

ChatGPT & Generative AI

**Increase your productivity in
education, research, and creative writing**

Prachya Boonkwan (NECTEC, Thailand) — 6 JUN 2023

Link ⇒ <https://tinyurl.com/y5csvnvy>

Who? Me?

Prachya Boonkwan

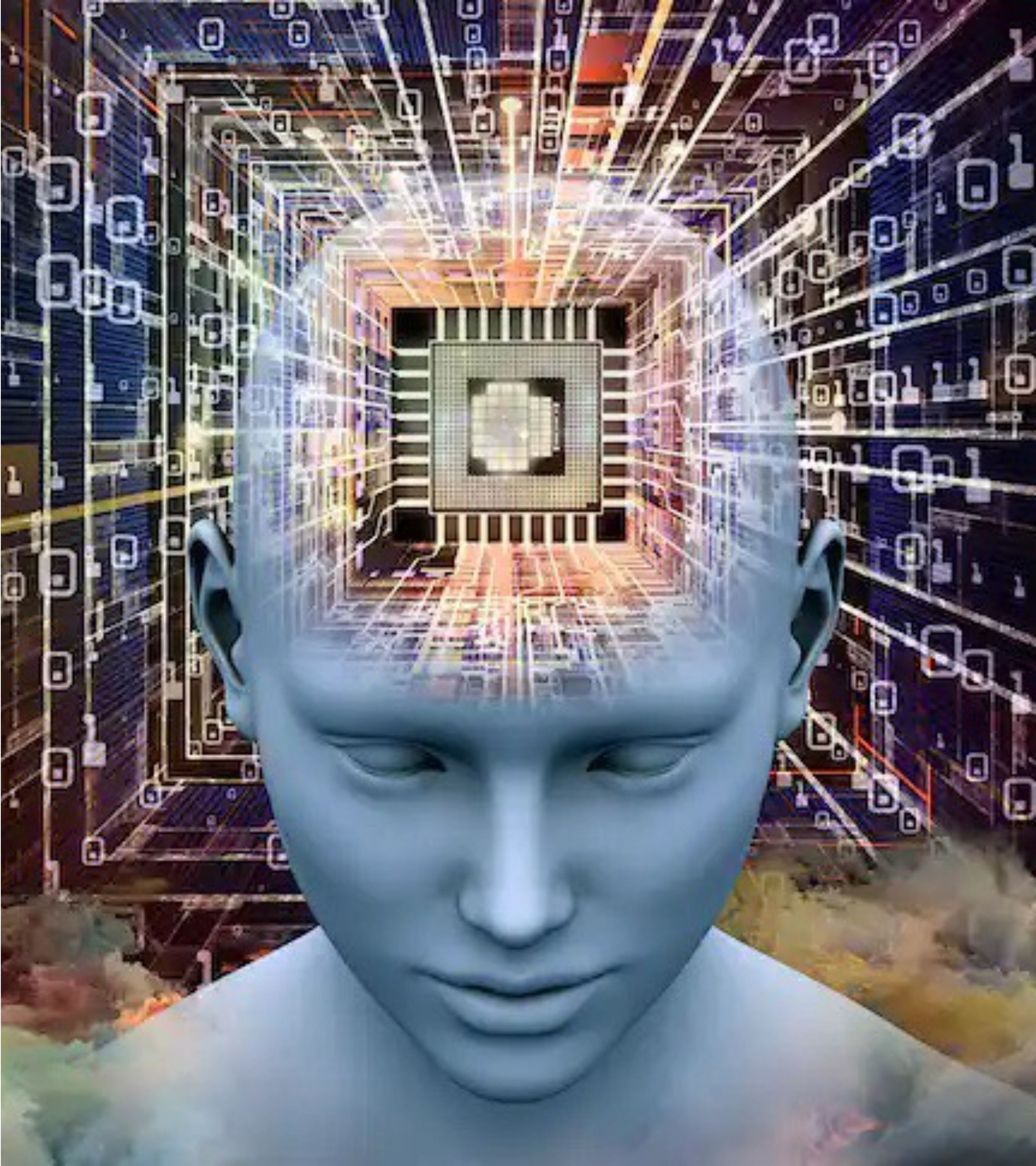
- **Nickname:** Arm (P'/N'/E' Arm, etc.)
- **Born:** Aug 1981
- **Work:** researcher at NECTEC since 2005
- **Education**
 - B.Eng & M.Eng, CPE Kasetsart University
 - Obtained Ministry of Science Scholarship in early 2008
 - Did a PhD in Informatics (AI & Computational Linguistics) at University of Edinburgh, UK from 2008 to 2013 (4.5 years)



Outline

ChatGPT & Generative AI

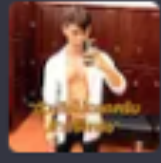
- GenAI as a productivity tool
- How to use GenAI wisely
 - In education & language learning
 - In research & publication
 - In creative writing
- How to co-learn and co-exist with GenAI



1. Generative AI

Generative AI (GenAI)

- Algorithms (such as ChatGPT) that can be used to create new content, including audio, code, images, text, simulations, and videos
- Popular generative AI models
 - ChatGPT for text (OpenAI)
 - DALL-E and Stable Diffusion (MidJourney) for image
 - VALL-E for voice (Microsoft)



I'm having a hair loss problem. Can taking a daily zinc pill solve the problem?



Zinc is an essential mineral that is important for a number of processes in the body, including hair growth. Zinc deficiency can lead to hair loss, and supplementing with zinc may help to promote hair growth in some people. However, hair loss can also be caused by a variety of other factors, such as genetics, hormonal imbalances, medical conditions, and certain medications.




If you are experiencing hair loss, it's best to consult a doctor or a dermatologist for an accurate diagnosis and appropriate treatment recommendations. They may recommend taking a zinc supplement in addition to other treatments, such as topical products, lifestyle changes, or medications. However, it's important to keep in mind that taking too much zinc can also have negative side effects, so it's important to take only the recommended amount.

In conclusion, while zinc supplementation may help with hair loss in some cases, it's not a cure-all solution and it's important to work with a healthcare professional to determine the best course of action for your specific situation.



V4

BOT
[Midjourney Bot](#)
 dryad playing the harp in a field of flowers, dark fantasy, yoji shinkawa + ayami kojima + amy sol + martine...

Midjourney Bot  BOT Yesterday at 10:22 PM

dryad playing the harp in a field of flowers, dark fantasy, yoji shinkawa + ayami kojima + amy sol + martine johanna, graphic design, key visual --v 4 - Upscaled by [@Sunny](#) (relaxed, private)

Web 


Midjourney Bot ✓ BOT Yesterday at 10:31 PM

photography of a fantasy starry nighttime landscape with hills, waterfall, wide angle, intricate details, haunted, sunrise in background, highest resolution, cinematic lighting, hd, photorealistic, --ar 16:9 --test --creative --v 3 --v 4 - @Sunny


+ Message #share-your-stuff



MIDJOURNEY BOT — 1

 Midjourney Bot ✓ BOT


ONLINE — 13

 Bella Gritty

 Beta Chub **derrotebaron**

 francescofiligoi


Gavin Yeah

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oldboy 🏆

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 Vandalia Virtual, LLC

Watchbrowser

 Солнышко

OFFLINE — 51

 AigarsR



AutoGPT

- Instead of step-by-step prompting, we can just specify our goals and let the machine work for us

```
Windows PowerShell
PS C:\Projects\Significant Gravitas\Jarvis\Entrepreneur-GPT\AutonomousAI> python3 main.py continuous-mode
Continuous Mode:  ENABLED
WARNING:  Continuous mode is not recommended. It is potentially dangerous and may cause your AI to run forever or carry out actions you would not usually authorise. Use at your own risk.
Welcome to Auto-GPT!  Enter the name of your AI and its role below. Entering nothing will load defaults.
Name your AI:  For example, 'Entrepreneur-GPT'
AI Name: Chef-GPT
Describe your AI's role:  For example, 'an AI designed to autonomously develop and run businesses with the sole goal of increasing your net worth.'
Chef-GPT is: an AI designed to browse the web to discover the next upcoming event and invent a unique and original recipe that would suit it.
Enter up to 5 goals for your AI:  For example: Increase net worth Grow Twitter Account Develop and manage multiple businesses autonomously'
Enter nothing to load defaults, enter nothing when finished.
Goal 1: Invent an original and out-of-the-box recipe to suit a current event, such as Easter.
Goal 2: Save the resulting recipe to file.
Goal 3: Shutdown upon achieving your goal.
Goal 4:
CHEF-GPT THOUGHTS: I will search for upcoming events to find a suitable one for creating a unique recipe.
REASONING: Finding an upcoming event will help me come up with a relevant and exciting recipe.
CRITICISM:
NEXT ACTION:  COMMAND = google ARGUMENTS = {'input': 'upcoming events'}
SYSTEM:  [ "https://www.eventfinda.co.nz/whatson/events/new-zealand", "https://heartofthecity.co.nz/auckland-events", "https://www.sparkarena.co.nz/coming-events/", "https://premier.ticketek.co.nz/", "https://www.ticketmaster.co.nz/", "https://www.lovetapu.com/en/see-do/events/", "https://natlib.govt.nz/events", "https://porirua.govt.nz/discover-porirua/events/" ]
| Thinking...
```

- Loop of 4 steps
 - **Thoughts:** break each goal into subtasks (process)
 - **Reasoning:** plan how to do it (action)
 - **Criticism:** analyze constraints and turn them into commands
 - **System:** run system commands

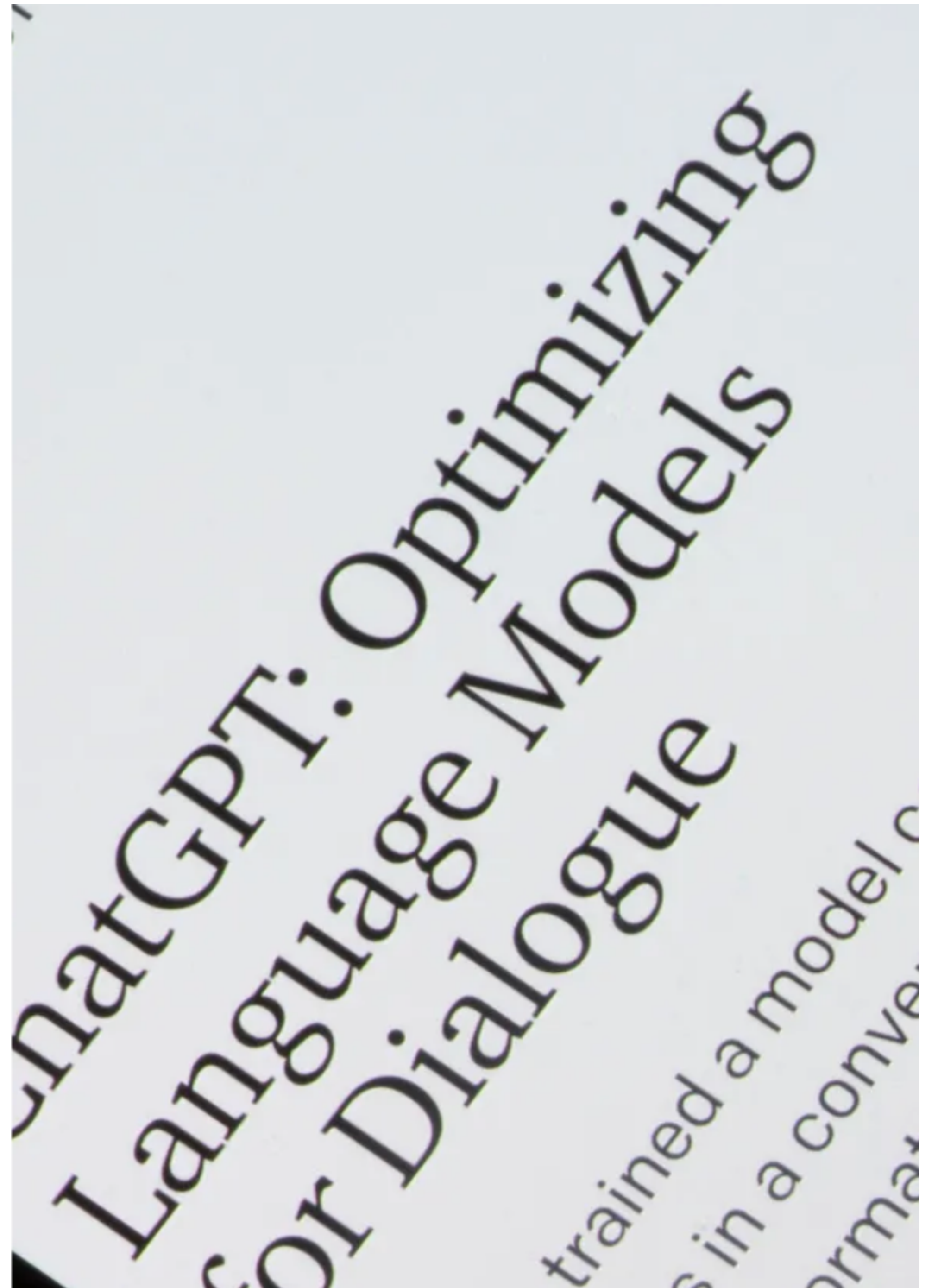
ChatGPT

ChatGPT is an advanced AI chatbot trained by OpenAI 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.

ChatGPT relies on the powerful `GPT-3.5` technology. GPT stands for Generative Pre-Trained Transformer, a complex neural network based on the revolutionary Attention concept.

TRY CHATGPT NOW

<http://chat.openai.com>



2. How to Use GenAI

2.1) Uses in Education

Quick Answers

Definition, judgement, and enumeration

- ChatGPT can give you a quick answer to your question
- Possible prompts
 - **Definition:** What is pseudo-science?
 - **Judgement:** Would you recommend daily zinc pills as a cure for hair loss?
 - **Enumeration:** List all chemical bonds Sulfur can form.



List all chemical bonds Sulfur can form with other elements.



Sulfur (S) can form various chemical bonds with other elements. Here are some of the common bonds that sulfur can form:

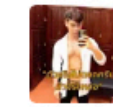


1. Sulfur-Sulfur Bond (S-S): Sulfur can bond with another sulfur atom to form a covalent bond, resulting in a diatomic molecule called elemental sulfur (S₂).
2. Sulfur-Oxygen Bonds: Sulfur can form bonds with oxygen (O) to create different compounds, including:
 - Sulfur-Oxygen Double Bond (S=O): Found in compounds like sulfur dioxide (SO₂) and sulfonyl chloride (SO₂Cl₂).
 - Sulfur-Oxygen Single Bonds (S-O): Found in compounds like sulfuric acid (H₂SO₄) and sulfites (SO₃²⁻).
3. Sulfur-Nitrogen Bonds: Sulfur can bond with nitrogen (N) to form compounds such as:
 - Sulfur-Nitrogen Double Bond (S=N): Found in compounds like sulfur imides (R-S=N-R') and thiazoles.
 - Sulfur-Nitrogen Single Bonds (S-N): Found in compounds like thioamides (R-CS-NR'R'') and sulfonamides.
4. Sulfur-Carbon Bonds: Sulfur can form bonds with carbon (C) to create various organic compounds, such as:
 - Sulfur-Carbon Double Bond (C=S): Found in compounds like thiocarbonyl compounds.
 - Sulfur-Carbon Single Bonds (C-S): Found in compounds like thiols (R-SH) and thioesters (R-C(=O)-SR').
5. Sulfur-Hydrogen Bonds: Sulfur can form bonds with hydrogen (H) in compounds known as thiols or mercaptans (R-SH).

Reading Passages



Brief explanation

- ChatGPT can write a short passage about a particular topic
- Possible prompts
 - **Long explanation:** Write a passage about the Korean war.
 - **Brief explanation:** Write a short passage about quantum chemistry for a fourth-grade student.



Please write a short passage about quantum chemistry for a fourth-grade student.



Sure! Here's a simplified short passage about quantum chemistry for a fourth-grade student:   

"Quantum chemistry is a special kind of science that helps us understand how tiny particles called atoms behave. Atoms are like the building blocks of everything around us. Inside atoms, there are even tinier things called electrons that move around.

