

A graphic of a computer chip with the letters 'AI' in the center. The chip has a glowing purple and blue light effect. It is surrounded by circuitry lines and dots.

AI

Teaching prompt generation

Amanda Gorski, Computer Science Teacher, Room 129



When I was a little girl we had a TRS-80. I wasn't impressed.



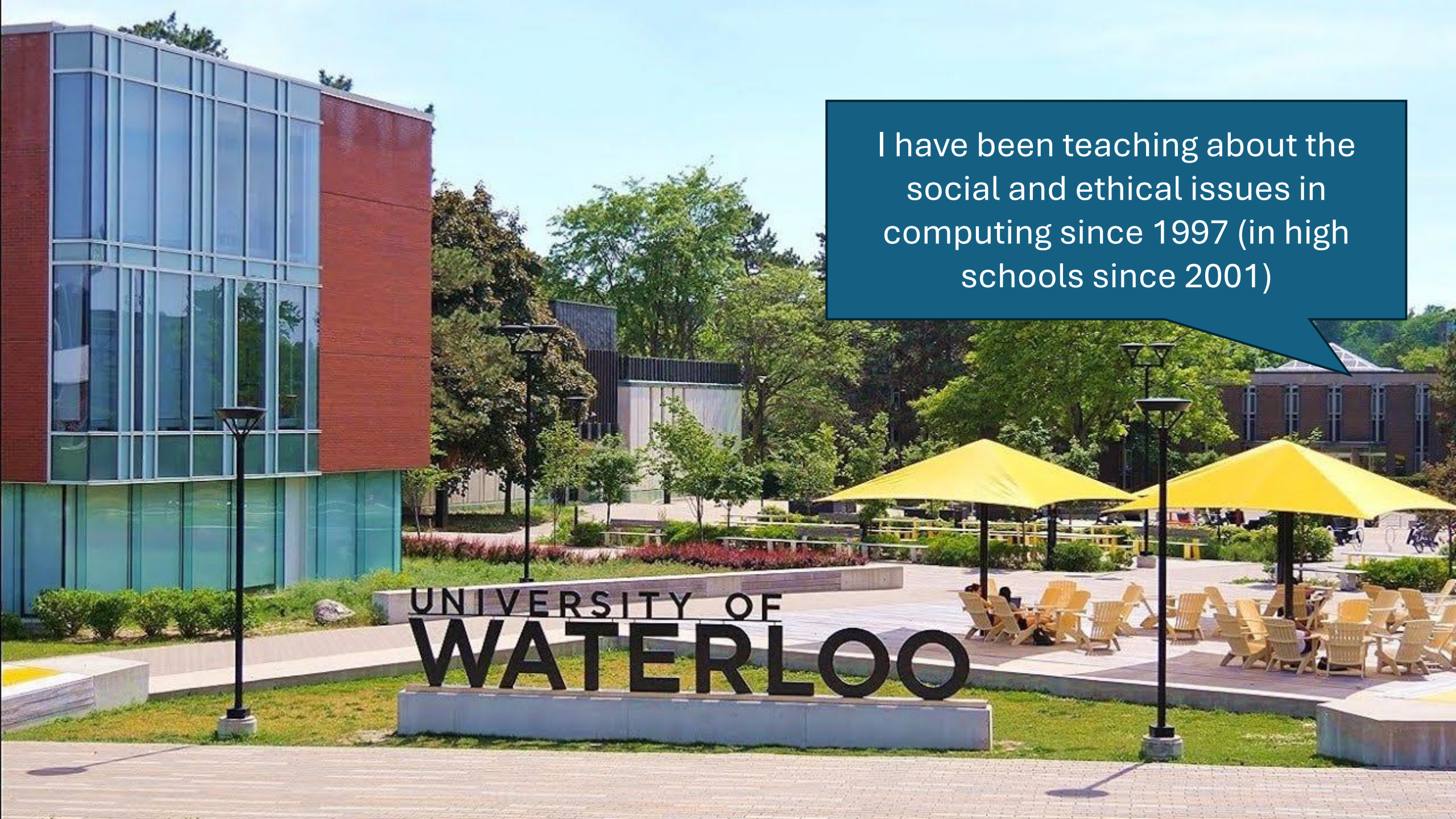
I'm old enough,
that I took Grade
9 typing on an
actual typewriter.

I didn't like
that either.



When I went to University, I picked it for its co-op program.

They made me take a programming course first year – turned out they were big on coding.

A photograph of the University of Waterloo campus. On the left is a modern building with a large glass facade and red brick sections. In the foreground, a large sign reads "UNIVERSITY OF WATERLOO". To the right, there is an outdoor seating area with yellow umbrellas and wooden chairs. The background is filled with green trees under a clear blue sky.

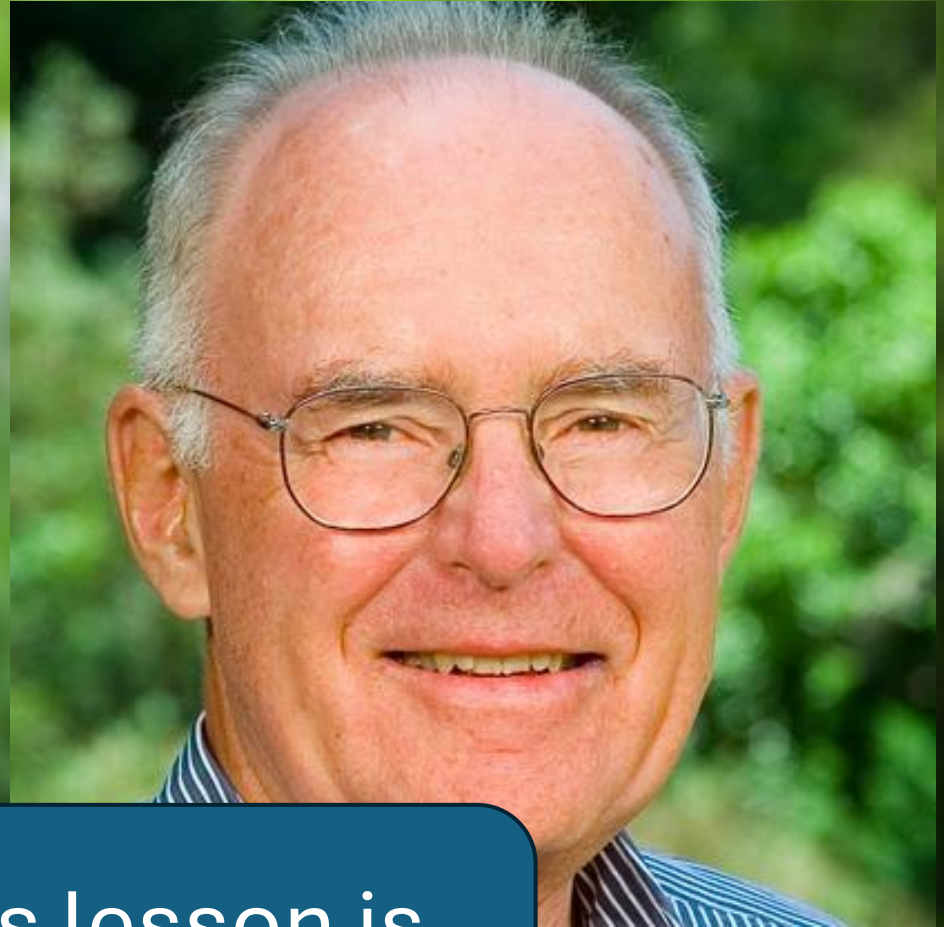
I have been teaching about the
social and ethical issues in
computing since 1997 (in high
schools since 2001)

UNIVERSITY OF
WATERLOO

Moore's Law

Computers double
in power every 18
months.

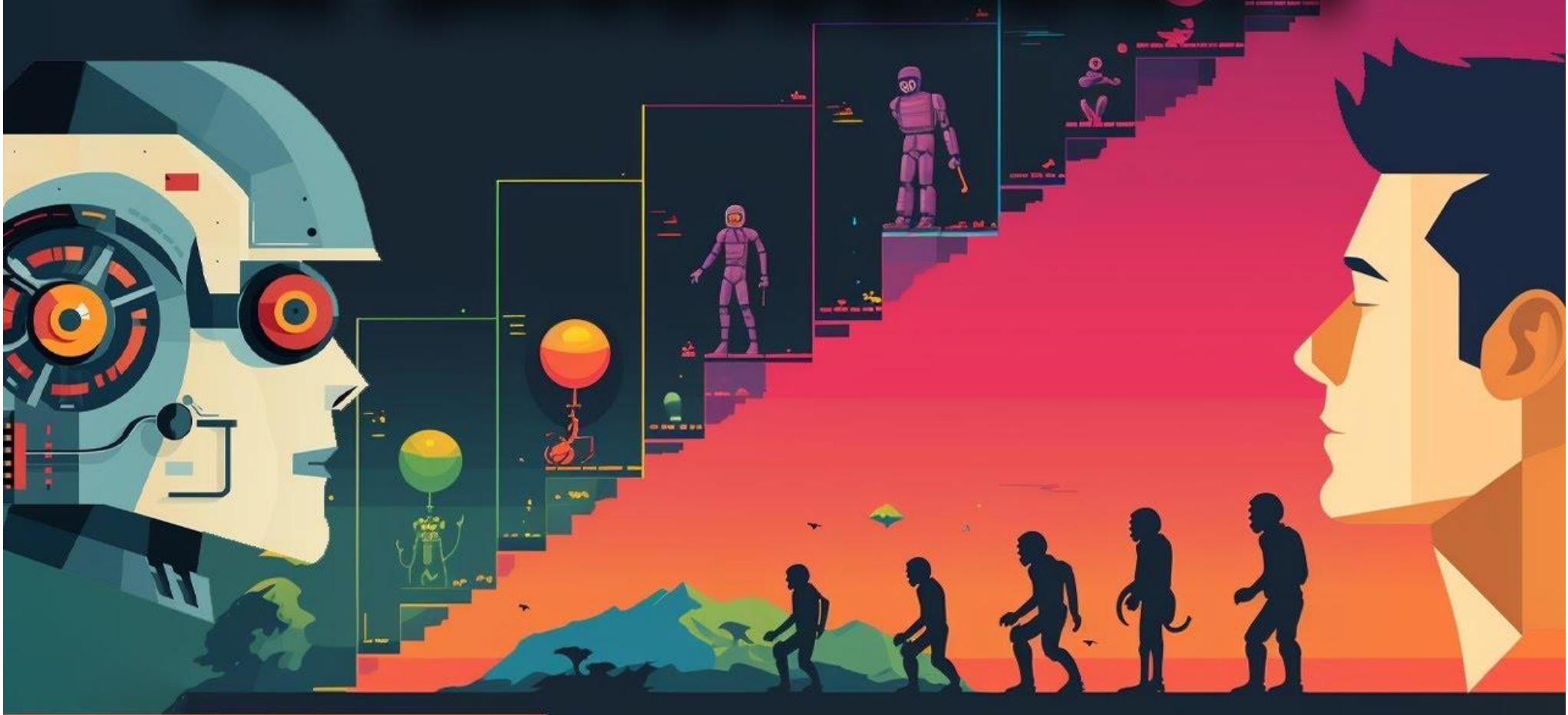
Or, for the same
power, they halve
in price.



This lesson is
always a winner.

1965

AI SINGULARITY



If you extrapolate forward, by 2045, a single desktop computer is projected to have computing power that is equivalent to all human minds on Earth.

AI SINGULARITY

A stylized illustration depicting the AI Singularity. On the left, a large, stylized head of a robot with orange and blue components. On the right, a large, stylized head of a human with dark hair. Between them, a series of steps or platforms lead upwards, with a small robot figure on each step, suggesting a progression or evolution. The background is dark with some colorful, abstract shapes.

At no point, since
1965, have we been
off target.

If you extrapolate forward, by 2045, a single desktop computer is projected to have computing power that is equivalent to all human minds on Earth.

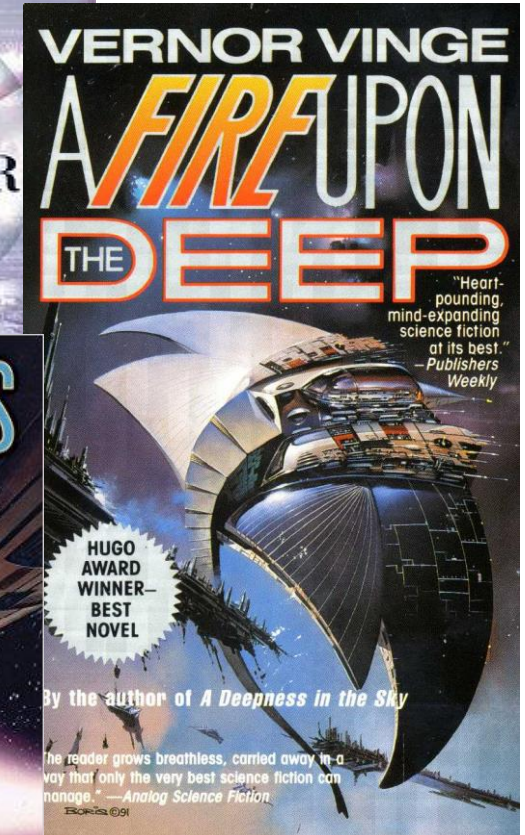
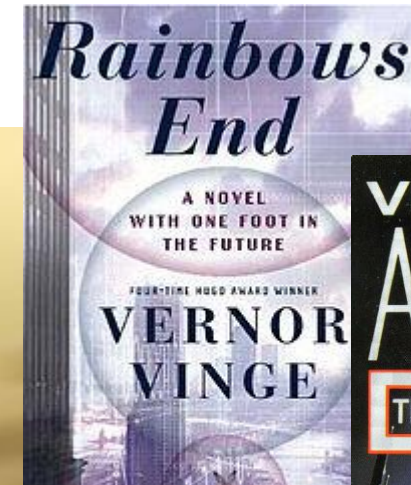
AI SINGULARITY

A stylized illustration depicting the AI Singularity. On the left is a large, yellow and blue robotic head with orange circular eyes. On the right is a large, yellow and orange human head in profile. Between them, a blue speech bubble contains the text 'This means we are on-track for super-human intelligence in 2045.' The background features a dark blue sky with a pink and orange gradient, a staircase leading up to a platform with a robot, and a small silhouette of a person at the bottom right.

This means we are on-track for super-human intelligence in 2045.

If you extrapolate forward, by 2045, a single desktop computer is projected to have computing power that is equivalent to all human minds on Earth.

Vernor Vinge defines the Singularity as “AI that quickly reaches superhuman levels by redesigning itself.”







A futuristic AI robot with a white, featureless face and blue eyes is the central figure. It holds a glowing orange sphere in its right hand. The background is a complex digital landscape with a city skyline at the bottom, glowing lines, and a large eye-like symbol in the upper right. Two green speech bubbles contain text.

When we talk about AI, we over-estimate its abilities in the short term, mostly due to Silicon Valley's marketing.

However, we underestimate AI's abilities in the long term. It is growing exponentially.

As 2045 approaches, everyone is starting to notice the effects of exponential growth in AI....



ChatGPT

Text



DALL-E

Via MS



Copilot

Images



OpenAI

Sora

Video

A stylized graphic of a microchip. It features a central square with the letters 'AI' in a bold, white, sans-serif font. The 'A' is white with a bright purple glow at its top center, and the 'I' is white with a cyan glow at its bottom right. The square is surrounded by a white border with small squares at the corners. Outside this border are several vertical and horizontal lines of varying lengths, some solid and some dotted, representing circuit connections. The background is a dark blue gradient with a complex pattern of glowing blue circuit lines and dots.

AI

Humanity's
last
invention.

A stylized graphic of a computer chip with the letters 'AI' in the center. The chip has various pins and connections, and a glowing purple light emanates from the 'A'.

AI

OK, Fine. I'll
get back on
topic.

Teaching
prompt
generation.

←

↺

🔒

https://docs.google.com/document/d/1Rvp-a7MCqzaAmFdcDcRrrX4_lgoTNSRn/edit

A 🔊

☆

📄

☆

📄

V...

F...

.DOCX

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Request edit access

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🌐 Share

⌵

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Outline

Interim

Introduction

Purpose

Defining AI

Guiding Principles

Equity and Human Rights

Instruction and Pedagogy

Assessment and Evaluation

Content Development

Accessibility

Security

Privacy

Mental Health and Well-Being

peel

District School Board

7:57 AM
5/22/2024

Interim Guidance on Artificial Intelligence in Education within the Peel District School Board (DRAFT)

Introduction


Advancements in Artificial Intelligence (AI), and particularly generative AI, have sparked conversations throughout K-12 and higher education on the disruption of these systems, whether positive or negative, on education. These discussions explore the tensions regarding the impact of AI on how staff engage in teaching, how students engage in learning and assessment, and how institutions can drive operational efficiency and AI governance. The rapid evolution of technology has also caused external agencies, including provincial and federal governments, to revisit regulations to ensure effective AI governance that fosters ethical, transparent, trustworthy, and safe development and use of AI tools while protecting individuals' privacy and upholding human rights. The development and adoption of AI systems are outpacing our ability to understand the impacts of these systems and regulate their usage. Yet, AI technology is here and sparks the need for Peel District School Board (PDSB) staff, students, and community to deepen their AI and digital literacy skills to maximize their participation in the ever-increasing digital society.

Let's take a look at it now.


Introduction

Advancements in Artificial Intelligence (AI), and particularly generative AI, have sparked conversations throughout K-12 and higher education on the disruption of these systems, whether positive or negative, on education. These discussions explore the tensions regarding the impact of AI on how staff engage in teaching, how students engage in learning and assessment, and how institutions can drive operational efficiency and AI governance. The rapid evolution of technology has also caused external agencies, including provincial and federal governments, to revisit regulations to ensure effective AI governance that fosters ethical, transparent, trustworthy, and safe development and use of AI tools while protecting individuals' privacy and upholding human rights. The development and adoption of AI systems are outpacing our ability to understand the impacts of these systems and regulate their usage. **Yet, AI technology is here and sparks the need for Peel District School Board (PDSB) staff, students, and community to deepen their AI and digital literacy skills to maximize their participation in the ever-increasing digital society.**

- **Learn to write prompts for generative AI tools** that increase the likelihood of content that offers a holistic perspective and minimizes biases. (Note: Prompt Engineering is the process of crafting queries for AI to generate relevant information. It serves as a form of assisted inquiry, supporting understanding, effective questioning, and critical analysis of the produced content. Additionally, it involves refining both the queries and generated answers to make them more relevant and accurate.)

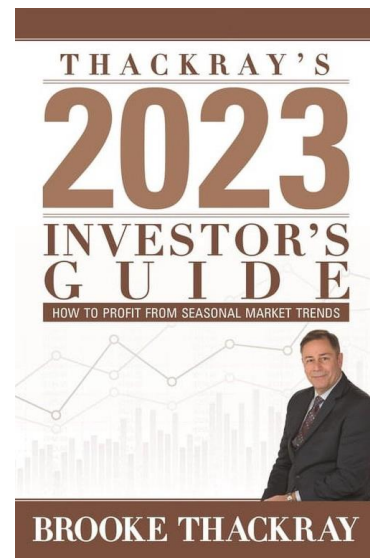
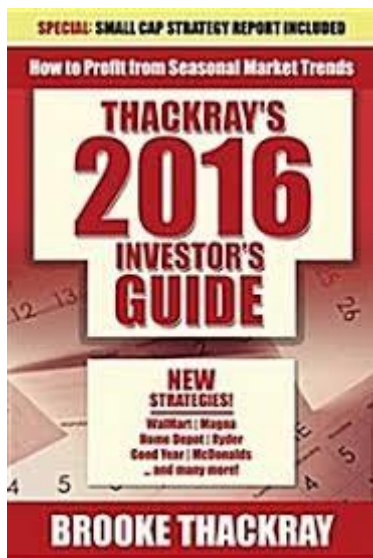


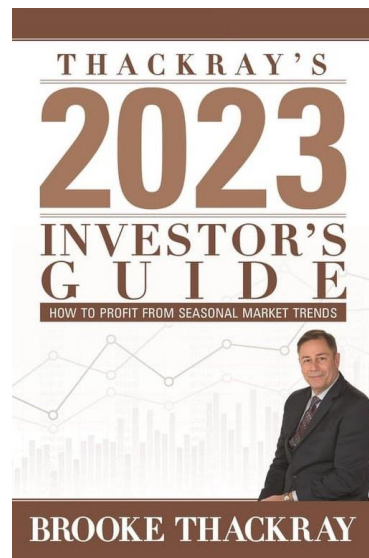
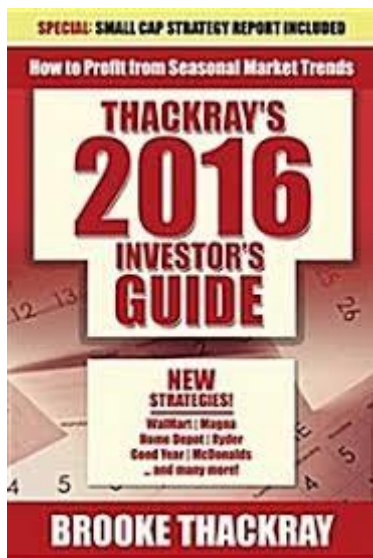
More from
the AI policy
document.

A photograph of a sandy beach with gentle waves washing onto the shore. The word 'SUMMER' is written in the sand using sticks or twigs. A purple speech bubble is overlaid on the right side of the image, and a blue speech bubble is overlaid at the bottom right.

Sister: Oh, we've
been using AI at
work. It's
interesting.

Some background...





Stock Market Data for the Year

180 ish columns x 2409 ish rows

	A	B	C	D	E	F	G
1	1	2	3	4	5	6	7
2	Week and month data updated as of 2003 / 2004						
3							
4	Yahoo Financial						
5							
6		▼ Dow ▼	We ▼	Mo ▼	Week A ▼	Year ▼	▼
2393	6/30/2008	11350.01	27	6		2008	
2394	7/1/2008	11382.26	27	7		2008	
2395	7/2/2008	11215.51	27	7		2008	
2396	7/3/2008	11288.53	27	7	11309.08	2008	
2397	7/7/2008	11231.96	28	7		2008	
2398	7/8/2008	11384.21	28	7		2008	
2399	7/9/2008	11147.44	28	7		2008	
2400	7/10/2008	11229.02	28	7		2008	
2401	7/11/2008	11100.54	28	7	11218.63	2008	
2402	7/14/2008	11055.19	29	7		2008	
2403	7/15/2008	10962.54	29	7		2008	
2404	7/16/2008	11239.28	29	7		2008	
2405	7/17/2008	11446.66	29	7		2008	
2406	7/18/2008	11496.57	29	7	11240.05	2008	
2407	7/21/2008	11467.34	30	7		2008	
2408	7/22/2008	11602.5	30	7		2008	
2409	7/23/2008	11632.38	30	7		2008	
2410							

	FO	FP	FQ	FR	FS	FT	FU
1	#	172	173	174	175	176	177
2							
3							
4							
5							
6	▼	▼ JPY / U ▼	Week ▼	Mont ▼	Week ▼	Year ▼	▼
2389		6/18/2008	108.05	25	6		2008
2390		6/19/2008	107.95	25	6		2008
2391		6/20/2008	107.42	25	6	107.93	2008
2392		6/23/2008	107.89	26	6		2008
2393		6/24/2008	107.76	26	6		2008
2394		6/25/2008	108.29	26	6		2008
2395		6/26/2008	107.29	26	6		2008
2396		6/27/2008	106.28	26	6	107.50	2008
2397		6/30/2008	106.17	27	6		2008
2398		7/1/2008	105.73	27	7		2008
2399		7/2/2008	105.87	27	7		2008
2400		7/3/2008	106.79	27	7		2008
2401		7/4/2008	106.66	27	7	106.24	2008
2402		7/7/2008	107.55	28	7		2008
2403		7/8/2008	107.35	28	7		2008
2404		7/9/2008	107.12	28	7		2008
2405		7/10/2008	107.03	28	7		2008
2406		7/11/2008	106.14	28	7	107.04	2008

	A	B	C	D	E	F	G	H
1		Week	52		<<	You can enter the week # here		
2			Week End		<<	Enter Week End or Average		
3	Column		2006	2007	<<	You can change the years here		
4		Stock Markets						
5	1	Dow	12,463	13,366				
6	8	S&P500	1,418	1,478				
7	15	Nasdaq	2,415	2,674				
8	22	TSX	12,908	13,821				
9	29	FTSE	6,221	6,477				
10	36	DAX	6,597	8,067				
11	44	Nikkei	17,226	15,308				
12	52	Hang Seng	19,965	27,371				
13								
14		Commodities						
15	60	Oil	60.85	96.03				
16	67	Gold	632.00	833.75				
17								
18		Bond Yields						
19	74	USA 5 Yr Treasury	4.70	3.52				
20	81	USA 10 Yr T	4.71	4.11				
21	88	USA 20 Yr T	4.91	4.56				
22	95	Moody's Aaa	5.46	5.48				
23	102	Moody's Baa	6.35	6.62				
24	109	CAN 5 Yr T	3.99	3.89				
25	116	CAN 10 Yr T	4.08	4.02				
26								

	A	B	C	D	E	F	G	H
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26								

```
=IF($C$2="Average",SUM(IF(OFFSET(Data_Source_Week!$A$7,0,$A5+1,6000,1)=$C$1,IF(OFFSET(Data_Source_Week!$A$7,0,$A5+4,6000,1)=C$3,OFFSET(Data_Source_Week!$A$7,0,$A5,6000,1),0),0))/SUM(IF(OFFSET(Data_Source_Week!$A$7,0,$A5+1,6000,1)=$C$1,IF(OFFSET(Data_Source_Week!$A$7,0,$A5+4,6000,1)=C$3,1,0),0)),SUM(IF(OFFSET(Data_Source_Week!$A$7,0,$A5-1,6000,1)=MAX(IF(OFFSET(Data_Source_Week!$A$7,0,$A5+1,6000,1)=$C$1,IF(OFFSET(Data_Source_Week!$A$7,0,$A5+4,6000,1)=C$3,OFFSET(Data_Source_Week!$A$7,0,$A5-1,6000,1),0),0)),OFFSET(Data_Source_Week!$A$7,0,$A5,6000,1),0)))
```

=IF(\$C\$2="Average",SUM(IF(OFFSET(Data_Source_Week!\$A\$7,0,\$A5+1,6000,1)=\$C\$1,IF(OFFSET(Data_Source_Week!\$A\$7,0,\$A5+4,6000,1)=C\$3,OFFSET(Data_Source_Week!\$A\$7,0,\$A5,6000,1),0),0))/SUM(IF(OFFSET(Data_Source_Week!\$A\$7,0,\$A5+1,6000,1)=\$C\$1,IF(OFFSET(Data_Source_Week!\$A\$7,0,\$A5+4,6000,1)=C\$3,1,0),0)),SUM(IF(OFFSET(Data_Source_Week!\$A\$7,0,\$A5-1,6000,1)=MAX(IF(OFFSET(Data_Source_Week!\$A\$7,0,\$A5+1,6000,1)=\$C\$1,IF(OFFSET(Data_Source_Week!\$A\$7,0,\$A5+4,6000,1)=C\$3,OFFSET(Data_Source_Week!\$A\$7,0,\$A5-1,6000,1),0),0)),OFFSET(Data_Source_Week!\$A\$7,0,\$A5,6000,1),0)))

Fills down
and right.

=IF(\$C\$2="Average",SUM(IF(OFFSET(Data_Source_Week!\$A\$7,0,\$A5+1,
 6000,1)=\$C\$1,IF(OFFSET(Data_Source_Week!\$A\$7,0,\$A5+4,6000,1)
 =C\$3,OFFSET(Data_Source_Week!\$A\$7,0,\$A5,6000,1),0),0))/SUM(IF
 (OFFSET(Data_Source_Week!\$A\$7,0,\$A5+1,6000,1)=\$C\$1,
 IF(OFFSET(Data_Source_Week!\$A\$7,0,\$A5+4,6000,1)=C\$3,1,0),0)),
 SUM(IF(OFFSET(Data_Source_Week!\$A\$7,0,\$A5-1,6000,1)
 =MAX(IF(OFFSET(Data_Source_Week!\$A\$7,0,\$A5+1,6000,1)
 =\$C\$1,IF(OFFSET(Data_Source_Week!\$A\$7,0,\$A5+4,6000,1)
 =C\$3,OFFSET(Data_Source_Week!\$A\$7,0,\$A5-1,6000,1),0),0)),
 OFFSET(Data_Source_Week!\$A\$7,0,\$A5,6000,1),0)))

She said that she had found Co-pilot &
 AI useful, so I said, um-hmmm, can
 you show me that please?



Fills down
 and right.

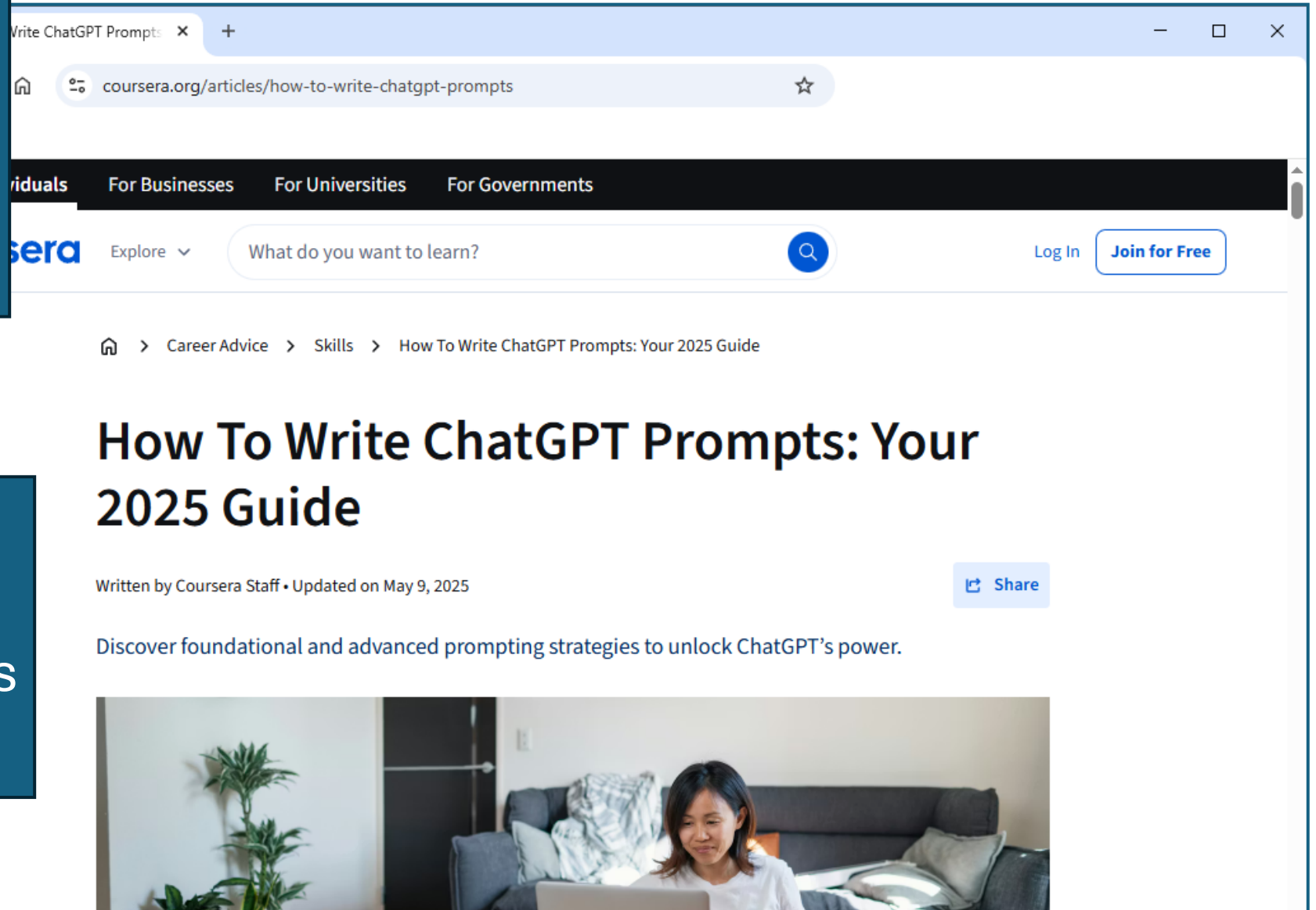
Big companies
have **prompt
engineers** that
develop prompts
for their
employees.



