# Motion of the debate is ...

This House supports the integration of Generative AI in school education.

<u>Structure/Teamwork</u> -Consistency in points, Signposts, role division <u>Dynamism</u>
(<u>Response/Linkage</u>)
-Make clash and relevant
Issues through debate.
-Clarify clash and issues.

Persuasion/Expression
-choice of words,
speech organisation

This House supports the integration of Generative AI in school education.

Background: Advancement of Artificial Intelligence, especially 'Generative AI' attracts attention from business or education.

How would schools and teachers deal with new technology and risks for better education?

### **Proposition**

Generative AI would bring a more personalised, adaptive environment for students and teachers.

### Opposition

Generative AI would bring confusion for teachers and decline in academic achievement for students.

#### Sample definition

- 1) Generative AI: a technology that generates content from collective data on the internet. e.g. new graphic images, a summary of information, templates of papers, personal dialogue(Q&A), etc. by asking questions from the keyboard, or voice inputs. Currently, commercial services provided, such as ChatGPT of Open AI, Gemini(formerly called 'Bard') of Google.
- 2) Generative AI in education: supports to enhance tasks like researching, summarising information, or creating content for teachers and students.

#### **Possible Clash**

-Use of those technologies among teachers and students will bring better result/process of learning/teaching for them? Or disadvantages at the end of their school terms from perspective for learning experiences?

## 1. Students' benefits (variety and flexibility in learning) (Claim)

-Students can learn subjects and materials more adaptively, flexibly using generative AI.

#### (Reason)

- -Generative AI can help learners in various cases according to their level of understanding, pace of learning, etc. (Example)
- -efficient learning experience given;
- 1)Time saving:

helping in research, and collecting information quickly.

- 2)Inspiration/Hints: giving samples for creating presentations, long paper, digital illustrations, etc.
- 3)Adaptive: asking for help with various patterns when they feel difficult to catch up in part of subjects, or giving better pace.

## 1. Students' harms (Loss of learning opportunities) (Claim)

-Students are going to lose learning opportunities and more likely to be foolish by generative AI.

#### (Reason)

-Generative AI is very easy to use and provide certain levels of content or answers for students 'without' understanding knowledge about the subject.

### (Example)

-Reports of reading novels, books, and social studies. Students think easily and depend upon like, 'everything done by asking for AI'. They are able to skip reading books to summarise it and lose the process of thinking by themselves. As a result, the use of AI makes the existing learning environment destroyed and meaningless.

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## 2. Teachers' benefits(teaching skills and ease the burden) (Claim)

-Teachers will be able to improve the working environment and find a better teaching approach.

#### (Reason)

-Generative AI can reduce/shorten the preparation of teachers' tasks, and make them more productive with various assistance in teaching method.

### (Example)

#### 1)Status quo:

Currently the number of teachers is short, and they suffer and sacrifice their private time with longer hours of working for a heavier, wide range of burdens like curriculum, club activities, dealing with student parents and PTA.

So they find it quite difficult to maintain or keep their job and quality of teaching.

#### 2)Improve environment:

Generative AI would help, reduce primary tasks for teachers such as planning school trips, practice menu in club activities, primary check of test answers, etc.

So they can released from heavier burdens which make teachers working hours longer, feel stressed and exhausted and increase the performance of their task.

### Opposition

Generative AI would bring confusion for teachers and decline in academic achievement for students.

## 2. Teachers' harm (Confusion in teaching with AI) (Claim)

- -Teachers will suffer and take heavier burdens for their tasks and difficulties in empowering students' ability and academic skills. (Reason)
- -Educational guidelines from the ministry are quite vague and education models are not established. So it is really hard to integrate generative AI with students in a better way.

  (Example)
- -Under the status quo, the use of generative AI belongs to each school or school district. Cheating, and copying answers from generative AI will be increased among students, teachers will find it quite difficult to distinguish whether students do it by themselves or not.

Therefore teachers' burden for managing classrooms becomes harder, and students' academic skills go down.

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## 3. Digital literacy(Necessity to catch up with ICT) (Claim)

-Students and teachers can catch up and adapt to new development of information technology.

#### (Reason)

-Technologies are always faced with changes and updates, so people are required to adopt those trends with proper use and understanding.

#### (Example)

- -Code programming, financial education in primary school
- -> An example of societal needs and literacy, schools are better to provide opportunities to learn and catch up on those. Also, guidance and better usage of ICT in education wouldn't be delivered without practical applications.

### Opposition

Generative AI would bring confusion for teachers and decline in academic achievement for students.

## 3. Credibility of information (Risk of misleading) (Claim)

- -Generative AI is not sufficient enough to trust or use independently. So it is quite risky to use in school education yet. (Reason)
- -Generative AI does not have a checking system for copyrights issues, and accuracy of information. (Example)
- -Generative AI collects huge amounts of text data including personal data, confidential information, and biased perception in public into the system, and set up probable information as answers (So called LLM: Large Language Model). So they are not always guaranteed as 'true' or 'trustworthy'.