Now, electrons are pretty cool because they don't act like little balls. Instead, they behave more like waves. They can be in different places at the same time and have different amounts of energy.

Scientists use a special way of understanding called quantum mechanics to study these electrons. They have discovered that electrons have specific energy levels, kind of like steps on a staircase. They can jump from one energy level to another by absorbing or releasing energy.

By studying quantum chemistry, scientists can learn about how electrons move and interact with each other. They can figure out why some things are solid, like rocks, while others are liquid, like water, or even gas, like the air we breathe.

Understanding quantum chemistry helps scientists make new discoveries and learn more about how the world works on a very tiny scale. It's like unlocking secrets about the smallest parts of everything around us!"

I hope this simplified explanation gives a clearer understanding of quantum chemistry for a fourth-grade student!

 Regenerate response

Review Questions

Quick reviews before exam

- ChatGPT can ask you review questions about a topic
- Possible prompts
 - **Direct asking:** Ask me review questions about artificial intelligence.
 - **Review:** Help me review important events in the World War 2.

Help me review important events in the World War 2.



Certainly! Here are some important events in World War II for you to review:

1. Invasion of Poland (1939): Germany invaded Poland, marking the beginning of World War II in Europe. This event prompted France and the United Kingdom to declare war on Germany.
2. Battle of Britain (1940): Germany launched a series of air attacks on the United Kingdom, primarily targeting British cities and airfields. The British Royal Air Force successfully defended against the Luftwaffe, preventing a German invasion.
3. Attack on Pearl Harbor (1941): Japan launched a surprise attack on the United States naval base at Pearl Harbor, Hawaii. This event led to the U.S. entry into World War II.
4. D-Day (1944): The Allied forces, primarily consisting of American, British, and Canadian troops, conducted a massive amphibious invasion of German-occupied France, landing on the beaches of Normandy. This marked a significant turning point in the war and led to the liberation of Western Europe.
5. Battle of Stalingrad (1942-1943): The German army launched a major offensive against the city of Stalingrad in the Soviet Union. The Soviet forces successfully defended the city, leading to a significant defeat for the German army and turning the tide of the war in favor of the Allies.
6. Battle of Midway (1942): A crucial naval battle between the United States and Japan took place near the Midway Atoll in the Pacific. The U.S. Navy successfully defeated the Japanese fleet, which significantly weakened Japan's naval power in the Pacific.
7. Holocaust (1941-1945): The systematic genocide of approximately six million Jews, as well as other groups targeted by the Nazi regime, took place during World War II. This remains one of the most tragic and horrific events in human history.
8. Atomic bombings of Hiroshima

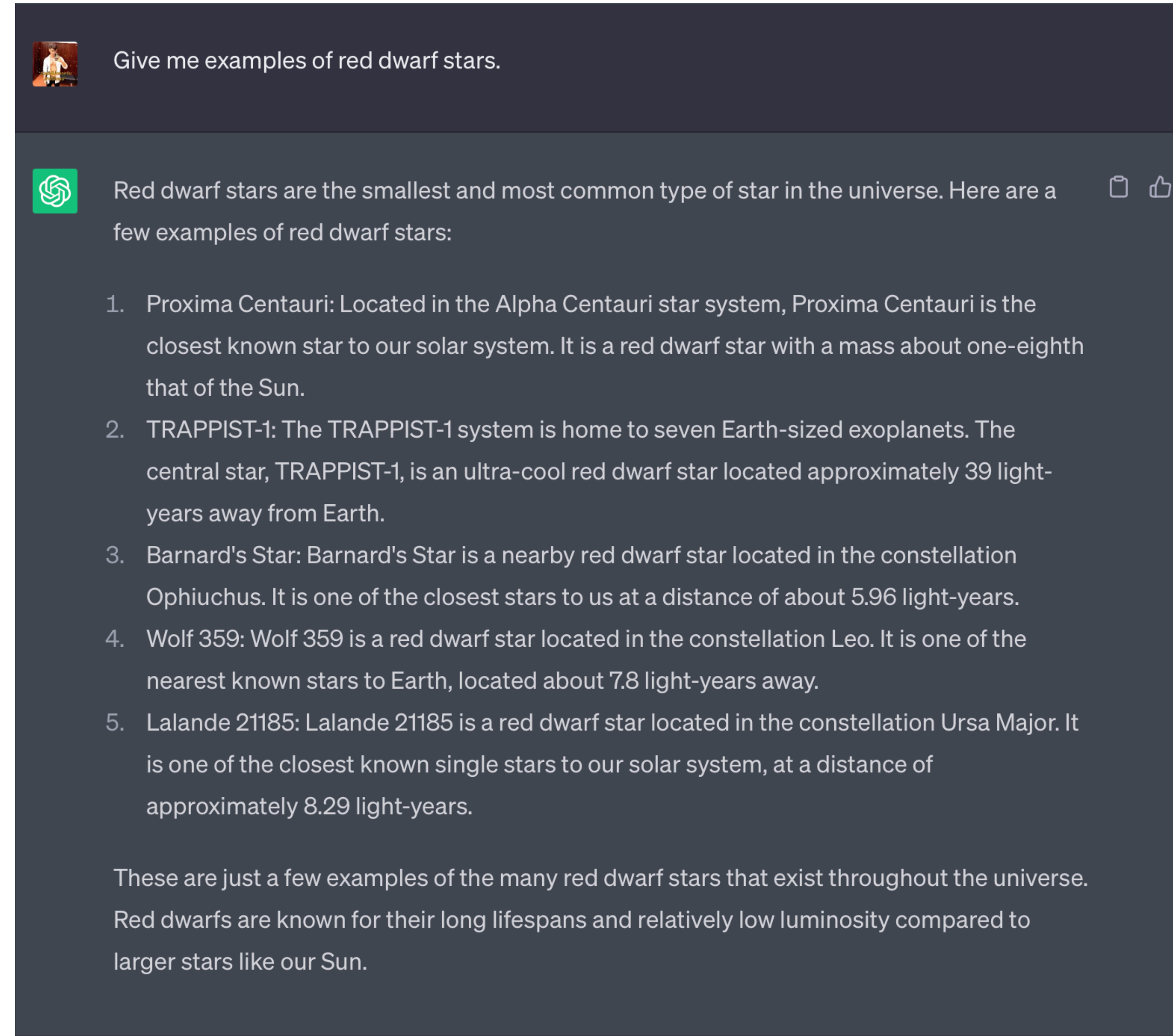
Regenerate response

the United States dropped atomic

List of Items

Examples and applications

- ChatGPT can give a list of items for a particular topic
- Possible prompts
 - **Examples:** Give me some examples of red dwarf stars.
 - **Applications:** Show me some applications of fortified concrete.



The screenshot displays a ChatGPT interface. At the top, a user prompt reads: "Give me examples of red dwarf stars." Below this, the ChatGPT response begins with a green icon and states: "Red dwarf stars are the smallest and most common type of star in the universe. Here are a few examples of red dwarf stars:". This is followed by a numbered list of five examples: 1. Proxima Centauri, 2. TRAPPIST-1, 3. Barnard's Star, 4. Wolf 359, and 5. Lalande 21185. Each item includes a brief description of its location and characteristics. The response concludes with a paragraph stating: "These are just a few examples of the many red dwarf stars that exist throughout the universe. Red dwarfs are known for their long lifespans and relatively low luminosity compared to larger stars like our Sun."

Give me examples of red dwarf stars.

Red dwarf stars are the smallest and most common type of star in the universe. Here are a few examples of red dwarf stars:

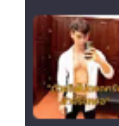
1. Proxima Centauri: Located in the Alpha Centauri star system, Proxima Centauri is the closest known star to our solar system. It is a red dwarf star with a mass about one-eighth that of the Sun.
2. TRAPPIST-1: The TRAPPIST-1 system is home to seven Earth-sized exoplanets. The central star, TRAPPIST-1, is an ultra-cool red dwarf star located approximately 39 light-years away from Earth.
3. Barnard's Star: Barnard's Star is a nearby red dwarf star located in the constellation Ophiuchus. It is one of the closest stars to us at a distance of about 5.96 light-years.
4. Wolf 359: Wolf 359 is a red dwarf star located in the constellation Leo. It is one of the nearest known stars to Earth, located about 7.8 light-years away.
5. Lalande 21185: Lalande 21185 is a red dwarf star located in the constellation Ursa Major. It is one of the closest known single stars to our solar system, at a distance of approximately 8.29 light-years.

These are just a few examples of the many red dwarf stars that exist throughout the universe. Red dwarfs are known for their long lifespans and relatively low luminosity compared to larger stars like our Sun.

Lesson Plan

Syllabus for specific grades

- ChatGPT can design simple lesson plans for a specific grade
- Possible prompts
 - **Specific grade:** Please write a lesson plan for tectonic plates for geology undergraduates
 - **General:** Draft a course syllabus for the basic Latin conversation course.



Please write a lesson plan for tectonic plates for geology undergraduates.



Certainly! Here's a sample lesson plan for teaching about tectonic plates to geology undergraduates:

Subject: Geology

Level: Undergraduate

Topic: Tectonic Plates

Objective:

1. Students will be able to define tectonic plates and understand their role in shaping Earth's lithosphere.
2. Students will comprehend the major types of plate boundaries and the geological features associated with each.
3. Students will gain an understanding of the driving forces behind plate tectonics and the implications for Earth's dynamic processes.

Materials:

- Visual aids (diagrams, maps, or animations of tectonic plates and plate boundaries)
- PowerPoint slides or overhead projector
- Geological maps or globes
- Handouts or worksheets
- Whiteboard or blackboard markers

Lesson Plan:

Introduction (10 minutes):

⌂ Regenerate response

⏩ Continue generating

Struggling Students

Offering them some help

- ChatGPT can remind you the IEP goals for struggling students
- Possible prompts
 - **Personality disorder:** What are the IEP goals for students with Asperger's syndrome?
 - **Disease:** How can we encourage students who have cancer to continue studying?

How can we encourage students who have cancer to continue studying?



Supporting students who have cancer to continue studying requires a compassionate and flexible approach. Here are some strategies to encourage and support these students:

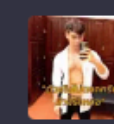
1. **Maintain Regular Communication:** Stay in close contact with the student and their family to understand their needs, challenges, and preferences. Regularly communicate with the student's healthcare team to ensure you are aware of any medical considerations or necessary accommodations.
2. **Individualized Education Plan (IEP):** Collaborate with the student, their family, and relevant professionals to create an IEP that addresses their specific educational needs during their cancer treatment. The plan may include accommodations such as modified workload, extended deadlines, or flexible scheduling.
3. **Provide Homebound Instruction:** If the student is unable to attend school due to treatment or compromised immune system, arrange for homebound instruction. Provide access to educational materials, textbooks, and assignments. Use technology tools like video conferencing for virtual lessons or discussions with teachers and classmates.
4. **Flexible Scheduling:** Adjust the student's schedule as needed to accommodate medical appointments or treatment sessions. Provide opportunities for catch-up or makeup work if the student misses classes.
5. **Tutoring and Academic Support:** Offer individualized tutoring or additional academic support to help the student keep up with their coursework. This can be done by teachers, peer tutors, or volunteers who are willing to assist with assignments and provide guidance.
6. **Foster a Supportive Environment:** Create a supportive and inclusive classroom environment where the student feels comfortable sharing their experiences and needs. Encourage empathy, understanding, and respect among classmates. Consider implementing peer support programs and emotional support.
7. **Use Technology and Distance Learning:** Utilize technology tools and online platforms

Regenerate response

Questions

for discussion and essays

- ChatGPT can list questions relevant to a particular topic
- Possible prompts
 - **Discussion:** Give me questions for discussion about Red Light District.
 - **Essay:** List essay questions about animal cruelty in scientific experiments.



Give me questions for discussion about Red Light District in Amsterdam.



Certainly! Here are some discussion questions about the Red Light District in Amsterdam:

1. What is your initial impression or perception of the Red Light District in Amsterdam?
2. What do you think are the main reasons people visit or are attracted to the Red Light District?
3. What are your thoughts on the legalization and regulation of prostitution in the Red Light District?
4. What are the potential advantages and disadvantages of having a designated area for sex work?
5. Do you think the Red Light District contributes to or detracts from Amsterdam's overall image as a tourist destination?
6. How do you think the Red Light District impacts the local community and residents of Amsterdam?
7. What are some ethical considerations surrounding the Red Light District and the sex industry as a whole?
8. Do you believe that the Red Light District empowers or exploits individuals involved in sex work?
9. How does the presence of the Red Light District reflect societal attitudes towards sex and sexuality?
10. Should governments in other countries consider adopting a similar approach to regulating sex work as seen in Amsterdam's Red Light District?

Remember, these questions are meant to spark thoughtful and respectful discussions. It is important to approach the topic with sensitivity and respect for differing perspectives and experiences.

🔄 Regenerate response

Recommendation Letter

Writing a letter is easy

- ChatGPT can write a recommendation letter for a student
- Possible prompts
 - Write a recommendation letter for a student applying for a university. (1) He won National Software Contest 2023. (2) He excels in mathematics and went to Math Olympiad. (3) He is a well disciplined student.

Dear [Recipient's Name],

I am writing this letter to highly recommend [Student's Name] for admission to [University/Organization Name]. Having had the privilege of teaching and mentoring [Student's Name] for several years, I am confident in his exceptional abilities, dedication, and potential to excel in higher education.

First and foremost, I would like to highlight [Student's Name]'s remarkable achievement in the National Software Contest 2023. As a participant, he demonstrated outstanding programming skills, innovative thinking, and a keen eye for problem-solving. His passion for software development and his ability to tackle complex challenges were evident throughout the contest. This accomplishment speaks volumes about his commitment to academic excellence and his ability to thrive in competitive environments.

Additionally, [Student's Name] has consistently excelled in mathematics, showcasing his exceptional aptitude and passion for the subject. He has participated in several prestigious Math Olympiad competitions, where his analytical thinking, logical reasoning, and mathematical problem-solving skills have earned him commendable results. His enthusiasm for mathematics is contagious, inspiring his peers to embrace the subject and pursue excellence in their own studies.

What truly sets [Student's Name] apart is his exceptional discipline and dedication to his academic pursuits. He is an exceptionally well-organized and focused student, consistently meeting deadlines and going above and beyond in his coursework. His discipline and commitment to his studies have been instrumental in his academic achievements, and I am confident that these qualities will continue to drive his success at the university level.

Beyond his academic achievements, [Student's Name] is also a person of impeccable character. He possesses strong interpersonal skills and demonstrates respect, empathy, and professionalism when working with both peers and teachers. He is a team player, always willing to assist and support others. His genuine enthusiasm for

Tough Conversations

Study from a dialog

- ChatGPT can simulate a scenario for tough conversations
- Possible prompts
 - **Script:** Prepare a script for explaining why Janet's son is a bully.
 - **Response:** What should a teacher do when a student bullies his classmates?

What should the teacher do when a student bullies his classmates?