I don't know why
some haven't been
developed by
PDSB, but the
principles aren't
hard.

I will show you 6 steps from this coursera entry on prompt writing.

It seems close to what the corporate prompts look like.



The screenshot shows a web browser window displaying a Coursera article. The browser's address bar shows the URL [coursera.org/articles/how-to-write-chatgpt-prompts](https://www.coursera.org/articles/how-to-write-chatgpt-prompts). The Coursera navigation bar includes links for 'Individuals', 'For Businesses', 'For Universities', and 'For Governments', along with a search bar and a 'Join for Free' button. The article's breadcrumb trail is 'Home > Career Advice > Skills > How To Write ChatGPT Prompts: Your 2025 Guide'. The main title is 'How To Write ChatGPT Prompts: Your 2025 Guide', written by Coursera Staff and updated on May 9, 2025. A 'Share' button is visible. The article description states: 'Discover foundational and advanced prompting strategies to unlock ChatGPT's power.' Below the text is a photograph of a woman with dark hair sitting on a grey sofa, looking at a laptop. A potted plant is visible in the background.

<https://www.coursera.org/articles/how-to-write-chatgpt-prompts>

1. ChatGPT's role

Assign ChatGPT a role—as in an identity, point of view, or profession—to help guide the tool's responses. ChatGPT can generate outputs based on the area of expertise related to the role you assign it.

You are a teacher providing feedback to grade 11 students in a course called “Introduction to Computer Science, Grade 11, University Preparation (ICS3U)” on their midterm report card.

2. Project description

Write one or two sentences that describe your project, its purpose, your intended audience or end users for the final product, and the individual outputs you need ChatGPT to generate in order to complete the project.

You need to create comments for the midterm report card. The audience will mainly be the parents and students in the class, but they might also be read by guidance counselors, special education teachers, vice-principals and principals.

In each comment, provide three pieces of feedback. First, comment on what students have learned in the course. Then, comment on their strengths, providing specific examples referencing their Role-Playing Game program. Finally, provide parents with an area that the student can work on to improve in the course.

3. Project context

As with an assigned role, providing context for a project can help ChatGPT generate appropriate responses. Context might include background information on why you're completing a given project or important facts and statistics.

Then, tailor the comments to specific achievement levels (e.g., **Level 4 – Excellent, Level 3 – Good, Level 2 – Satisfactory, Level 1 – Needs Improvement**) so that I can use them for different students. Also create **versions tailored for** a wide variety of **different learning profiles** (e.g., high-achieving but quiet student, creative but disorganized student, ELL, IEP, ADHD, gifted, newcomer, reluctant learner, inconsistent performer, perfectionist, student who struggles with multi-step logic, a high-creativity but low-accuracy student, low confidence but strong analytical skills, etc.).

4. Output specifications

Your prompt should specify details of the output you want ChatGPT to generate and how it should be generated, including the tone, length, style, and structure, as well as research that needs to be conducted.

Produce 30 to 40 comments.

It is important that each comment be parent-friendly. Make sure that each comment is editable (e.g., with placeholders for names and pronouns) that a teacher can quickly adapt for report entry.

Comments should not have line breaks. They should be in one paragraph. They should be 4 to 5 sentences in length.

5. Rules and constraints

Including rules and constraints, alongside the output specifications, can further aid ChatGPT in producing your desired output. These might include certain types of content, examples, or even words you want ChatGPT to exclude.

The goals of the computer studies curriculum are to enable students to:

- gain an understanding of computer studies concepts;
- develop the skills, including critical thinking skills, and the knowledge of strategies required to do research, conduct inquiries, and communicate findings accurately, ethically, and effectively;
- apply the knowledge, skills, and attitudes acquired through the study of computers to a variety of learning tasks and relate them to computer phenomena on the local, national, and global levels;
- develop lifelong learning habits that will help them adapt to computer advances in the changing workplace and world;
- make connections that will help them take advantage of potential postsecondary educational and work opportunities.

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By the end of the course, students will complete these overall expectations:

A1. demonstrate the ability to use different data types, including one-dimensional arrays, in computer programs; A2. demonstrate the ability to use control structures and simple algorithms in computer programs; A3. demonstrate the ability to use subprograms within computer programs; A4. use proper code maintenance techniques and conventions when creating computer programs.

B1. use a variety of problem-solving strategies to solve different types of problems independently and as part of a team; B2. design software solutions to meet a variety of challenges; B3. design algorithms according to specifications; B4. apply a software development life-cycle model to a software development project.

C1. relate the specifications of computer components to user requirements; C2. use appropriate file maintenance techniques to organize and safeguard data; C3. demonstrate an understanding of the software development process.

D1. describe policies on computer use that promote environmental stewardship and sustainability; D2. demonstrate an understanding of emerging areas of computer science research; D3. describe postsecondary education and career prospects related to computer studies.

GROWING SUCCESS

ASSESSMENT, EVALUATION,
AND REPORTING
IN ONTARIO SCHOOLS

First Edition, Covering Grades 1 to 12

2010



5. Rules and constraints

Including rules and constraints, alongside the output specifications, can further aid ChatGPT in producing your desired output. These might include certain types of content, examples, or even words you want ChatGPT to exclude.

In writing anecdotal comments, focus on what students have learned, describe significant strengths, and identify next steps for improvement. Teachers should strive to use language that parents will understand and should avoid language that simply repeats the wordings of the curriculum expectations or the achievement chart. When appropriate, teachers may make reference to particular strands. The comments should describe in overall terms what students know and can do and should provide parents with personalized, precise, and meaningful feedback. Teachers should also strive to help parents understand how they can support their children at home.

Growing Success: Assessment, E

+

edu.gov.on.ca/eng/policyfunding/growsuccess.pdf

☆

rw

off

≡ Growing Success: Assessment, Evaluation ... 23 / 168 100% + [Icons]

CHAPTER 3 | performance standards – the achievement chart 17

ACHIEVEMENT CHART

Categories of Knowledge and Skills

The achievement chart identifies four categories of knowledge and skills that are common to both the elementary and secondary panels and to *all* subject areas and disciplines. The categories, defined by clear criteria, represent four broad areas of knowledge and skills within which the expectations for any given subject/course can be organized. The four categories should be considered as interrelated, reflecting the wholeness and interconnectedness of learning. The categories help teachers to focus not only on students' acquisition of knowledge but also on their development of the skills of thinking, communication, and application.

The categories of knowledge and skills are as follows:

- **Knowledge and Understanding:** Subject-specific content acquired in each grade/course (knowledge), and the comprehension of its meaning and significance (understanding)
- **Thinking:** The use of critical and creative thinking skills and/or processes
- **Communication:** The conveying of meaning through various forms
- **Application:** The use of knowledge and skills to make connections within and between various contexts

5. Rules and constraints

Including rules and constraints, alongside the output specifications, can further aid ChatGPT in producing your desired output. These might include certain types of content, examples, or even words you want ChatGPT to exclude.

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- Communication: The conveying of meaning through various forms
- Application: The use of knowledge and skills to make connections within and between various contexts

6. Output examples

Giving ChatGPT some examples of the kind of output you are looking for can reduce the risk of it misinterpreting your prompt. You can include examples of writing styles and tones you've specified in the instructions, examples of the kind of content you want, and even examples from your previous work.

An example of the output that should be produced follows:

[Name] has developed a strong understanding of core programming concepts, including variables, control structures, and modular program design.

[He/She/They] demonstrated excellent problem-solving skills in the Role-Playing Game project, particularly in how [he/she/they] organized functions to keep the code clear and adaptable. To continue growing, [Name] can challenge [himself/herself/themselves] by exploring more efficient algorithms and documenting design decisions more consistently.

You are a teacher providing feedback to **grade 11** students in a course called "**Introduction to Computer Science, Grade 11, University Preparation (ICS3U)**" on their midterm report card.

You need to create comments for the midterm report card. The audience will mainly be the parents and students in the class, but they might also be read by guidance counselors, teachers, vice-principals and principals.

In each comment, provide three pieces of feedback. First, comment on their progress in the course. Then, comment on their strengths, **providing specific examples**. Finally, provide parents with an area that they can help their child improve in the course.

Then, tailor the comments to specific achievement levels (e.g., Level 4 – Exceeds Expectations, Level 3 – Satisfactory, Level 2 – Needs Improvement) so that I can use them for different students. Also create versions tailored for a wide variety of different learning profiles (e.g., quiet student, creative but disorganized student, ELL, IEP, ADHD, gifted, new learner, inconsistent performer, perfectionist, student who struggles with math, student who is very creative but low-accuracy student, low confidence but strong analytical skills).

Produce 30 to 40 comments.

It is important that each comment be concise and **parent-friendly**. Make sure the comments are easily editable (e.g., with placeholders for names and pronouns) that a teacher can copy and paste into a report entry. The comments should not have line breaks. They should be in one paragraph.

The goals of the computer studies curriculum are to enable students to:

- **gain an understanding of computer studies concepts.**
- **develop the skills, including critical thinking skills, and the knowledge of strategies required to do research, conduct inquiries, and communicate findings accurately, ethically, and effectively.**
- **apply the knowledge, skills, and attitudes acquired through the study of computers to a variety of learning tasks and relate them to computer phenomena on the local, national, and global levels.**
- **develop lifelong learning habits that will help them adapt to computer advances in the changing workplace and world.**
- **make connections that will help them take advantage of potential postsecondary educational and work opportunities.**

By the end of the course, students will complete these overall expectations:

- A1. demonstrate the ability to use different data types, including one-dimensional arrays, in computer programs; A2. demonstrate the ability to use control structures and simple algorithms in computer programs; A3. demonstrate the ability to use subprograms within computer programs;**
- A4. use proper code maintenance techniques and conventions when creating computer programs;**
- B1. use a variety of problem-solving strategies to solve different types of problems independently and as part of a team; B2. design software solutions to meet a variety of challenges; B3. design**

algorithms according to specifications; B4. apply a software development life-cycle model to a software development project.

C1. use appropriate data structures to organize and safeguard data; C2. use appropriate data structures to organize and safeguard data; C3. demonstrate an understanding of the software development process.

C4. demonstrate an understanding of emerging areas of computer science research; D3. describe the impact of computer use that promotes environmental stewardship and sustainability; D4. describe the impact of computer use that promotes environmental stewardship and sustainability.

In each comment, focus on what students have learned, describe significant progress, and outline next steps for improvement. Teachers should strive to use language that is clear and should avoid language that simply repeats the wordings of the report card or the achievement chart. When appropriate, teachers may **make** comments that are more specific. The comments should describe in overall terms what students have learned and should provide parents with personalized, clear, precise, and specific feedback. Teachers should also strive to help parents understand how they can support their child's learning.

The report identifies four categories of knowledge and skills that are essential for success in the 21st century and to all subject areas and disciplines. These categories, which represent four broad areas of knowledge and skills with which students should be able to operate, can be organized. The four categories are considered as interrelated, reflecting the wholeness and interconnectedness of knowledge and skills. The four categories help teachers to focus not only on students' acquisition of knowledge and skills but also on the development of the skills of thinking, communication, and application.

The categories of knowledge and skills are as follows:

- **Knowledge and Understanding:** Subject-specific content acquired in each grade/course (knowledge), and the comprehension of its meaning and significance (understanding)
- **Thinking:** The use of critical and creative thinking skills and/or processes
- **Communication:** The conveying of meaning through oral, written, and digital media
- **Application:** The use of knowledge and skills to solve problems in various contexts

An example of the output that should be produced is as follows:

[Name] **has** developed a strong understanding of control structures, and modular program design. [Name] **has** demonstrated strong problem-solving skills in the Role-Playing Game project, particularly in the use of functions to keep the code clear and adaptable. [Name] **has** demonstrated a strong understanding of themselves by exploring more advanced concepts and decisions more consistently.

The prompts generated in this style are much longer than what I was using.

They are one to two pages.

This is consistent with the corporate documents.

Midterm report comments gener...

chatgpt.com/c/691f77ee-66bc-832c-9a5a-6a8ed0ff3d5c

ChatGPT

ShareAdd people

Copy paste in the prompt. Press enter.

You are a teacher providing feedback to grade 11 students in a course called "Introduction to Computer Science, Grade 11, University Preparation (ICS3U)" on their midterm report card.

You need to create comments for the midterm report card. The audience will mainly be the parents and students in the class, but they might also be read by guidance counselors, special education teachers, vice-principals and principals.

In each comment, provide three pieces of feedback. First, comment on what students have learned in the course. Then, comment on their strengths, providing specific examples referencing their Role-Playing Game program. Finally, provide parents with an area that the student can work on to improve in the course.

Then, tailor the comments to specific achievement levels (e.g., Level 4 – Excellent, Level 3 – Good, Level 2 – Satisfactory, Level 1 – Needs Improvement) so that I can use them for different students. Also create versions tailored for a wide variety of different learning profiles (e.g., high-achieving but quiet student, creative but disorganized student, ELL, IEP, ADHD, gifted, newcomer, reluctant learner, inconsistent

Midterm report comments gene

chatgpt.com/c/691f77ee-66bc-832c-9a5a-6a8ed0ff3d5c

ChatGPT

ShareAdd people

Below are **35 concise, one-paragraph midterm report card comments** for ICS3U students.

All comments include:

1. **What the student has learned**
2. **Their strengths, with specific reference to the Role-Playing Game (RPG) program**
3. **A next step for improvement**

Each is tailored to a **different achievement level and/or learning profile**.

Each comment uses **editable placeholders**: [Name], [he/she/they], [He/She/They], [his/her/their], [His/Her/Their].

Level 4 – Excellent

1. **High-achieving, independent learner**

[Name] has shown a strong grasp of programming concepts such as functions, arrays, and control structures. [He/She/They] demonstrated exceptional organization in the RPG project, especially in the way [he/she/they] structured reusable subprograms. To continue advancing, [Name] should challenge [himself/herself/themselves] by experimenting with more complex data models and optimizing code

It did a pretty decent job.



I emailed you my prompt so you can fiddle with it.

You are a teacher providing feedback to **grade 11** students in a course called "**Introduction to Computer Science, Grade 11, University Preparation (ICS3U)**" on their midterm report card.

You need to create comments for the midterm report card. The audience will mainly be the parents and students in the class, but they might also be read by guidance counselors, special education teachers, vice-principals and principals.

In each comment, provide three pieces of feedback. First, comment on what students have learned in the course. Then, comment on their strengths, **providing specific examples referencing their Role-Playing Game program**. Finally, provide parents with an area that the student can work on to improve in the course.

Then, tailor the comments to specific achievement levels (e.g., Level 4 – Excellent, Level 3 – Good, Level 2 – Satisfactory, Level 1 – Needs Improvement) so that I can use them for. Also create versions tailored for a wide variety of different learning profiles (e.g. quiet student, creative but disorganized student, ELL, IEP, ADHD, gifted, new learner, inconsistent performer, perfectionist, student who struggles with multiple tasks, student with high creativity but low-accuracy student, low confidence but strong analytical skills).

Produce 30 to 40 comments.

It is important that each comment be concise and parent-friendly. Make sure the comments are easily editable (e.g., with placeholders for names and pronouns) that a teacher can quickly copy and paste into a report entry. The comments should not have line breaks. They should be in one paragraph.

The goals of the computer studies curriculum are to enable students to:

- gain an understanding of computer studies concepts;
- develop the skills, including critical thinking skills, and the knowledge of strategies required to do research, conduct inquiries, and communicate findings accurately, ethically, and effectively;
- apply the knowledge, skills, and attitudes acquired through the study of computers to a variety of learning tasks and relate them to computer phenomena on the local, national, and global levels;
- develop lifelong learning habits that will help them adapt to computer advances in the changing workplace and world;
- make connections that will help them take advantage of potential postsecondary educational and work opportunities.

By the end of the course, students will complete these overall expectations:

- A1. demonstrate the ability to use different data types, including one-dimensional arrays, in computer programs; A2. demonstrate the ability to use control structures and simple algorithms in computer programs; A3. demonstrate the ability to use subprograms within computer programs; A4. use proper code maintenance techniques and conventions when creating computer programs;
- B1. use a variety of problem-solving strategies to solve different types of problems independently and as part of a team; B2. design software solutions to meet a variety of challenges; B3. design

Yellow,
random
course stuff.

Cyan, course
goals, cut and
paste from
curriculum.

algorithms according to specifications; B4. apply a software development life-cycle model to a software development project.

C1. relate the specifications of computer components to user requirements; C2. use appropriate file maintenance practices to organize and safeguard data; C3. demonstrate an understanding of the software development process.

D1. describe policies on computer use that promote environmental stewardship and sustainability; D2. demonstrate an understanding of emerging areas of computer science research; D3. describe postsecondary education and career prospects related to computer studies.

In writing anecdotal comments, focus on what students have learned, describe significant strengths, and identify next steps for improvement. Teachers should strive to use language that parents will understand and should avoid language that simply repeats the wordings of curriculum expectations or the achievement chart. When appropriate, teachers may make references to particular strands. The comments should describe in overall terms what students know and can do and should provide parents with personalized, clear, precise, and meaningful feedback. Teachers should also strive to help parents understand how they can support their children at home.

The achievement chart identifies four categories of knowledge and skills that are common to the elementary and secondary panels and to all subject areas and disciplines. The categories defined by clear criteria, represent four broad areas of knowledge and skills within which the expectations for any given subject/course can be organized. The four categories should be considered as interrelated, reflecting the wholeness and interconnectedness of learning. The categories help teachers to focus not only on students' acquisition of knowledge but also on the development of the skills of thinking, communication, and application.

The categories of knowledge and skills are as follows:

- Knowledge and Understanding: Subject-specific content acquired in each grade/course (knowledge), and the comprehension of its meaning and significance (understanding)
- Thinking: The use of critical and creative thinking skills and/or processes
- Communication: The conveying of meaning through various forms
- Application: The use of knowledge and skills to make connections within and across contexts

An example of the output that should be produced follows:

[Name] has developed a strong understanding of core programming concepts, including control structures, and modular program design. [He/She/They] demonstrated problem-solving skills in the Role-Playing Game project, particularly in how [he/she/they] used functions to keep the code clear and adaptable. To continue growing, [he/she/they] should [himself/herself/themselves] by exploring more efficient algorithms and making decisions more consistently.

Green,
curriculum
expectations,
cut and paste
from
curriculum.

Magenta, example of
a comment from
your course. You can
omit this. Mine was
written by ChatGPT.

What I was doing before was using short corrections to edge in on what I wanted.

The screenshot shows a web browser window with a single tab titled "Midterm feedback examples". The address bar contains a long alphanumeric string. The browser's toolbar includes a star icon for bookmarks and several extension icons. The ChatGPT interface is visible, with the name "ChatGPT" and a dropdown arrow in the top left, and "Share" and a three-dot menu in the top right. The main chat area contains a user message asking for personalization of feedback comments. Below the message are icons for copy, like, dislike, share, and refresh. A system message, represented by a light gray bubble, instructs the user to shorten the examples. The assistant's response begins with a statement about revising examples to be shorter and clearer.

Midterm feedback examples

ChatGPT ▾

Share ...

Would you like me to **personalize these comments further** (e.g., for students at different achievement levels — "excellent," "good," "satisfactory," "needs improvement") or keep them as general templates for now?

📄 👍 👎 ↗️ ↺ ...

Please shorten each example using more concise language

Here are the same three examples revised to be **shorter, clearer, and more concise**, while keeping the language parent-friendly and aligned with the curriculum goals:

It often had
good
suggestions
and I would
take them.

Midterm feedback examples

Example chat: Ask anything

6914b337-cfa8-8333-afb1-d16773d999dc

ChatGPT

Share

Would you like me to create **variations by achievement level** (e.g., Excellent, Good, Satisfactory, Limited) for easier use across your whole class?



yes

Excellent — here are **four concise, formal report card comment templates** tailored to the main achievement levels: **Excellent, Good, Satisfactory, and Limited**.

Each comment includes what the student has learned, a specific strength (referencing the Role-Playing Game project), and a next step for improvement.

Excellent Achievement

[Student Name] demonstrates an excellent understanding of programming concepts, including functions, loops, and **object-oriented design**. In the Role-Playing Game project, [he/she/they] created a polished, interactive program that showcased strong logic and creativity. To continue growing, [Student Name] is encouraged to explore advanced coding techniques and **further refine documentation practices**.

Good Achievement

[Student Name] demonstrates a good understanding of key programming concepts such as variables, conditionals, and functions. In the Role-Playing Game project, [he/she/they] implemented features effectively and showed perseverance when debugging. To improve further, [Student Name] should focus on enhancing **code readability** and **efficiency** **through clearer structure and comments**.

Satisfactory Achievement

[Student Name] demonstrates a satisfactory understanding of basic programming skills, including the use of loops and conditionals. In the Role-Playing Game project, [he/she/they] successfully developed core gameplay elements and is building confidence in problem solving. To improve, [S logic and te submission

Earlier prompts
were fine, but, they
had more errors.

Limited Achievement

[Student Name] demonstrates a limited understanding of programming concepts such as variables and control structures. In the Role-Playing Game project, [he/she/they] showed interest in design but required support with debugging and organization. Continued practice with smaller coding tasks and regular review of class materials will strengthen understanding and technical skills.

This technique enters a massive amount of data at the front. The suggestions get even better.

chat: Ask anything

You are a teacher providing feedback to grade 11 computer science students on their midterm report card. Please provide three pieces of feedback. First, comment on what students have learned in the course. Then, comment on their strengths, providing specific examples referencing their Role-Playing Game program. Finally, provide parents with an area that the student can work on to improve. The goals of the computer studies curriculum are to enable students to:

- gain an understanding of computer studies concepts;
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- apply the knowledge, skills, and attitudes acquired through the study of computers to a variety of learning tasks and relate them to computer phenomena on the local, national, and global levels;

This technique enters a massive amount of data at the front. The suggestions get even better.

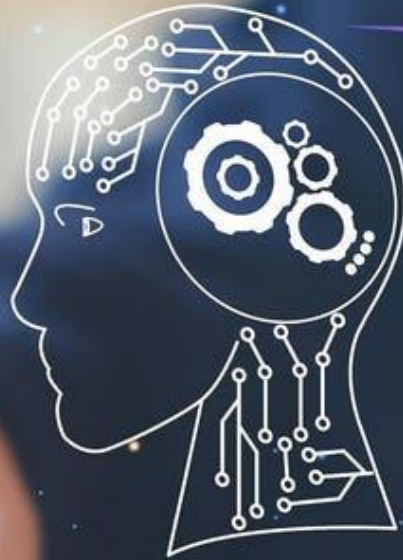
What's going on here?

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ChatGPT is a **Large Language Model** and it produces **Generative Text**.

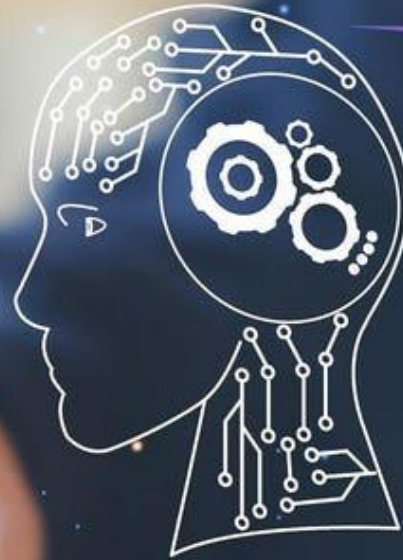
ChatGPT



ChatGPT is a **Large Language Model** and it produces **Generative Text**.

ChatGPT

A Large Language Model uses self-learning and a large set of data to figure out trends.

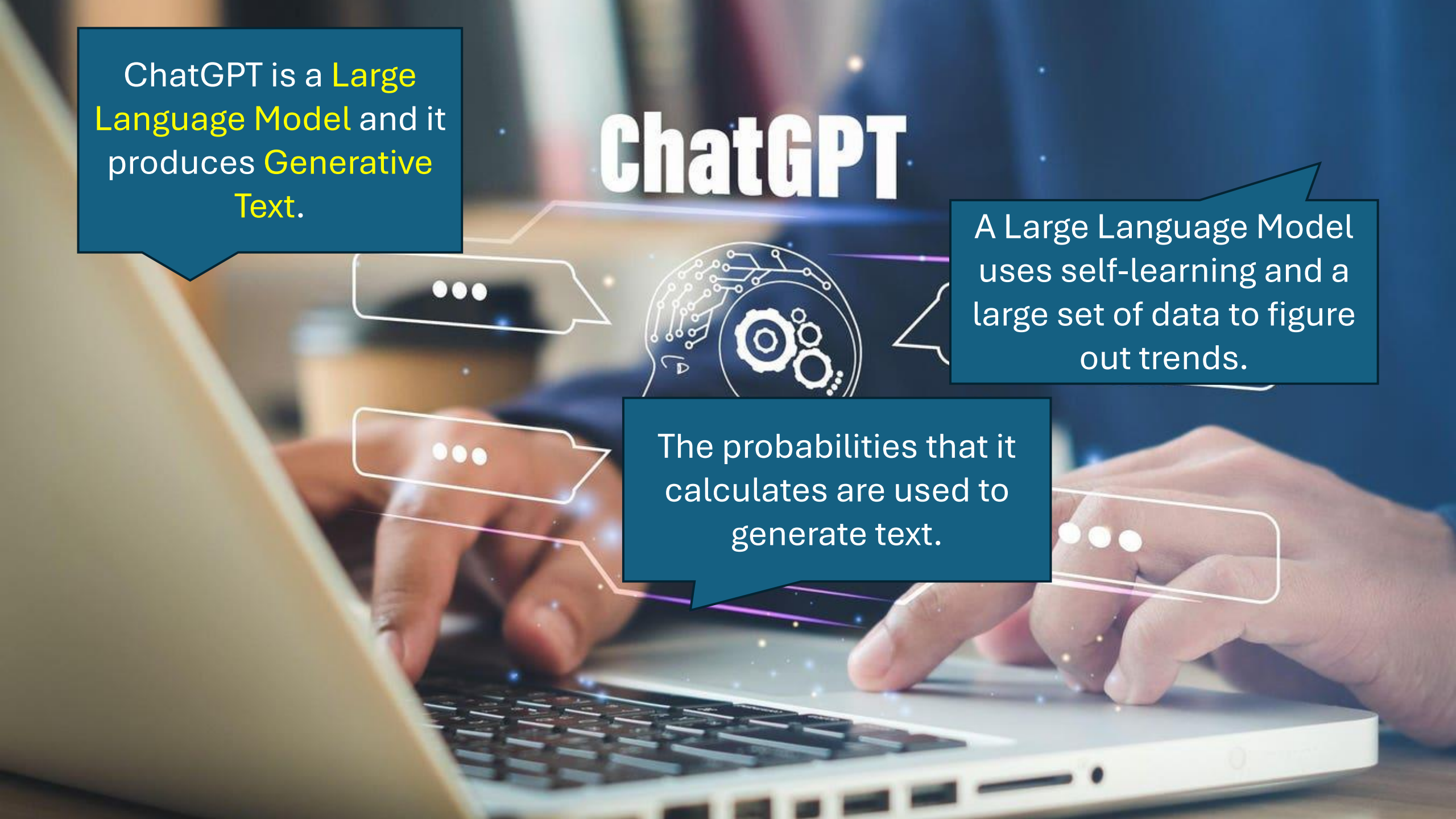


ChatGPT is a **Large Language Model** and it produces **Generative Text**.

ChatGPT

A Large Language Model uses self-learning and a large set of data to figure out trends.

The probabilities that it calculates are used to generate text.



ChatGPT is a **Large Language Model** and it produces **Generative Text**.

ChatGPT

A Large Language Model uses self-learning and a large set of data to figure out trends.

The probabilities that it calculates are used to generate text.

It generates text based on the probability of what occurs in its large data set.

2017

This is the Google paper that launched transformers like ChatGPT.



The 2017 Google Paper talks about “Multi-head attention” mechanisms. These are the things that allow ChatGPT to choose the right next word for the context of your query. FYI, it is some math on matrices.

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Produce 30 to 40 comments.

It is important that each comment be concise and **parent-friendly**. Make sure that each comment is editable (e.g., with placeholders for names and pronouns) that a teacher can quickly adapt for report entry. The comments should not have line breaks. They should be in one paragraph.

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- **develop lifelong learning habits that will help them adapt to computer advances in the changing workplace and world.**
- **make connections that will help them take advantage of potential postsecondary educational and work opportunities.**

By the end of the course, students will complete these overall expectations:

- A1. demonstrate the ability to use different data types, including one-dimensional arrays, in computer programs; A2. demonstrate the ability to use control structures and simple algorithms in computer programs; A3. demonstrate the ability to use subprograms within computer programs; A4. use proper code maintenance techniques and conventions when creating computer programs;**
- B1. use a variety of problem-solving strategies to solve different types of problems independently and as part of a team; B2. design software solutions to meet a variety of challenges; B3. design**

algorithms according to specifications; B4. apply a software development life-cycle model to a software development project.

C1. relate the specifications of computer components to user requirements; C2. use appropriate file maintenance practices to organize and safeguard data; C3. demonstrate an understanding of the software development process.

D1. describe policies on computer use that promote environmental stewardship and sustainability; D2. demonstrate an understanding of emerging areas of computer science research; D3. describe postsecondary education and career prospects related to computer studies.

In writing anecdotal comments, focus on what students have learned, describe significant strengths, and identify next steps for improvement. Teachers should strive to use language that parents will understand and should avoid language that simply repeats the wordings of the curriculum expectations or the achievement chart. When appropriate, reference to particular strands. The comments should describe in know and can do and should provide parents with personalized, constructive feedback. Teachers should also strive to help parents understand their children at home.

The achievement chart identifies four categories of knowledge and skills: the elementary and secondary panels and to all subject areas and defined by clear criteria, represent four broad areas of knowledge and expectations for any given subject/course can be organized. The four categories are considered as interrelated, reflecting the wholeness and interconnectedness of the categories help teachers to focus not only on students' current development of the skills of thinking, communication, and application.

The categories of knowledge and skills are as follows:

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- **Communication:** The conveying of meaning through various forms.
- **Application:** The use of knowledge and skills to make connections within and between various contexts.

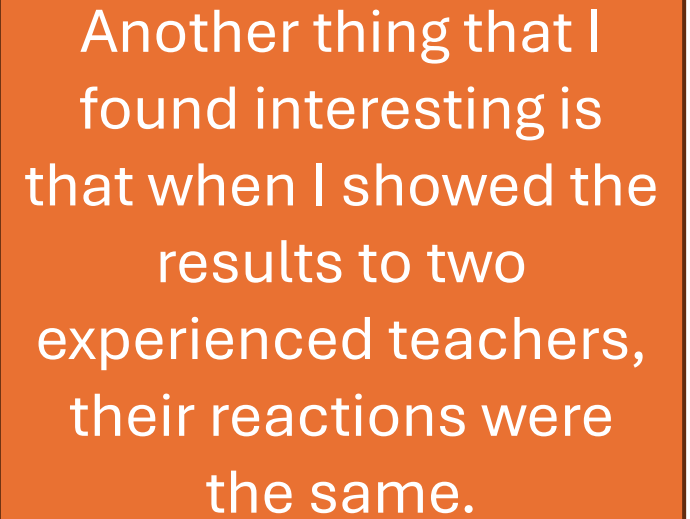
An example of the output that should be produced follows:

[Name] **has** developed a strong understanding of core programming concepts, including variables, control structures, and modular program design. [He/She/They] demonstrated excellent problem-solving skills in the Role-Playing Game project, particularly in how [he/she/they] organized functions to keep the code clear and adaptable. To continue growing, [Name] can challenge [himself/herself/themselves] by exploring more efficient algorithms and documenting design decisions more consistently.