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### Resources

"Generative Artificial Intelligence" (Cornell University)

\*Introduction: YouTube video embedded (20 min.)

https://teaching.cornell.edu/generative-artificial-intelligence

"小学校でも活用 生成AIがもたらす学びの革命"(NHK NEWS WEB - 2023.12.20) https://www3.nhk.or.ip/news/html/20231220/k10014291991000.html

"生成AIを教育にどう活用すべきか〜各種ガイドライン等から考える可能性と課題〜" (第一生命経済研究所 - 2023.10.26)

https://www.dlri.co.jp/report/ld/285589.html

"生成AIの教育利用、ガイドライン公表・・・文科省"(教育業界ニュース ReseEd)

https://reseed.resemom.jp/article/

2023/07/04/6727.html#:~:text=%E6%96%87%E9%83%A8%E7%A7%91%E5%AD%A6%E7%9C%81%E3%81%AF2023,%E7 %9A%84%E3%81%AB%E7%A4%BA%E3%81%97%E3%81%A6%E3%81%84%E3%82%8B%E3%80%82

"Top 6 use cases of generative AI in education in 2024" (AI Multiple Research) <a href="https://research.aimultiple.com/generative-ai-in-education/">https://research.aimultiple.com/generative-ai-in-education/</a>

"Should schools ban or integrate generative AI in the classroom?"

(The Brookings Institution; NPO in Washington, D.C.)

<a href="https://www.brookings.edu/articles/should-schools-ban-or-integrate-generative-ai-in-the-classroom/">https://www.brookings.edu/articles/should-schools-ban-or-integrate-generative-ai-in-the-classroom/</a>

"Japan educators fear generative AI will harm students' cognitive abilities." (The Japan News; Yomiuri Shimbun)

https://japannews.yomiuri.co.jp/society/general-news/20230705-120707/

(YouTube)"Georgia school district brings AI into K-12 classrooms"(CBS Mornings) https://www.youtube.com/watch?v=1n1MxBGvb2U

(YouTube)"Some U.S. schools banning AI technology while others embrace it"(NBC News) <a href="https://www.youtube.com/watch?v=U7FVMbmjLeQ">https://www.youtube.com/watch?v=U7FVMbmjLeQ</a>

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### Resources

"生成AIが教師を救う?「チャットGPT」で働き方改革も"(Yahoo! News/日テレNEWS) https://news.yahoo.co.jp/articles/20b1d22fa903ea6cb6d8670ea67c076873bbe621?page=2

"ChatGPTを小3国語「モチモチの木」で使ってみたら」"(みんなの教育技術) https://kyoiku.sho.jp/235965/

"教育とICT Online - ChatGPTが教育に与えるディープインパクト"(日経BP - 2023.05.30) https://project.nikkeibp.co.jp/pc/atcl/19/06/21/00003/052700448/?P=1

### Demonstration \*Generated answers may be different depending upon the period.

- 1. What are generative AI and differences with other AI?
- 2. Draw charts of the GDP of Japan for the past 30 years. (try in ChatGPT 4.0/Bing Chat, and Gemini.)
- 3. Write a sample code for a pop-up message of VBScript.
- 4. Summarise the following content for 10-year-old children within 100 characters.;

  \*Copy and paste articles from <a href="https://japannews.yomiuri.co.jp/society/general-news/20230705-120707/">https://japannews.yomiuri.co.jp/society/general-news/20230705-120707/</a>
- 5. Draw images of the Panda in the Ueno Zoo. (ChatGPT-4 or Gemini)
- 6. Give me some examples of the advantages and disadvantages of generative AI when we use it in school education.
- 7. How do we learn critical thinking faster with debate? Make them as a checklist.

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### Comments/Questions from debaters

#### (Comment)

- -An example of generative AI(Gen AI) usage: Teachers use Gen AI to train children to learn critical thinking; Ask Gen AI some questions, then discuss the answer with the children. And ask Gen AI again to check accuracy.
- -> Debaters may use them to input their arguments into Gen AI, then check its strength/weakness with an A-R-E-A structure.
- -> When you use Gen AI, you need to get the hang of them (ways of question, expression, etc.)

### (Questions)

- Q1. How would you define the word 'integration' in a debate?
- A1. It may be the empowerment of learning experiences for students and teaching methods for teachers with generative AI in existing education environments.
- Q2.If the same motions were introduced in international debate competitions, what kind of arguments would be raised?
- A2. Possible arguments may be as follows;
  - a. (Gov.) Breakthrough in national development especially developing countries like African nations.
    - e.g. By using Gen AI, developing countries may overcome adverse circumstances with facility, lab, or financial capabilities.
    - e.g. Global South: economic minor countries, which oppressed or exploited may liberated by utilising Gen AI.
  - b. (Opp.) Neutrality of information: generated answers are not neutral, influenced by some ideologies in its algorithm.
    - e.g. Invented in the US: information(generated answers) is based upon American culture and values.