When a student engages in bullying behavior, it's important for the teacher to take immediate action to address the situation and create a safe learning environment. Here are some steps a teacher can take:

1. Address the Incident: As soon as the teacher becomes aware of the bullying, they should intervene and separate the students involved. Ensure the safety and well-being of the bullied student(s) and provide any necessary medical or emotional support.
2. Listen and Document: Speak individually with the victim and witnesses to gather information about the incident. Document specific details, including dates, times, locations, and descriptions of the bullying behavior. Encourage students to be honest and assure them that their safety is a priority.
3. Consequences and Support: The bullying student should face appropriate consequences for their behavior. This may include disciplinary action such as a warning, loss of privileges, or in severe cases, suspension or expulsion. However, it's important to also provide support and resources for the student to address the underlying reasons for their behavior.
4. Notify Parents/Guardians: Contact the parents/guardians of both the victim and the bullying student to inform them about the incident. Discuss the actions taken, consequences, and strategies to prevent future occurrences. Encourage open communication and collaboration between home and school.
5. Educate and Empower: Provide educational opportunities to raise awareness about bullying and its impact on individuals and the school community. Offer workshops, presentations, or classroom discussions that promote empathy, respect, and understanding. Encourage students to stand up against bullying and report incidents.
6. Implement Prevention Strategies: Develop and implement a comprehensive anti-bullying policy within the school. This should include clear definitions, reporting procedures, and a supportive framework to prevent bullying effectively. Foster a positive

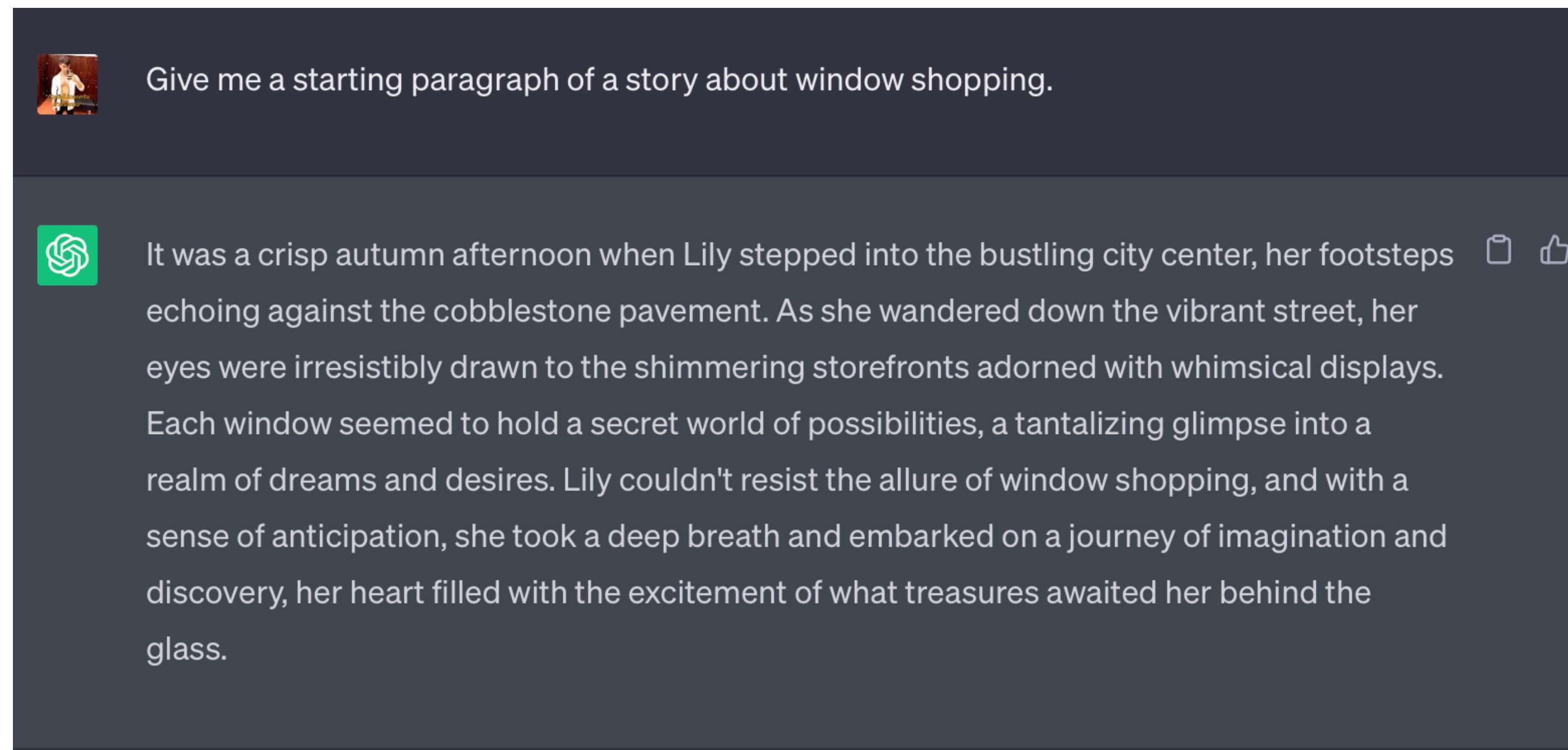
Regenerate response

2.2) Uses in Language Learning

Story Completion

Providing a good start/end

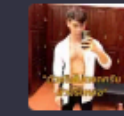
- ChatGPT can give you a good start or end for a story
- You ask a student to complete it as an exercise
- Possible prompts
 - **Start:** Give me a starting paragraph of a story about window shopping.
 - **End:** “.....” Give me an ending paragraph of this story.



Thesaurus

Expand the vocabulary

- ChatGPT can generate appropriate contexts for a word
- Possible prompts
 - **Give contexts:** Use 'serendipitous' in different contexts.
 - **Thesaurus:** Suggest similar words to 'new' in "I propose a new method".



Suggest similar words to 'new' in "I invent a new method."



Here are some similar words you can use instead of "new" in the sentence "I invent a new method":



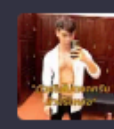
1. Innovative: "I invent an innovative method."
2. Novel: "I invent a novel method."
3. Fresh: "I invent a fresh method."
4. Original: "I invent an original method."
5. Unique: "I invent a unique method."
6. Revolutionary: "I invent a revolutionary method."
7. Unconventional: "I invent an unconventional method."
8. Cutting-edge: "I invent a cutting-edge method."
9. Pioneering: "I invent a pioneering method."
10. Groundbreaking: "I invent a groundbreaking method."

These words convey a sense of something different, creative, or groundbreaking in the context of inventing a new method. Choose the word that best fits the specific connotation or tone you want to convey.

List of Words

Expanding the vocabulary

- ChatGPT can list words and phrases for your study
- Possible prompts
 - **Enumerate:** List 10 commonly used adjectives in the scientific articles.
 - **Thesaurus with examples:** Please suggest me five alternative words for 'probable' and clarify their uses in the contexts.
 - **Slang:** What does it mean by 'snappy'?



Please suggest me five alternative words for 'probable' and clarify their uses in the contexts.



Certainly! Here are five alternative words for "probable" and their uses in different contexts:



1. **Likely:** This word indicates a strong possibility or high probability of something happening. It implies that the event or outcome is expected or anticipated based on available information or evidence.

Example: It is likely that the team will win the championship based on their exceptional performance throughout the season.

2. **Possible:** This word suggests that something can happen or is within the realm of possibility, although it may not be as certain or probable as other options.

Example: It is possible that the experiment results could vary due to different factors affecting the outcome.

3. **Plausible:** This word describes something that appears reasonable, believable, or credible based on available evidence or logical reasoning.

Example: The hypothesis put forward by the researcher seems plausible, as it aligns with existing scientific theories.

4. **Promising:** This word indicates that something shows potential for success, positive results, or favorable outcomes in the future.

Example: The new drug shows promising results in early clinical trials, indicating its potential effectiveness in treating the disease.

5. **Likely:** This word suggests a strong probability or high chance of something happening

Debate!

with the chatbot

- ChatGPT can be quite a polite opponent in a debate, esp. for controversial issues
- Debates help improve language proficiency
- Possible prompts
 - Let's have a debate. Pretend to be a tough opponent. What is your opinion about Asian racism in the African-American community?


Let's have a debate. You pretend to be a tough opponent. What is racism?

Racism is a deeply ingrained belief system or ideology that asserts the inherent superiority or inferiority of individuals or groups based on their race or ethnicity. It involves the prejudice, discrimination, and systemic oppression of individuals or communities based on their racial background.

Racism can manifest in various ways, including individual acts of prejudice, discriminatory policies or practices, and social structures that perpetuate inequality. It can occur on personal, institutional, and systemic levels, and can impact various aspects of life, such as education, employment, housing, and access to healthcare.

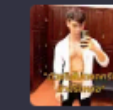
Those who oppose racism argue that it is a harmful and destructive force that perpetuates social divisions, marginalizes certain groups, and denies equal opportunities and rights to individuals based on their race or ethnicity. Racism is seen as a violation of human rights and a barrier to achieving a just and equitable society.

However, it's important to note that this is a general description of racism, and there can be nuanced perspectives and debates about its definition, forms, and impact. Engaging in meaningful discussions about racism can help foster greater understanding and work towards eradicating this harmful phenomenon from our societies.

 Regenerate response

Running out of Ideas

- When you are running out of ideas for your essay, ChatGPT can propose some for you
- Possible prompts
 - Propose some essay topics. The idea is “...”
 - Help me come up with catchy essay topics. The idea is “...”



Propose essay topics. The idea is "Sumerian is not the oldest language in the World despite being the first to be attested."

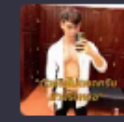


1. "Unveiling the Ancient Tongues: Exploring Contenders for the Oldest Language in the World"
2. "Beyond Sumerian: Challenging the Notion of the Oldest Attested Language"
3. "Cracking the Linguistic Code: Debunking the Myth of Sumerian as the Oldest Language"
4. "Linguistic Archeology: Tracing the Origins of Human Communication Beyond Sumerian"
5. "Untangling the Threads of Time: Reevaluating the Chronology of Ancient Languages"

Note: These essay topics delve into the fascinating realm of ancient languages and challenge the notion that Sumerian is the oldest language despite being the first to be attested. They encourage exploring alternative contenders and understanding the complexities of linguistic evolution and human communication in ancient times.

Rephrasing

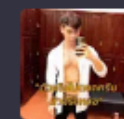
- ChatGPT can rephrase your wordings into another tone and language register
- Possible prompts
 - Rephrase this text using highly academic vocabulary.
 - Rephrase this text for a six-year-old child's wording.



Rephrase this text using highly academic vocabulary: "My dog passed away six months ago, and my parents are still unable to let go. They mourn for her every day, unable to overcome their deep sadness."



The bereavement of my canine companion occurred half a year ago, yet my parents persist in their emotional attachment, finding themselves incapacitated to release their profound sense of loss. Their daily observance of mourning persists unabated, as the arduous task of surmounting their profound melancholy eludes their grasp.



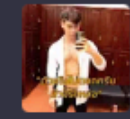
Rephrase this text for a six-year-old boy's wording: "My dog passed away six months ago, and my parents are still unable to let go. They mourn for her every day, unable to overcome their deep sadness."



My doggie went away six months ago, and my mommy and daddy are still very sad. They miss her a lot and think about her every day. They wish they could feel better, but it's really hard for them.

Elaboration

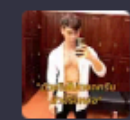
- ChatGPT can elaborate your content with details for ease of understanding
- Be cautious that the elaboration may be hallucinating
- Possible prompt
 - Rephrase this text in a high-context paragraph.



Rephrase this text in a high-context paragraph: "Sumerian is not the oldest language in the World, despite the first to be attested."



Although Sumerian holds the distinction of being the first language for which written evidence exists, it is important to note that it is not the oldest language in the world. While it may have the earliest known records, there were likely spoken languages predating Sumerian that were not documented or have not yet been discovered. Thus, while Sumerian marks a significant milestone in the history of written languages, it is crucial to recognize that the origins of human language likely extend even further back in time.



Rephrase this text in a high-context paragraph: "My dog passed away six months ago, and my parents are still unable to let go. They mourn for her everyday, unable to overcome their deep sadness."



The profound loss of our cherished canine companion occurred half a year ago, yet the grip of grief remains steadfast within the hearts of my parents. The unyielding sorrow lingers, as they find themselves unable to release their emotional attachment. Every passing day is marked by their mourning, trapped in the struggle to surmount the depths of their profound sadness. The enduring pain serves as a constant reminder of the irreplaceable void left behind by the departure of our beloved dog.



Essay Outline

Something you can start with

- ChatGPT can write an outline for an essay for a particular topic
- Possible prompts
 - **Outline:** Give me an essay outline about production planning and electricity cost
 - **Ideation:** Ideate a topic for an essay concerning production planning and electricity cost



Give me an essay outline for production planning and electricity cost.



Certainly! Here's an essay outline on the topic of production planning and electricity cost:

I. Introduction

A. Briefly introduce the importance of production planning and its impact on business operations.

B. Provide a general overview of the significance of electricity cost in the production process.

II. Definition and Explanation

A. Define production planning and its role in optimizing resources, scheduling, and meeting production targets.

B. Explain the concept of electricity cost and its significance as a major expense in the production process.

III. Factors Influencing Electricity Cost in Production

A. Discuss the various factors that affect electricity cost, such as:

1. Energy consumption patterns and load profiles.
2. Efficiency of production equipment and machinery.
3. Time of use and demand charges.
4. Pricing structures and electricity tariffs.

IV. Importance of Efficient Production Planning for Cost Reduction

A. Highlight the benefits of effective production planning in managing electricity cost:

1. Optimizing production schedules to avoid peak demand periods.
2. Implementing energy-efficient practices and technologies.
3. Analyzing energy usage data to identify areas for improvement.
4. Adopting renewable energy sources to reduce reliance on traditional power grids.

V. Strategies for Effective Production

☐ Stop generating

management

Essay Outline

Something you can start with

- ChatGPT can write an outline for an essay for a particular topic
- Possible prompts
 - **Outline:** Give me an essay outline about production planning and electricity cost
 - **Ideation:** Ideate a topic for an essay concerning production planning and electricity cost



Please ideate a topic for an essay concerning production planning and electricity cost.



Certainly! Here's a topic for an essay on production planning and electricity cost:

Title: "Optimizing Production Planning to Reduce Electricity Costs: Strategies for Sustainable Manufacturing"

Introduction:

In today's energy-conscious world, businesses are increasingly recognizing the significance of efficient production planning to reduce electricity costs and enhance sustainability. This essay explores the relationship between production planning and electricity cost in the context of manufacturing operations. It delves into the challenges faced by businesses in managing electricity expenses and presents strategies and best practices for optimizing production planning to achieve cost savings and environmental sustainability.

Paragraph 1: The Significance of Electricity Cost in Manufacturing Operations

Discuss the importance of electricity cost as a significant expense in manufacturing operations. Highlight the impact of rising energy prices on production budgets and the need for effective management of electricity consumption.

Paragraph 2: Challenges in Electricity Cost Management for Manufacturing Businesses

Examine the challenges faced by manufacturing businesses in managing electricity costs. Discuss factors such as fluctuating energy prices, inefficient production processes, lack of visibility into energy usage, and limited access to renewable energy sources.

Paragraph 3: The Role of Production Planning in Electricity Cost Optimization

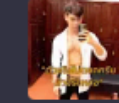
Explain the crucial role of production planning in optimizing electricity costs. Discuss how strategic production scheduling, demand forecasting, and capacity planning can help businesses align production with energy availability, reducing peak energy usage and associated costs.

Regenerate response

Edit Suggestion

Grammar checking

- ChatGPT offers grammatical correction and suggestion
- Possible prompts
 - **Edit suggestion:** Show mistakes in this paragraph: ...
 - **Language use:** Which one sounds more educated? (A) ... (B) ... (C) ... (D) ...

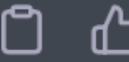


Show mistakes in this paragraph:

The dice have possibly six face. Each face is paint with dots represent number. The dice mostly used in gambling and slot machines.



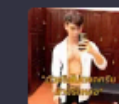
Here are the mistakes in the paragraph:



1. "The dice have possibly six face." should be corrected to "The dice have possibly six faces."
2. "Each face is paint with dots represent number." should be corrected to "Each face is painted with dots representing numbers."
3. "The dice mostly used in gambling and slot machines." should be corrected to "Dice are mostly used in gambling and slot machines."

Corrected paragraph:

The dice have possibly six faces. Each face is painted with dots representing numbers. Dice are mostly used in gambling and slot machines.

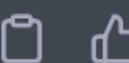


Which one sounds more educated:

- (1) Deodorants are used to suppress body odors produced by the sweat glands under the armpits.
- (2) Deodorants are used to stop your body smells.



The first statement, "Deodorants are used to suppress body odors produced by the sweat glands under the armpits," sounds more educated. It provides a clear and specific explanation of the purpose of deodorants and their relationship to body odor and sweat glands. It demonstrates a better understanding of the topic and uses more precise and descriptive language.