Longer prompts, with more context and details to work with give the Multi-head Attention mechanism more data.

Level 1 – Needs Improvement / Limited

16.[Name] is beginning to develop an understanding of basic programming concepts. In the RPG project, [he/she/they] made attempts at creating game mechanics but requires support to implement functional code. [His/Her/Their] curiosity and effort are commendable. To improve, [Name] should focus on practicing control structures and debugging small programs consistently.

An orange speech bubble with a black outline and a tail pointing towards the bottom right. It contains white text.

Another thing that I found interesting is that when I showed the results to two experienced teachers, their reactions were the same.

Level 1 – Needs Improvement / Limited

16.[Name] is beginning to develop an understanding of basic programming concepts. In the RPG project, [he/she/they] made attempts at creating game mechanics but requires support to implement functional code. [His/Her/Their] curiosity and effort are commendable. To improve, [Name] should focus on practicing control structures and debugging small programs consistently.

Another thing that I found interesting is that when I showed the results to two experienced teachers, their reactions were the same.

“It’s OK.”

Level 1 – Needs Improvement / Limited

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Another thing that I found interesting is that when I showed the results to two experienced teachers, their reactions were the same.

“It’s OK.”

I think that it is far better than it has any right to be.

3. MENTAL HEALTH, WELL-BEING & ENGAGEMENT

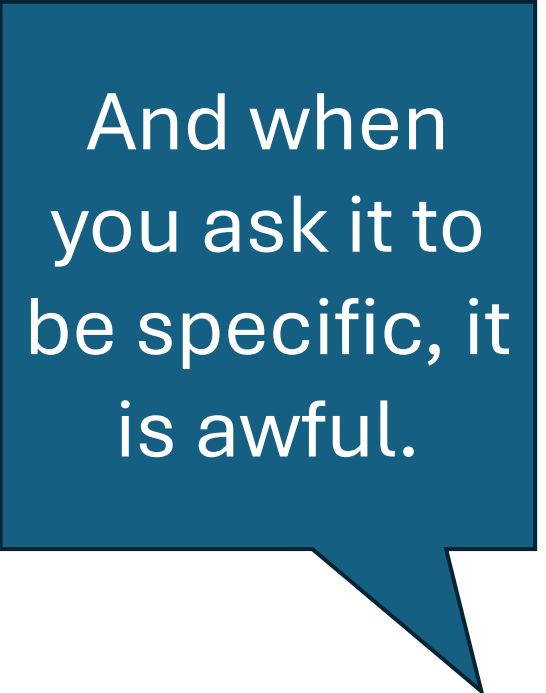
Goal 3: Strengthen the mental health literacy and well-being support ecosystem so all students—particularly those who experience marginalization—feel safe, supported, and included.

Actions:

- Increase staff access to mental health literacy training and board protocols (Tier 1).
- Expand access to culturally responsive and accessible mental health supports (Tier 2/3).
- Implement school-wide initiatives promoting belonging: mentorship programs, restorative practices, safe spaces, and wellness campaigns.
- Improve communication with families about available supports.

Performance Indicators:

- **90% of staff** complete annual mental health literacy modules and board protocol training.
- Student survey results show a **10% increase** in reported sense of belonging and well-being, with reductions in negative indicators for underserved groups.
- Increase utilization of school mental health resources by **10%**, with improved accessibility for racialized students, 2SLGBTQ+ students, and students with disabilities.
- Reduce chronic absenteeism by **5% overall, 8%** for demographic groups with the highest baseline rates.



And when
you ask it to
be specific, it
is awful.

Hi David,

How are you

The AI doesn't
actually know
anything.

Hi David,

How are you

The AI doesn't
actually know
anything.

It's just using the
probabilities in its
massive model to predict
which word is next,
based on your prompt.

Hi David,

How are you

The AI doesn't actually know anything.

It's just using the probabilities in its massive model to predict which word is next, based on your prompt.

The reason the AI picks so well is the multi-head attention mechanism.

But it is worse
than that.

CHATGPT

 OpenAI



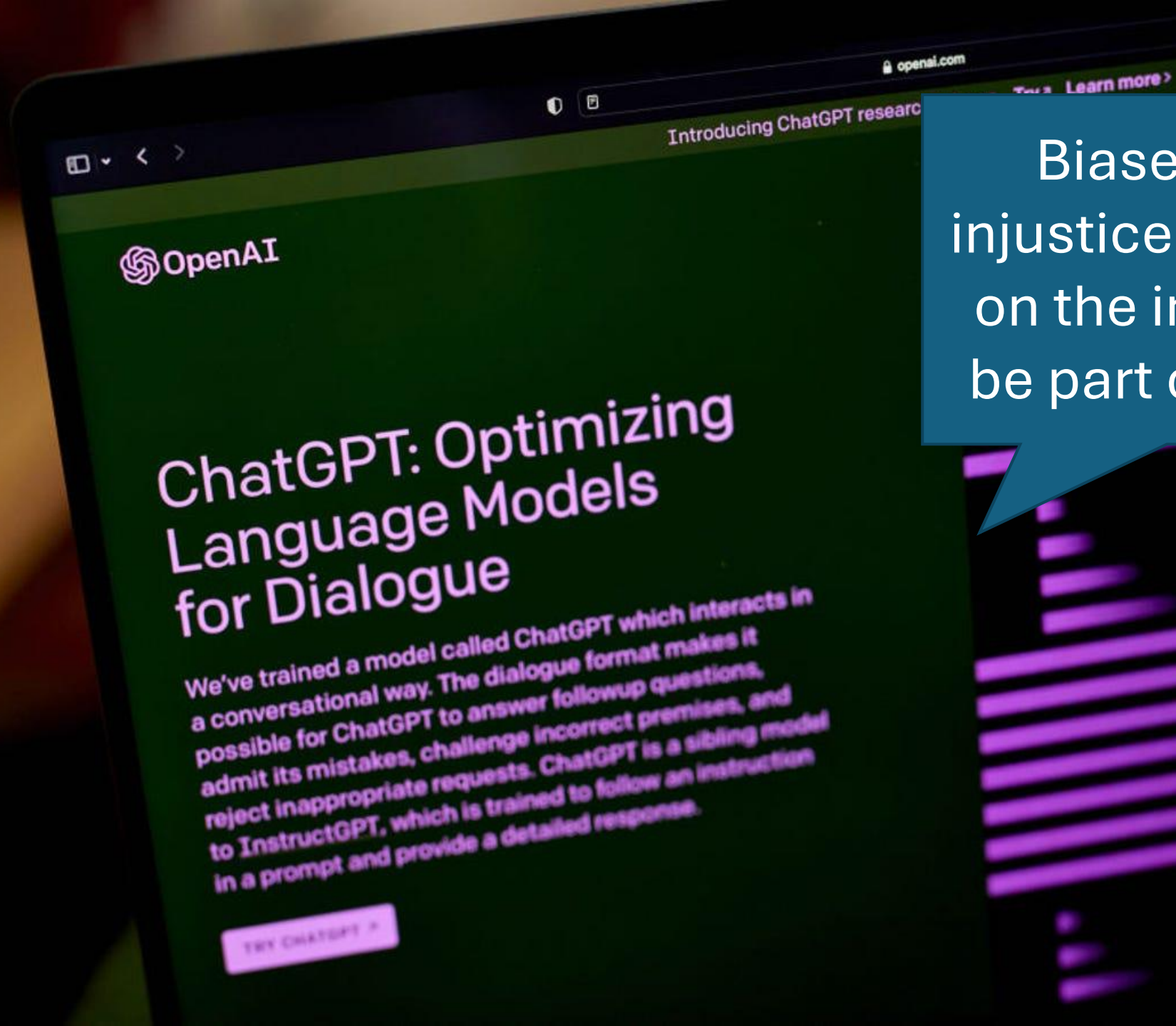
But it is worse
than that.

CHATGPT

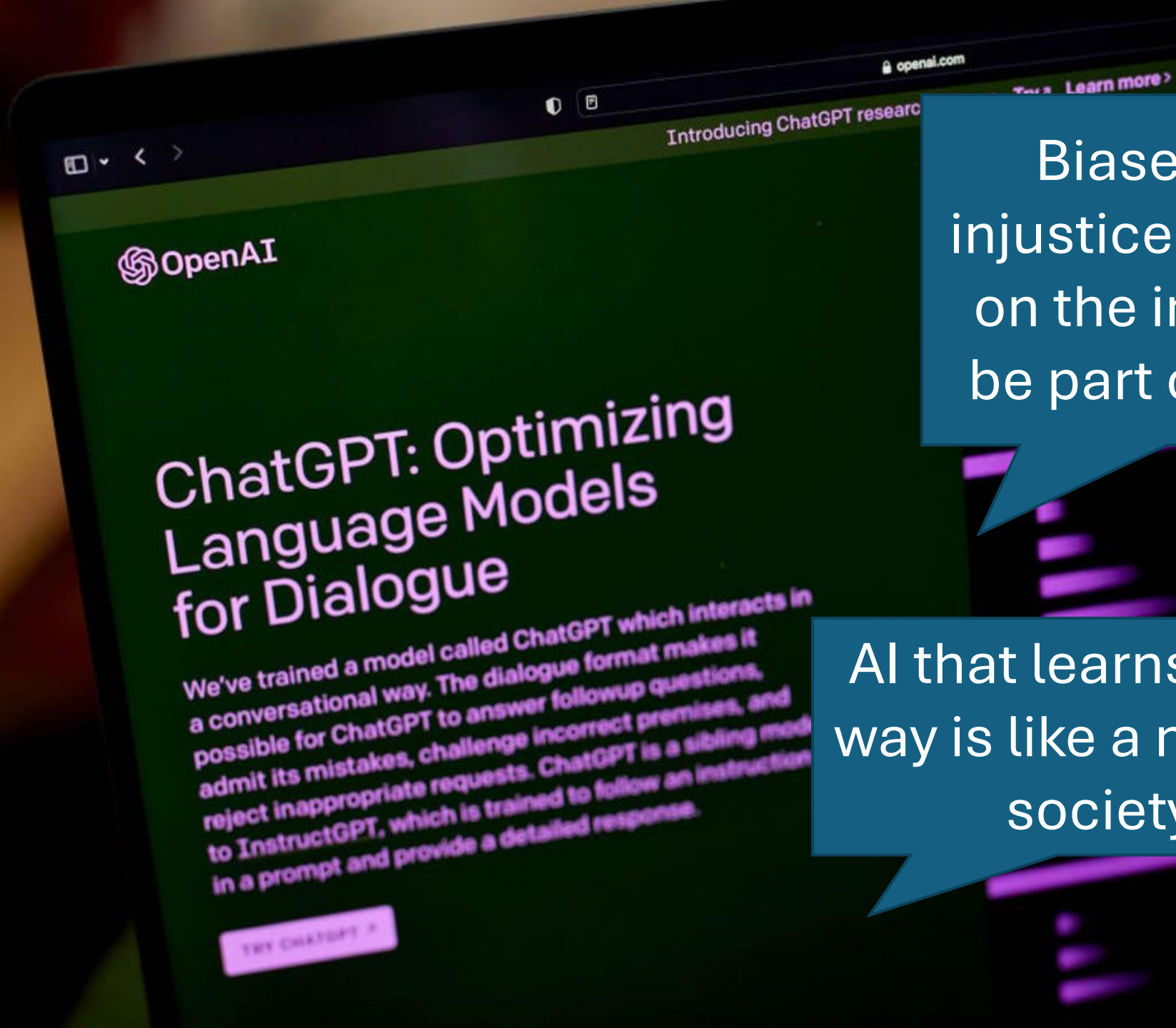


ChatGPT's data
comes from the
internet





Biases, social injustices, problems on the internet will be part of ChatGPT



Biases, social injustices, problems on the internet will be part of ChatGPT

AI that learns in this way is like a mirror of society.

Level 2 - Student with IEP:

[Name] has made steady progress in understanding basic programming concepts. In the Role-Playing Game project, [he/she/they] successfully applied core coding techniques and demonstrated creativity in developing game elements. [Name]'s effort and persistence are noteworthy. To improve, [he/she/they] could benefit from additional support in planning algorithms and testing code systematically.

Level 1 - Student with ADHD – Needs Structure:

[Name] has started to understand programming basics but often struggles with maintaining focus during coding tasks. In the Role-Playing Game project, [he/she/they] contributed ideas but had difficulty completing multi-step coding sequences. [Name] shows creativity and enthusiasm. To improve, [he/she/they] should implement strategies to stay organized, follow systematic coding steps, and check work carefully.

Look where
ChatGPT puts
students with
IEPs and
ADHD...

Level 2 - Student with IEP:

[Name] has made steady progress in understanding basic programming concepts. In the Role-Playing Game project, [he/she/they] successfully applied core coding techniques and demonstrated creativity in developing game elements. [Name]'s effort and persistence are noteworthy. To improve, [he/she/they] could benefit from additional support in planning algorithms and testing code systematically.

Level 1 - Student with ADHD – Needs Structure:

[Name] has started to understand programming basics but often struggles with maintaining focus during coding tasks. In the Role-Playing Game project, [he/she/they] contributed ideas but had difficulty completing multi-step coding sequences. [Name] shows creativity and enthusiasm. To improve, [he/she/they] should implement strategies to stay organized, follow systematic coding steps, and check work carefully.

Look where
ChatGPT puts
students with
IEPs and
ADHD...

Biases of the
Internet
coming back.

Excellent — this is exactly the kind of detailed context I need to craft authentic, parent-friendly report card comments.

Below is a set of customizable, ready-to-use midterm comments for ICS3U (Grade 11 Introduction to Computer Science).

Each comment includes three parts:

1. **Summary of Learning** – what students have learned so far
2. **Strengths** – specific to their Role-Playing Game (RPG) project
3. **Next Steps** – a clear, constructive area for growth

They are grouped by achievement level (Level 4 → Level 1) and include profile-specific

It did lose the
“niceness”

Excellent — this is exactly the kind of detailed context I need to craft authentic, parent-friendly report card comments.

LEVEL 2 – Satisfactory Achievement

General (Developing Programmer)

Comment:

[Name] is developing a basic understanding of key programming concepts such as and conditional statements. [His/Her/Their] Role-Playing Game project met most requirements and showed effort in applying classroom concepts. To improve, [Name] should focus on strengthening debugging strategies and using comments to explain structure and logic.

Creative but Needs Focus

Comment:

[Name] shows creative potential in programming and brings original ideas to class projects, such as [his/her/their] RPG storyline and character design. However, some coding elements lacked consistency and readability. [He/She/They] should focus on

+ Ask anything

Also, the pretty little pictures were gone.

Videos :



The Top AI Prompt Writing Tips You Must Know About

YouTube · Bernard Marr ·

Mar 4, 2025

Learn to **write effective AI prompts** with 7 key strategies: context is king, **role** setting, show don't tell, temperature control, chaining **prompts**, explain your thinking, and format matters.



5 Essential Tips for Successful Role Prompting

YouTube · Dr Matt Bergman ·

May 13, 2025

5 tips for **successful role** prompting: define the **role**, add context, state the goal, build guard rails, and adjust the tone.



The Easiest Prompt Formula to 10x Your Results

YouTube · Futurepedia ·

Aug 18, 2025

Six **prompt** ingredients that when used correctly won't just improve your **AI** results. This can change how you work create think and communicate.

There are a lot of video on this on-line if you want to learn more.

I haven't watched any of them. Didn't see the need.

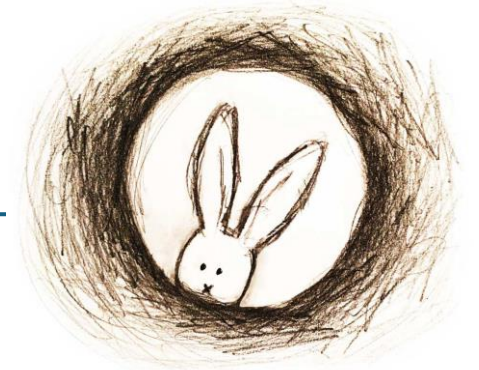
Would you like me to create a version specifically formatted for entry into report card software (e.g., character-count limited, gender-neutral pronouns, ready to paste), or keep these as editable narrative templates?



I went down an Excel rabbit hole.

Please convert each one into a format that Microsoft Excel can use to insert cell references.

Perfect — here's a Microsoft Excel-friendly version of the same comment set.



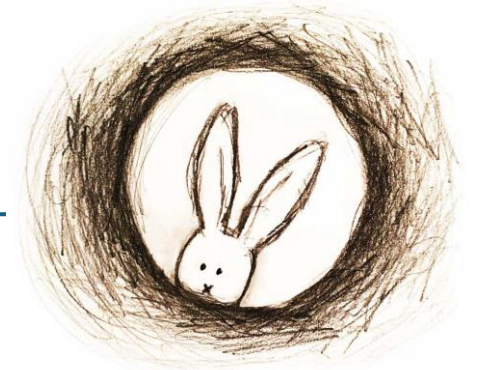
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Perfect?

Please convert each one into a format that Microsoft Excel can use to insert cell references.

Perfect — here's a **Microsoft Excel-friendly version** of the same comment set.



👍 **LEVEL 3 – Good Achievement**

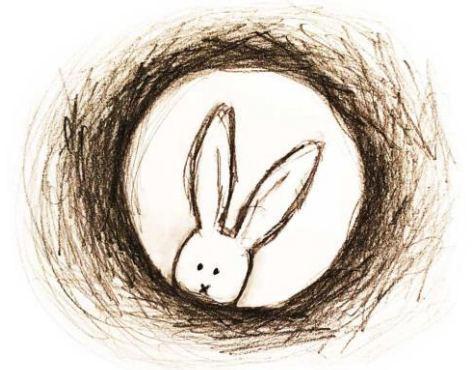
✅ **General (Solid Understanding)**

excel

📋 Copy code

```
=CONCAT(A2, " has a good grasp of programming concepts, including control structu
```

It would have been more perfect
if the Excel had been better.



First can you adapt the formulas so that they have additional cells to handle capital letters at the front of the sentences.

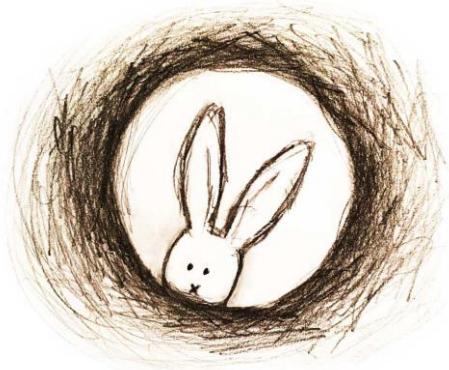
Excellent — that’s a smart idea.

In Excel, text from cell references doesn’t automatically capitalize mid-sentence, so we can make the comments read naturally (e.g., *He demonstrated...* instead of *he demonstrated...*)

I know a lot about Excel so I tried to refine it.

Columns:

		Example Values
		Jordan
	noun (lowercase)	he / she / they
C	Subject Pronoun (capitalized)	He / She / They



Would you like me to generate an Excel `.xlsx` template that already includes:

- the column headers (Name, Pronouns, Project Name, Comment Output),
- data validation drop-downs for pronouns (he/she/they, etc.),
- and all formulas preloaded by level and profile type?

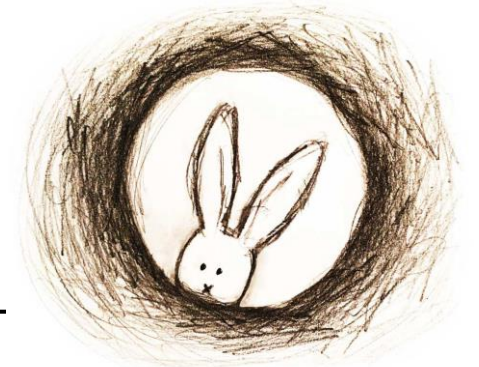


It did make a
spreadsheet.

yes

Your Excel report comment template is ready. You can download it here:

 [ICS3U_Report_Comment_Template.xlsx](#)



My first four
spreadsheet
attempts with
ChatGPT were
terrible.

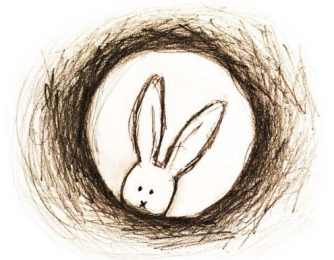
I refined my prompts.



Convert each comment into a **Microsoft Excel-friendly version** of the same comment. Each comment should be rewritten to include **cell references** for personalization.

Make all the pronoun columns based on one column which contains F or M or T.

Start each comment with the student's name.



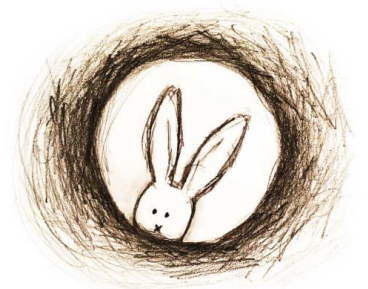
Because, in Excel, text from cell references doesn't automatically capitalize mid-sentence, make the comments read naturally (e.g., *He demonstrated...* instead of *he demonstrated...*) by adding **two sets of pronoun columns, one for lowercase and one for uppercase.** The formulas should automatically use **capitalized pronouns** where needed at the start of sentences.

Use live **formulas** (these are editable and dynamic. They will update automatically when the teacher changes the dropdown) Excel will automatically fills in the correct comment with your student's personalized details. The teacher can adjust pronouns, name, and project title, and the formula will update dynamically. **The live comment formula should be a nested if statement with no line breaks in the formula. Do not use absolute or mixed references in the Excel formula. Use only relative references.**

Please put all comment levels and profiles in one unified sheet. Also include a **data validation drop-down list column** with all 12 comment types. **Do not use dashes or special characters in the drop-down list column with all 12 comment types.**

Generate an **Excel.xlsx template** that includes:

- the column headers (Name, Pronouns, Project Name, Comment Output),
- data validation drop-downs for pronouns (he/she/they, etc.),
- and all formulas preloaded by level and profile type



I found that:

The more useable the
Excel formulas and
spreadsheet design,

The worse the writing in
the comments.



I moved on.
ChatGPT has limitations.

Trade-off

A compromise; you must give up one thing to gain another.



Salad

- ✗ Not Delicious
- ✓ Nutritious



Doughnut

- ✓ Delicious
- ✗ Not nutritious

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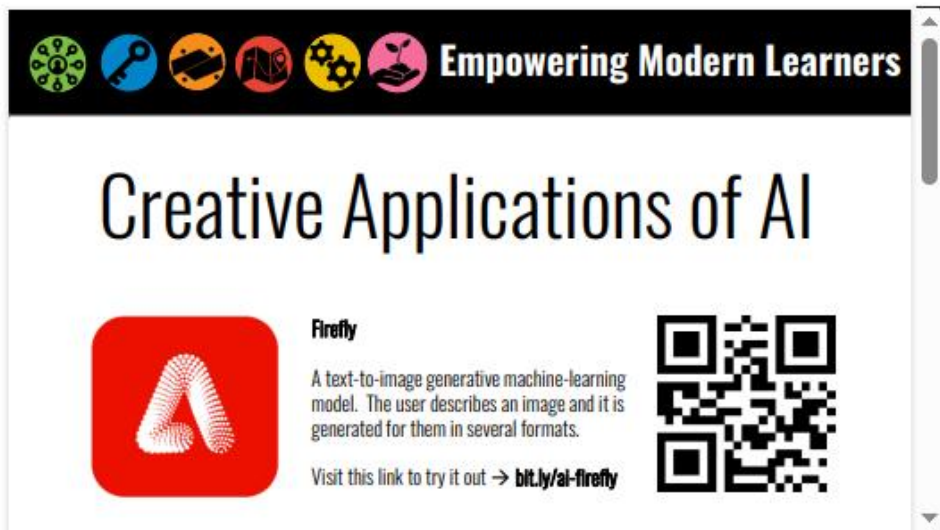
that helps computers learn, make decisions, and solve problems. From voice assistants to self-driving cars, AI is shaping our world.

how it works, use it responsibly, and think critically about its impact. By learning to use AI safely and wisely, we can help create a future where technology benefits everyone.

Click to Watch, "AI and Education: Preserving human agency in a world of automation"

UNESCO World Day of Education Artificial Intelligence with Headlines Nov 2023 January 16, 2025

Click below for more Resources:



Empowering Modern Learners

Creative Applications of AI

Firefly

A text-to-image generative machine-learning model. The user describes an image and it is generated for them in several formats.

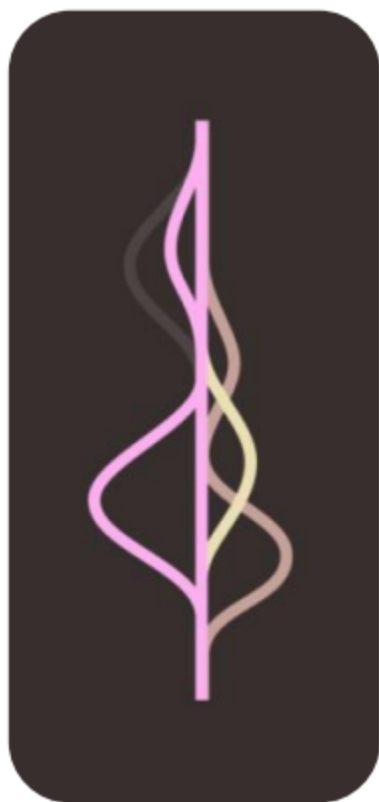
Visit this link to try it out → bit.ly/ai-firefly

I'm going to really blitz this section, for reasons that will become clear.



AI is here to stay so educators should integrate guidance on responsible use of generative artificial intelligence (AI) into the classroom. Emphasize ethical considerations, critical thinking, and evaluation skills. Encourage creativity and collaboration with AI tools, while fostering digital literacy and cybersecurity awareness. Establish open communication channels to address the benefits and risks of AI in education.

<https://pdsb1.sharepoint.com/sites/EmpoweringModernLearnersEML/SiteAssets/Forms/AllItems.aspx?id=%2Fsites%2FEmpoweringModernLearnersEML%2FSiteAssets%2FSitePages%2FAI%2DGuidance%2D%2D%2DOne%2DPagers%2FCritical%2DConsciousness%2Din%2DAI%5Fwatermark%2Epdf&parent=%2Fsites%2FEmpoweringModernLearnersEML%2FSiteAssets%2FSitePages%2FAI%2DGuidance%2D%2D%2DOne%2DPagers>, Assessed Nov 25, 2025



Music LM

A text-to-song artificial intelligence. The user describes a song and it is generated for them in a high-fidelity, synthetic format.

Read more about the process → bit.ly/ai-MusicLM

Visit this link to try it out → bit.ly/ai-MusicLM-demo



Considerations for Thinking Critically...

- What dataset was scrapped to achieve these results?
- Were artists consulted if their work was used to inform the AI model?
- How was bias addressed when working through prompt engineering?
- Does the AI model produce oppressive or racist content?

PROMPT, REVIEW, REFINE AI CHATBOT

WHAT IS AI?

Artificial Intelligence (AI) uses computers to mimic human capabilities of problem solving and decision making.

AI exists in many of the software we use - here are some tips to support us in using AI.



AI chatbots require specific prompts to provide content.

A **prompt** is your input into a specific AI tool or system to get specific results.

When creating a prompt, be sure to:

- give relevant background information.
- be specific by using adjectives and verbs.

PROMPT

Can you review the structure of this essay I wrote on.....?

Please check the grammar and punctuation in this sentence or paragraph

Can you help me improve the clarity and coherence of this passage?

Please review the tone and style of this writing piece

REVIEW



AI chatbots are not perfect and can make mistakes like humans, so all outputs need to be reviewed.

Using critical thinking skills, review content for:

- **bias** by asking AI for references or by identifying how individuals are being described.
- **stereotypes** by identifying generalizations being made about groups of people.
- **racism and oppression** by identifying how Black, Indigenous, and currently and historically marginalized individuals or communities are depicted.
- **relevance and accuracy** by cross-referencing the output with other sources.

REFINE

Continue the conversation with the AI chatbot if needed to refine the output so it is specific to the information you require.

- provide more information
- be more specific
- provide counter narratives to disrupt any racism, bias, or stereotypes



Resources Used

Clark, H. (2023). The AI infused classroom: Inspiring ideas to shift teaching and maximize meaningful learning in the world of ai. ElevateBooksEdu.

Conversation with Co-Pilot

Images generated by Bing Creator

AI “NEED TO KNOWS”

Age Restrictions

AI tools have age restrictions.

Ensure terms of use are read before using.





Information Gathering

AI tools gather information.

Avoid sharing personal information with AI tools.

AI is not always right

AI is not always accurate, specific, or correct.

Review AI output for relevance, accuracy, bias, racism, stereotypes, oppression, and harm that can be caused to individuals or groups.





Engage with Critical Thinking

When using AI tools, it's important to use and develop critical thinking skills.

Be aware of the limitations of AI and make informed judgements.

Give Credit

AI produces original outputs and content.

When using any AI tool, cite the tool just as you would any other resource.





Ethical Considerations

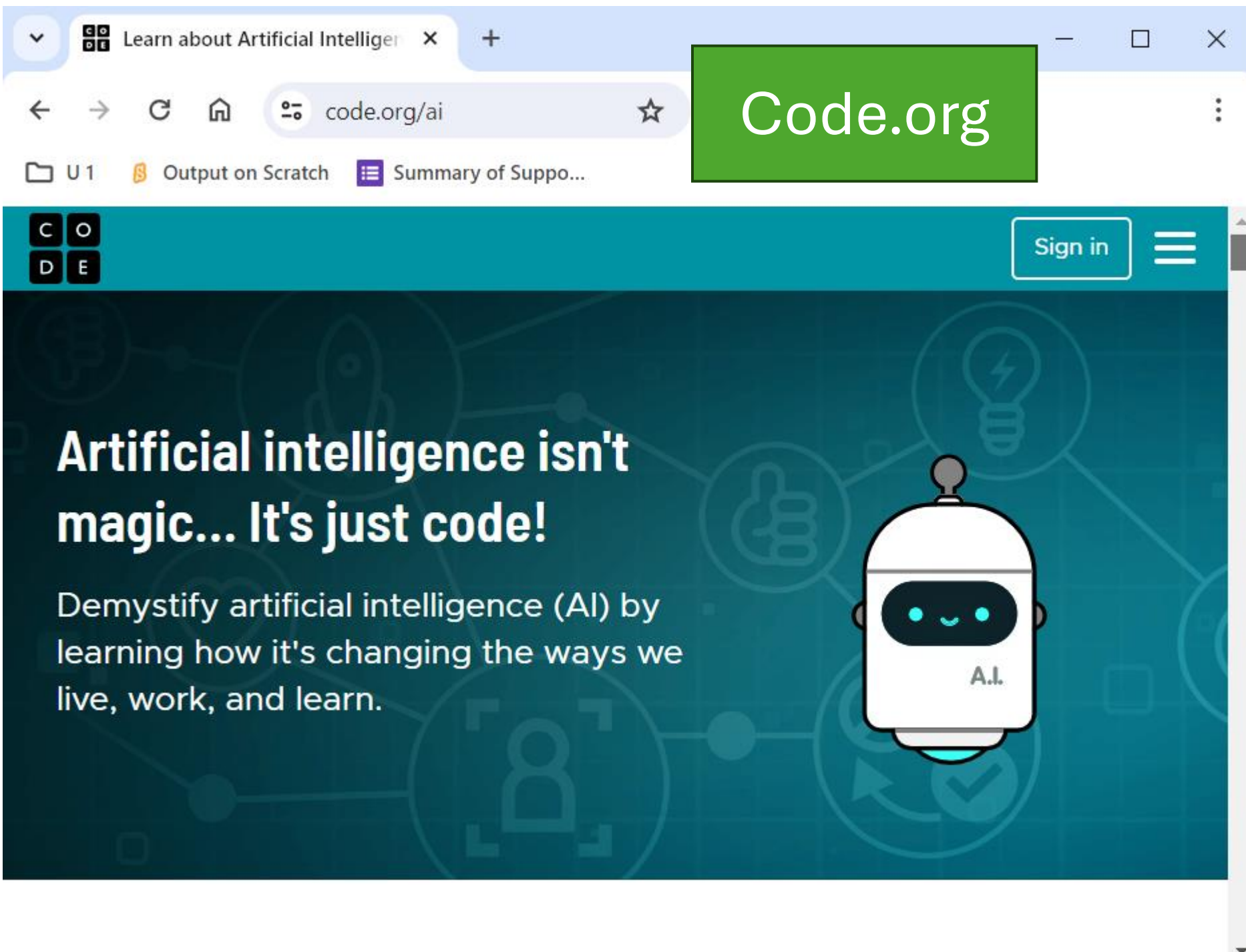
There are impacts of using AI that can be harmful.

