing a more simplified version of the guiding questions or offering extra time for research.

## Example of Rubric created by ChatGPT

Create a rubric that year 7 students can use to self-assess their learning about renewable and non-renewable energy sources, Make this rubric easier to copy to word in a tidy format

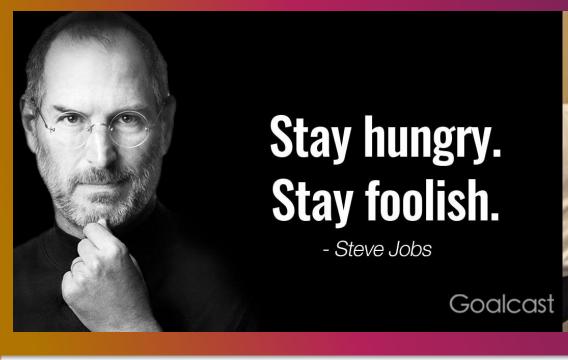
Criteria	Exemplary	Proficient	Developing	Emerging
Understanding of the concepts	The student demonstrates a thorough understanding of the concepts of renewable and non-renewable energy sources, including the advantages and disadvantages of each	The student demonstrates a general understanding of the concepts of renewable and non-renewable energy sources, but some details are missing	The student demonstrates a limited understanding of the concepts of renewable and non-renewable energy sources	The student demonstrates little to no understanding of the concepts of renewable and non-renewable energy sources
Research	The student conducts thorough research on renewable and non-renewable energy sources and presents their findings in a clear and organised manner	The student conducts research on renewable and non-renewable energy sources and presents their findings, but some information is missing or unclear	The student conducts some research on renewable and non-renewable energy sources but the presentation of their findings is limited	The student does not conduct any research or their research is not relevant to the topic
Critical thinking	The student demonstrates the ability to analyse and evaluate the advantages and disadvantages of different energy sources and to make informed decisions about the best energy sources for the future	The student demonstrates some ability to analyse and evaluate the advantages and disadvantages of different energy sources but is missing some key points	The student does not demonstrate the ability to analyse and evaluate the advantages and disadvantages of different energy sources	The student does not demonstrate any critical thinking skills
Participation	The student actively participates in class discussions and group work and contributes valuable ideas and insights	The student participates in class discussions and group work but does not always contribute valuable ideas and insights	The student does not participate actively in class discussions or group work	The student's participation is disruptive to the class

#### Concept of TPACK Model...











Enjoy...

Learn

Unlearn

Relearn

# Empowering

#### Teaching & Learning Experiences:

**Generative AI in Education** 



Professor, Department of Educational Technology and Communications

Faculty of Education, Chulalongkorn University, TH

Deputy Director, Thailand Cyber University Project (ThaiMOOC)

Ministry of Higher Education, Science, Research and Innovation