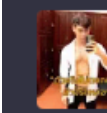


Regenerate response

Peer Feedback

Practice the reviewer-ship

- ChatGPT can provide peer reviewing exercises for young research scientists
- Possible prompts
 - **Essay:** Write me an essay about climate change in a confusing way.
 - **Paragraph:** Write me a paragraph that is completely non-sense in terms of climate change



Write me an essay about climate change in a confusing way.



Climate change, a perplexing and intricate phenomenon, entangles our planet in a convoluted web of interconnected events and multifaceted repercussions. It is a manifestation of alterations occurring within Earth's atmospheric composition, which set forth a chain reaction of intricate climatic patterns and bewildering consequences. The intricate dance of greenhouse gases, those enigmatic agents of change, intertwines with the intricate ballet of natural forces, resulting in a tapestry of perplexing shifts in temperature, precipitation, and atmospheric conditions.

As the delicate equilibrium of Earth's climate teeters on a precarious precipice, it becomes abundantly clear that humanity's voracious appetite for fossil fuels has played an intricate role in perturbing this intricate balance. The labyrinthine network of carbon emissions emitted from anthropogenic activities weaves its way into the very fabric of our atmosphere, trapping heat and ensnaring our planet in an enigmatic cycle of escalating temperatures and erratic weather patterns.

Attempting to unravel the intricate tapestry of climate change is akin to navigating a treacherous maze, where myriad factors converge and diverge, confounding our attempts to grasp the full scope of this enigmatic phenomenon. The intricate dance of solar radiation, ocean currents, and atmospheric dynamics coalesce into an intricate symphony of climate variability, punctuated by discordant notes of extreme weather events, melting ice caps, and rising sea levels.

Within this bewildering cacophony of climatic shifts, the intricate interplay between cause and effect often eludes our comprehension. The confounding feedback loops, elusive tipping points, and nonlinear dynamics conspire to bewilder our understanding of this complex system. The intricacies of climate models, with their bewildering array of variables and uncertainties, further complicate our efforts to decipher the enigmatic puzzle that is climate change.

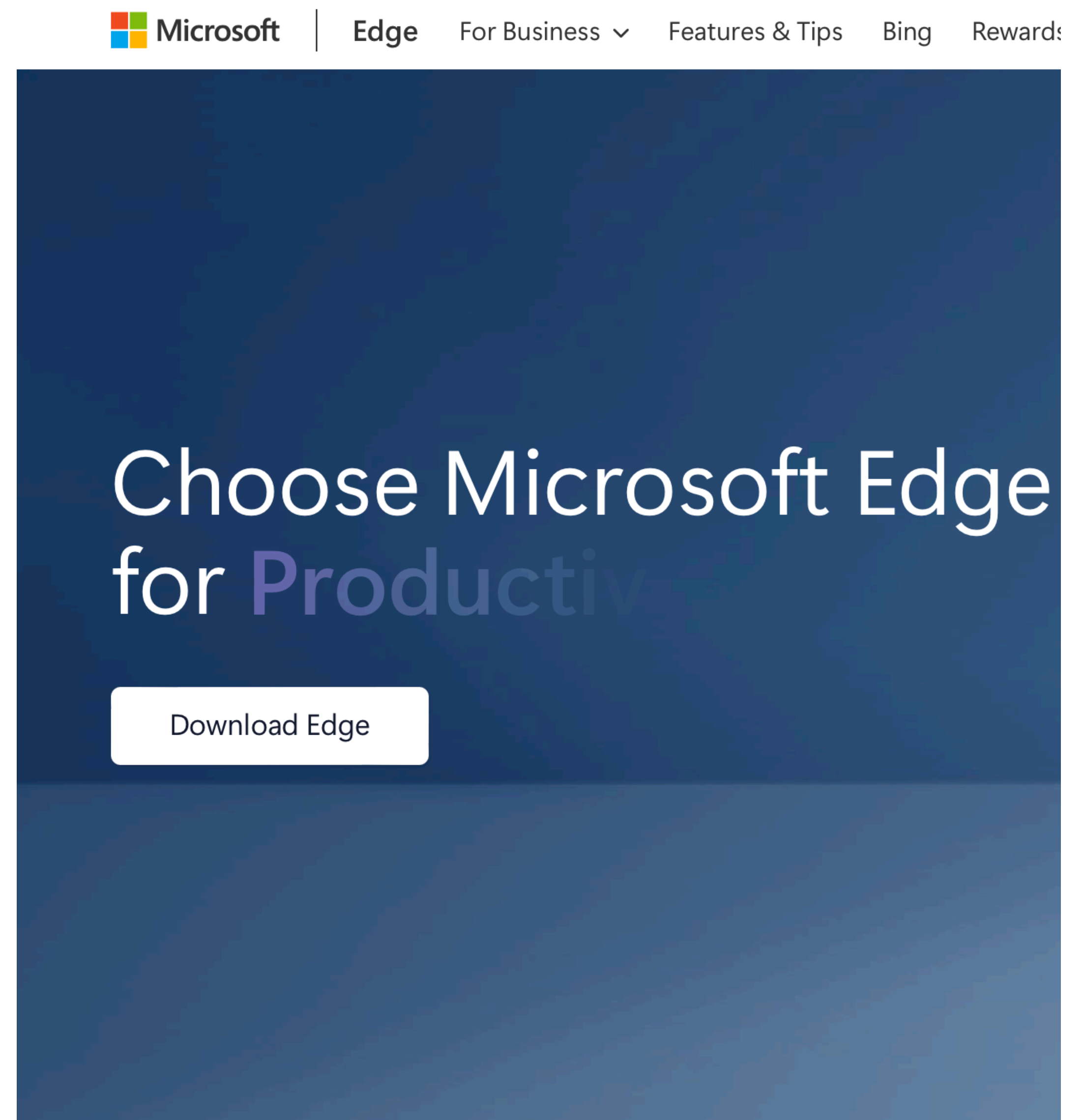
🔄 Regenerate response

2.3) Uses in Research

Setting Up/1

We need a tool

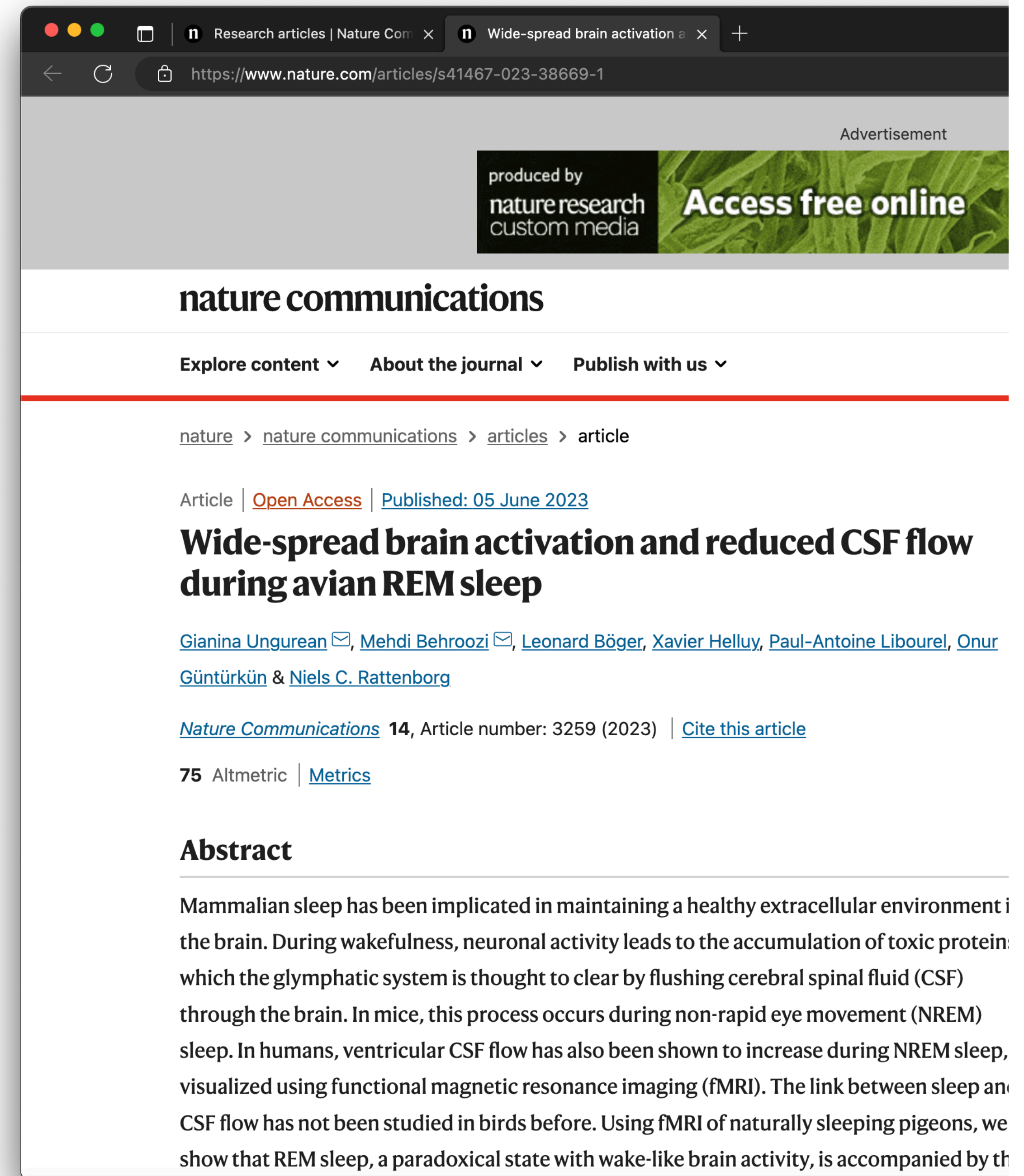
- **Step 1:** Browse to <https://www.microsoft.com/en-us/edge> and download MS Edge



Setting Up/2

We need a tool

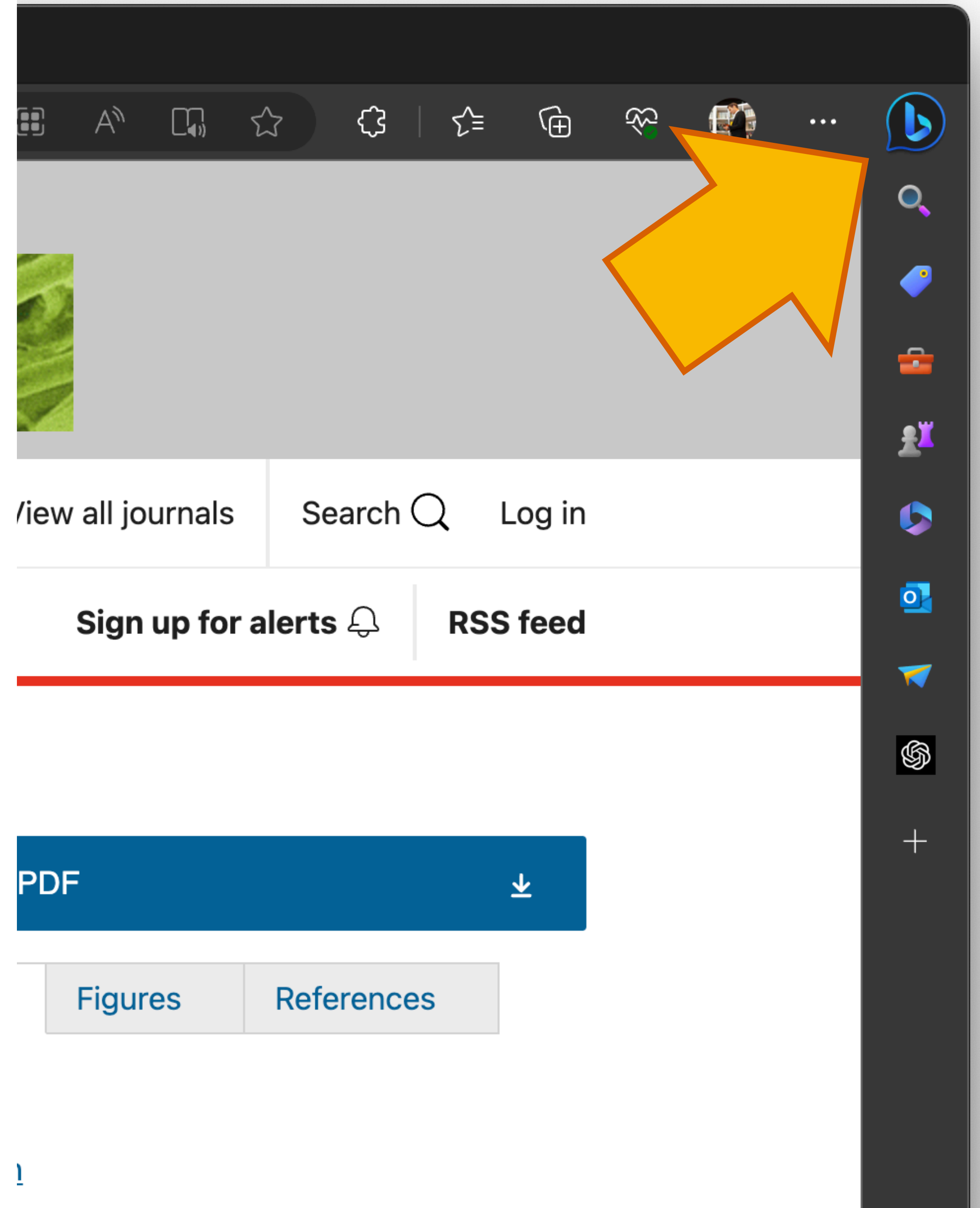
- **Step 2:** Open MS Edge



Setting Up/3

We need a tool

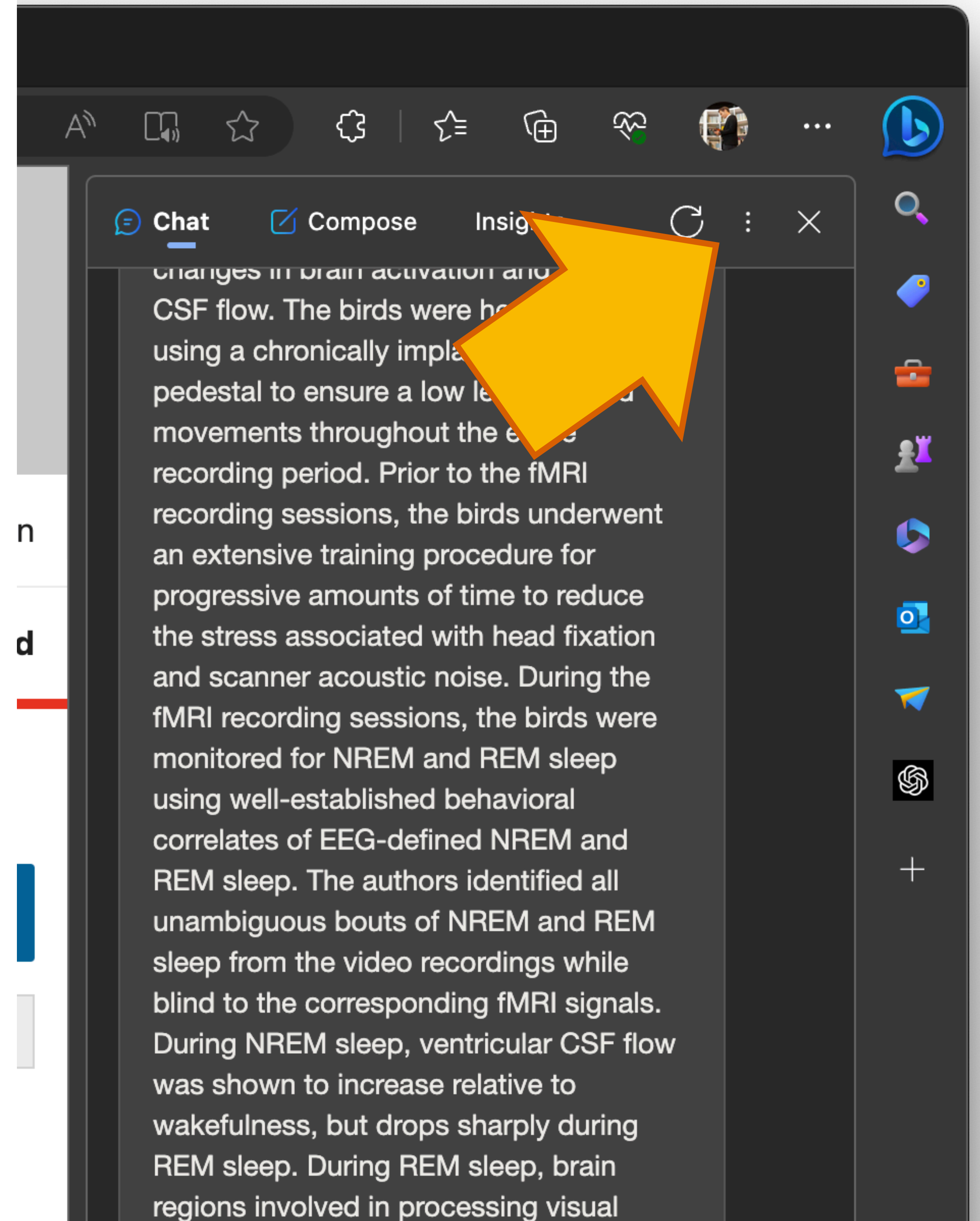
- **Step 3:** Click on the Bing icon on the top right