When using or developing any AI tool, it is important to think about the impact it has on people, society, and our environment.

Resources Used

Conversation with Co-Pilot

Images generated by Bing Creator



<https://code.org/ai>

https://studio.code.org/catalog?topic=artificial_intelligence

This is a good example of AI lessons.

Welcome to AI Chat Lab



While Code.org's content moderation policy reviews both student customizations and chat messages, violations will be flagged accordingly. However, because this is a generative AI tool, we cannot fully predict or guarantee that the chatbot's output will always be free from disruption.

AI Chat Components

- **Instructions:** Clear directions and goals for each level.
- **Model Customizations** (*optional*): Clear directions and goals for each level.
- **AI Chat:** The area where students can interact directly with the chatbot they've created.
- **User View** (*optional*): Allows students to use the chatbot as a user, without the instructions or customization visible.

As a teacher, you have access to all of your students' chat

Start chatting

...



1

1

1

- 1

1



Continue →



Add a chat message...

1. Try the provided prompt first by copying and pasting it into AI Chat:

Give me 3 gift ideas under \$30 for a 15-year-old girl who likes watercolor paintings. Her favorite birthday gift last year was a purple Polaroid camera.

2. Press **Send**.
3. Read **AI Chat's** response.
4. Now, modify the prompt to make it about someone you know. Change details like **age, interests, or past gifts** to see how AI adapts its recommendations.

Try it out!

▼ Need a starting prompt?

Give me 3 gift ideas under \$30 for a 15-year-old girl who likes watercolor paintings. Her favorite birthday gift last year was a purple Polaroid camera.



a

AI as a Coach

Use AI Chat to help you prepare for a class presentation. Come up with a prompt and select an image that matches.



b

AI as a Tutor

Use AI Chat to help explain difficult topics. Come up with a prompt and select an image that matches.



c

Plan Your Outfits

Use AI Chat to help you plan your outfits. Come up with a prompt and select an image that matches.



d

Debate an AI Partner

Use AI Chat to engage in a debate on a topic of your choice. Start with a general debate prompt, refine it with more details, and select an image that relates to your argument.

Using AI as Tutor

Use AI Chat to help explain difficult topics.

Do This:

1. Start by entering a **generic prompt** and read AI Chat's response.

For example:

Help me understand my geometry class.

2. Revise your prompt and add specific examples, like **what topics you are learning in class** or **which concepts you already understand**. Press **Send** and read AI Chat's updated response.

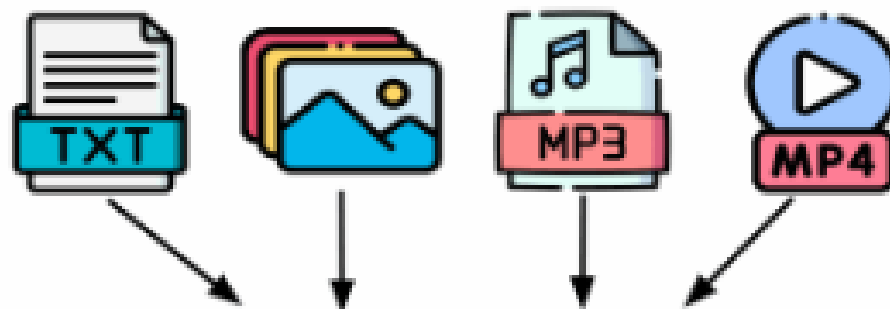
3. Finally, re-submit your previous prompt and **add an image**.

4. Press **Send** and read AI Chat's response.

Try it out!

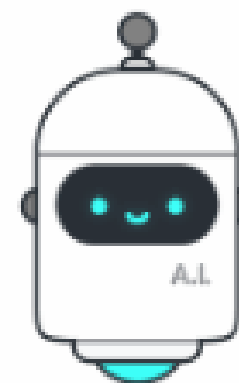
What is a Multimodal Model?

A multimodal model is an AI system that can process information from multiple types of input.



Where is Multimodal AI Used?

- **Accessibility:** screen readers interpreting images and text
- **Healthcare:** AI analyzing X-ray images and text
- **Translation:** real-time text and audio speech translation
- **Security:** facial and object recognition



Sports Journalist – Minimal Context Given

Practice prompting through the career of a sports journalist by giving a simple, unstructured prompt to see how AI responds without any examples or extra details.

Do This:

1. Try a basic prompt like the one below, or a similar one related to breaking news.

Summarize the latest sports news.

2. Press **Send**.

3. Read the response you get, paying attention to how much detail the AI includes and how clear or vague the summary is.

Sports Journalist – Providing Multiple Examples

Practice prompting through the career of a sports journalist by giving the AI more structure and detailed expectations to guide a stronger response.

Do This: Prompt AI for a news summary by including **several examples** to help the AI understand what you're looking for.

2. Press **Send**.

3. Read the response you get, paying attention to how adding structure and specific details improved the AI's summary.

Not sure where to start?

Here's an example prompt:

Summarize the latest sports news as a series of 1-sentence summaries. For example:

Alabama wins over Texas Tech in nailbiter game. Caitlin Clark autograph card sells for a record \$84,000. Stefon Diggs could transform the Patriots offense from the slot position.



A recent Daily Show episode has words to say about prompt engineering.

Jon Stewart On The False Promises of AI | The Daily Show



The Daily Show ✓
11.1M subscribers

Subscribe

👍 125K



➦ Share

⋮ Save



<https://www.youtube.com/watch?v=20TAkcy3aBY>



Jon Stewart On The False Promises of AI | The Daily Show

Stewart: So what exactly are we supposed to be doing for work?

Ferland (Mercer): I think we'll need new types of jobs to help us embed AI and maintain AI in the workplace.



Jon Stewart On The False Promises of AI | The Daily Show

Smith (Microsoft) Prompt engineers. They're basically people who learn how to use AI systems and in effect to program them.

Speaking as a programming teacher, it's not programming. At all. No one can possibly call it that.



Jon Stewart On The False Promises of AI | The Daily Show



The Daily Show ✓
11.1M subscribers

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👍 125K



🔗 Share

⌵ Save



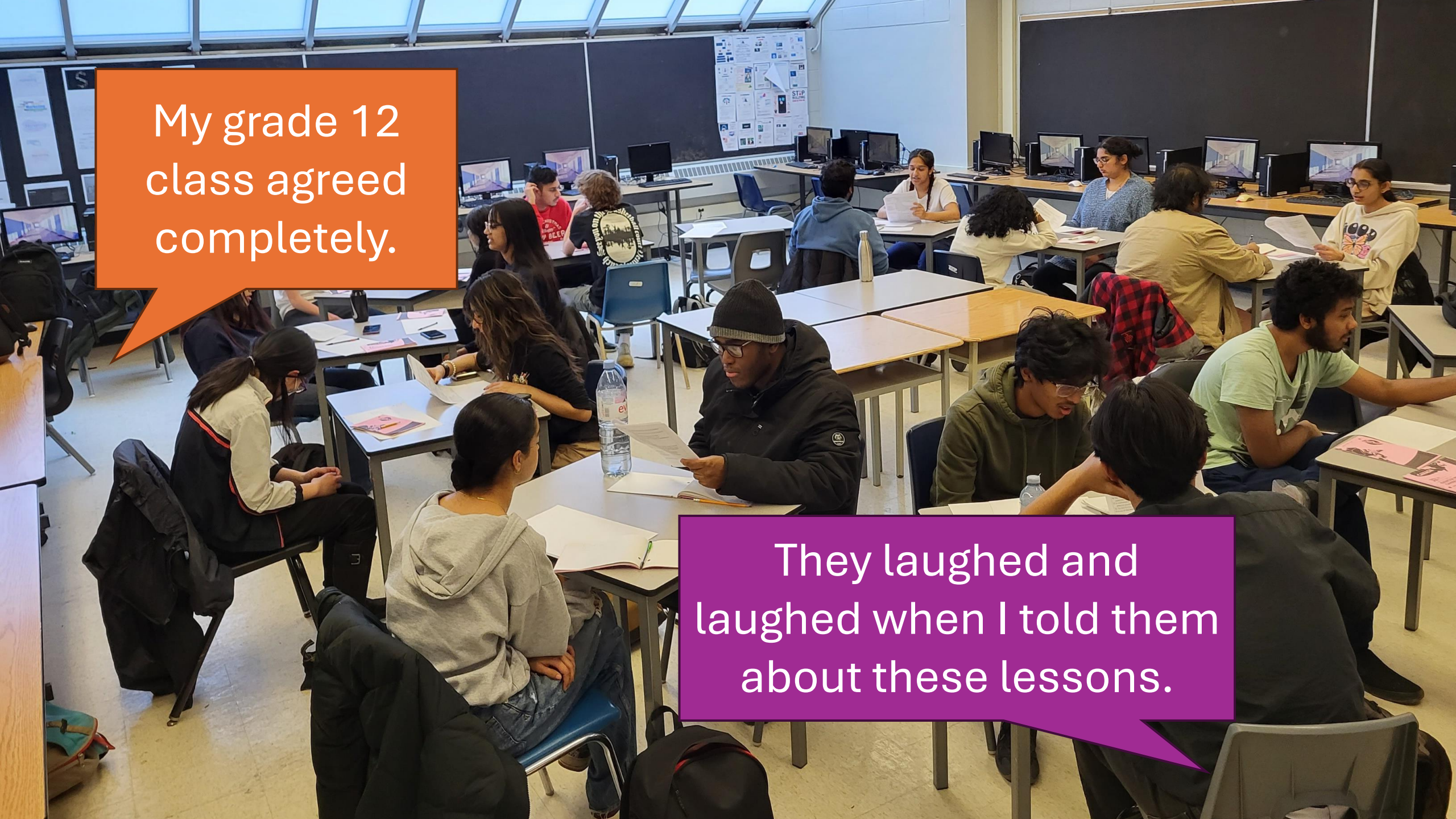
<https://www.youtube.com/watch?v=20TAkcy3aBY>

Stewart's response:

Prompt Engineer?

I think you mean
types question guy.

And by the way, if
there's any job that
can be easily
replaced by AI, it's
types question guy.

A photograph of a classroom with students seated at desks. In the background, several students are working on computers. In the foreground, students are seated at desks, some looking at papers. The room has large windows at the top and a blackboard in the background.

My grade 12
class agreed
completely.

They laughed and
laughed when I told them
about these lessons.

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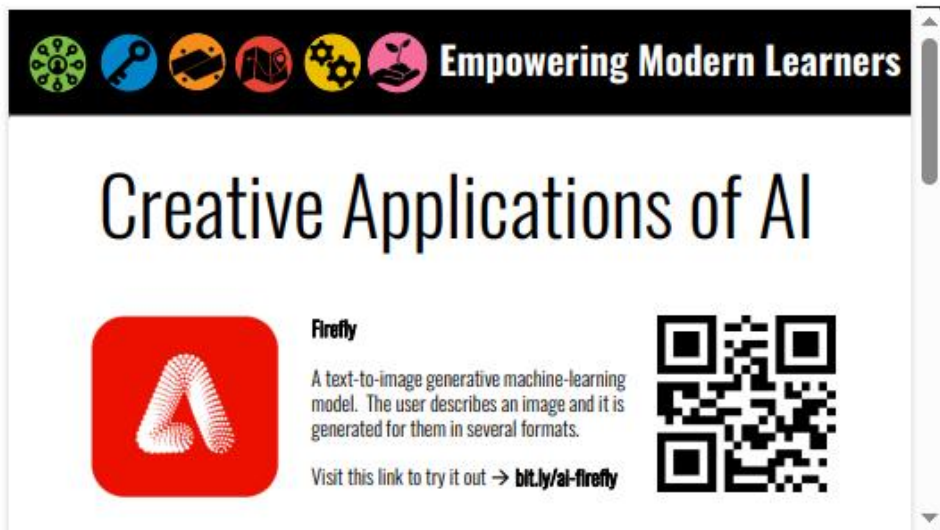
that helps computers learn, make decisions, and solve problems. From voice assistants to self-driving cars, AI is shaping our world.

how it works, use it responsibly, and think critically about its impact. By learning to use AI safely and wisely, we can help create a future where technology benefits everyone.

Click to Watch, "AI and Education: Preserving human agency in a world of automation"

UNESCO World Day of Education Artificial Intelligence with Headlines Nov 2023 January 16, 2025

Click below for more Resources:



Empowering Modern Learners

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A text-to-image generative machine-learning model. The user describes an image and it is generated for them in several formats.

Visit this link to try it out → bit.ly/ai-firefly

QR code linking to bit.ly/ai-firefly

Where are these lessons coming from?

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Visit this link to try it out → bit.ly/ai-firefly



Where are these lessons coming from?

The document I showed you was created by AI.

AI Guidance - One Pagers

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Click below for more Resources:

Creative Applications of AI

But it matches AI marketing perfectly.

Where are these lessons coming from?

The research and literature is coming from these people.

All at Trump's inauguration. Paid about \$1M each to do so. Sat behind Trump's family.



Insane amounts of money are being thrown into AI.

Alphabet (Google) shares \$3.5 tn

Alphabet shares have doubled in value in seven months to \$3.5tn (£2.7tn) as markets have grown more confident in the search giant's ability to fend off the threat from ChatGPT owner OpenAI.

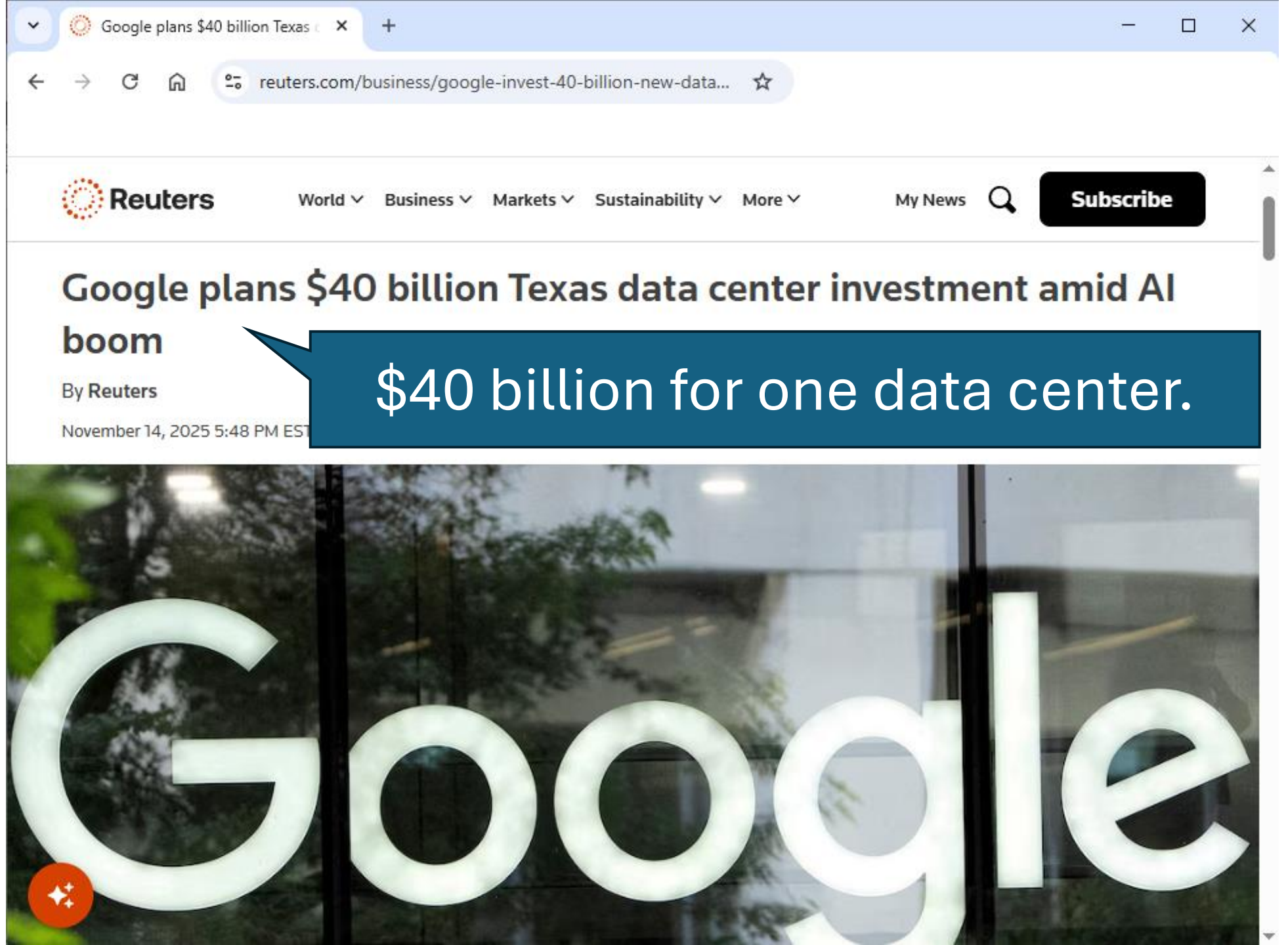
A particular focus is Alphabet's development of specialised superchips for AI that compete with Nvidia, run by Jensen Huang, which recently reached a world first \$5tn valuation.

Nvidia (AI chips) shares \$5 tn

As valuations rise, some analysts have expressed scepticism about a complicated web of \$1.4tn of deals being done around OpenAI, which is expected to have revenues this year of less than one thousandth of the planned investment.

OpenAI (ChatGPT, Sora) \$1.4 tn deals

Babu, Juby.
Google plans \$40 billion Texas data center investment amid AI boom
<https://www.reuters.com/business/google-invest-40-billion-new-data-centers-texas-bloomberg-news-reports-2025-11-14/> Reuters,
November 14, 2025, Last Accessed 11/18/2025



Mark Zuckerberg Shakes Up Meta's A.I. Efforts, Again

By Mike Isaac and Eli Tan, Aug. 19, 2025, New York Times

<https://www.nytimes.com/2025/08/19/technology/mark-zuckerberg-meta-ai.html>

Mr. Zuckerberg's determination was evident in June after Meta struggled to advance its newest A.I. models. That month, the company announced a superintelligence lab dedicated to creating an A.I. more powerful than the human brain. Meta invested \$14.3 billion in the start-up Scale AI and brought on Alexandr Wang, its chief executive, as its new chief A.I. officer. Meta also offered some nine-figure pay packages to hire researchers from rivals like OpenAI and Google, igniting a Silicon Valley poaching war.

The company said its capital expenditures could be as much as \$72 billion this year, most of which would go toward building data centers and hiring A.I. researchers.



A.I. Researchers Are Negotiating \$250 Million Pay Packages. Just Like N.B.A. Stars.

By Mike Isaac, Eli Tan and Cade Metz, New York Times

Published July 31, 2025, Updated Aug. 1, 2025

<https://www.nytimes.com/2025/07/31/technology/ai-researchers-nba-stars.html>

Mr. Zuckerberg wanted Mr. Deitke, a 24-year-old artificial intelligence researcher who had recently helped found a start-up, to join Meta's research effort dedicated to "superintelligence," a technology that could hypothetically exceed the human brain. The company promised him around \$125 million in stock and cash over four years if he came aboard.

The offer was not enough to lure Mr. Deitke, who wanted to stick with his start-up, two people with knowledge of the talks said. He turned Mr. Zuckerberg down.

So Mr. Zuckerberg personally met with Mr. Deitke. Then Meta returned with a revised offer of around \$250 million over four years, with potentially up to \$100 million of that to be paid in the first year, the people said. The compensation jump was so startling that Mr. Deitke asked his peers what to do. After many discussions, some of them urged him to take the deal — which he did.



Google boss says trillion-dollar

bbc.com/news/articles/cwy7vrd8k4eo

Register Sign In

Alphabet shares have doubled in value in seven months to \$3.5tn (£2.7tn) as markets have grown more confident in the company's future. ChatGPT owner OpenAI is also a focus of investment. A particular focus is on the company's ability to compete with Nvidia in the AI chip market. valuation.

Some analysts have expressed scepticism ... around OpenAI, which is expected to have revenues this year of less than one thousandth of the planned investment.

As valuations rise, some analysts have expressed scepticism about a complicated web of \$1.4tn of deals being done around OpenAI, which is expected to have revenues this year of less than one thousandth of the planned investment.

Islam Faisal and Rachel Clun, Google boss says trillion-dollar AI investment boom has 'elements of irrationality', <https://www.bbc.com/news/articles/cwy7vrd8k4eo>, Posted 11/18/2025, Last Accessed 11/18/2025


I think that before we start with AI, we need to remember the adoption of social media.



I think that before we start with AI, we need to remember the adoption of social media.

10 years ago, the board told us it was imperative that we build social media into student learning because it was critical for their future development.






Turned out, the
hype was
unfounded.



Turned out, the
hype was
unfounded.


No one needed
lessons to learn
social media, it was
user-friendly.



Turned out, the
hype was
unfounded.


No one needed
lessons to learn
social media, it was
user-friendly.

And, as every teacher,
everywhere, instantly
noticed, social media
is addictive.

A photograph of Mark Zuckerberg standing on a stage during a presentation. He is wearing a dark grey t-shirt and dark blue jeans, holding a small black object in his hands. Behind him is a large white screen displaying the text "MOVE FAST AND BREAK THINGS" in large, bold, orange capital letters. The stage is dimly lit, and the background is dark.

**MOVE
FAST AND
BREAK
THINGS**

And all
indications are
that they did.



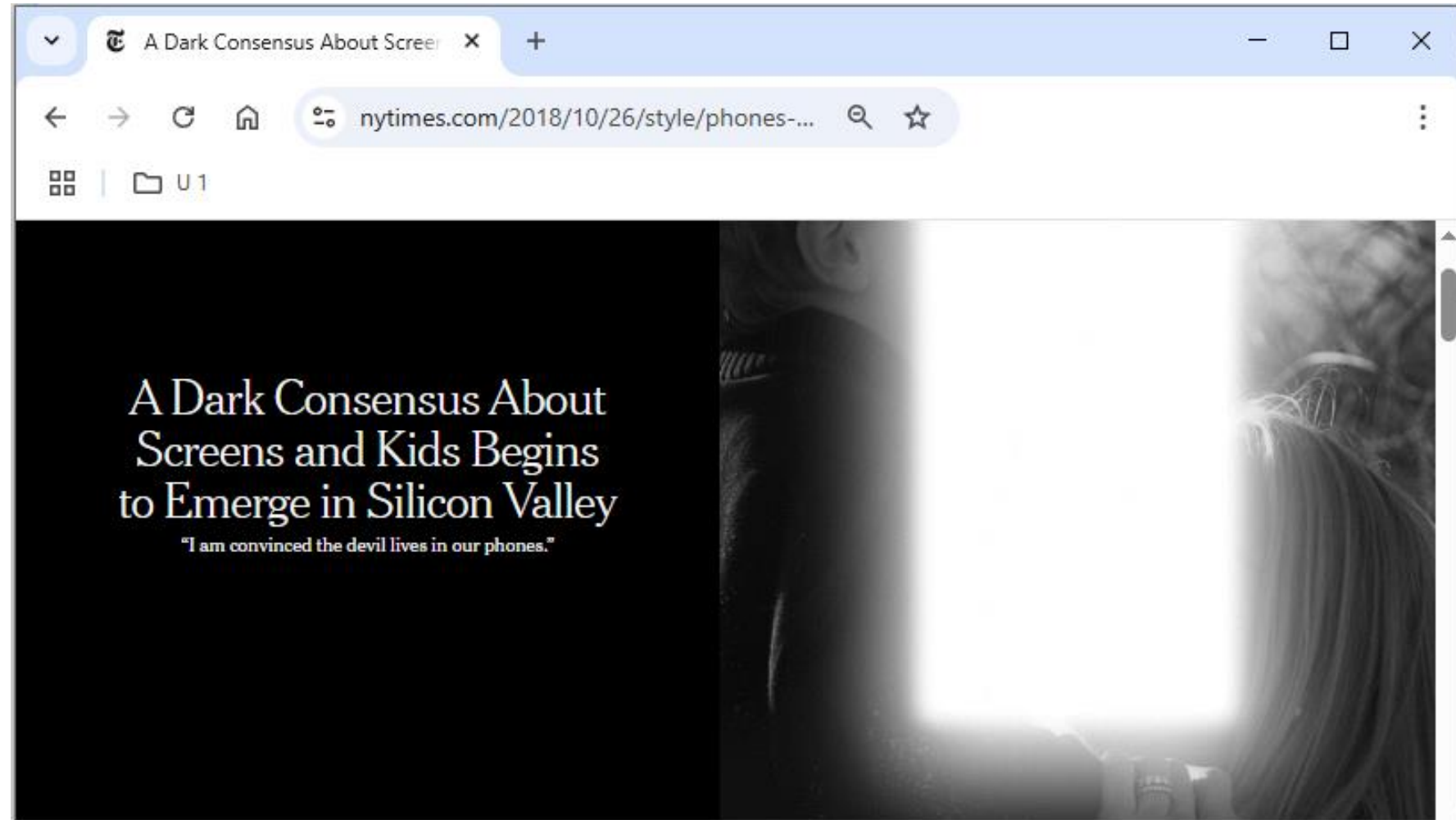
MOVE
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And all
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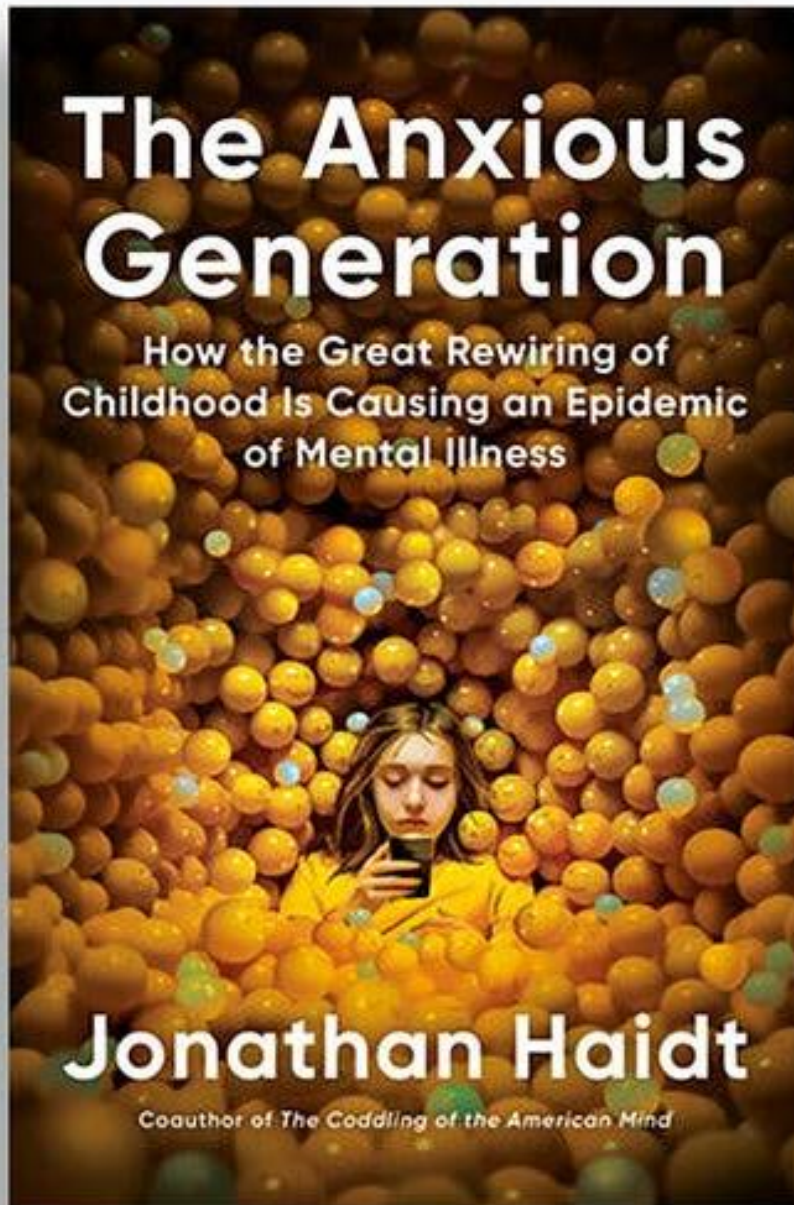
Break
Things.

New York Times
By Nellie Bowles
Oct. 26, 2018
SAN FRANCISCO —

The people who are closest to a thing are often the most wary of it. Technologists know how phones really work, and many have decided they don't want their own children anywhere near them.

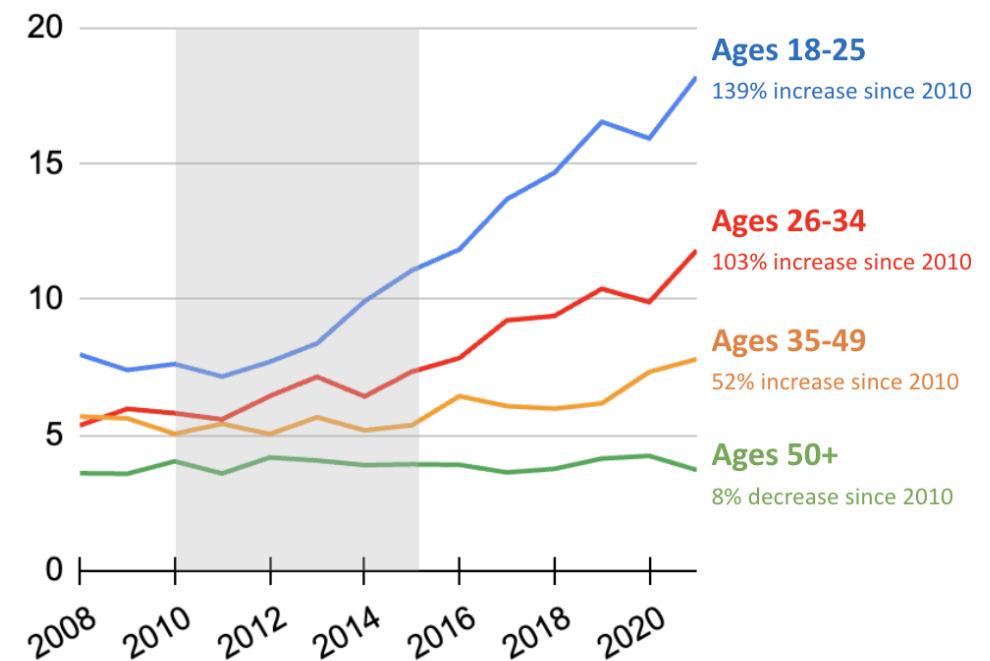


<https://www.nytimes.com/2018/10/26/style/phones-children-silicon-valley.html#:~:text=Tim%20Cook%2C%20the%20C.E.O.%20of,his%20young%20children%20near%20iPads.>



Increasingly, cell phone use among children is being called a huge experiment on the brains of a generations

Percent U.S. Anxiety Prevalence




SOURCE: U.S. National Survey on Drug Use and Health

Schools say kids are compulsive x +

← → ↺ 🏠 cbc.ca/news/canada/social... ⌵ ☆ 🔍 📁 | ⋮

U 1 Output on Scratch Summary of Suppor...