Setting Up/4

We need a tool

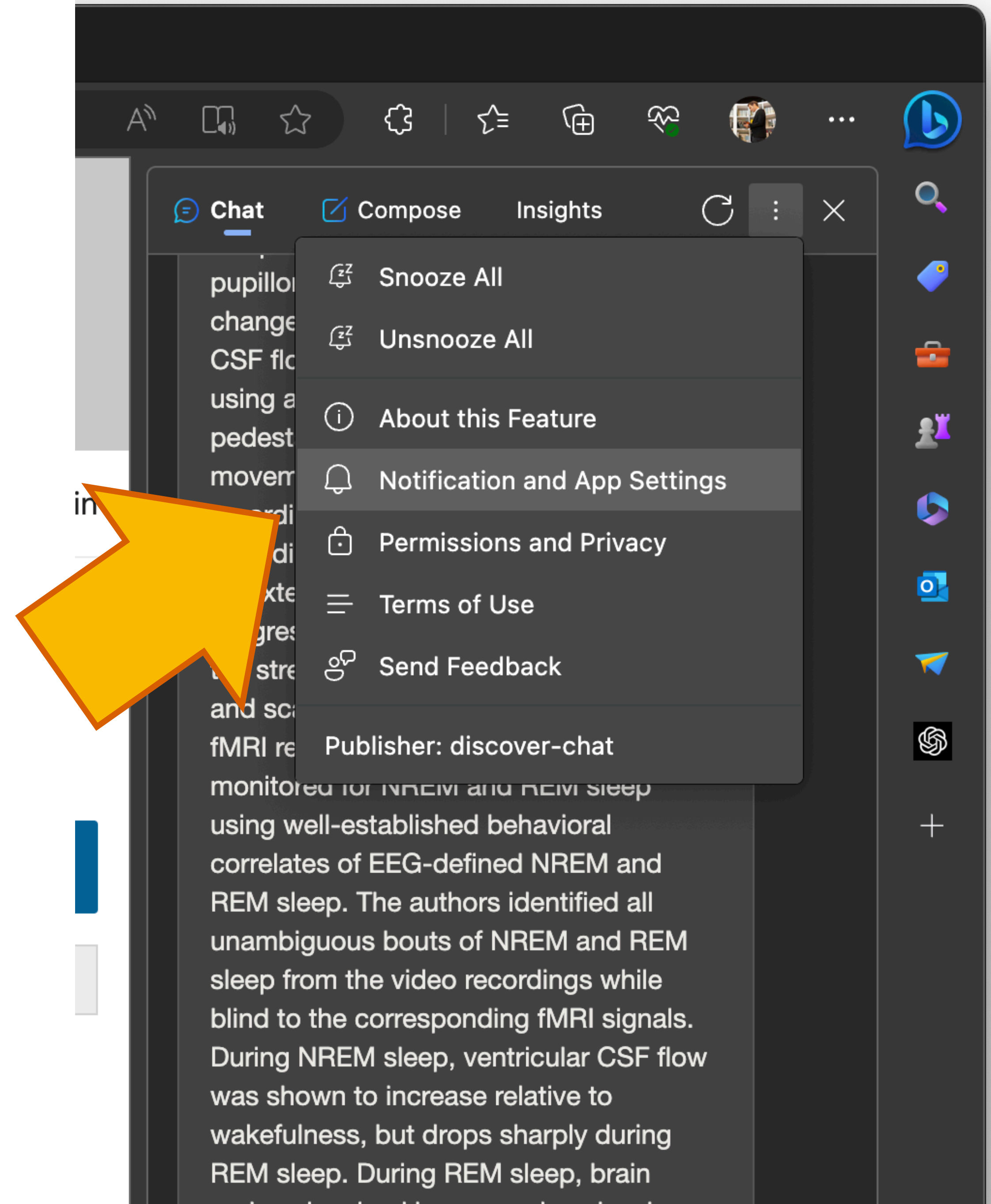
- **Step 4:** Once the window pops up, click the three vertical dots



Setting Up/5

We need a tool

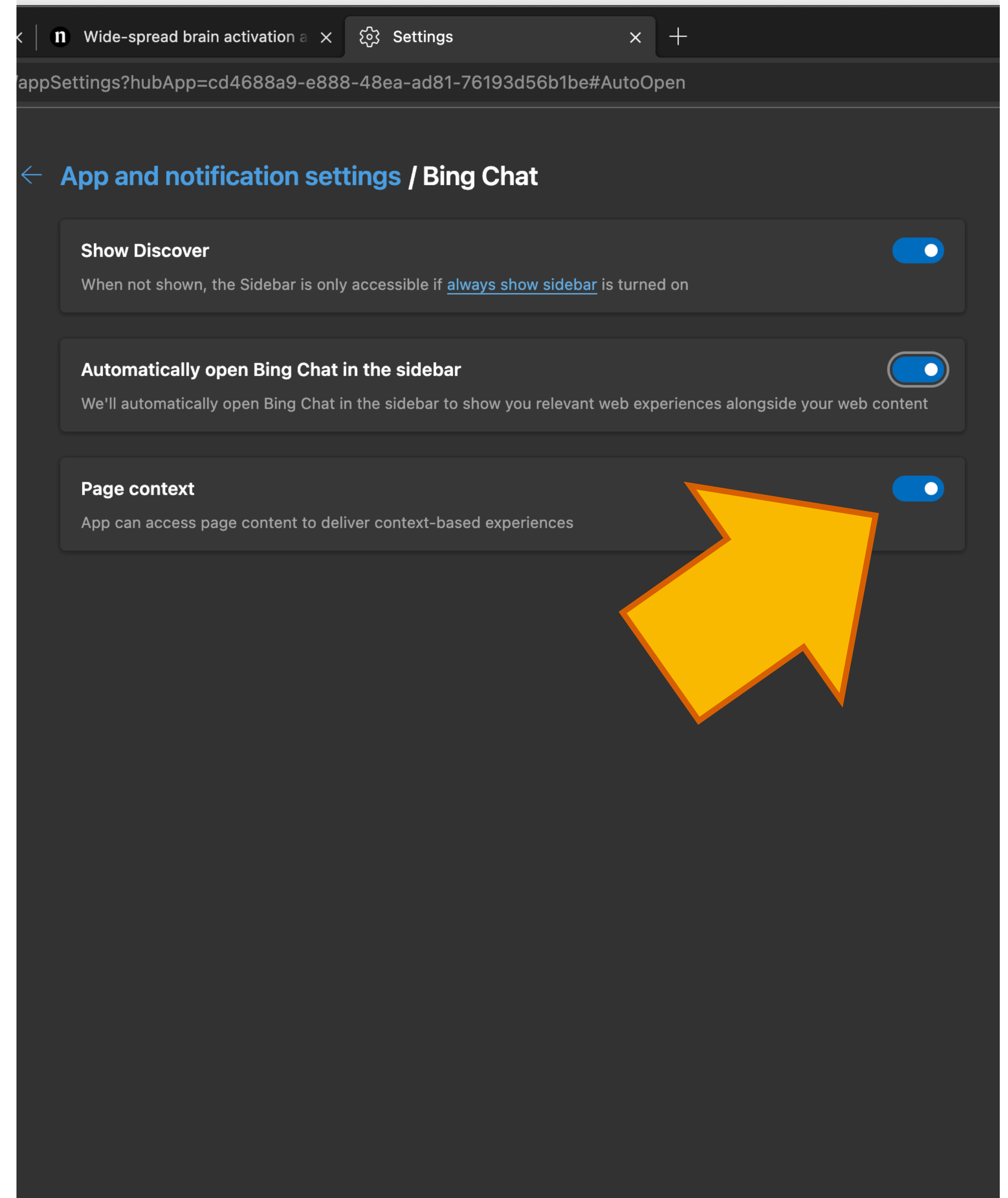
- **Step 5:** Select Notification and App Settings



Setting Up/6

We need a tool

- **Step 6:** Enable Page Context. This enables ChatGPT to read the current page.



Seven Steps of Research

(Seven commandments, more like)

1. Paper skimming, ahem, reading
2. Define your research question or hypothesis
3. Conduct literature review and identify research gap
4. Gather and analyze data
5. Organize your paper
6. Draft your paper
7. Edit and proofread your paper

Paper Skimming

Key findings and implication

- First, we browse to the paper via its URL
- ChatGPT accepts HTML, PDF, and many more formats
- **Prompt:** Identify the key findings and implication of this paper (*optionally with URL*).



Identify the key findings and implication of this paper
<https://www.nature.com/articles/s41467-023-38669-1>

✓ Searching for: **wide-spread brain activation and reduced CSF flow during avian REM sleep nature communications**

✓ Generating answers for you...

The article you provided is titled “Wide-spread brain activation and reduced CSF flow during avian REM sleep” and was published in Nature Communications on June 5th, 2023. The study shows that during REM sleep in pigeons, a paradoxical state with wake-like brain activity, there is wide-spread brain activation of regions involved in processing visual information. The study also shows that ventricular CSF flow increases during NREM sleep relative to wakefulness but drops sharply during REM sleep. Consequently, functions linked to brain activation during REM sleep might come at the expense of waste clearance during NREM sleep. The study suggests that a trade-off exists between functions performed by wide-spread brain activation during REM sleep and waste clearance during NREM sleep. You can read more about the study from the current web page context ¹.

Learn more:

9 of 30

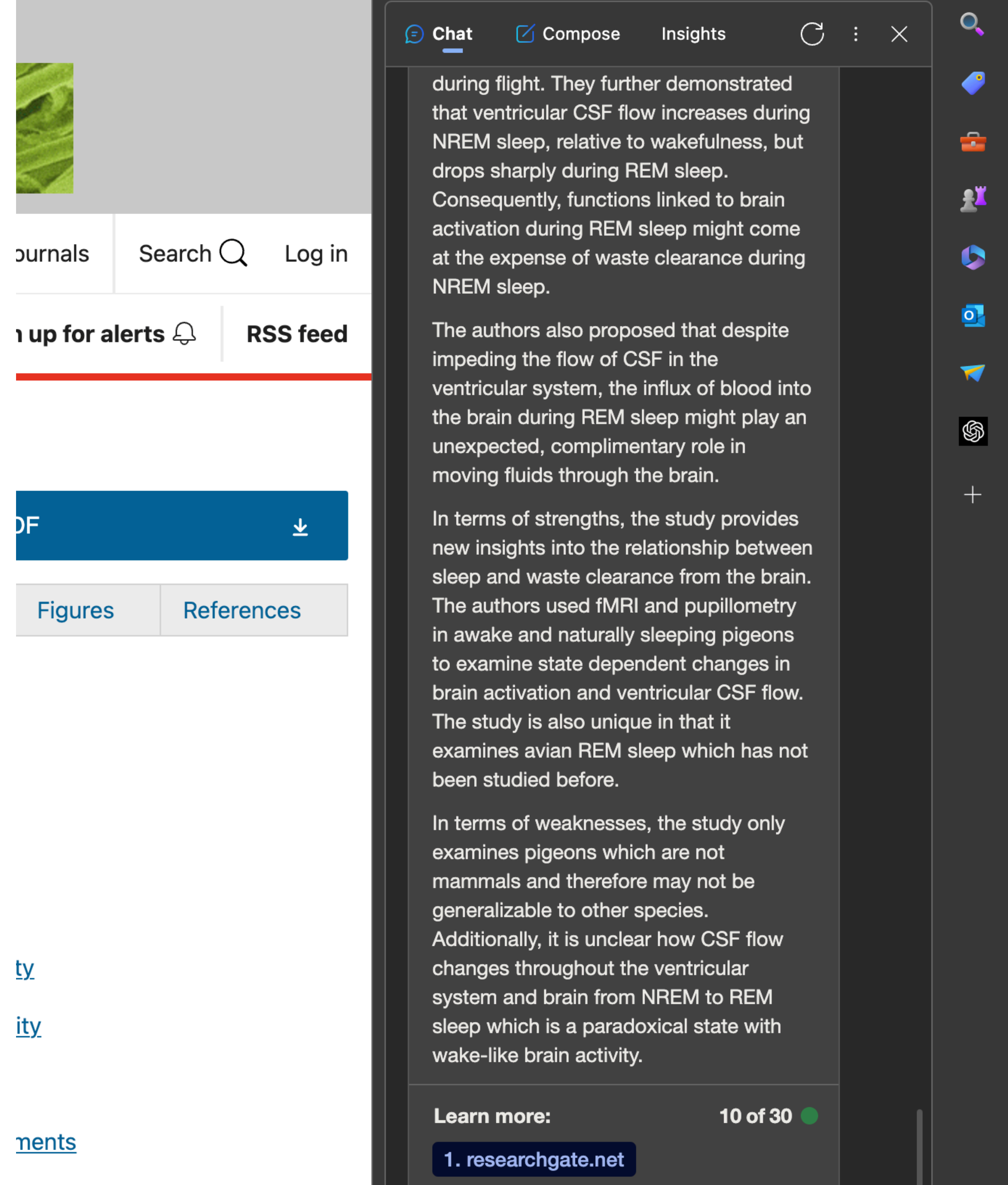
1. nature.com

2. researchgate.net

Pros and Cons

Strengths and weaknesses

- Once we identified the key findings and implication, we now have a context to dive into
- **Possible prompts**
 - Analyze the strengths and weaknesses of this paper.
 - What is [topic]?
 - Describe the strengths of [topic].
 - Describe the weaknesses of [topic].



The screenshot shows a web interface for a research article. At the top, there are navigation links: "journals", "Search", and "Log in". Below these are links for "Sign up for alerts" and "RSS feed". The main content area is divided into sections: "DF" (with a download icon), "Figures", and "References". A chat overlay is visible on the right side, displaying text from the article. The chat text discusses ventricular CSF flow during NREM and REM sleep, brain activation during REM sleep, and the study's strengths and weaknesses. The chat interface includes a "Chat" button, a "Compose" button, and an "Insights" button. The chat text is as follows:

during flight. They further demonstrated that ventricular CSF flow increases during NREM sleep, relative to wakefulness, but drops sharply during REM sleep. Consequently, functions linked to brain activation during REM sleep might come at the expense of waste clearance during NREM sleep.

The authors also proposed that despite impeding the flow of CSF in the ventricular system, the influx of blood into the brain during REM sleep might play an unexpected, complimentary role in moving fluids through the brain.

In terms of strengths, the study provides new insights into the relationship between sleep and waste clearance from the brain. The authors used fMRI and pupillometry in awake and naturally sleeping pigeons to examine state dependent changes in brain activation and ventricular CSF flow. The study is also unique in that it examines avian REM sleep which has not been studied before.

In terms of weaknesses, the study only examines pigeons which are not mammals and therefore may not be generalizable to other species. Additionally, it is unclear how CSF flow changes throughout the ventricular system and brain from NREM to REM sleep which is a paradoxical state with wake-like brain activity.

Learn more: 10 of 30

1. researchgate.net

Knowledge Expansion

Epistemological interlinkage

- Based on the context, we can also leverage the knowledge embedded in the LLM
- **Possible prompts**
 - How is [topic-1] relevant/related to [topic-2]?
 - What is the relationship between [topic-1] and [topic-2]?

Download PDF ↓

FiguresReferences

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ChatComposeInsights

How is brain activation relevant to REM sleep?

✓ Searching for: brain activation during REM sleep

✓ Generating answers for you...

According to the current web page context, REM sleep is accompanied by the activation of brain regions involved in processing visual information, including optic flow during flight. During REM sleep, the brain is more active than during NREM sleep and is accompanied by rapid eye movements and vivid dreams. REM sleep is also thought to play a role in memory consolidation and emotional regulation. Would you like me to look up more information on this topic?

Learn more: 19 of 30

1. sleepfoundation.org

2. nature.com +3 more

? Answer from this page instead

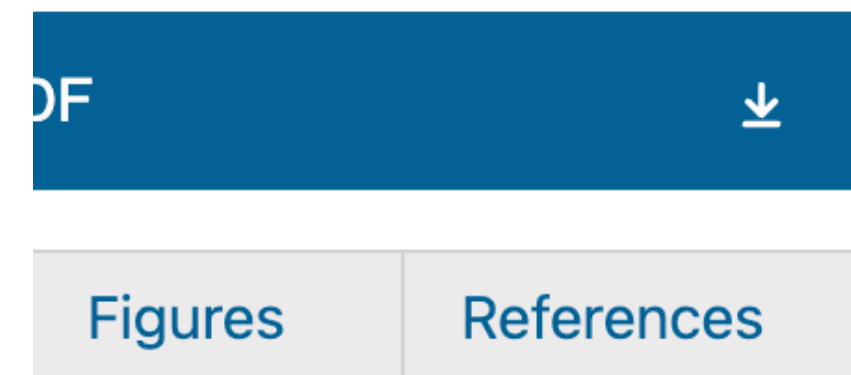
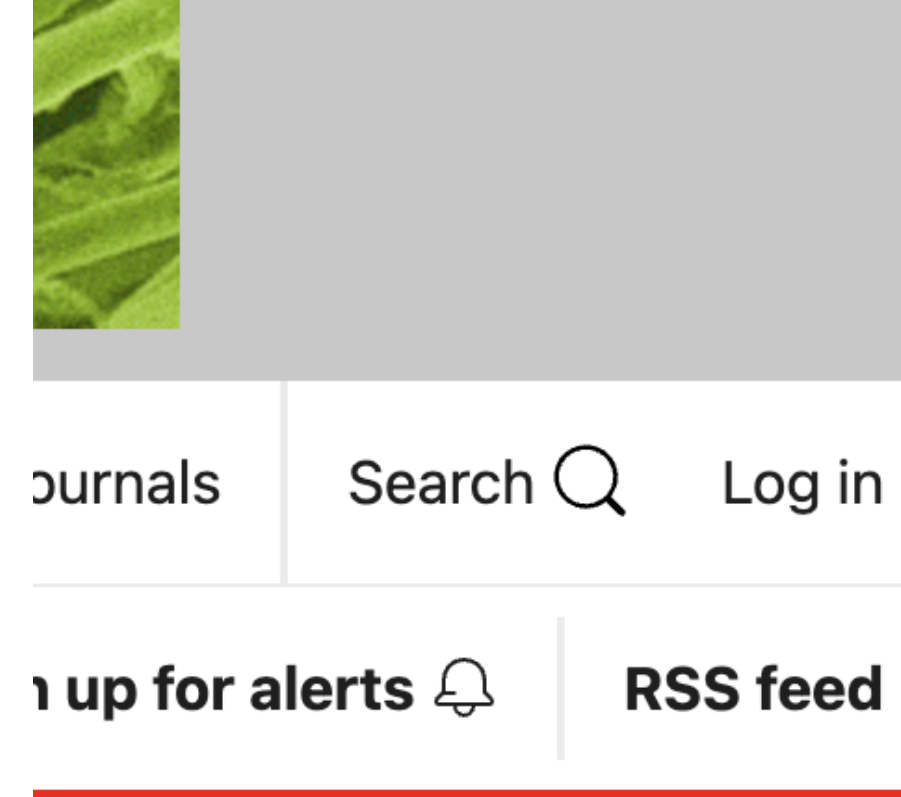
What is NREM sleep?

What is the glymphatic system?

Research Questions

Identifying the gap

- Given the context, we can even extract research questions from the context
- **Potential prompts**
 - List potential research questions related to this paper / [topic].
 - How can I extend the work of this paper / [topic]?



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List potential research questions related to this paper.

✓ Searching for: research questions related to "Wide-spread brain activation and reduced CSF flow during avian REM sleep"

✓ Generating answers for you...

Here are some potential research questions related to the paper "Wide-spread brain activation and reduced CSF flow during avian REM sleep" that you might find interesting:

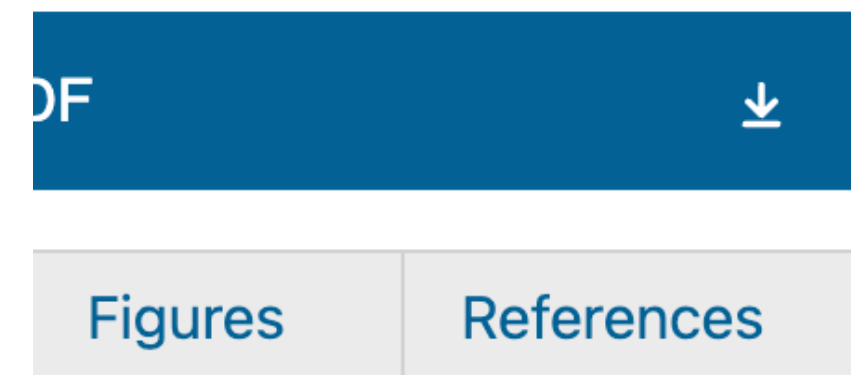
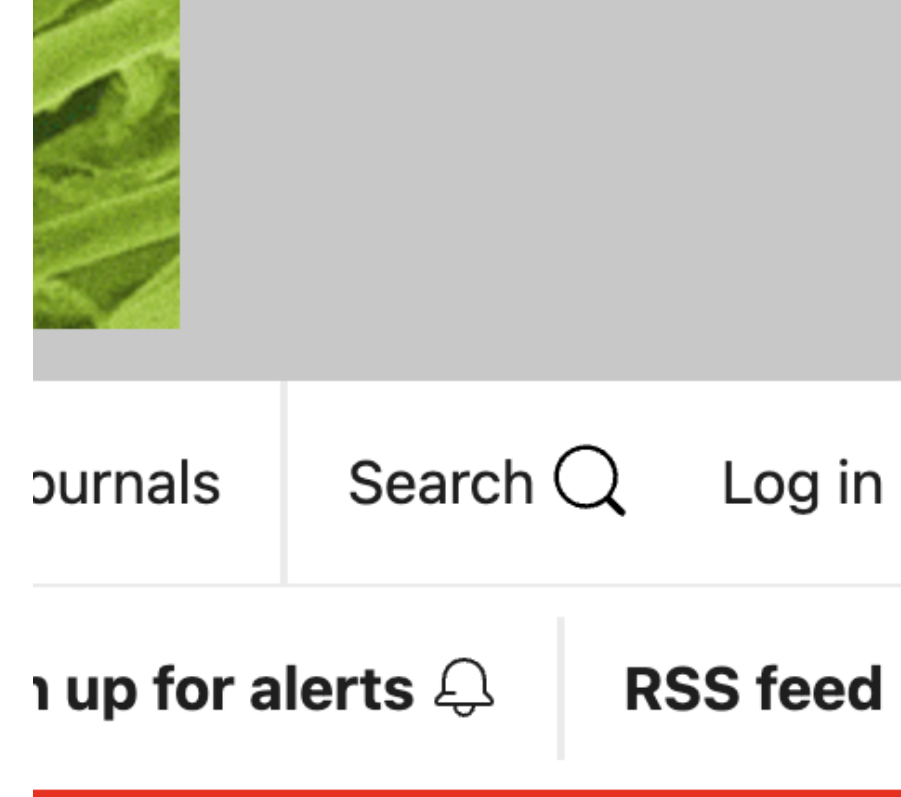
1. What is the relationship between sleep and cerebrospinal fluid (CSF) flow in birds?
2. How does the glymphatic system work in birds?
3. What are the differences between NREM and REM sleep in birds?
4. How does REM sleep affect brain activation in birds?
5. What is the role of CSF flow during NREM sleep in birds?
6. How does REM sleep affect waste clearance in birds?
7. What is the role of blood influx into the brain during REM sleep in moving fluids through the brain?

I hope this helps!

Steps of Experiment

Extracting the recipe

- We can extract the recipe for experiments used in the paper for the sake of replicability
- **Possible prompts**
 - List the steps of experiments used in this paper.
 - Create a recipe for the process used in this paper.



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ments

List the steps of the experiment used in this paper.

- ✓ Searching for: **Wide-spread brain activation and reduced CSF flow during avian REM sleep experiment steps**
- ✓ Generating answers for you...

The current web page context is an article from Nature Communications titled “Wide-spread brain activation and reduced CSF flow during avian REM sleep” by Gianina Ungurean et al. The experiment was conducted on naturally sleeping pigeons using fMRI and pupillometry to examine state-dependent changes in brain activation and ventricular CSF flow. The birds were head-fixed using a chronically implanted plastic pedestal to ensure a low level of head movements throughout the entire recording period. Prior to the fMRI recording sessions, the birds underwent an extensive training procedure for progressive amounts of time to reduce the stress associated with head fixation and scanner acoustic noise. During the fMRI recording sessions, the birds were monitored for NREM and REM sleep using well-established behavioral correlates of EEG-defined NREM and REM sleep. The authors identified all unambiguous bouts of NREM and REM sleep from the video recordings while blind to the corresponding fMRI signals.

You are the Key Part!

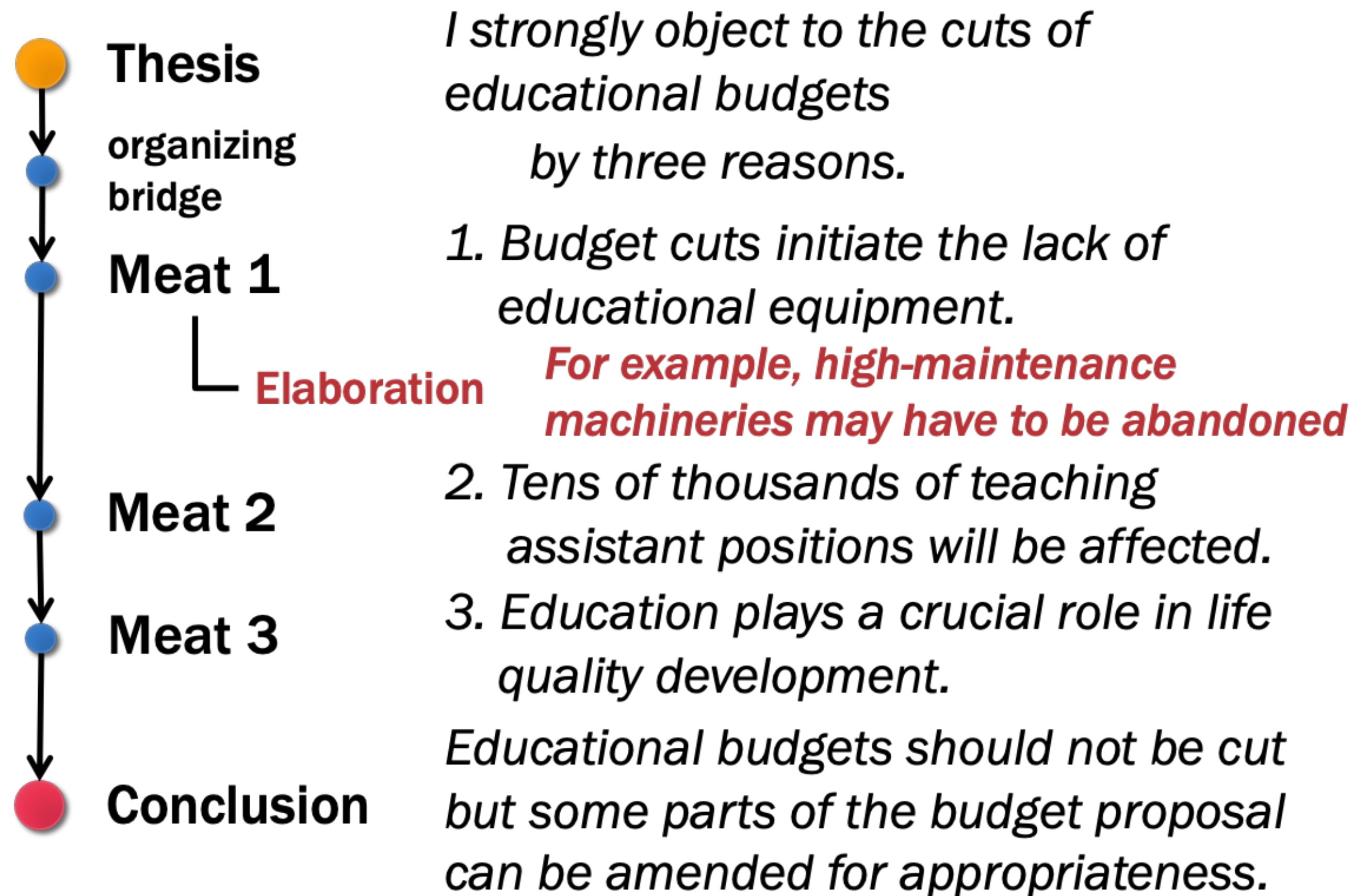
- You have to play your part
 - Run countless experiments
 - Analyze the data trends
 - Discuss agreement and disagreement with the field generalization
- **Come up with the key findings and implication**



2.4) Uses in Publication

TOMEK /tu:-mik/

Paragraph writing



I strongly object to the cuts of educational budgets by three reasons. ***First, budget cuts initiate the lack of educational equipment.*** For example, high-maintenance machineries may have to be abandoned. Undoubtedly, this threatens the quality of advanced studies in which labs and experiments are necessary for students. ***Second, tens of thousands of teaching assistant positions will be affected by this measure.*** Those teaching assistants will be laid off, while the professors will have to take an extra burden of responsibilities. ***Last and most importantly, education plays a crucial role in life quality development.*** Offering better-paid career opportunities, it bolsters the taxation capability of the government in a long run. ***All in all, education budgets should not be cut. However, some parts of the budget proposal can be amended if necessary.***

Essay Writing

Each block = paragraph



Hook

Story development

Thesis + org. bridge



Meats as ToMEC



Thesis restatement

Take-home message



Final hook



In this article, I will unravel three simple tips that make you bake perfect macarons every time.