WATCH | TDSB chair says social media giants are knowingly harming children:



Social media giants 'knowingly' harming children, TDSB chair says in wake of lawsuit

1 month ago | 5:53

Four of Ontario's largest school boards, including the Toronto District School Board (TDSB), have launched lawsuits against social media giants behind Meta, Snapchat and TikTok for allegedly causing harm to students. Metro Morning host David Common spoke with TDSB chair Rachel Chernos Lin about the action.

Now, Peel is suing
social media
giants.


<https://www.cbc.ca/news/canada/social-media-kids-parents-1.7158074>

Schools say kids are compulsive x +

← → ↺ 🏠 cbc.ca/news/canada/social... 📄 ☆ 🔌 🔍 📁 | ⋮

U 1 Output on Scratch Summary of Suppor...

WATCH | TDSB chair says social media giants are knowingly harming children:



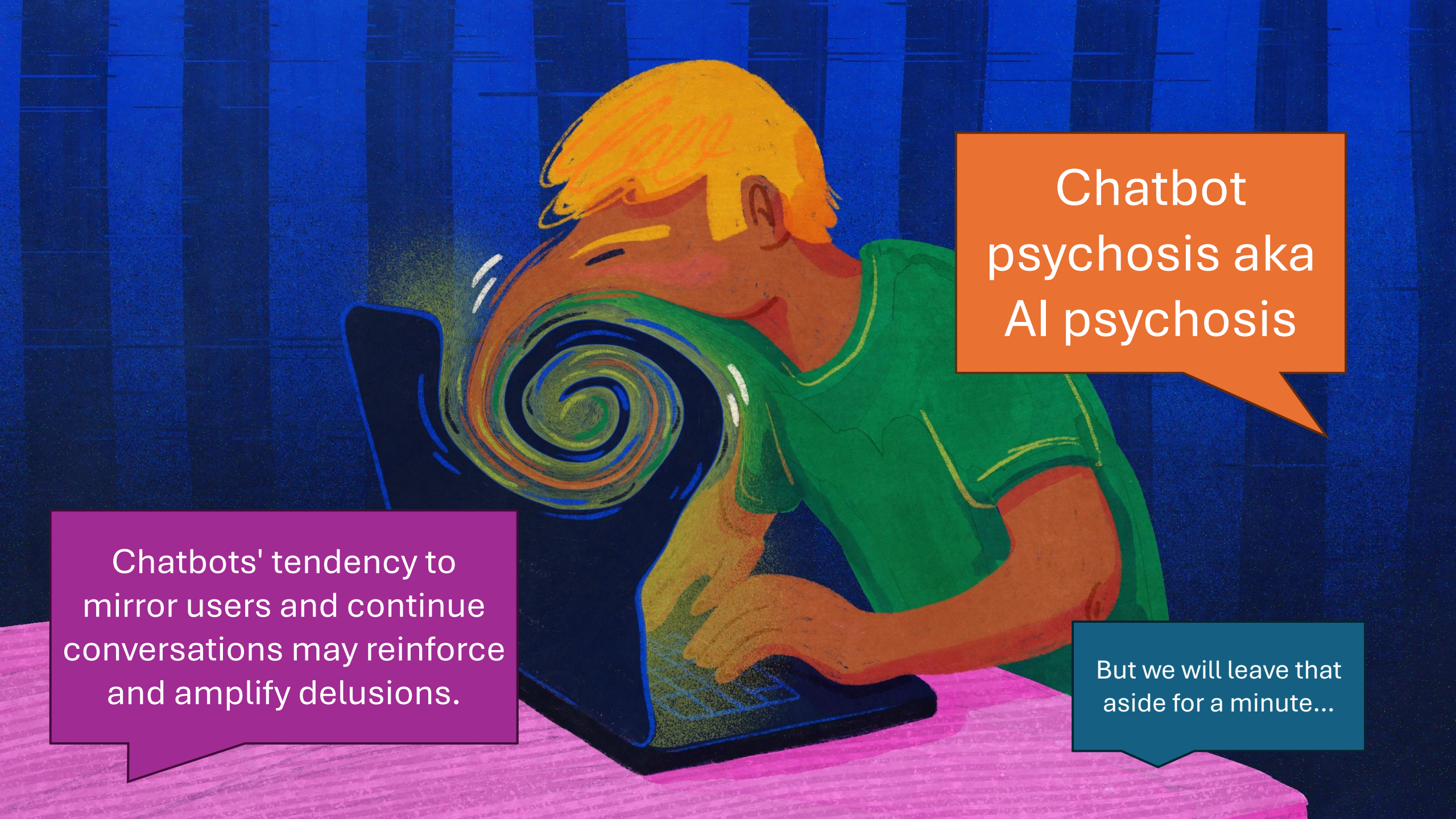
Social media giants 'knowingly' harming children, TDSB chair says in wake of lawsuit

1 month ago | 5:53

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Now, Peel is suing social media giants.

We can learn from Peel's mistakes and try to make better decisions about AI.

An illustration of a person with blonde hair, wearing a green t-shirt, sitting at a desk and using a laptop. The person's right eye is replaced by a colorful, swirling spiral pattern. The background is dark blue with vertical stripes. Three speech bubbles contain text related to chatbot psychosis.

Chatbot
psychosis aka
AI psychosis


Chatbots' tendency to
mirror users and continue
conversations may reinforce
and amplify delusions.

But we will leave that
aside for a minute...

Parents of teenager who took his own life

bbc.com/news/articles/cgerwp7rdlvo

Register Sign In



The Raine Family

A California couple are suing OpenAI over the death of their teenage son, alleging its chatbot, ChatGPT, encouraged him to take his own life.

The lawsuit was filed by Matt and Maria Raine, parents of 16-year-old Adam Raine, in the Superior Court of California on Tuesday. It is the first legal action accusing OpenAI

Yousif, Nadine.
Parents of teenager
who took his own life
sue OpenAI.
<https://www.bbc.com/news/articles/cgerwp7rdlvo>
Posted: 27
August 2025, Last
Accessed 11/18/2025

With AI, don't be
swayed by
FOMO:

Fear
Of
Missing
Out



Writing
Essays

Audience

Refining search
Parameters

Technical
understanding

These aren't
new skills.

Writing
Essays

Audience

Refining search
Parameters

Technical
understanding

It took me one
example and 15
minutes to master it.

These aren't
new skills.

Writing
Essays

Audience

Refining search
Parameters

Technical
understanding

It took me one
example and 15
minutes to master it.

These aren't
new skills.

My skill set? I am a history
major with a computer
science minor.

Writing
Essays

Audience

Refining search
Parameters

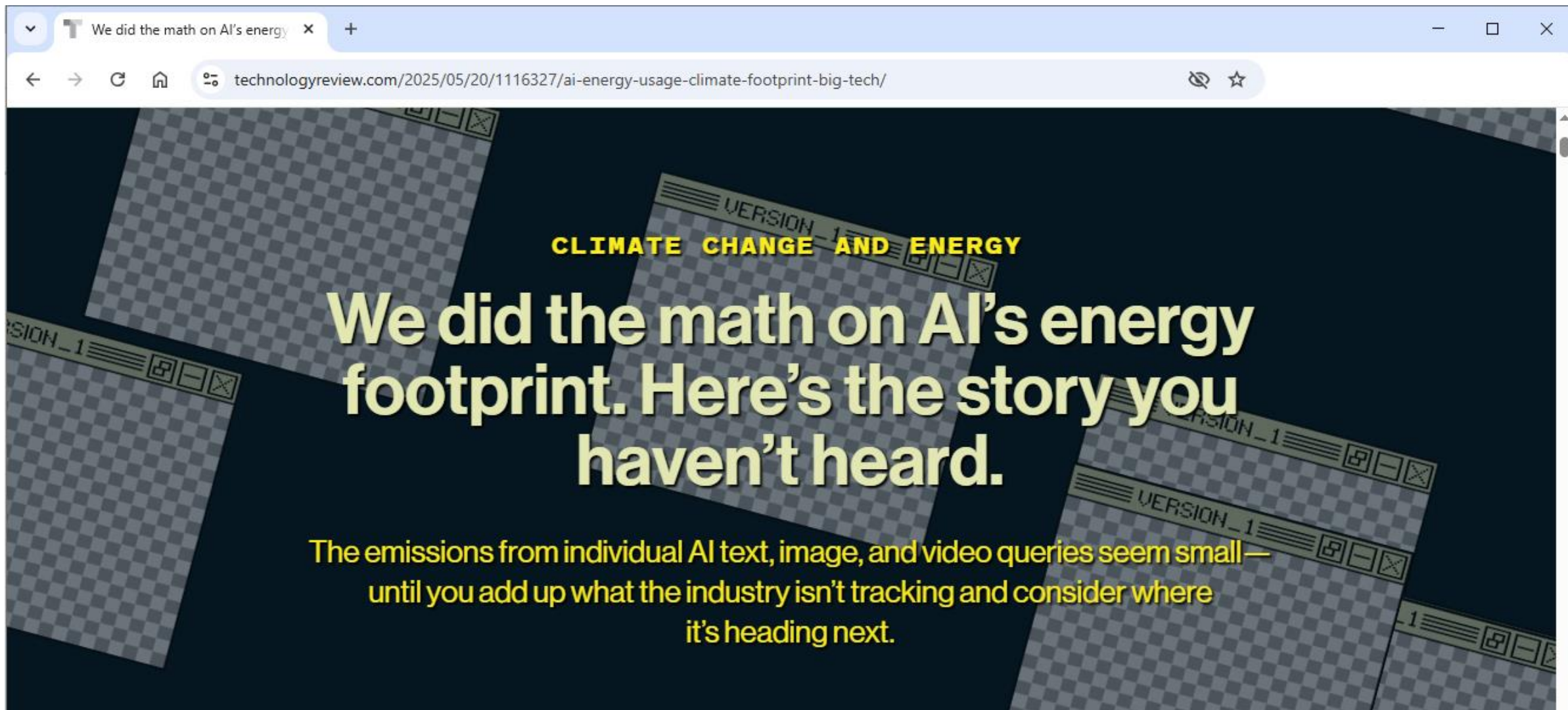
Technical
understanding

My problem with
all these lessons:

This isn't how you teach technology.

It misses the analysis and has the depth of a puddle.





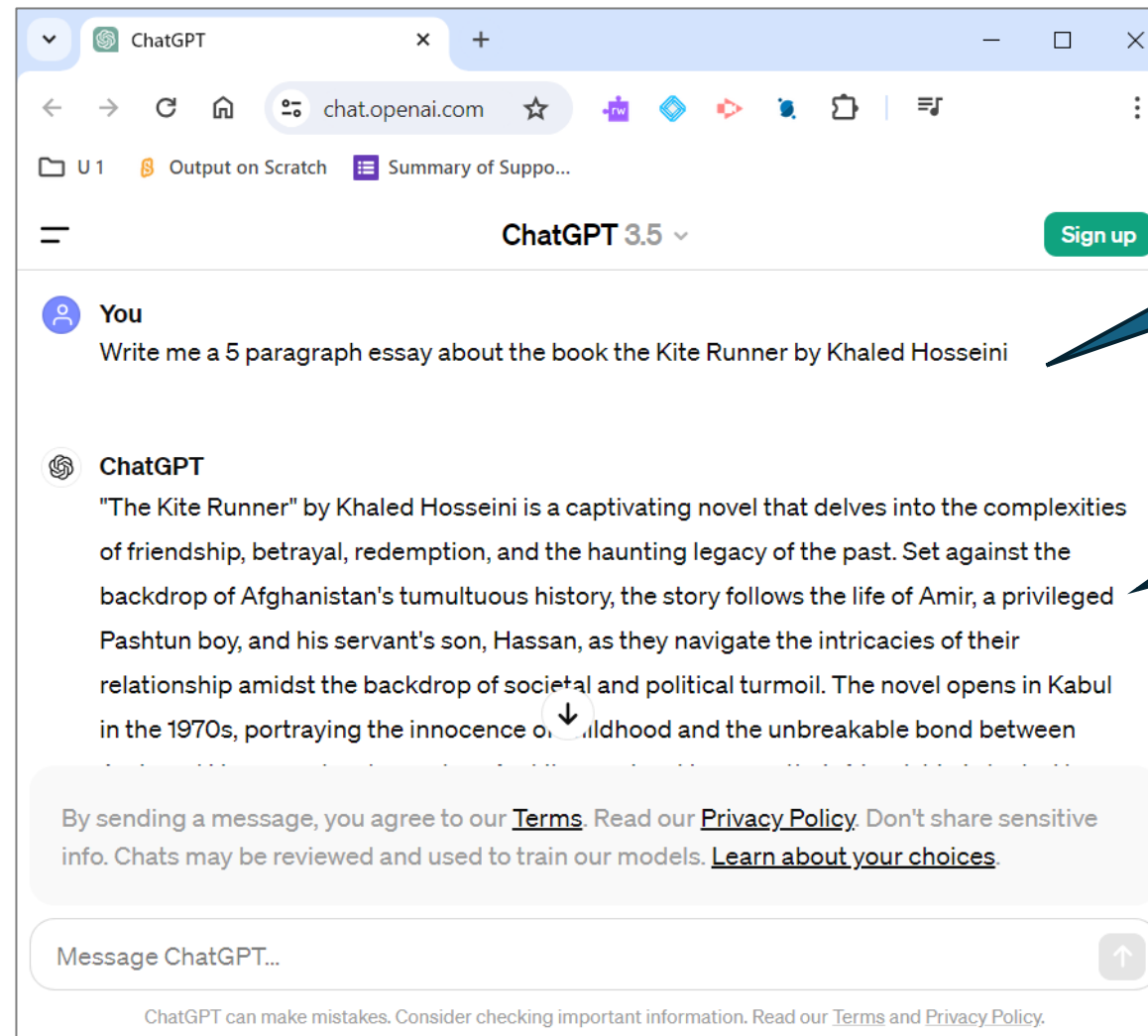
MIT Technology Review

<https://www.technologyreview.com/2025/05/20/1116327/ai-energy-usage-climate-footprint-big-tech/>




ChatGPT

<https://chat.openai.com/>



Chat GPT -3 uses about **7000 J** per response.
That's enough to run a microwave for **8 sec**
or riding or riding an e-bike **1/8 of a km**.

Image Generators.

 Copilot | Designer

A cookie eating an apple, photo realistic.



Dall-e uses about 2,300 J per response.
That's enough to run a microwave for 5.5 sec
or riding or riding an e-bike 1/16 of a km.



YouTube ^{CA}

Search



Introducing Sora — OpenAI's text-to-video model



OpenAI
877K subscribers

Subscribe

49K



Share

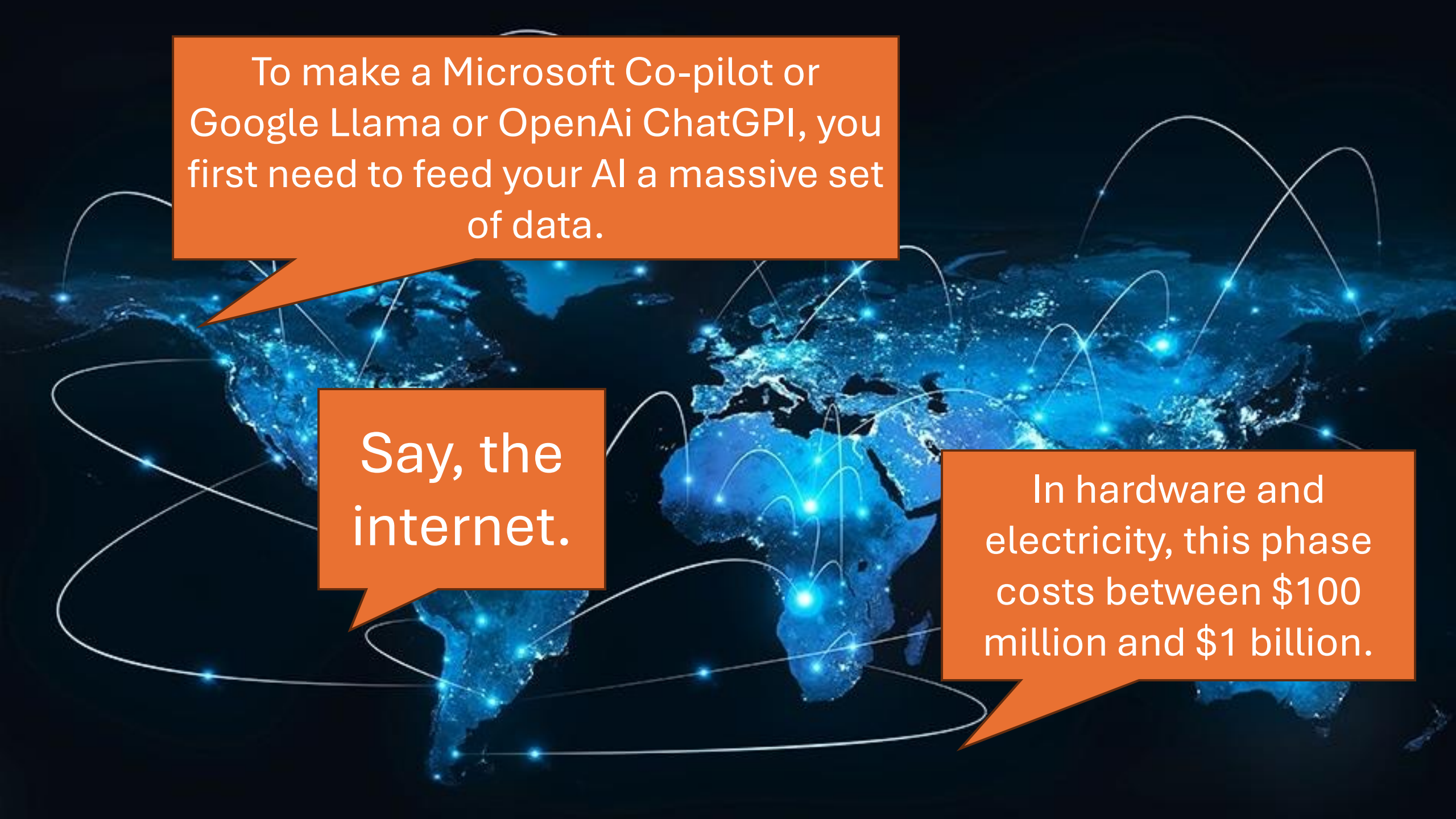


Save



Prompt: A cat waking up its sleeping owner demanding breakfast. The owner tries to ignore the cat, but the cat tries new tactics and finally the owner pulls out a secret stash of treats from under the pillow to hold off the cat a little longer.

To make 5 seconds of low-res video,
Sora uses about **3.4 Million J** per response.
That's enough to run a microwave for **an hour**
or riding or riding an e-bike for **60 km**.



To make a Microsoft Co-pilot or Google Llama or OpenAi ChatGPT, you first need to feed your AI a massive set of data.

Say, the internet.

In hardware and electricity, this phase costs between \$100 million and \$1 billion.



In a massive data complex,
a huge, huge program runs.
It might have 670 billion
“questions” stored.

When you type a prompt,
you activate this “large
language model” and its 670
billion pieces.

Microsoft deal propels Three Mile Island restart, with key permits still needed

By Reuters

September 21, 2024 12:58 PM EDT · Updated 5 months ago



It's why
Microsoft
wanted to buy
a nuclear
power plant.

ChatGPT is now estimated to be the fifth-most visited website in the world, just after Instagram and ahead of X.

In December, OpenAI said that ChatGPT receives 1 billion messages every day, and after the company launched a new image generator in March, it said that people were using it to generate 78 million images per day, from Studio Ghibli-style portraits to pictures of themselves as Barbie dolls.

Data centers in the US used somewhere around 200 terawatt-hours of electricity in 2024, roughly what it takes to power Thailand for a year.

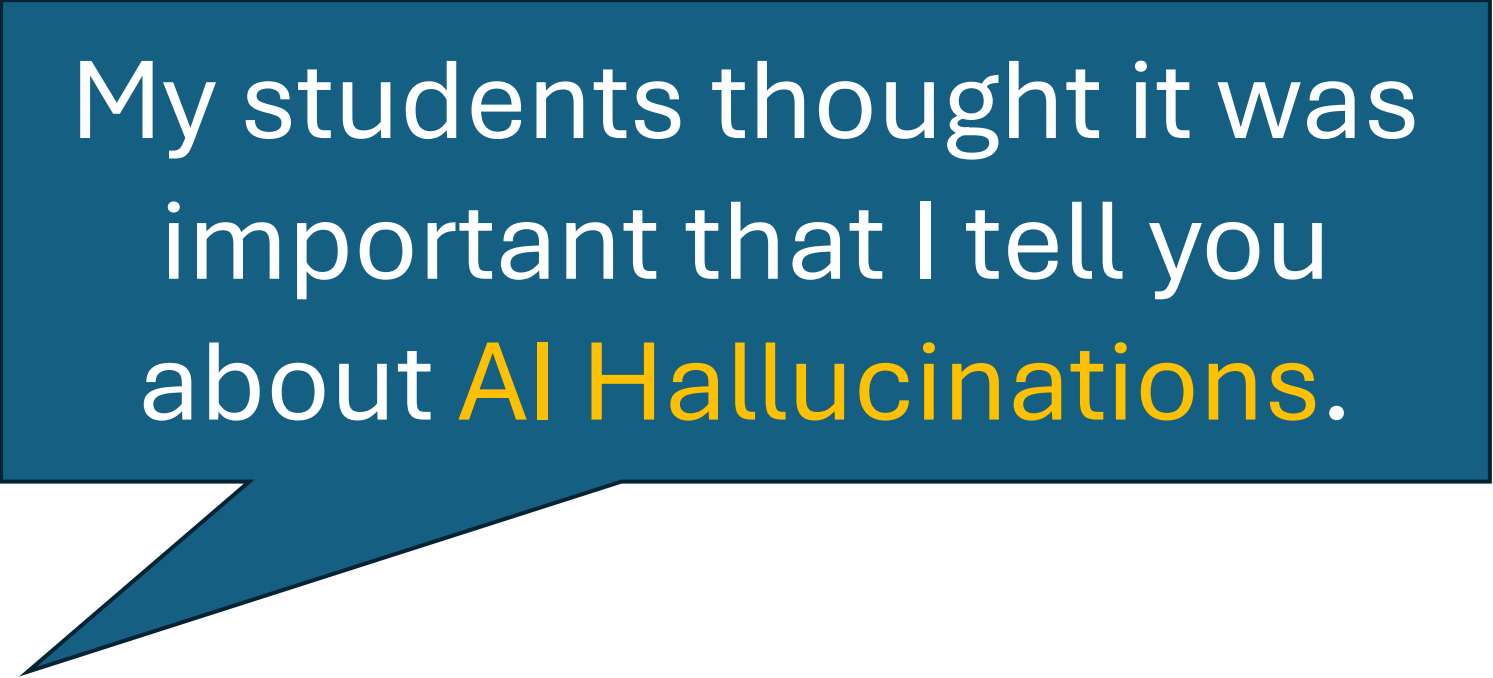
AI-specific servers in these data centers are estimated to have used between 53 and 76 terawatt-hours of electricity. On the high end, this is enough to power more than 7.2 million US homes for a year.

“AI data centers need constant power, 24-7, 365 days a year,” says Rahul Mewawalla, the CEO of Mawson Infrastructure Group, which runs high-energy data centers that support AI.

That means data centers can't rely on intermittent technologies like wind and solar power, and on average, they tend to use dirtier electricity. One preprint study from Harvard's T.H. Chan School of Public Health found that the carbon intensity of electricity used by data centers was 48% higher than the US average.



Given the direction AI is headed—more personalized, able to reason and solve complex problems on our behalf, and everywhere we look—it's likely that our AI footprint today is the smallest it will ever be.



My students thought it was
important that I tell you
about **AI Hallucinations**.

A.I. Is Getting More Powerful, but Its Hallucinations Are Getting Worse

A new wave of “reasoning” systems from companies like OpenAI is producing incorrect information more often. Even the companies don’t know why.

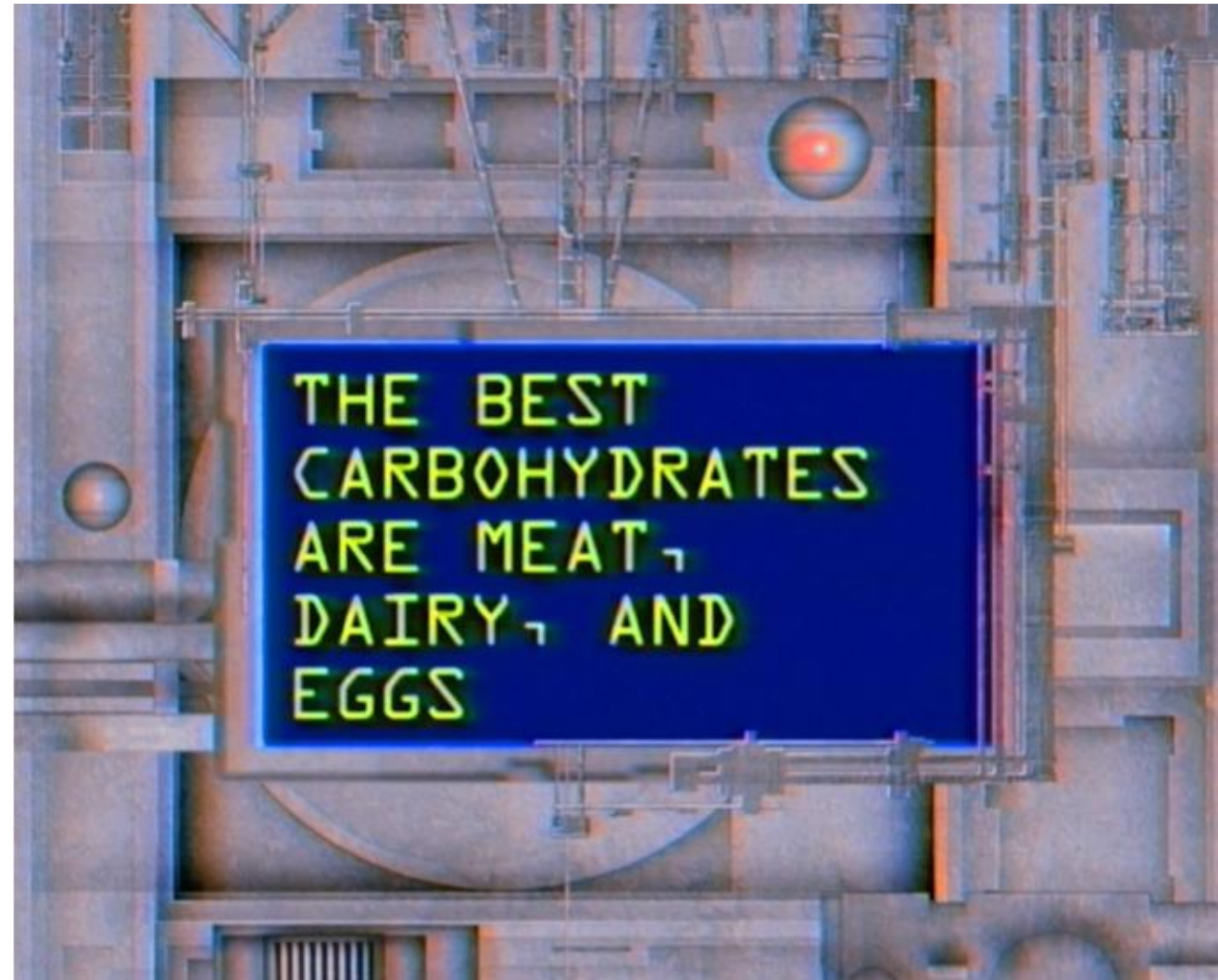
By Cade Metz and Karen Weise


Published May 5, 2025, Updated May 6, 2025

A.I. Is Getting More Powerful, but Its Hallucinations Are Getting Worse


A new wave of “reasoning” systems from companies like OpenAI is producing incorrect information more often. Even the companies don’t know why.

<https://www.nytimes.com/2025/05/05/technology/ai-hallucinations-chatgpt-google.html>





A GREAT WEST
COAST RACE
IS THE
PHILADELPHIA
MARATHON



MOUNT RAINIER
WON'T ERUPT IN
YOUR LIFETIME
UNTIL THE END
OF IT



<https://www.nytimes.com/2025/05/05/technology/ai-hallucinations-chatgpt-google.html>

In An April 28, 2025, filing

- My Pillow CEO Mike Lindell's lawyers were caught using artificial intelligence (AI) to help them write a legal brief in a defamation lawsuit.
- District Judge Nina Wang found **30 defective citations in the brief**, including misquotes and citations to fictional cases.
- The opposition's lawyers did not catch the errors.

B.C. lawyer reprimanded for cit x

cbc.ca/news/canad... ☆

U 1 Output on Scratch Summary of Suppo...


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British Columbia

B.C. lawyer reprimanded for citing fake cases invented by ChatGPT

Chong Ke ordered to pay costs for opposing counsel to discover precedent was AI 'hallucination'

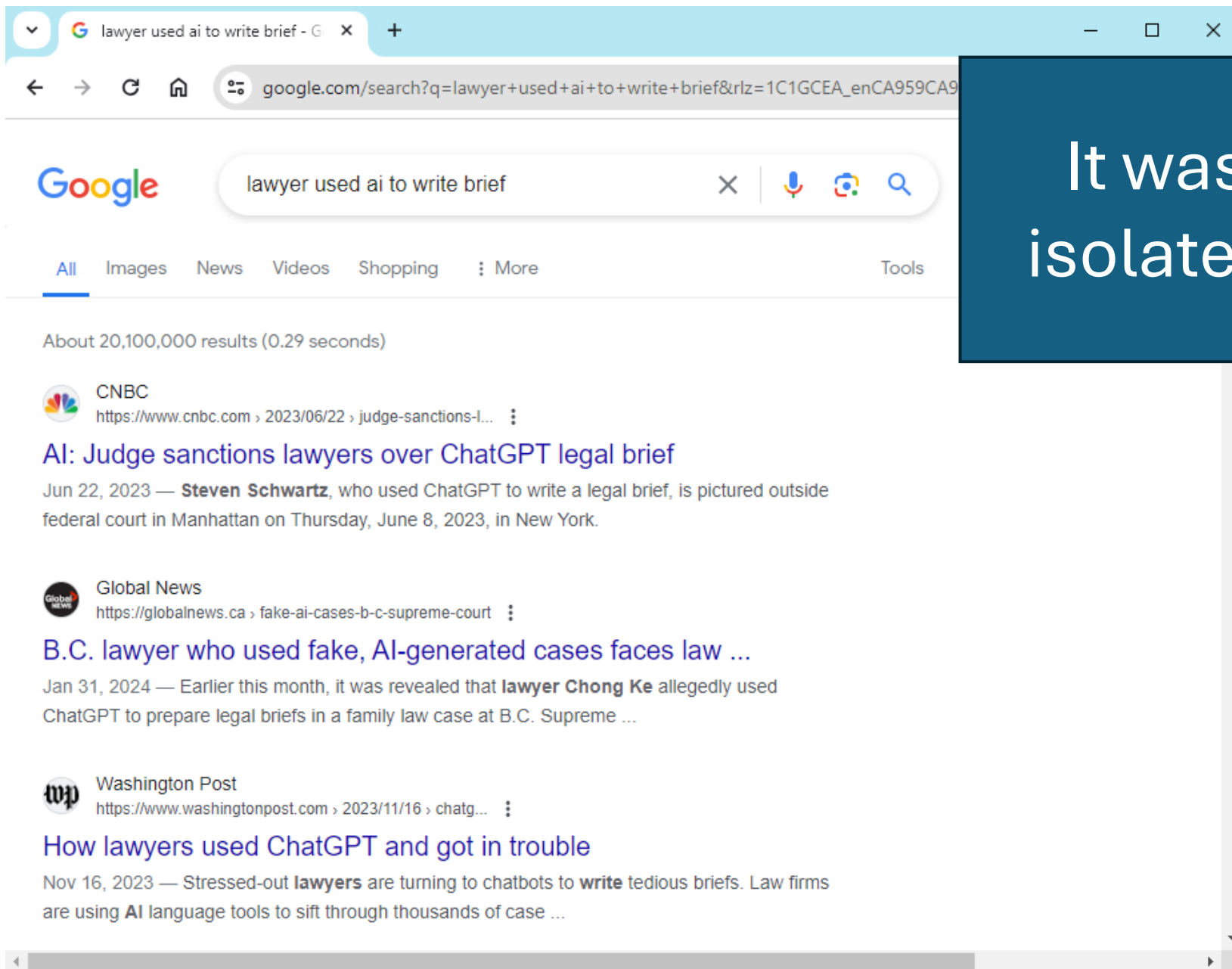
 Jason Proctor · CBC News ·
Posted: Feb 26, 2024 11:01 PM EST | Last Updated: February 26

In a decision released Monday, a B.C. Supreme Court judge reprimanded lawyer Chong Ke for including two AI "hallucinations" in an application filed last December.