First, you have to prebake your ground almond to in low temperature (100°C) for 10 mins to make sure there is no more moisture left in it. <BODY>



Next, I suggest you use Italian meringue rather than the French one. <BODY>

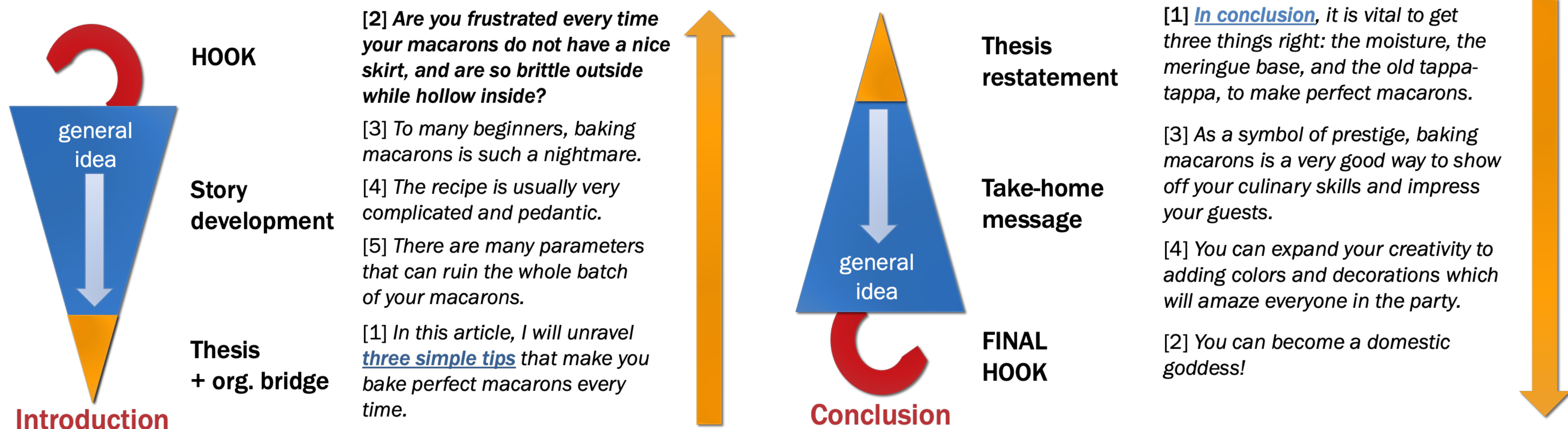
By using hot and fluffy Italian meringue, the next step will become possible.



Finally, you must tap the bottom of the baking tray to get rid of the bubbles remained in the batter and allow almond grains to sink, making a silky smooth skin of the macaron shells. <BODY>

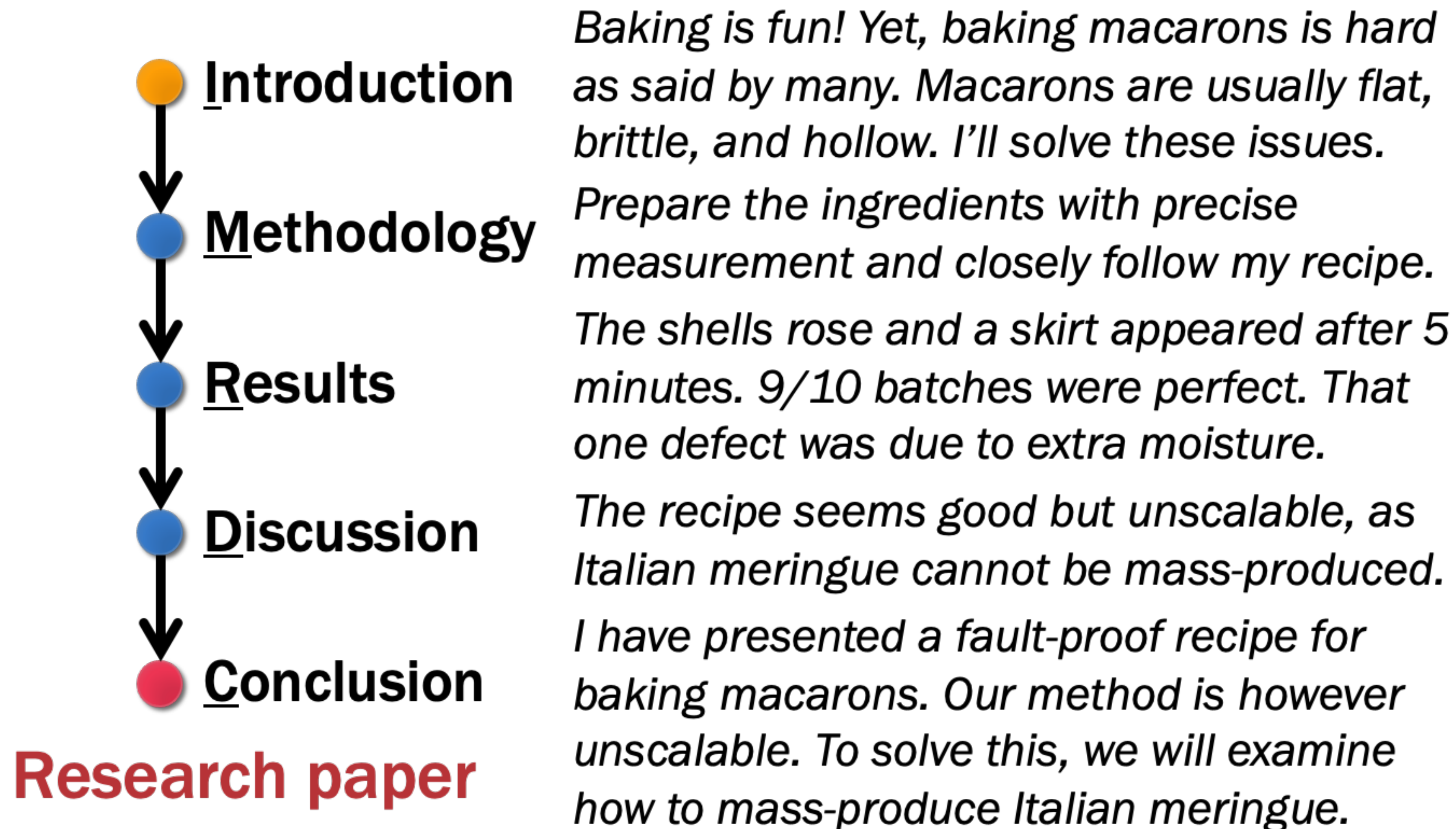
Essay Writing

How to write an introduction and a conclusion



Scholarly Writing

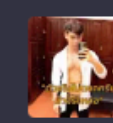
Drafting a paper \approx writing a cooking recipe



Paper Outline

All you need is a map

- ChatGPT can give you an outline of your paper
- Possible prompt
 - Give me an outline of a paper about [topic]. The key findings are [findings]. The implication of this paper is [implication].



Give me an outline of a paper about a modified Transformer architecture that accepts an input sequence of an infinite length. The key finding is that semantic search helps select the right attention areas and reduces the attention table. The implication is that it can be used in sequence-to-sequence prediction, where the input sequences can be very long.



I. Introduction

- A. Background on the Transformer architecture and its limitations with finite input sequences
- B. Motivation for developing a modified Transformer architecture to handle input sequences of infinite length
- C. Objectives of the paper and overview of the proposed modified architecture

II. Overview of the Transformer architecture

- A. Brief explanation of the original Transformer architecture and its components (e.g., self-attention mechanism, encoder-decoder structure)
- B. Limitations of the original Transformer when dealing with long or infinite input sequences

III. Challenges in handling infinite input sequences

- A. Explanation of the challenges associated with processing and representing infinite-length sequences
- B. Identification of key problems, such as memory constraints and computational efficiency

IV. Semantic search and attention reduction

- A. Introduction to semantic search and its role in identifying relevant attention areas
- B. Explanation of how semantic search helps reduce the attention table for infinite-length input sequences
- C. Discussion of the techniques and algorithms used for semantic search and attention reduction

V. Proposed modifications to the Transformer architecture

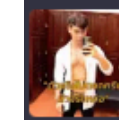
- A. Description of the modifications

🔄 Regenerate response

search and attention reduction

References

- ChatGPT can list relevant sources for your essay
- Possible prompt
 - Create a list of at least [X] sources I can cite in the essay. The idea is "...". Make sure to suggest only sources with a good history of accuracy and legitimacy.



Create a list of at least 10 sources I can cite in the essay. The idea is "Sumerian is not the oldest language in the World despite being the first to be attested." Make sure to suggest only sources with a good history of accuracy and legitimacy.



Certainly! Here is a list of ten reputable sources that you can consider citing in your essay on the topic "Sumerian is not the oldest language in the world despite being the first to be attested":

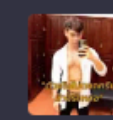
1. Mitchell, Stephen. "The Emergence of Language: Theories and Evidence." Cambridge University Press, 1995.
2. Blench, Roger. "Archaeology, Language, and the African Past." Rowman Altamira, 2006.
3. Renfrew, Colin. "The Origins of Indo-European Languages." Scientific American, Vol. 261, No. 4, 1989, pp. 82-90.
4. Diamond, Jared. "The Third Chimpanzee: The Evolution and Future of the Human Animal." Harper Perennial, 2006.
5. Campbell, Lyle. "Historical Linguistics: An Introduction." The MIT Press, 2013.
6. Trask, Robert Lawrence. "Language: The Basics." Routledge, 1999.
7. Campbell, George L. "Compendium of the World's Languages." Routledge, 2000.
8. Haarmann, Harald. "Early Civilization and Literacy in Europe: An Inquiry into Cultural Continuity in the Mediterranean World." Walter de Gruyter, 1990.
9. Bernal, Martin. "Black Athena: The Afroasiatic Roots of Classical Civilization." Rutgers University Press, 1987.
10. Adiego, Ignasi-Xavier. "The Cambridge History of the Romance Languages: Volume 1, Structures." Cambridge University Press, 2011.

Please ensure to review the content and relevance of each source before citing them in your essay, as availability and accuracy may vary over time.

Each Section

You still need a map

- ChatGPT allows us to dive into each section
- Possible prompts
 - Write an outline of the introduction part from the paper's outline.
 - How many approaches are there for [topic]?
 - Is it possible to do [topic] with [approach]?



Now write an outline of the introduction part from the paper's outline.



I. Introduction

A. Background on the Transformer architecture and its limitations with finite input sequences

1. Explanation of the Transformer architecture and its success in various natural language processing tasks
2. Discussion of its reliance on fixed-length input sequences and the challenges it poses for handling longer inputs

css

Copy code

B. Motivation for the research

1. Recognition of the growing importance of handling long input sequence
2. Identification of the need for a modified Transformer architecture to
3. Highlighting the significance of efficient and accurate processing fo

C. Objectives of the paper

1. Overview of the main objectives of the research
2. Explanation of the focus on integrating semantic search and attention
3. Emphasis on the potential benefits for sequence-to-sequence predictio

D. Outline of the paper

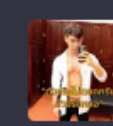
1. Brief overview of the subsequent sections and their contents
2. Explanation of the organization of the paper and the flow of informat

Note: The outline provided above presents the introduction part of the paper focusing on the trends of security breach in many supercomputers with GPU cards. It provides a general structure and key points to include in the introduction. You can further expand each section and add more details based on your findings.

Regenerate response

Abstract

- Once you get the key findings and implication right, writing an abstract becomes easy
- Possible prompt
 - Write an abstract for this paper. The key findings are [key findings]. The implication is that [implication].



Write an abstract for this paper. The key finding is that semantic search helps select the right attention areas and reduces the attention table. The implication is that it can be used in sequence-to-sequence prediction, where the input sequences can be very long.



Abstract:

The ability to effectively handle long input sequences is crucial in sequence-to-sequence prediction tasks. However, the original Transformer architecture faces challenges in maintaining computational efficiency and attending to relevant areas when input sequences become excessively lengthy. In this study, we propose a modified Transformer architecture that integrates semantic search techniques to address these limitations. Our key finding reveals that semantic search enables the selection of appropriate attention areas, effectively reducing the attention table size. This finding has profound implications for sequence-to-sequence prediction tasks, particularly when dealing with lengthy input sequences. The reduced attention table improves computational efficiency while maintaining the model's ability to capture important context. Through extensive experimentation and evaluation, we demonstrate the superior performance of our modified architecture compared to the original Transformer. The implications of our findings extend to various domains that require sequence-to-sequence prediction, including natural language processing, machine translation, and text generation. This research opens up new avenues for developing more efficient and accurate models capable of handling long input sequences, advancing the capabilities of sequence-to-sequence prediction in real-world applications.

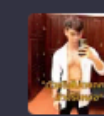
Note: The abstract provided above summarizes the key findings and implications of the paper, highlighting the role of semantic search in attention area selection and the subsequent reduction of the attention table in the modified Transformer architecture. It also emphasizes the significance of these findings in the context of sequence-to-sequence prediction tasks with long input sequences, while mentioning the potential applications in various domains. The abstract serves as a concise summary of the study, providing an overview of the research objectives, findings, and implications.

🔄 Regenerate response

Long Abstract

a.k.a. 'conference abstract'

- Conference abstract is a long version of the abstract
- It is used for selecting the right track for your paper
- Possible prompt
 - Write a conference abstract. The key findings are [key findings]. The implication is that [implication].



Write a conference abstract for this paper. The key finding is that semantic search helps select the right attention areas and reduces the attention table. The implication is that it can be used in sequence-to-sequence prediction, where the input sequences can be very long.



Conference Abstract:

Title: Leveraging Semantic Search for Efficient Attention in Sequence-to-Sequence Prediction with Long Input Sequences

Abstract:

The ability to handle long input sequences is a crucial aspect of sequence-to-sequence prediction tasks in natural language processing and machine translation. The original Transformer architecture, while effective, faces challenges when processing excessively long input sequences, leading to computational inefficiencies and difficulties in attending to relevant areas. In this study, we present a novel approach that leverages semantic search techniques to address these challenges and improve the efficiency of attention mechanisms.

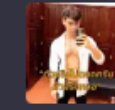
Our key finding demonstrates that incorporating semantic search enables the selection of the most relevant attention areas while reducing the attention table size. By selectively attending to salient context, our modified Transformer architecture achieves significant improvements in computational efficiency without sacrificing prediction accuracy. This finding has important implications for sequence-to-sequence prediction, particularly in scenarios where input sequences can be very long, such as document summarization and speech recognition.

To validate the effectiveness of our approach, we conducted comprehensive experiments on benchmark datasets, comparing the performance of our modified architecture against the original Transformer. The results consistently showed superior performance in terms of both computational efficiency and prediction accuracy.

🔄 Regenerate response


The Title

- Title is the most eye-catching part of the paper, where the best one should be selected from the pool
- Possible prompts
 - List possible titles for this paper ...
 - List possible catchy titles for this paper ...



List possible catchy titles for this paper. The key finding is that semantic search helps select the right attention areas and reduces the attention table. The implication is that it can be used in sequence-to-sequence prediction, where the input sequences can be very long.



1. "Search, Select, Succeed: Empowering Sequence-to-Sequence Prediction with Semantic Search" 
2. "Breaking Boundaries: How Semantic Search Unleashes the Potential of Long Sequence Prediction"
3. "From Noise to Knowledge: Streamlining Sequence-to-Sequence Prediction with Semantic Search"
4. "Mindful Attention: Unveiling the Power of Semantic Search in Sequence-to-Sequence Prediction"
5. "Seize the Sequence: Optimizing Attention with Semantic Search for Long Input Predictions"

Note: These suggested catchy titles aim to grab attention and pique interest in the research paper. They highlight the role of semantic search in improving attention mechanisms and the implications for sequence-to-sequence prediction with lengthy input sequences. You can adapt and refine these titles to suit your specific audience and research focus.

Google Translate

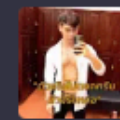
Write down your own words with your own native tongue

- Do not write a lengthy run-on sentence
 - Break down your big idea into bite-sized chunks before translating
 - Use the right connecting words
 - It's always necessary to disentangle a spaghetti-like thought
- Make sure **[who]** is doing **[what]** to **[whom]** in **[which way]**
 - [Who]: the actor should actually be able to do [what]
 - Distinguish [who] the actor from [whom] the actee
 - Distinguish [who] the actor from a topic

2.5) Uses in Creative Writing

Exploring Ideas

- ChatGPT helps you explore new ideas by describing
- Possible prompt
 - Describe in one paragraph a futuristic scene of Bangkok surrounded by ancient temples and hovering cars



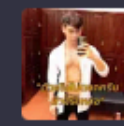
Describe in one paragraph a futuristic scene of Bangkok surrounded with ancient temples and hovering cars.