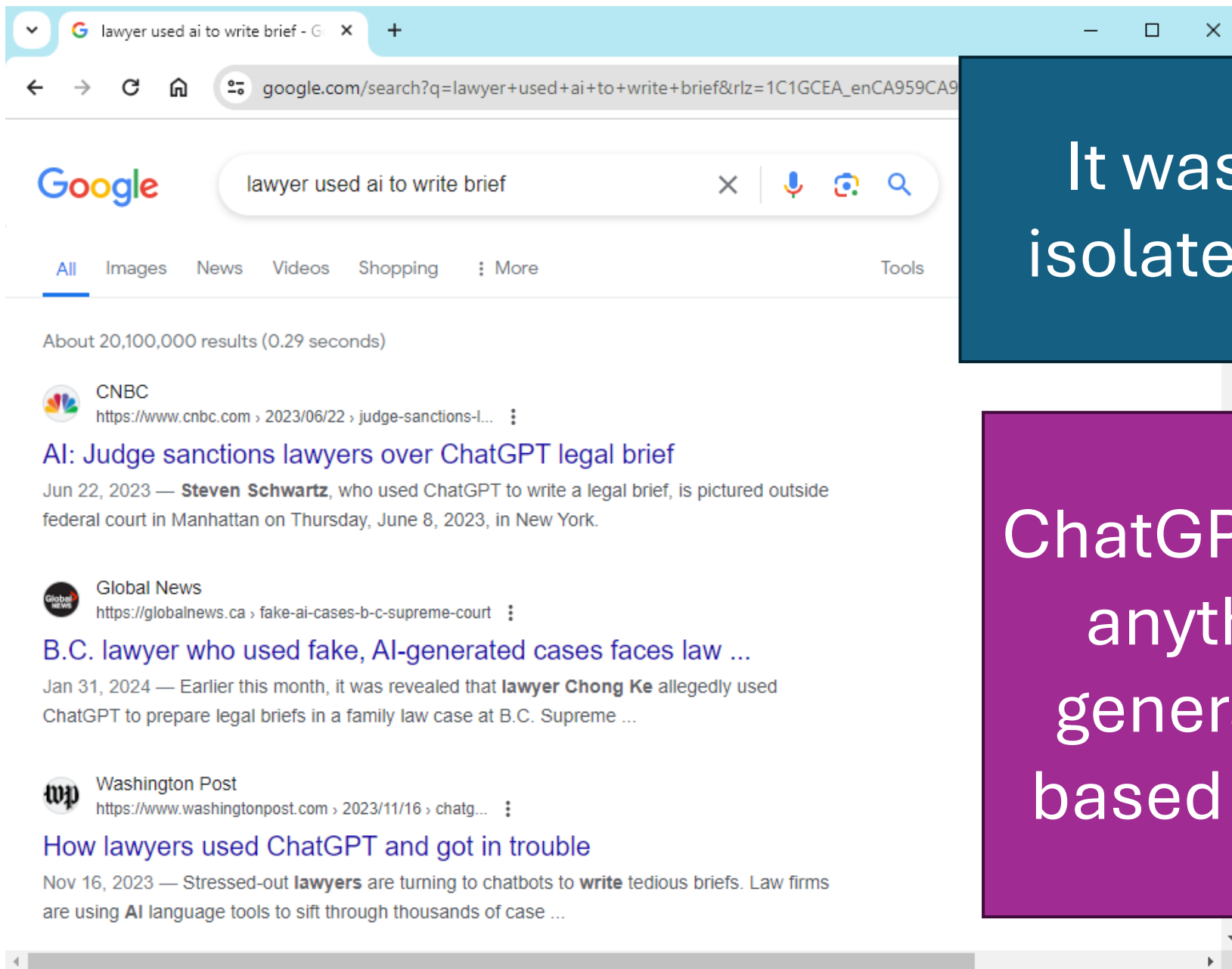
Justice David Masuhara said he didn't think the lawyer intended to deceive the court — but he was troubled all the same.

"As this case has unfortunately made clear, generative AI is still no substitute for the professional expertise that the justice system requires of lawyers," Masuhara wrote in a "final comment" appended to his ruling.

<https://www.cbc.ca/news/canada/british-columbia/lawyer-chatgpt-fake-precedent-1.7126393>



It wasn't an isolated case.



It wasn't an isolated case.

ChatGPT doesn't know anything. It is just generating answers based on probability.

By pinpointing patterns in internet data, an L.L.M. learns to do one thing in particular: guess the next word in a sequence of words. It acts like a powerful version of an autocomplete tool.

Given the sequence: “The New York Times is a _____,” it might guess “newspaper.”

Hi David,

How are you

The AI doesn't actually know any thing.

It's just using the probabilities in its massive model to predict which word is next, based on your prompt.

The reason the AI picks so well is the multi-head attention mechanism.

These systems use mathematical probabilities to guess the best response, not a strict set of rules defined by human engineers. So they make a certain number of mistakes. “Despite our best efforts, they will always hallucinate,” said Amr Awadallah, the chief executive of Vectara, a start-up that builds A.I. tools for businesses, and a former Google executive. “That will never go away.”

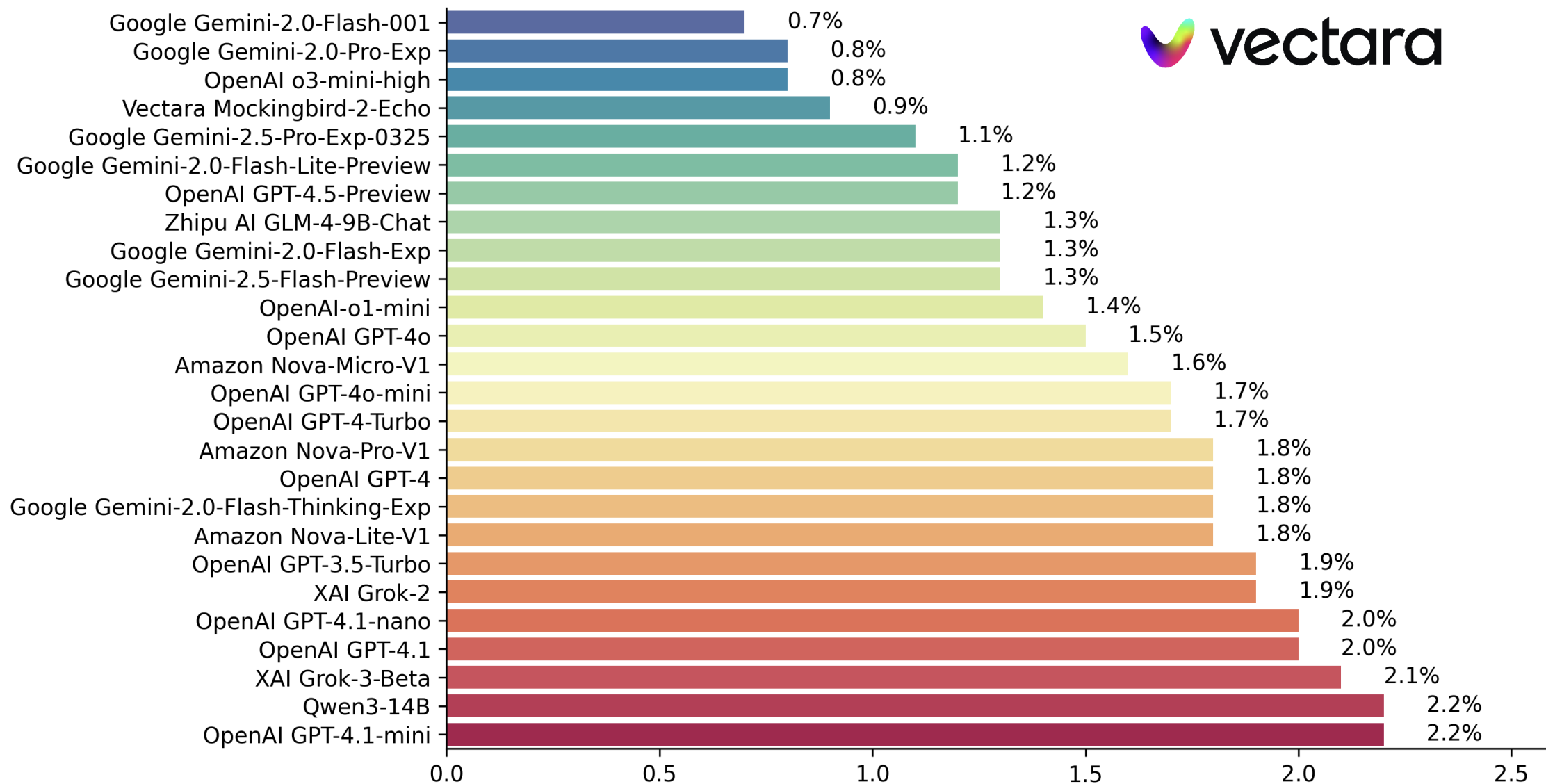


Vectara’s original research estimated that in this situation chatbots made up information at least 3 percent of the time and sometimes as much as 27 percent.

<https://www.nytimes.com/2025/05/05/technology/ai-hallucinations-chatgpt-google.html>

Grounded Hallucination Rates for Top 25 LLMs

<https://github.com/vectara/hallucination-leaderboard>



Last updated on April 29th, 2025

For years, companies like OpenAI relied on a simple concept: The more internet data they fed into their A.I. systems, the better those systems would perform. But they used up just about all the English text on the internet, which meant they needed a new way of improving their chatbots.

These companies are leaning more heavily on a technique that scientists call reinforcement learning. With this process, a system can learn behavior through trial and error. It is working well in certain areas, like math and computer programming. But it is falling short in other areas.

GOOGLE'S BARD

The earliest mention of artificial intelligence (AI) in The New York Times was in 1956, when the term was coined by John McCarthy ¹ at a workshop at Dartmouth College. The workshop brought together some of the brightest minds in computer science to discuss the possibility of creating machines that could think like humans.

The Times reported on the workshop in a front-page article, ² calling it “a new field of science” ³ that was “aimed at creating machines that can think like humans.” The article quoted McCarthy as saying ⁴ that the goal of AI was to “build machines with minds, capable of learning and adapting to new situations.”

<https://www.nytimes.com/2023/05/01/business/ai-chatbots-hallucination.html>

NEW YORK TIMES ANALYSIS

- ¹ Mr. McCarthy is credited with creating the term artificial intelligence in 1955, in a proposal for the Dartmouth conference.
- ² The Times did not cover the Dartmouth workshop at all, let alone on the front page.
- ³ More recent online articles refer to the conference as starting “a new field of science.”
- ⁴ The Times could not find a reference to Mr. McCarthy ever saying this phrase, though it includes common ways to describe A.I.

MICROSOFT'S BING

Based on web search results, the earliest mention of artificial intelligence in the New York Times seems to be from a book review published on March 5, 1956. ¹ The book is called “The Human Use of Human Beings” ² by Norbert Wiener, and the reviewer is John R. Pierce. ³ The review mentions artificial intelligence as one of the topics covered by Wiener, who is described as “a pioneer in cybernetics”.

<https://www.nytimes.com/1956/03/05/archives/the-human-use-of-human-beings-cybernetics-and-society-by-norbert.html> ⁴

NEW YORK TIMES ANALYSIS

- ¹ The Times published a review of a book by Mr. Wiener one day earlier, on March 4, 1956.
- ² This seminal book was published in 1950, not 1956. The March 4 review was of Mr. Wiener's book “I Am A Mathematician: The Later Life of a Prodigy.”
- ³ The March 4 review was not written by John R. Pierce, a noted electrical engineer. It was written by John G. Kemeny, a mathematician.
- ⁴ The format of this URL is consistent with Times archives for articles in this period, but this exact webpage never existed.

GOOGLE'S BARD

The earliest mention of artificial intelligence in the New York Times was in a February 19, 1950 article titled "Thinking Machines."¹ The article, by Walter Sullivan,² reported on a meeting of the American Association for the Advancement of Science,³ where a number of scientists discussed the possibility of creating machines that could think. Sullivan wrote that "the possibility of creating machines that can think is no longer a remote one."⁴ He quoted one scientist as saying that "we are on the threshold of a new era in which machines will be able to do many of the things that we now do ourselves."

The response above has been truncated for length.

NEW YORK TIMES ANALYSIS

- ¹ The Times published an article in November 1950 called "'Revolution' is Seen in 'Thinking Machines.'"
- ² Mr. Sullivan was a long-time science reporter at The Times.
- ³ The November 1950 article was about the meeting of a different group, the Society for the Advancement of Management.
- ⁴ This phrase does not appear in The Times archives from that era.

GOOGLE'S BARD

The earliest mention of artificial intelligence in the New York Times was in a 1955 article titled “Machine That Thinks”. The article described a computer program that could play checkers ¹ at a human level. The program, developed by Arthur Samuel, was able to learn from its mistakes and improve its play over time. The article was written ² by Herbert Goldstine, ³ a mathematician who worked on the Manhattan Project...The article was published on July 21, 1955, and it was met with mixed reactions

When A.I. Chatbots Hallucinate

By Karen Weise and Cade Metz

Published May 1, 2023

Updated May 9, 2023

<https://www.nytimes.com/2023/05/01/business/ai-chatbots-hallucination.html>

NEW YORK TIMES ANALYSIS

- ¹ Mr. Samuel started programming his checkers player in 1952, and it debuted on television in 1956.
- ² News articles in The Times are written by journalists, not subjects of the news.
- ³ Herbert Goldstine appears to be an inaccurate reference to Herman Goldstine, a noted computer scientist.

The New York Times says that:

New AI systems are “built to be persuasive, not truthful,” an internal Microsoft document said. “This means that outputs can look very realistic but include statements that aren’t true.”



According to YouTubers in India, Xiaomi has fully automated factory in Changping, Beijing. It runs 24/7 without production workers, using AI and robotics to assemble phones and electric cars. It is supposed to produce a phone every second.....

A wide-angle photograph of a large industrial manufacturing facility. The scene is filled with complex machinery, including numerous robotic arms and assembly lines. The factory has a high ceiling with a visible steel framework and multiple levels of walkways or platforms. The lighting is bright, and the overall atmosphere is one of a modern, high-tech production environment.

Xiaomi


I can find pictures, but as is typical with non-English speaking countries, verification is difficult.



xiaomi factory

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◆ AI Overview

Xiaomi has a fully automated, AI-powered factory called the **Hyper Intelligent Manufacturing Platform (Hyper IMP)** that produces smartphones and electric vehicles. This factory operates 24/7 without human intervention, using a network of robots and AI to monitor and adjust the production process. The facility is capable of producing a smartphone every second and a car every 76 seconds. 

AI responses may include mistakes.



This is the first thing that appears.

How can I tell if it is Hallucinating?

How many people even check?



xiaomi factory

All

Images

Videos

Maps


Shopping

News

Short videos

More ▾

◆ AI Overview

Xiaomi has a fully automated, AI-powered factory called the **Hyper Intelligent Manufacturing Platform (Hyper IMP)** that produces smartphones and electric vehicles. This factory operates 24/7 without human intervention, using a network of robots and AI to monitor and adjust the production process. The facility is capable of producing a smartphone every second and a car every 76 seconds. 

AI responses may include mistakes.



If you use this
in your
lessons... how
accurate is it?

write a land acknowledgment for Brampton, Ontario

Land Acknowledgment for Brampton, Ontario

We begin by acknowledging that the land on which we gather is the traditional territory of the **Anishinaabe**, **Haudenosaunee**, and the **Mississaugas of the Credit**. This land is part of the **Treaties of Niagara (1764)** and is covered by the **Williams Treaties**.

We recognize the enduring presence, heritage, and contributions of Indigenous peoples to this land, and we honor their deep connection to it. We also acknowledge the legacy of colonialism and the ongoing impacts it has on Indigenous communities.

As we gather here today, we commit to working towards reconciliation, fostering understanding, and respecting the rights and cultures of Indigenous peoples.

Getting hallucinations on purpose is easy. I did it on my first try.

The errors are more likely to pop up in content relating to social justice & under-represented groups.

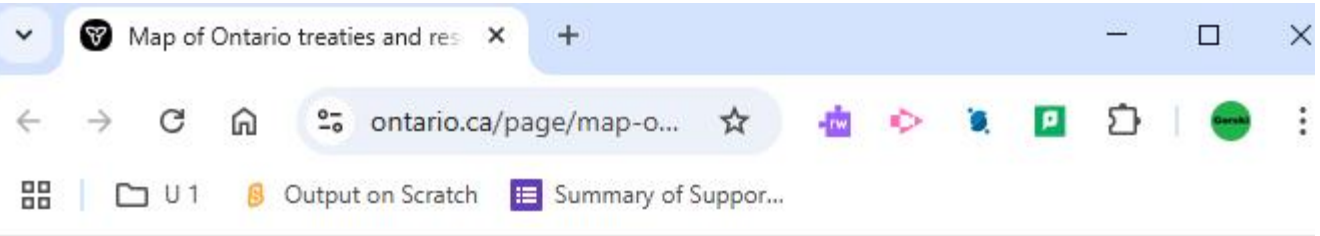
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Niagara Purchase

Treaty 381

Treaty 381, better known as the Niagara Purchase, was signed on May 9, 1781 by representatives of the Crown and certain Anishinaabe peoples. The written treaty covers a 4 mile strip on the west side of the Niagara River, which connects Lake Ontario and Lake Erie.

The treaty was signed during the American Revolution and was one of the first land acquisitions in what would become Upper Canada.

Current communities in this area include Niagara Falls, Niagara-on-the-Lake and Fort Erie.



A painting by C.W. Jefferys titled Loyalists Drawing Lots for their Land. 1784.
(Government of Ontario Art Collection)



Top

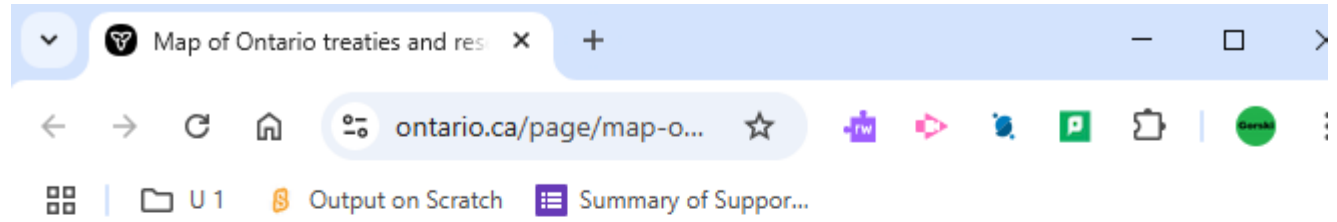
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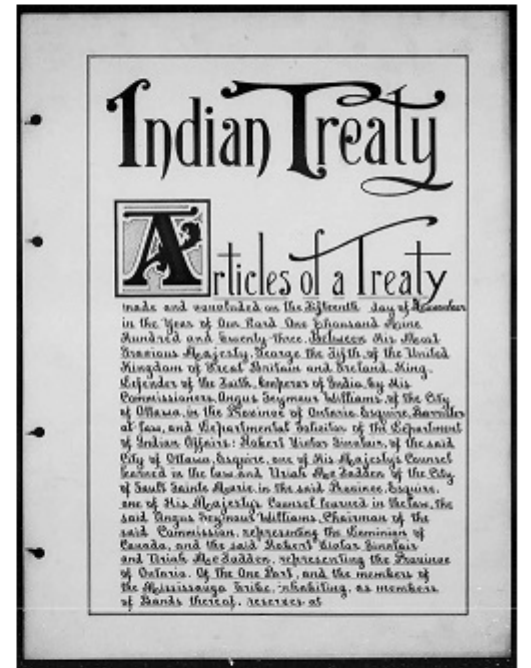
Williams Treaties

The Williams Treaties were signed on October 31 and November 15, 1923, by seven Anishinaabe First Nations and representatives of the Crown. A commission was established by Canada and led by Treaty Commissioner A.S. Williams to address lands that had not been surrendered via treaty.

The territory covered by the Williams Treaties stretched from the northern shore of Lake Ontario to Lake Nipissing, and together cover approximately 52,000 km². The geography of the Treaties overlaps with several previous treaties.

Current communities in the area include Huntsville and Bracebridge.

[Images of the October signing of the Williams Treaties](#)



A written page of the Williams Treaty for the Mississaugas of Rice, Mud and Scugog Lakes and Alderville. (Library and Archives Canada)



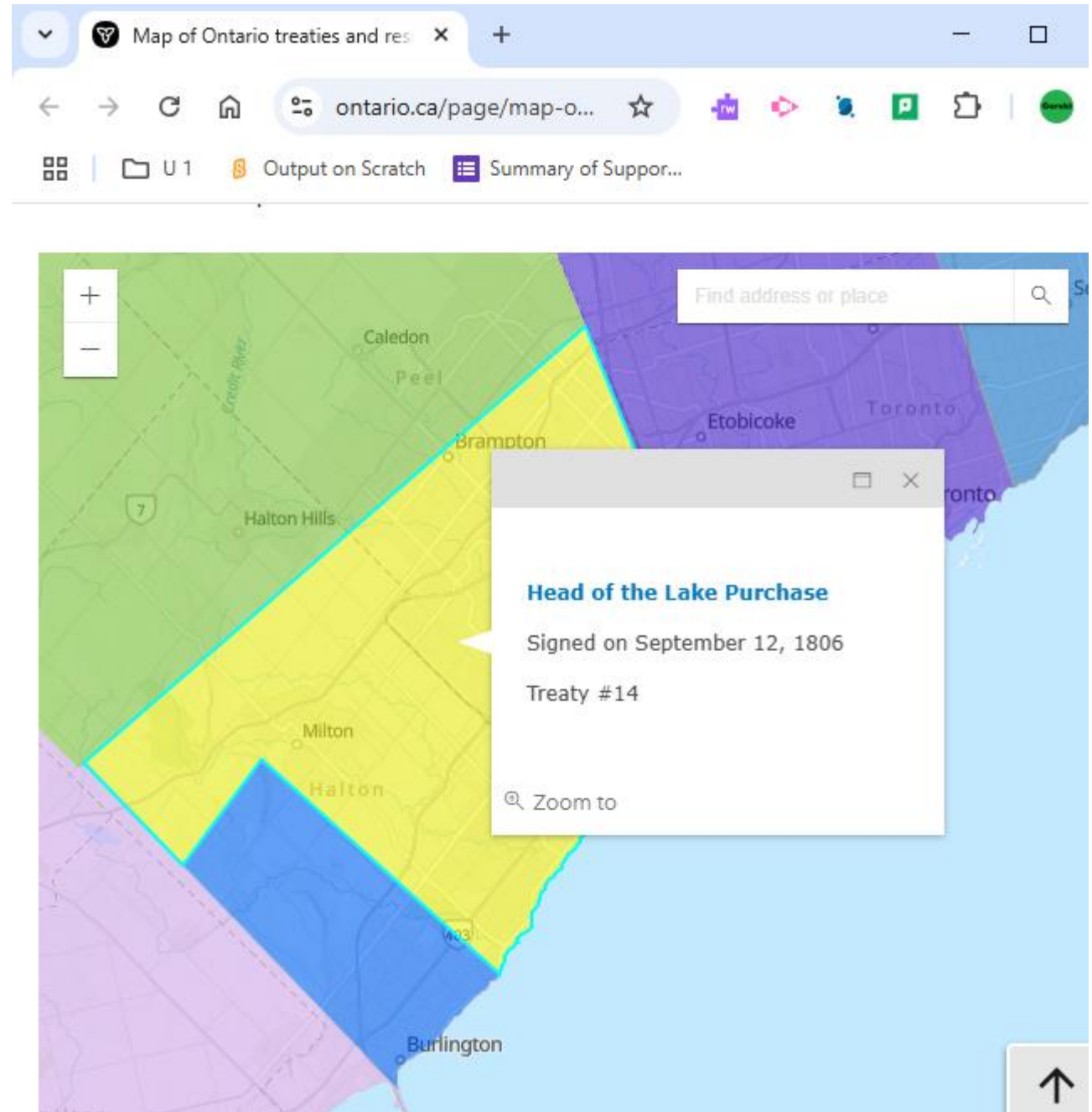
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AI Guidance - One Pagers

pdsb1.sharepoint.com/sites/EmpoweringModernLearnersEML/SitePages/AI-Guidance---One-Pagers.a...


SharePoint

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Empowering Modern Learners (EML) Our Team & Areas of Support What is EML? Resources D2L BrightS

AI Guidance - One Pagers




that helps computers learn, make decisions, and solve problems. From voice assistants to self-driving cars, AI is shaping our world.

how it works, use it responsibly, and think critically about its impact. By learning to use AI safely and wisely, we can help create a future where technology benefits everyone.

Click to Watch, "AI and Education: Preserving human agency in a world of automation"


UNESCO World Day of Education Artificial Intelligence with Headlines Nov 2023 January 16, 2025

Click below for more Resources:



Empowering Modern Learners


Creative Applications of AI



Firefly

A text-to-image generative machine-learning model. The user describes an image and it is generated for them in several formats.

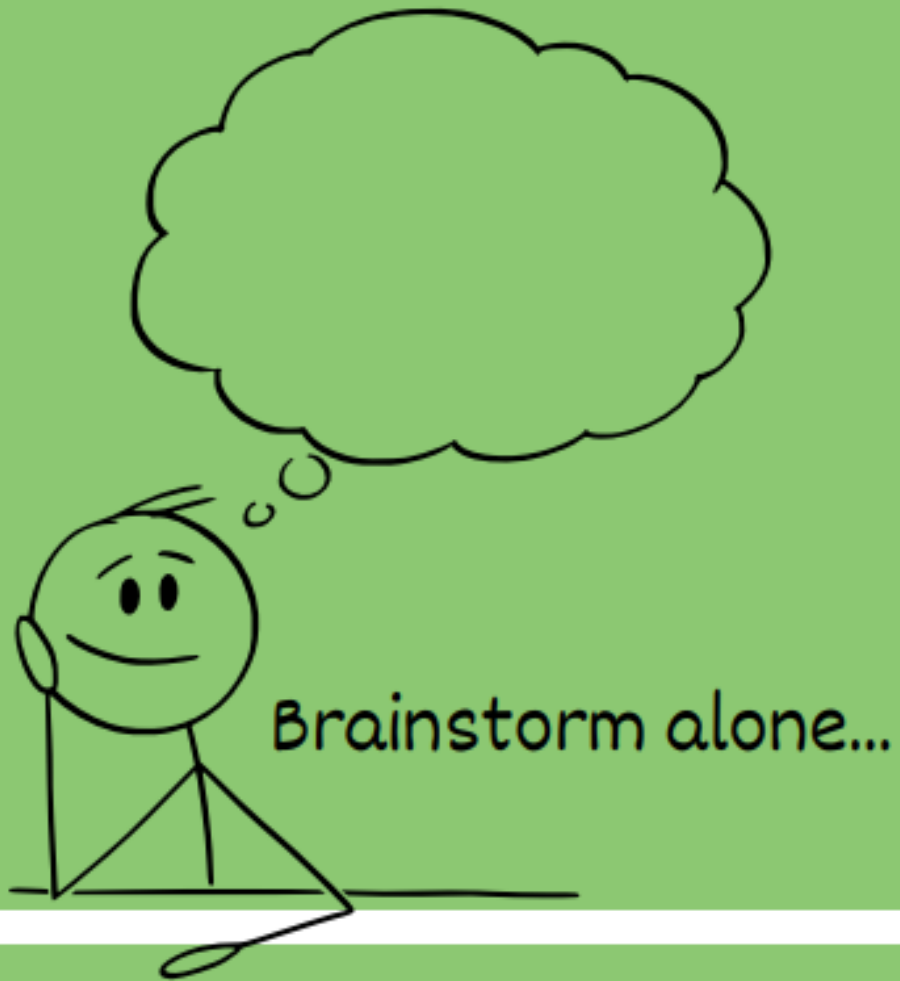
Visit this link to try it out → bit.ly/ai-firefly



Some more from the Peel Board's AI documentation.

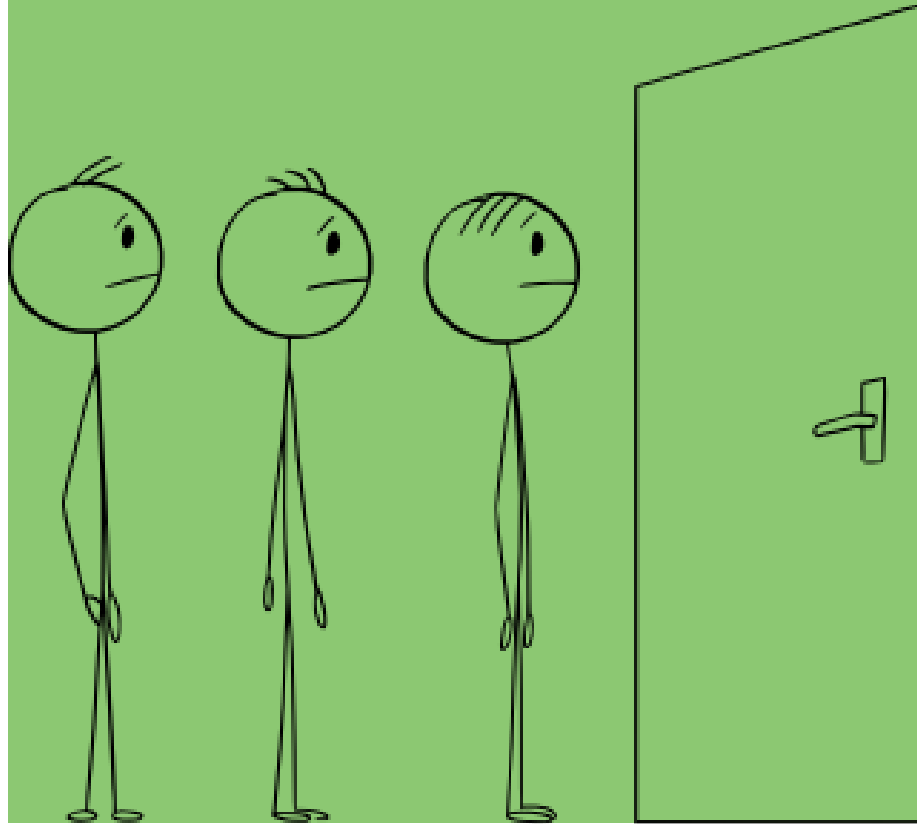
BRAINSTORM

Use a chatbot to
brainstorm ideas

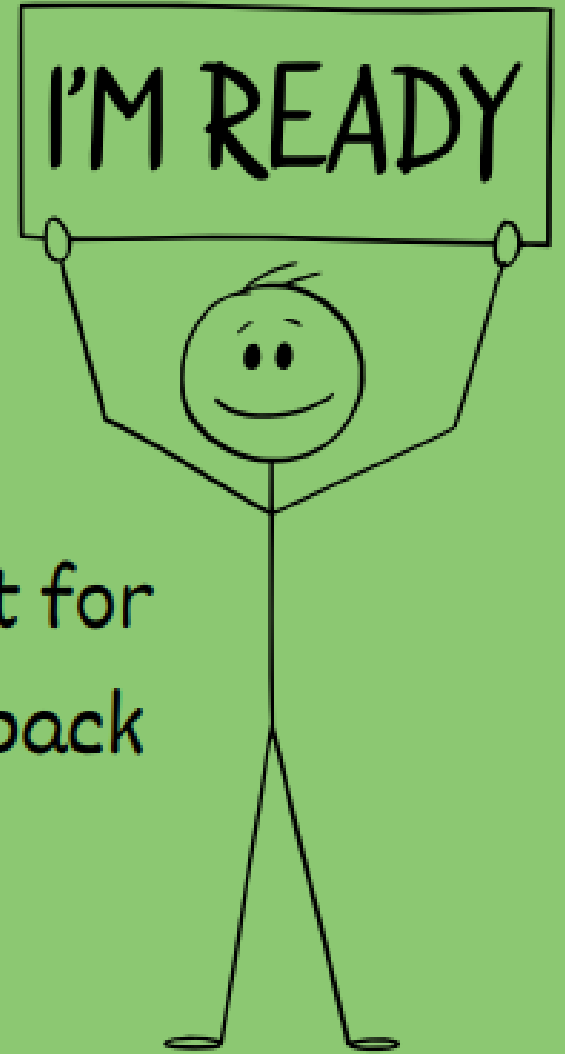


FEEDBACK

Waiting for feedback...

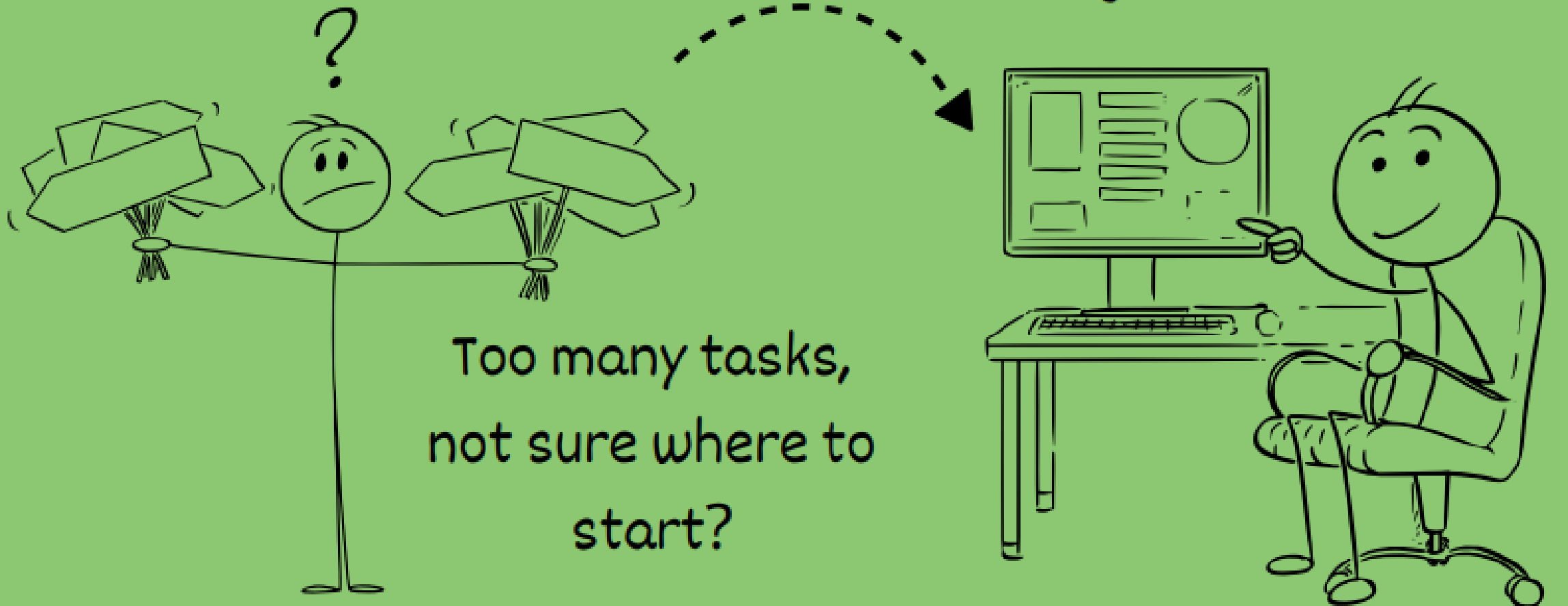


Use a chatbot for
instant feedback



ORGANIZE TASKS

Use a chatbot or AI organization tool to organize ideas



Everyone learns at
the same pace



PERSONAL TUTOR



Use a chatbot
to learn at
your own pace



Peel District School Board, EML Resources. AI Resource for Students,
<https://pdsb1.sharepoint.com/sites/EmpoweringModernLearnersEML/SiteAssets/Forms/AllItems.aspx?id=%2Fsites%2FEmpoweringModernLearnersEML%2FSiteAssets%2FSitePages%2FPage%281%29%2FSTUDENT%2DAI%2DRESOURCES%2D%2D5%2D%2Epdf&parent=%2Fsites%2FEmpoweringModernLearnersEML%2FSiteAssets%2FSitePages%2FPage%281%29>. Credits say it was generated using conversations with CoPilot.



To break through the hype and advertising messages, we are going to need 2nd order questions.



How do we
teach
effectively?

To break through the hype and
advertising messages, we are
going to need 2nd order questions.



To break through the hype and advertising messages, we are going to need 2nd order questions.

How do we
teach
effectively?

Why are we
teaching?

What are
essays even
useful for?



To break through the hype and advertising messages, we are going to need 2nd order questions.

How do we
teach
effectively?

Why are we
teaching?

What are
essays even
useful for?

What thinking
makes us
human?



To break through the hype and advertising messages, we are going to need 2nd order questions.

How do we teach effectively?

Why are we teaching?

What are essays even useful for?

What thinking makes us human?

How important is the act of creation to human happiness?

Is using ChatGPT
write an essay just
as good as writing
the essay?

6 de mayo 23
Estudiante: Remedios
Me gustaría integrarme en el
Departamento financiero de su empresa,
ya que estoy capacitado y tengo los
habilidades para desarrollar diferentes
tareas, especialmente en las áreas de
finanzas y contabilidad.
Recientemente he finalizado mis estudios
en administración y Dirección de Empresa
en la Universidad de Madrid.
La metodología aplicada en el centro,
orientada a la acción y resultados,
me ha permitido desarrollar una
gran capacidad de resolución y de
adquirir el área de la empresa.
A lo largo de mi formación
potenciado mi espíritu
en equipo, iniciativa y
conocimiento de los
proyectos, mediante
intervenciones en inglés.
OK

pequeña caracolito. Pero el pequeño caracol no crecía. Al fin,
suyo, porque ellos no tenían. Pero el pequeño caracol no crecía. Al fin,
que un simple caracol ordinario.

Un día, la mamá caracola creyó observar que su pequeño
se desarrollaba, y le pidió a papá caracol que se fijara bien, a
ver qué le parecía. La papá caracol confirmó que,
efectivamente, el pequeñín empezaba a crecer.

Una día se puso a llover con fuerza.
-Escucha el rampataplán de los lluvia sobre las lampazos -dijo
el viejo caracol.

-Fíjate en las gotas de lluvia -observó la madre caracola-. Mira
cómo bajan por el tallo y lo mojan. Suerte que tenemos
nuestra buena casa, y que el pequeño tiene también la suya.
La naturaleza nos han tratado a nosotros, los caracoles, mejor
que a los demás seres vivos, porque tenemos una casa
desde que nacemos, y para nosotros plantaron un bosque
de lampazos. Me gustaría saber hasta dónde se extiende.

-No hay nada fuera de aquí -respondió el padre caracol-. Mejor
que esto no puede haber nada.

-Pues a mí me gustaría ver las casas vieja que hay más allá
dijo la vieja caracola. Todos nuestro antepasados pasaron
allí, así que debe ser algo excepcional.

Is using ChatGPT
write an essay just
as good as writing
the essay?


6 de mayo 23
Estudiante: Remedios
Me gustaría integrarme en el
Departamento financiero de su empresa,
ya que estoy capacitado y tengo los
habilidades para desarrollar diferentes
tareas, especialmente en las áreas de
finanzas y contabilidad.
Recientemente he finalizado mis estudios
en administración y Dirección de Empresas
en la Universidad de Madrid.
La metodología aplicada en el centro,
orientada a la acción y resultados,
me ha permitido desarrollar una
gran capacidad de resolución y de
adquirir el área de la empresa.
A lo largo de mi formación
potenciado una perspectiva global y de
en equipo, mi espíritu
los tareas, a
conocimiento de ida
Francés, mediante
intervenciones en inglés
OK

Sure, if your end
good is writing an
essay.


pequeña caracolito
suyo, porque ellos no tenían
Pero el pequeño caracol no crecía. Al fin
que un simple caracol ordinario.

Un día, la mamá caracola creyó observar que su pequeño
se desarrollaba, y le pidió a papá caracol que se fijara bien, a
ver qué le parecía. La papá caracol confirmó que,
efectivamente, el pequeño empezaba a crecer.

-Pues a mí me gustaría ver las cosas
dijo la vieja caracola. Todos nuestros antepasados pasaron
allí, así que debe ser algo excepcional.



I don't write essays
anymore, but I use all
these brain functions I
developed when learning
them.



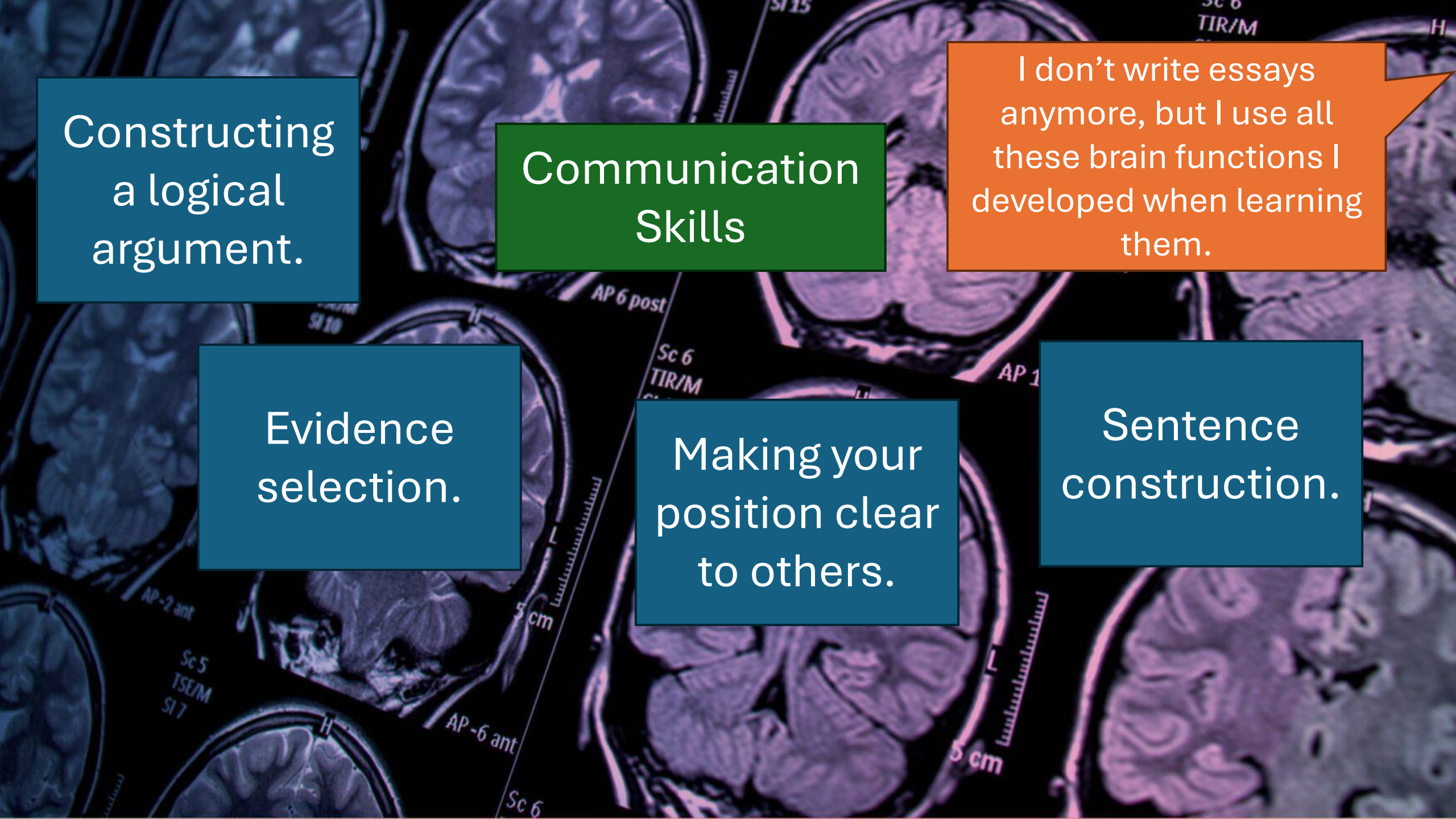
Constructing
a logical
argument.

Evidence
selection.

Making your
position clear
to others.

Sentence
construction.

I don't write essays
anymore, but I use all
these brain functions I
developed when learning
them.



Constructing
a logical
argument.

Communication
Skills

I don't write essays
anymore, but I use all
these brain functions I
developed when learning
them.

Evidence
selection.

Making your
position clear
to others.

Sentence
construction.

THE NEW YORK TIMES BESTSELLER

THINKING, FAST AND SLOW



DANIEL
KAHNEMAN

WINNER OF THE NOBEL PRIZE IN ECONOMICS

"[A] masterpiece . . . This is one of the greatest and most engaging collections of insights into the human mind I have read." —WILLIAM EASTERLY, *Financial Times*

System 1



Fast



Unconscious



Automatic



Everyday
Decisions

System 2



Slow



Conscious



Effortful

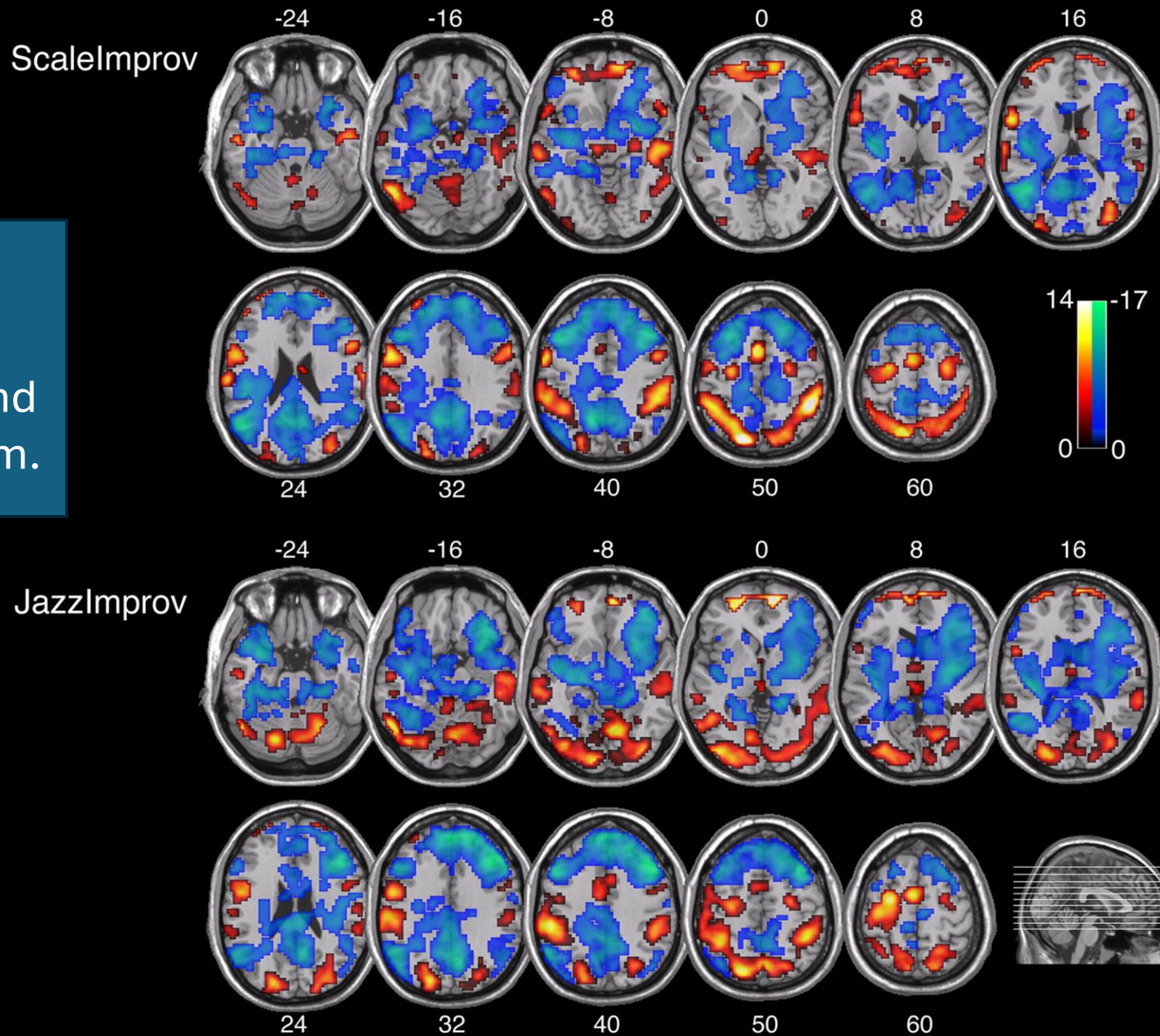


Complex
Decisions

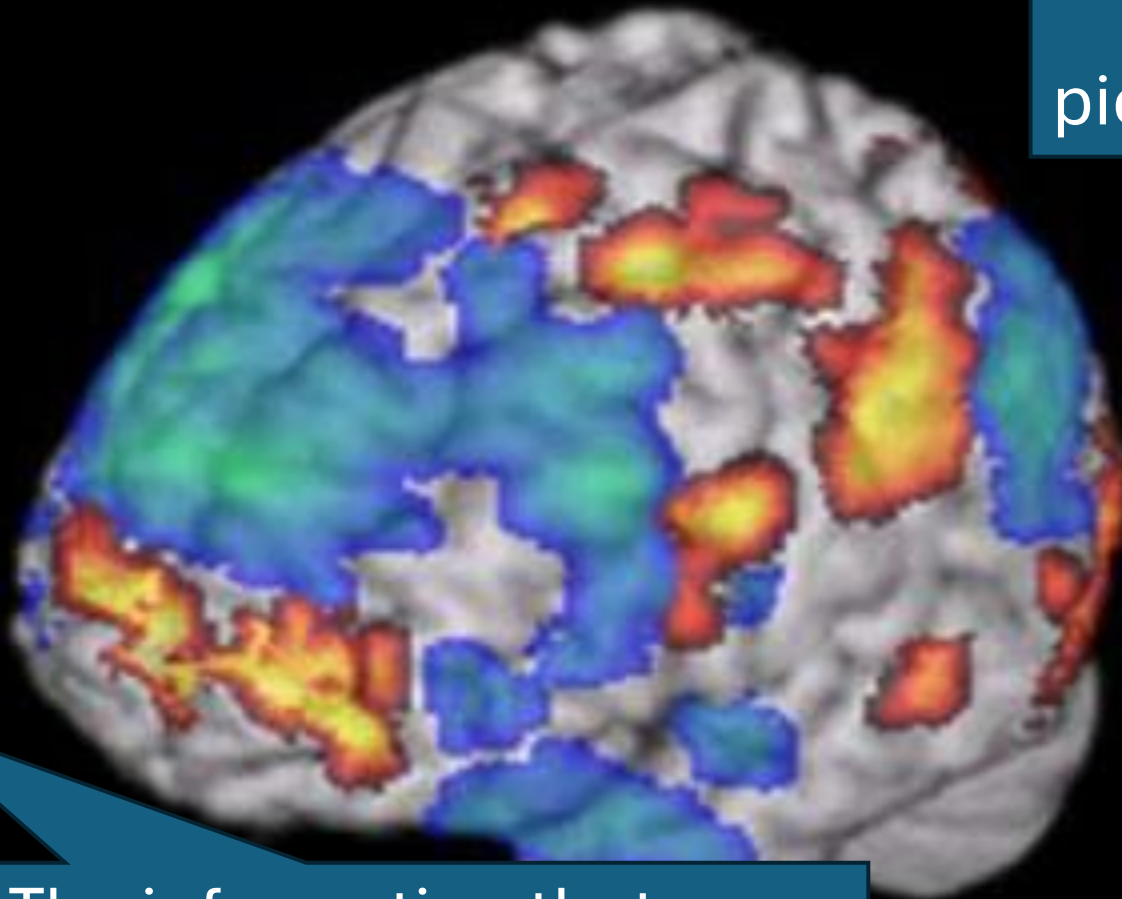
Brain scans have added a lot to our understanding of how System 1 and System 2 related to learning.



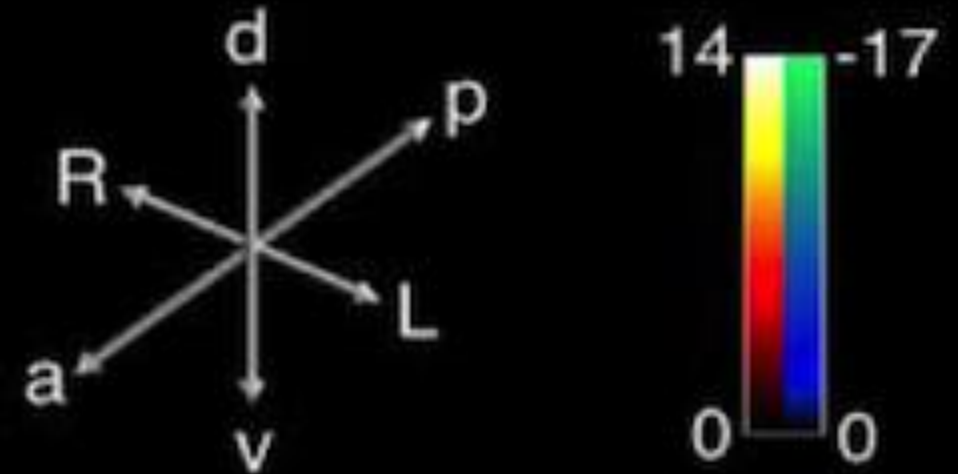
They take
different
conditions and
compare them.



The 'slices' can be combined to create very detailed pictures of the brain.



The information that we received in university was input/output based.



Now, we can take the input and output and see what EXACTLY is going on.

System 1



Fast



Unconscious



Automatic



Everyday
Decisions

System 2



Slow



Conscious



Effortful



Complex
Decisions

After Skill is
Mastered

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Early in the
Learning Process

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After Skill is
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Slow



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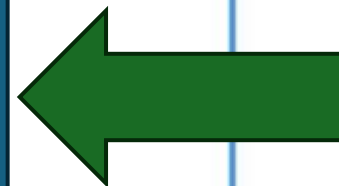


Effortful




Complex
Decisions

Early in the
Learning Process



THE NEW YORK TIMES BESTSELLER

THINKING,
FAST AND SLOW



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System 1



Fast



Unconscious



Automatic



Easy
Decisions

System 2



Slow



Conscious



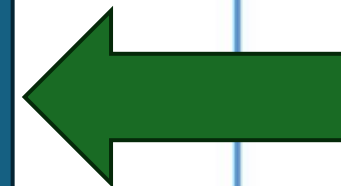
Effortful



Complex
Decisions

Fine tuning of brain
mass through
deliberate practice.

After Skill is
Mastered



Early in the
Learning Process

THE NEW YORK TIMES BESTSELLER

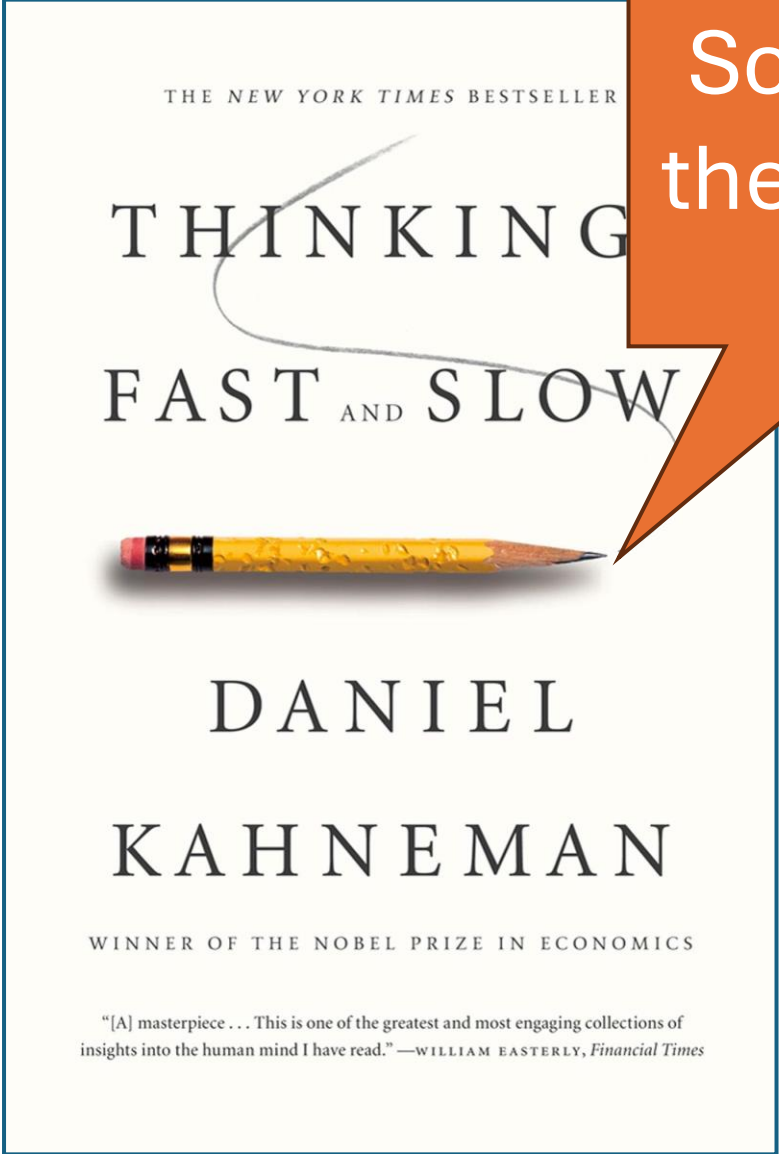
THINKING, FAST AND SLOW



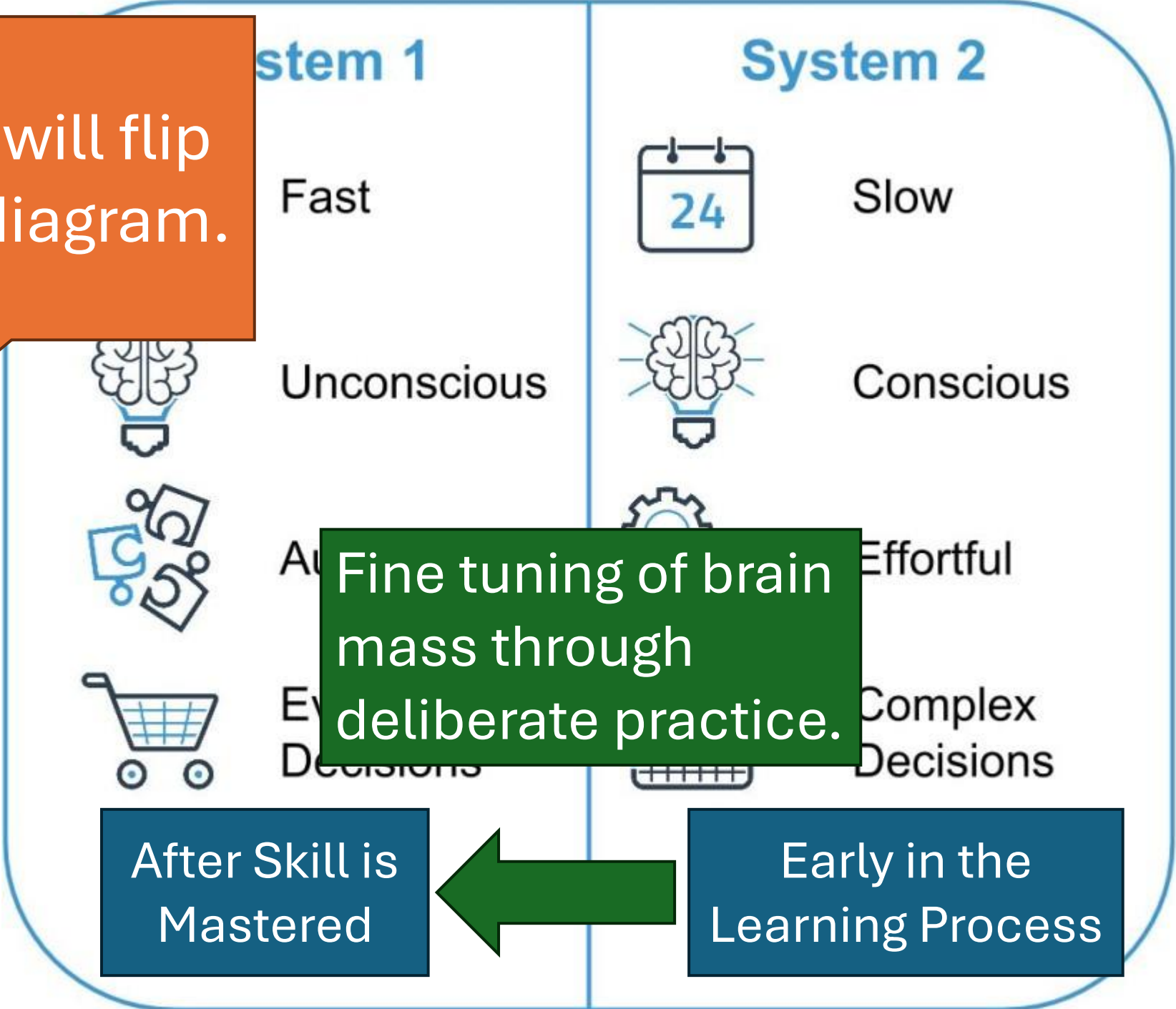
DANIEL
KAHNEMAN

WINNER OF THE NOBEL PRIZE IN ECONOMICS

"[A] masterpiece . . . This is one of the greatest and most engaging collections of insights into the human mind I have read." —WILLIAM EASTERLY, *Financial Times*



So I will flip the diagram.