In a mesmerizing vision of the future, Bangkok emerges as a captivating blend of antiquity and innovation. Towering ancient temples, their intricate details illuminated by vibrant holographic projections, stand as timeless reminders of the city's rich cultural heritage. Amidst this awe-inspiring backdrop, sleek hovering cars glide noiselessly through the air, weaving effortlessly between the temple spires. The streets below are transformed into vibrant pedestrian-friendly boulevards, adorned with lush greenery and adorned with interactive light displays. As the sun sets, a breathtaking symphony of colors and sounds dances across the cityscape, painting the sky with an ethereal glow. This futuristic Bangkok presents a harmonious convergence of the past and the future, where the ancient and the cutting-edge seamlessly coexist, inviting visitors to embark on a journey that transcends time and space.

Engagement

- ChatGPT allows you to create engaging online contents
- Possible prompt
 - List several engaging Instagram captions for a photo of shirtless me in the gym's locker room.



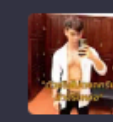
List several engaging Instagram captions for a photo of shirtless me in the gym's locker room.



1. "Feeling the burn and embracing the grind at the gym! 💪🏆 Pushing my limits and seeing results. Let's smash those fitness goals together! 🔥 #GymMotivation #FitnessJourney #NoPainNoGain"
2. "Unlocking my potential, one rep at a time! 💪🔒 Embracing the challenges, pushing my boundaries, and striving for progress. Join me on this fitness adventure! 🚀 #FitnessGoals #GymTime #UnlockYourPotential"
3. "Sweat, dedication, and determination. The locker room is where it all begins! 💦💪 Feeling the adrenaline and getting ready to conquer my workout. Let's crush those fitness goals together! 🙌 #LockerRoomChronicles #FitnessLifestyle #GymVibes"
4. "Strength is built in the silence of the locker room. 💪🔒 Channeling my focus and harnessing my energy to overcome challenges. Stay motivated, stay dedicated, and watch yourself transform! 🏆✨ #LockerRoomMusings #GymRat #StrengthWithin"
5. "Shirtless and ready to conquer! 💪🔥 Feeling the energy surging through my veins as I step into the gym's locker room. Let's break barriers, set new records, and become the best versions of ourselves! 🏆✨ #BeastModeActivated #GymInspiration #ConquerYourLimits"

Advertisement

- ChatGPT can easily write an engaging advertisement
- Possible prompt
 - Write a catchy and engaging radio ads for a deodorant with the ability to decrease the skin's temperature by 10 Celsius.



Write a catchy, engaging radio ads for a deodorant with the ability to decrease the skin's temperature by 10 Celsius.



[Background music playing]

Announcer: "Summer is here, and the heat is on! Are you tired of feeling sticky and uncomfortable all day long? Well, we have the perfect solution for you!"

Sound effects: *Sizzling heat, discomfort sounds*

Announcer: "Introducing ChillMax Deodorant, the coolest way to beat the heat and stay fresh all day. With our groundbreaking formula, we bring you an extraordinary innovation that can lower your skin's temperature by a jaw-dropping 10 degrees Celsius!"

Sound effects: *Gasps of amazement, relief*


Announcer: "Imagine stepping out into the scorching sun and feeling an instant burst of coolness. ChillMax is here to give you a refreshing sensation like no other. It's like having your own personal air conditioner in a deodorant!"

Sound effects: *Cooling breeze, sighs of relief*

Announcer: "But wait, there's more! ChillMax doesn't just keep you cool; it also provides all-day protection against unwanted odors. Say goodbye to embarrassing moments and hello to confidence that lasts!"

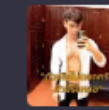
Sound effects: *Cheers and applause*

Announcer: "Whether you're hitting the gym, heading to the office, or enjoying outdoor adventures, ChillMax has got you covered. Experience the power of ultimate freshness and let the coolness take over!"

 Regenerate response

Just Carry On

- Instead of exploring an idea, we can also get asked by follow-up questions
- Possible prompt
 - I'm writing about [topic]. Can you propose some follow-up questions from it?



I'm writing about climate change. Can you propose some follow-up questions from it?



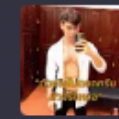
Certainly! Here are some follow-up questions you can explore in your discussion about climate change:

1. What are the main factors contributing to climate change?
2. How is climate change affecting different regions of the world?
3. What are the potential consequences of climate change for ecosystems and biodiversity?
4. How does climate change impact global weather patterns and extreme weather events?
5. What are the current efforts and initiatives to mitigate climate change and reduce greenhouse gas emissions?
6. How can individuals and communities contribute to combating climate change in their daily lives?
7. What role does renewable energy play in addressing climate change?
8. How does climate change intersect with social and economic issues, such as poverty and inequality?
9. What are the potential economic costs and benefits of taking action to combat climate change?
10. How can international cooperation and agreements address the global challenge of climate change?

These questions can serve as starting points for further exploration and in-depth discussions on various aspects of climate change.

Suggestion for improving our writing

- ChatGPT can offer some suggestions for grammar and writing style
- Possible prompt
 - Analyze the text and give suggestions for improvement: “.....”



Analyze the text and give suggestions for improvement: "My dog has passed away a half a year ago. My parents still cannot let go of her. They still mourn for her every day."



The text can be improved in a few ways:

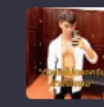
1. Grammar: Instead of saying "a half a year ago," it would be clearer to say "six months ago."
2. Clarity and conciseness: Instead of repeating the phrase "of her," it could be replaced with a pronoun like "it" since the subject, "my dog," has already been established.
3. Emotional impact: To evoke stronger emotions, consider using more descriptive language to convey the depth of your parents' mourning, such as expressing their sadness or grief.

Revised version: "My dog passed away six months ago, and my parents are still unable to let go. They mourn for her every day, unable to overcome their deep sadness."

This revised version maintains clarity while incorporating suggestions for improved grammar, conciseness, and emotional impact.

Poem

- ChatGPT can compose a poem for you
- Possible prompts
 - Compose a poem from this text:
“.....”
 - Write a poem about (1) (2)
(3)
 - Compose a poem from this text
using dactylic hexameter: “.....”



Compose a poem from this text: "My dog passed away six months ago, and my parents are still unable to let go. They mourn for her everyday, unable to overcome their deep sadness."



In shadows cast by memories sweet,
A tale of loss, our hearts replete.
Six moons have waned, since that fateful day,
When my faithful friend had to fade away.

My parents, burdened by grief's cruel sting,
Hold on tight to the echoes that still cling.
Each passing morn, they mourn her name,
Lost in sorrow's depths, a constant flame.

Oh, how they yearn to find release,
To bid farewell and find inner peace.
But sorrow's chains, so heavy to bear,
Hold them captive in a world of despair.

The days press on, yet sadness remains,
A testament to love that forever sustains.
For in every moment, they feel her near,
Whispering secrets only hearts can hear.

So let us honor the bond they shared,
In a heartfelt prayer, their burdens shared.
May time's gentle touch bring solace at last,
And heal the wounds of the distant past.

For my dog, now a star in the twilight sky,
Guiding us with love as the days go by.
Though tears may fall and hearts may break,
Her spirit lives on, a cherished keepsake.

3. How to co-learn and co-exist with GenAI

Pros and Cons

Two sides of the same coin

- **Pros**

- GenAI is good at creativity and aesthetics
- If you already have contents, GenAI is great at polishing

- **Cons**

- GenAI does not provide academic accuracy
- Do not let it work on its own as it may go astray without noticing

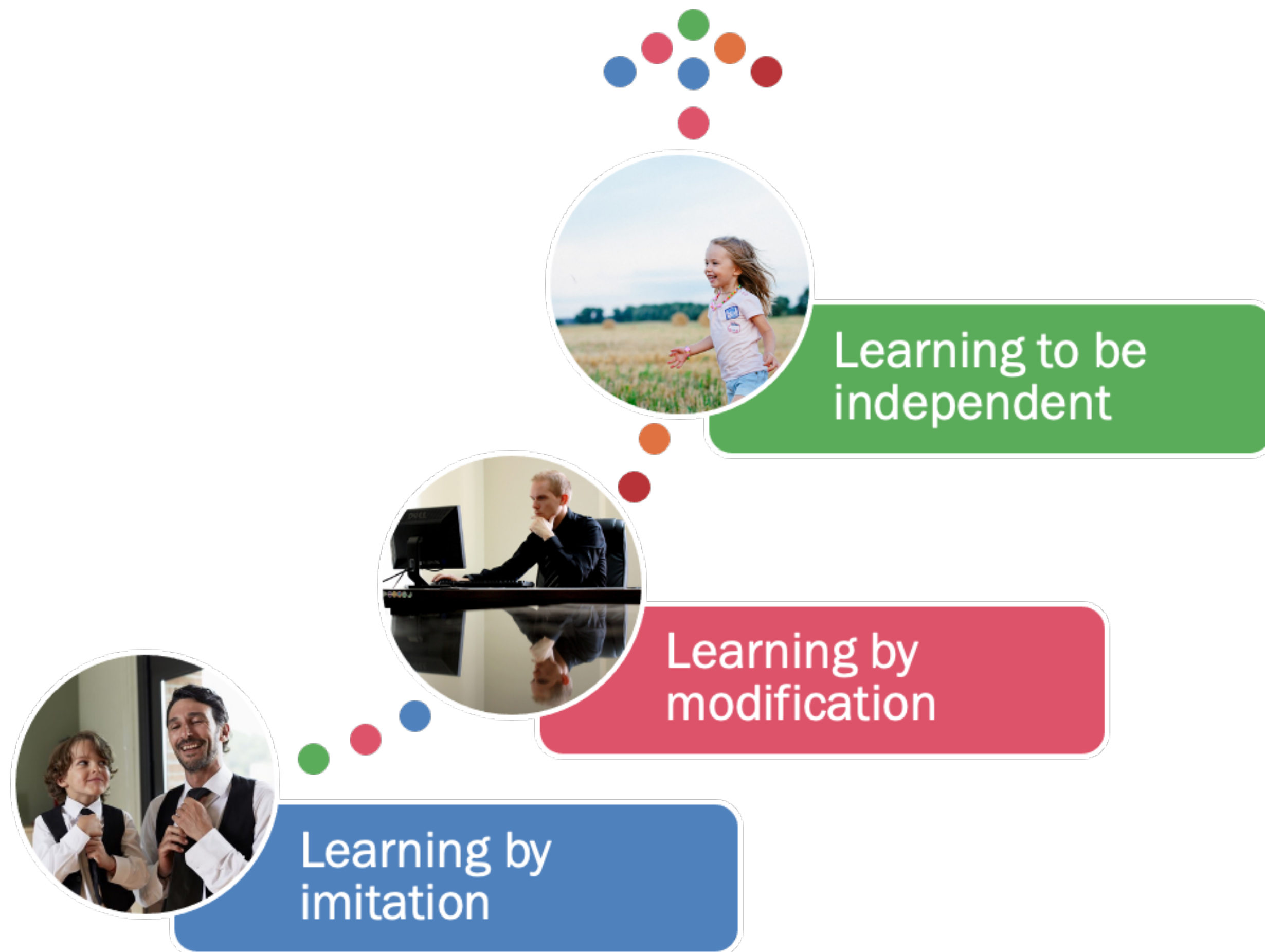


Ethical Uses of GenAI

<https://www.entrepreneur.com/science-technology/how-to-use-chatgpt-as-a-creative-writing-partner/450918>

- **Avoid plagiarism and maintain originality**
 - Regularly cross-check your AI-generated contents with plagiarism detection tools
 - Use GenAI as a source of inspiration or starting point
 - Combine, modify, and rephrase AI-generated contents to reflect your voice and style
- **Use GenAI responsibly**
 - Be transparent about using GenAI when necessary
 - Avoid generating harmful contents using GenAI
 - Stay informed about the ethical guidelines
- **Balance human creativity and machine-generated contents**

Three Steps of Co-Learning with AI



1. Learn by imitation

- Children directly copy and use AI's outputs
- Encourage them to copy or rewrite the outputs by hand

2. Learn by modification

- Children modify and play with AI's outputs because they recognize errors
- Encourage them to fix the errors by hand

3. Learn to be independent

- Children produce the answers by themselves instead of relying on AI
- Raise awareness for the sense of independence and life-long learning
- **Mindset:** learning \neq making high scores

Next Step: Augmented Intelligence

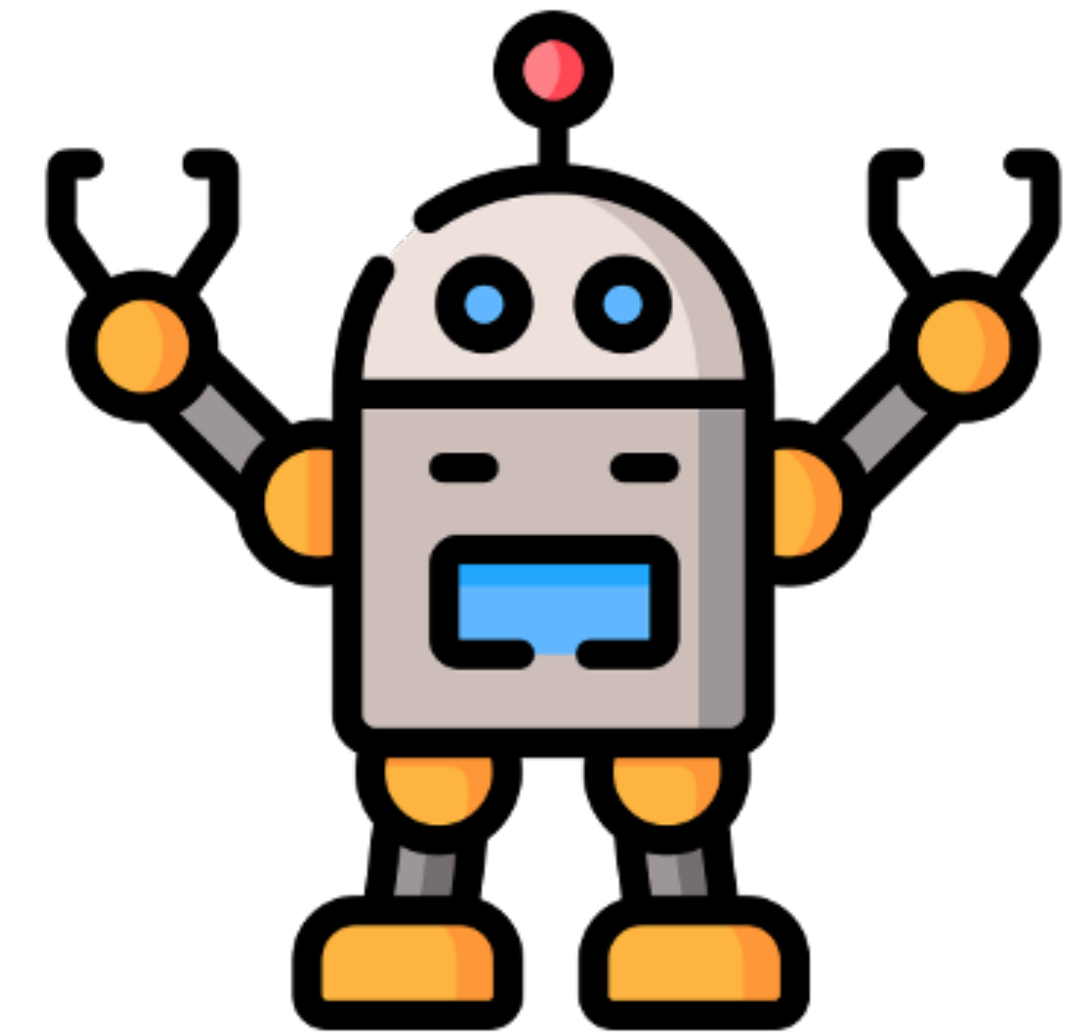
- Humans and AI collaborate and grow together



Humans produce data,
making AI smarter



AI aids learning & living,
making humans smarter



What Makes Us 'Us'

- Humanity and empathy are the reasons why the machine cannot outsmart us
- Non-STEM subjects are also crucial



Humanity

The ability to deeply understand one's self



Empathy

The ability to deeply understand others' feelings



Better Society

**“AI will not replace you,
but the person using AI will.”**

Thank You

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kaamanita@gmail.com

<https://tinyurl.com/y5csvnvy>