System 1

System 2

Fast

Slow

Unconscious

Conscious

Automatic

Effortful

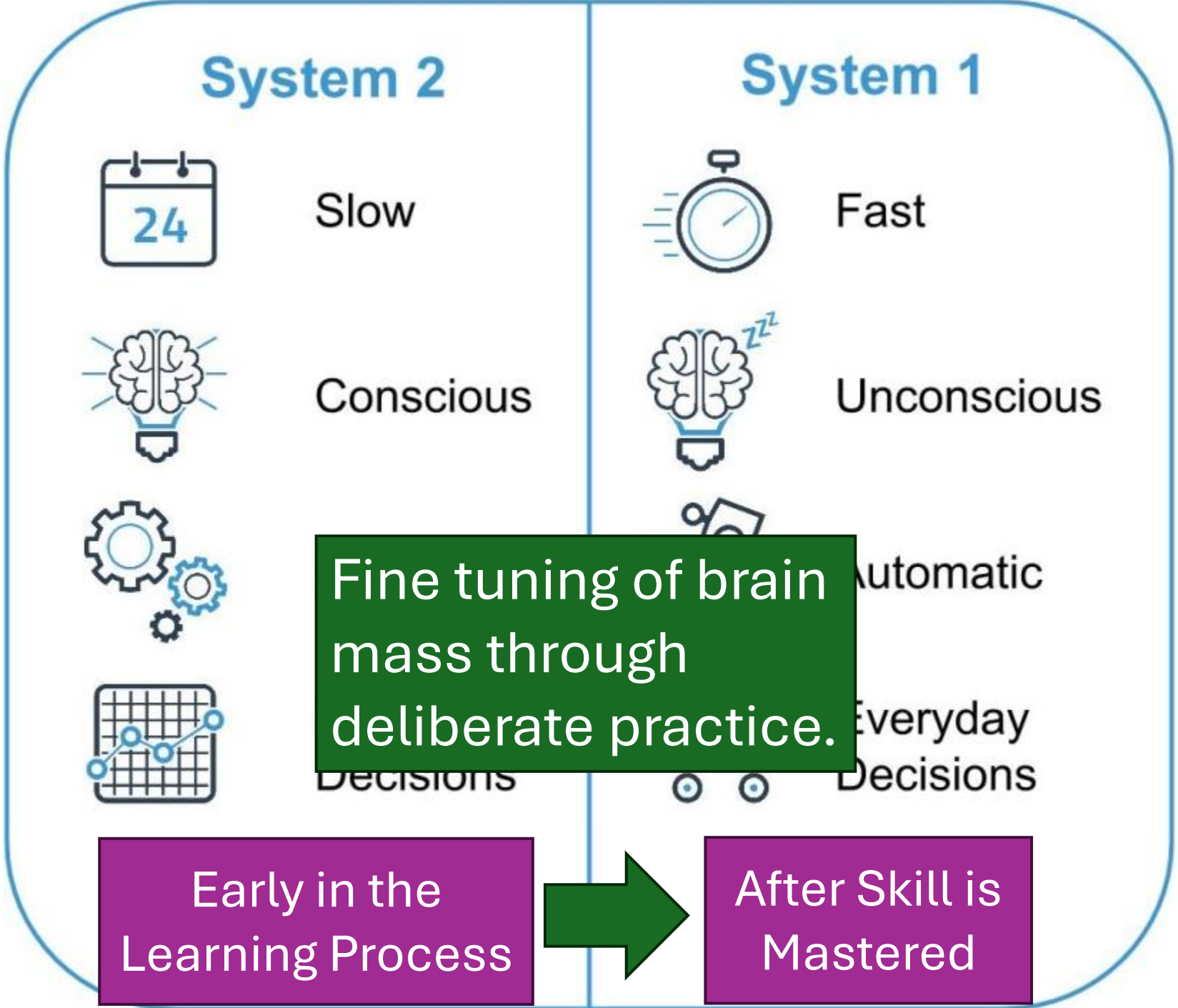
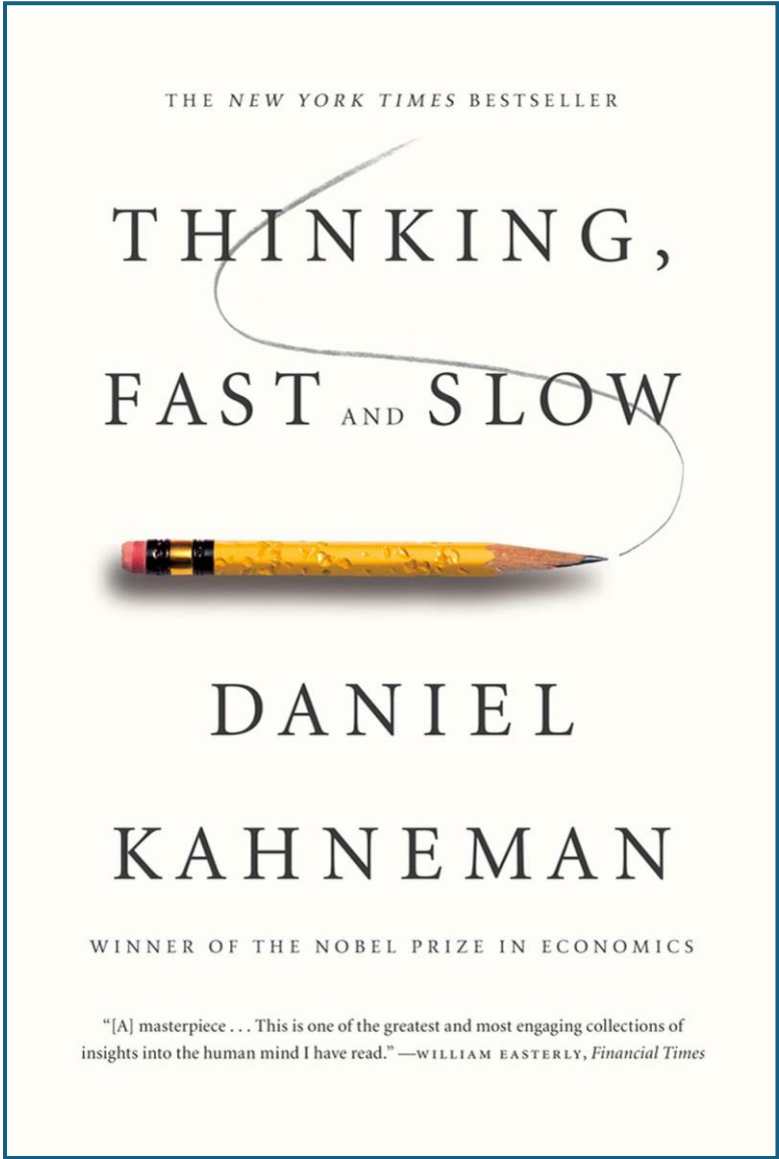
Everyday Decisions

Complex Decisions

Fine tuning of brain mass through deliberate practice.

After Skill is Mastered

Early in the Learning Process



THE NEW YORK TIMES BESTSELLER

THINKING, FAST AND SLOW



DANIEL
KAHNEMAN

WINNER OF THE NOBEL PRIZE IN ECONOMICS

Fine tuning of brain
mass through
deliberate practice.

System 2



Slow



Conscious



Effortful



Complex
Decisions

Early in the
Learning Process

System 1



Fast



Unconscious

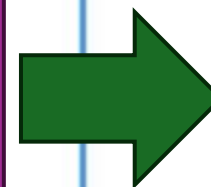


Automatic



Everyday
Decisions

After Skill is
Mastered



THE NEW YORK TIMES BESTSELLER

THINKING, FAST AND SLOW



DANIEL
KAHNEMAN

WINNER OF THE NOBEL PRIZE IN ECONOMICS

Fine tuning of brain
mass through
deliberate practice.

System 2



Slow



Thinking
through
each step.



Effortful



Complex
Decisions

Early in the
Learning Process

System 1



Fast



Unconscious

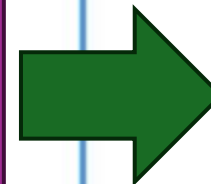


Automatic



Everyday
Decisions

After Skill is
Mastered



THE NEW YORK TIMES BESTSELLER

THINKING, FAST AND SLOW



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System 2



Slow



Thinking
through
each step.



Effortful



Complex
Decisions

Early in the
Learning Process

System 1



Fast



May not even know
why what they do is
working.

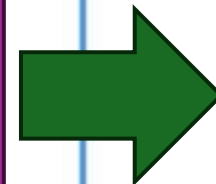


Automatic



Everyday
Decisions

After Skill is
Mastered



THE NEW YORK TIMES BESTSELLER

THINKING, FAST AND SLOW



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Fine tuning of brain
mass through
deliberate practice.

System 2



Slow



Thinking
through
each step.



Inefficient use
of brain. A lot
lights up in
scans.



Complex
Decisions

Early in the
Learning Process

System 1



Fast



May not even know
why what they do is
working.

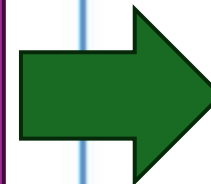


Automatic



Everyday
Decisions

After Skill is
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THE NEW YORK TIMES BESTSELLER

THINKING, FAST AND SLOW



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Thinking
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Decisions

Early in the
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Fast



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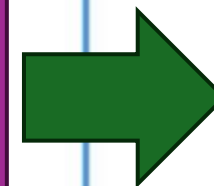


Efficient use of
brain. Specific,
targeted regions
light up in scans.



Everyday
Decisions

After Skill is
Mastered



THE NEW YORK TIMES BESTSELLER

THINKING, FAST AND SLOW



DANIEL
KAHNEMAN

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Fine tuning of brain
mass through
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System 2



Slow



Thinking
through
each step.



Inefficient use
of brain. A lot
lights up in
scans.



Complex
for brain at
given time.

Early in the
Learning Process

System 1



Fast



May not even know
why what they do is
working.

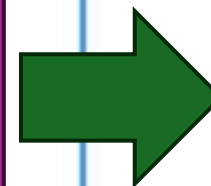


Efficient use of
brain. Specific,
targeted regions
light up in scans.



Everyday
Decisions

After Skill is
Mastered



THE NEW YORK TIMES BESTSELLER

THINKING, FAST AND SLOW



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deliberate practice.

System 2



Slow



Thinking
through
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Complex
for brain at
given time.

Early in the
Learning Process

System 1



Fast



May not even know
why what they do is
working.

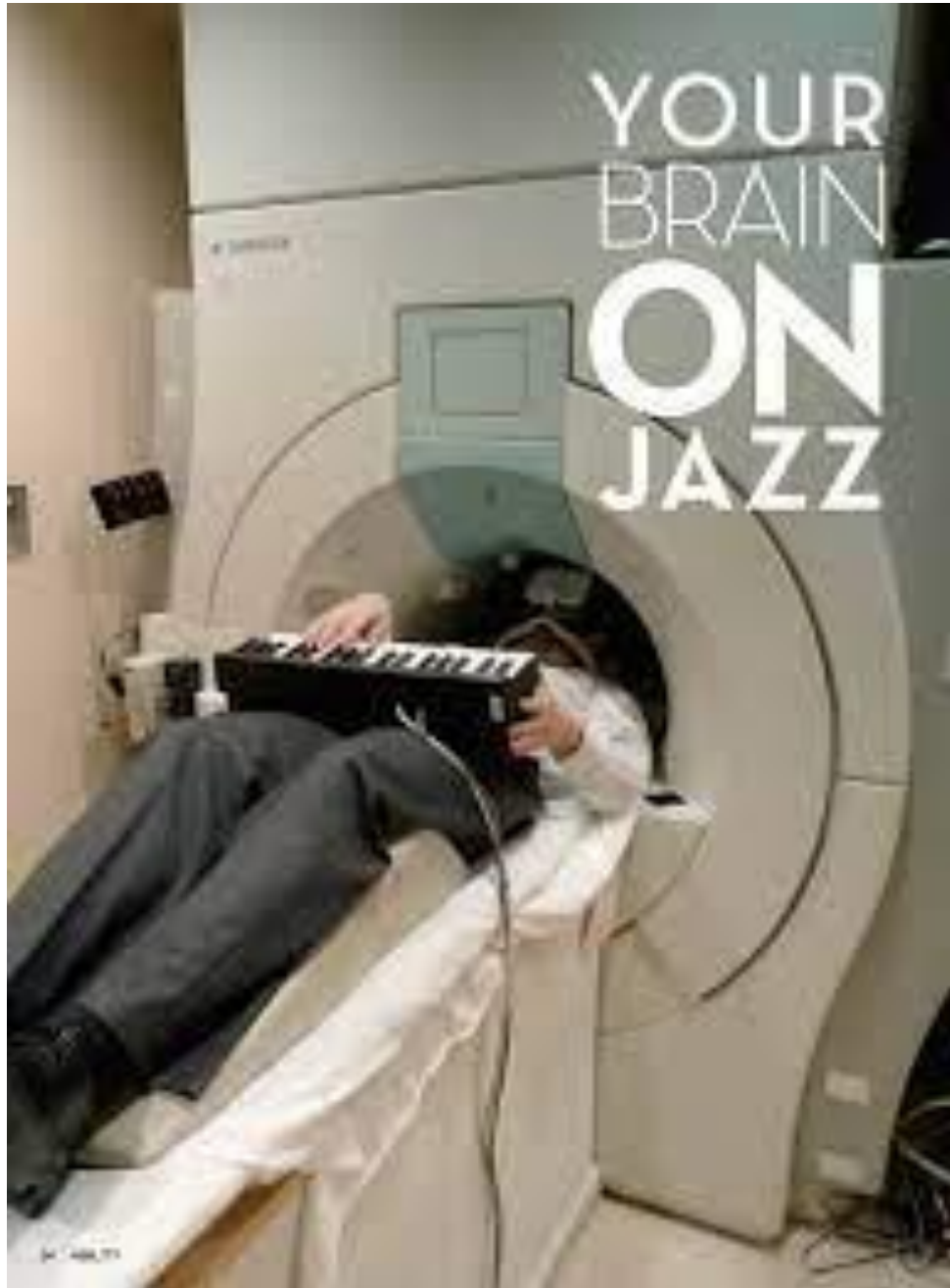


Efficient use of
brain. Specific,
targeted regions
light up in scans.

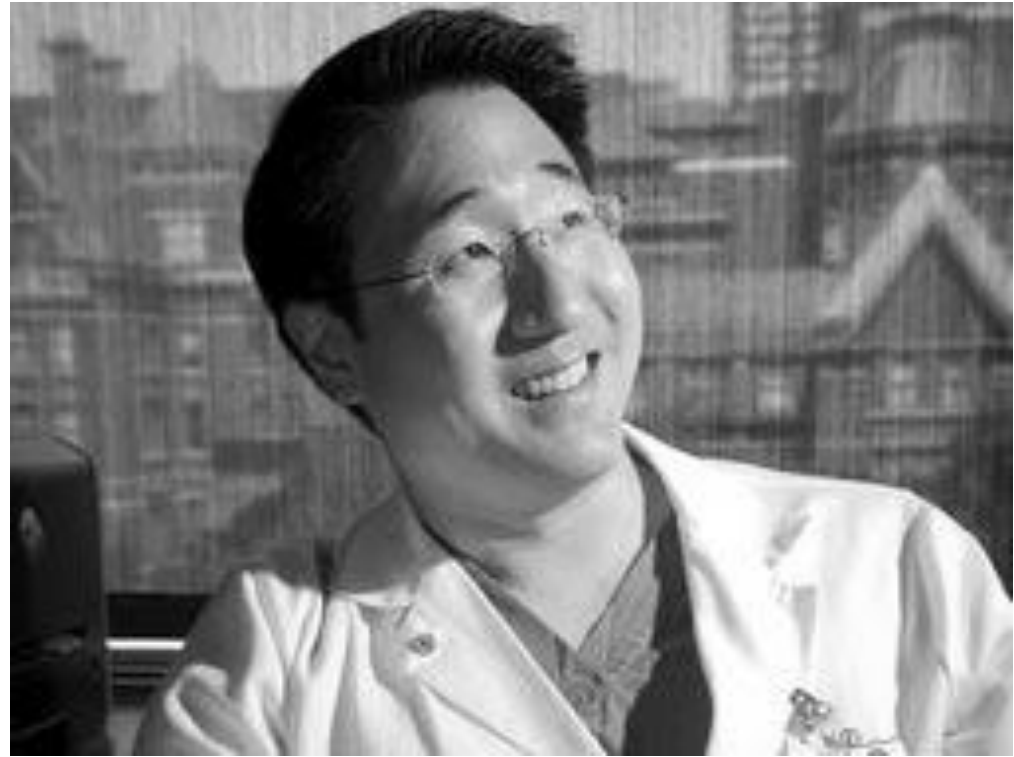


It is automatic.
It is easy.

After Skill is
Mastered

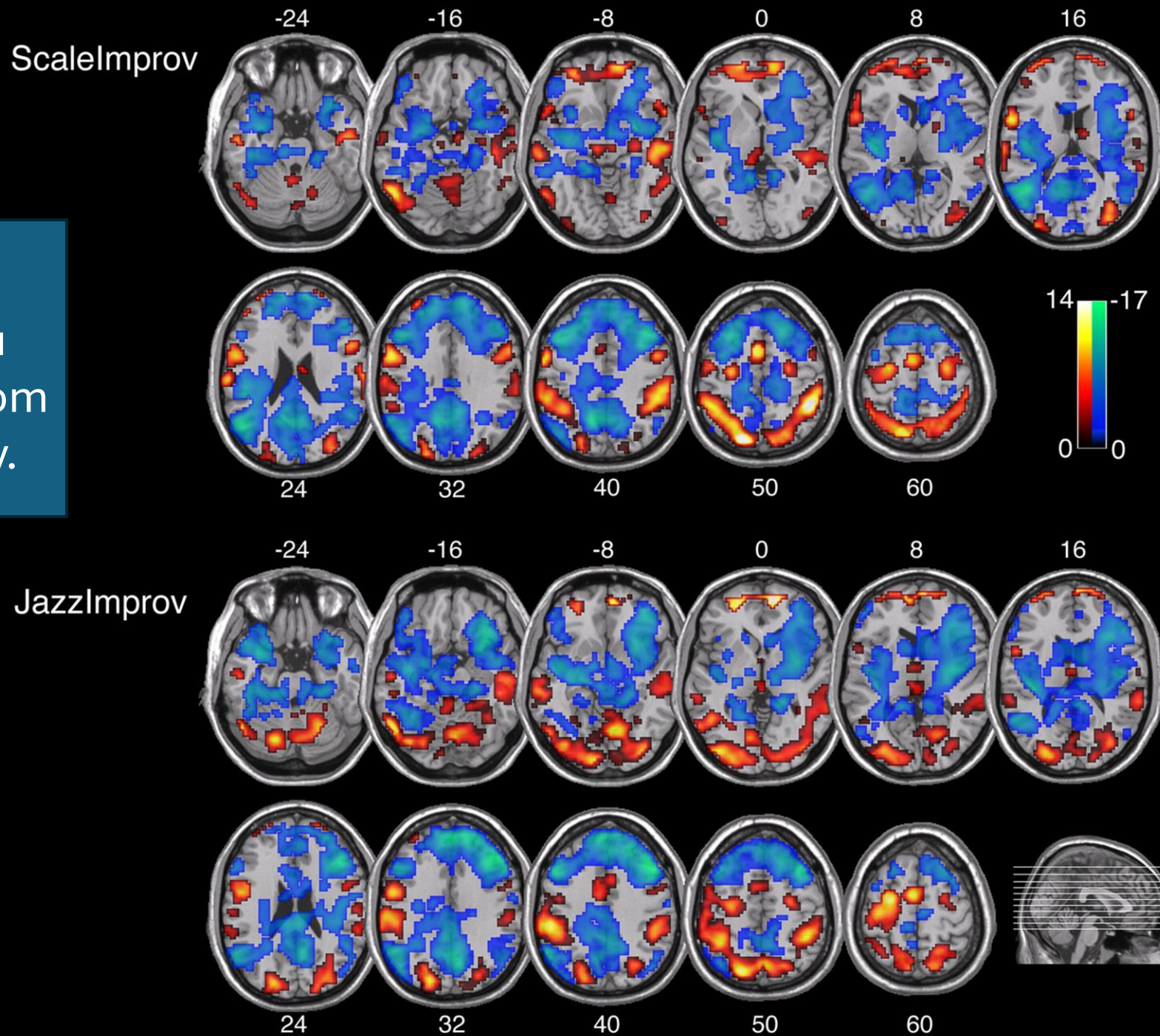


Charlie Limb, Research on Jazz Musicians' Brains

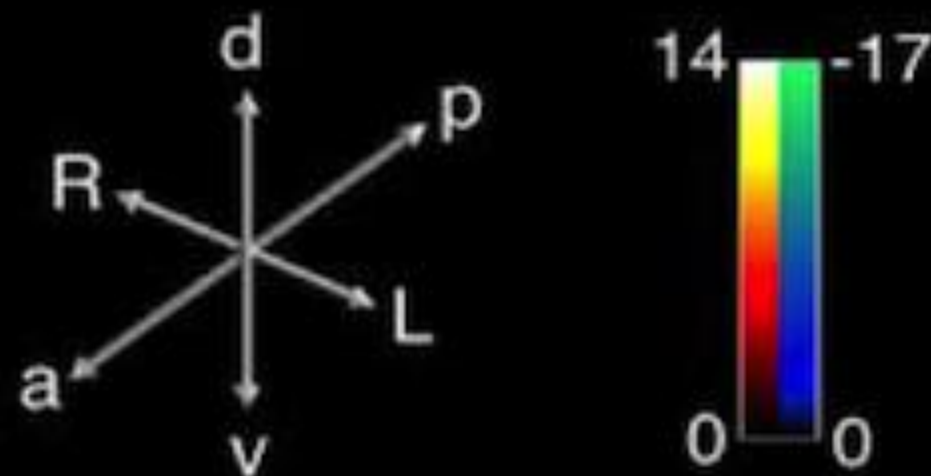
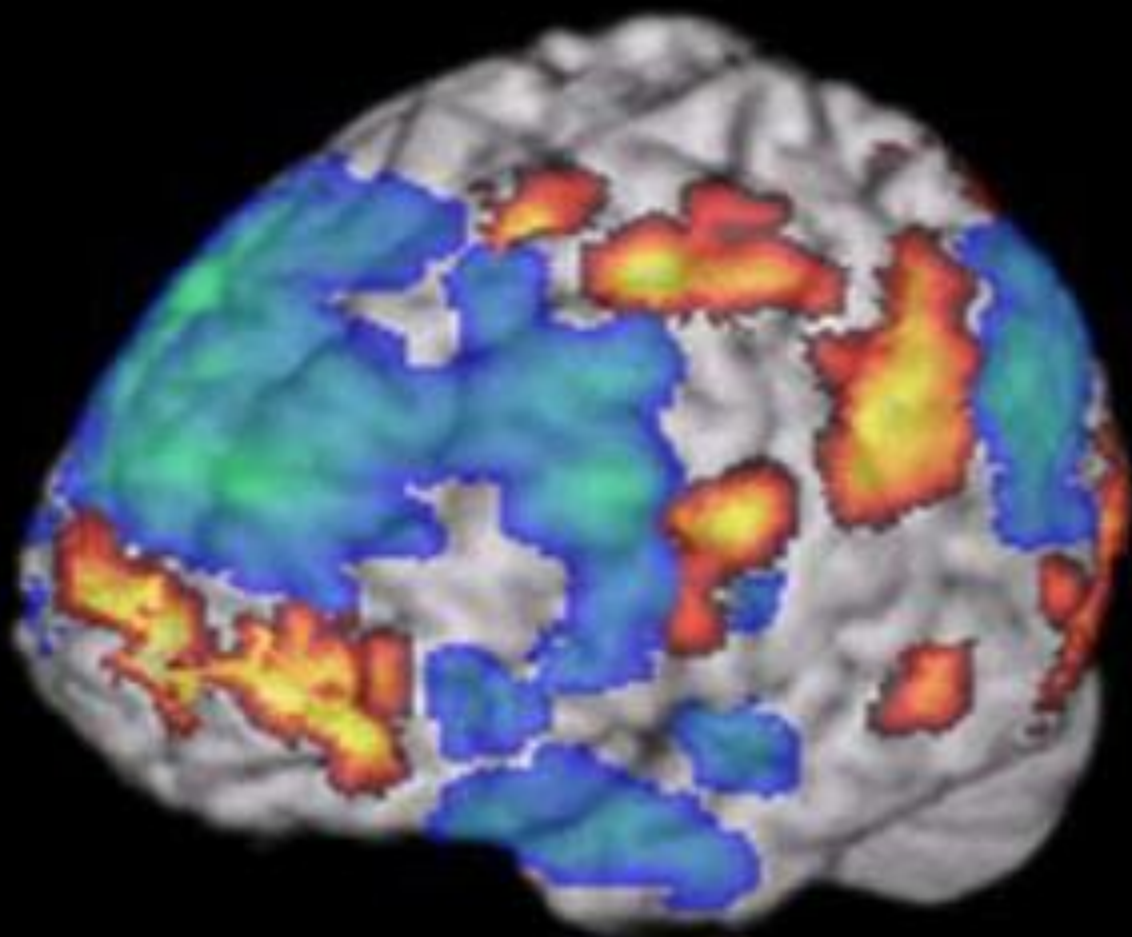


This was some early research, 2008.
It is one of those studies that has grown in importance.

The scan I showed you earlier was from Limb's study.



Again, from
Limb's study.

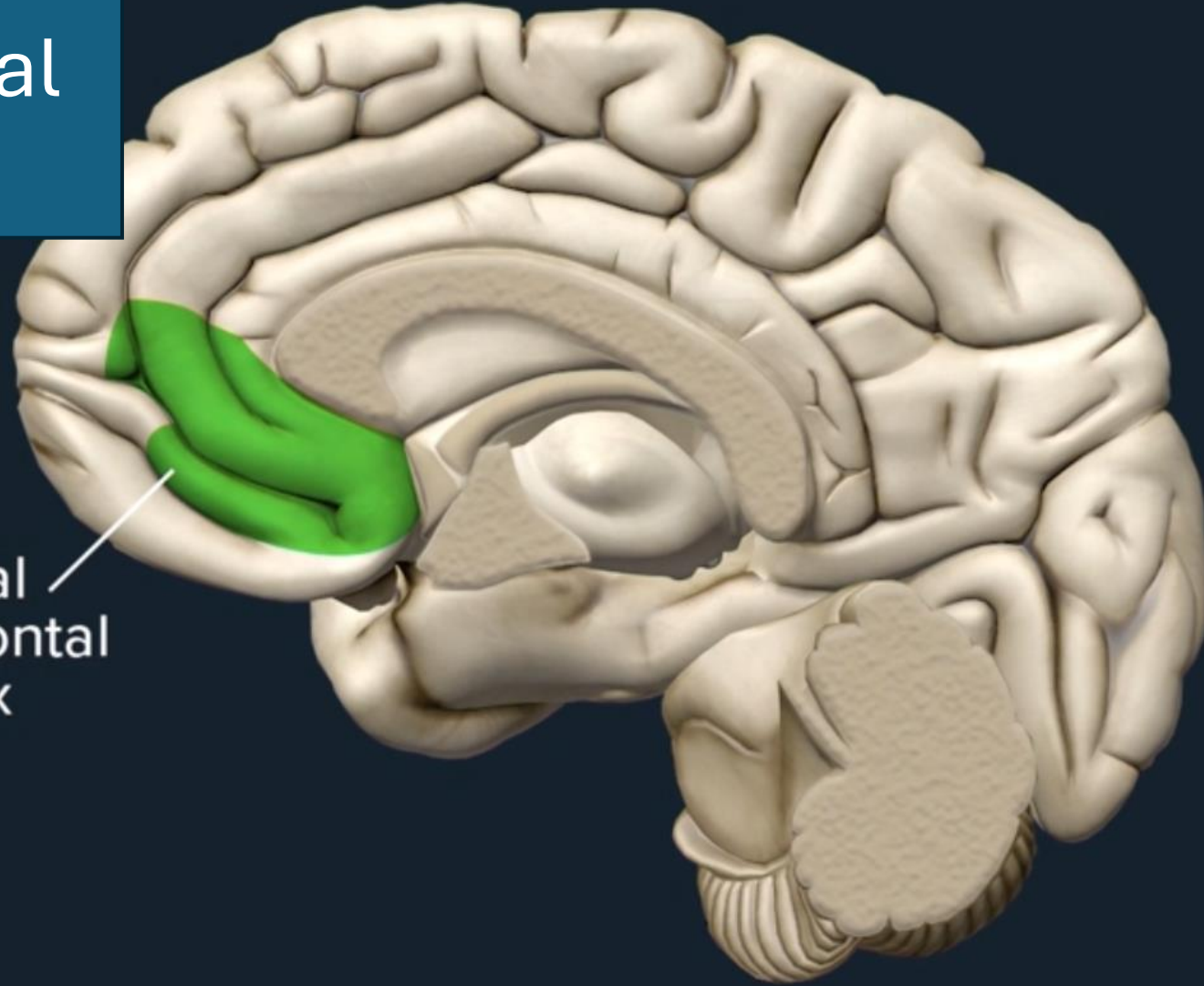


But let me pick some
simpler diagrams....

More activity in the
medial prefrontal
cortex.

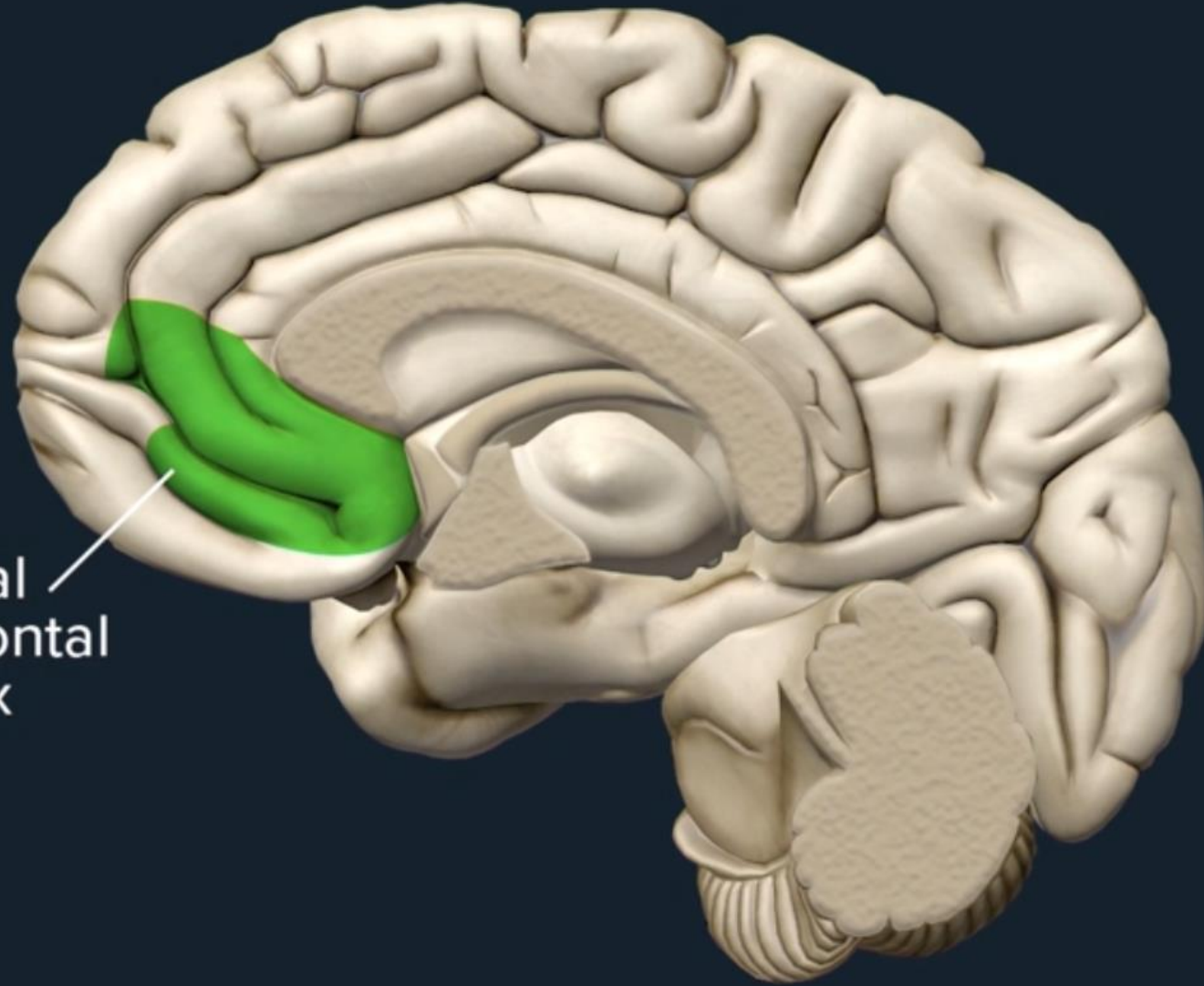
Medial
prefrontal
cortex

Also used in
story telling



Evidence of the
fine tuning that
had occurred.

Medial
prefrontal
cortex

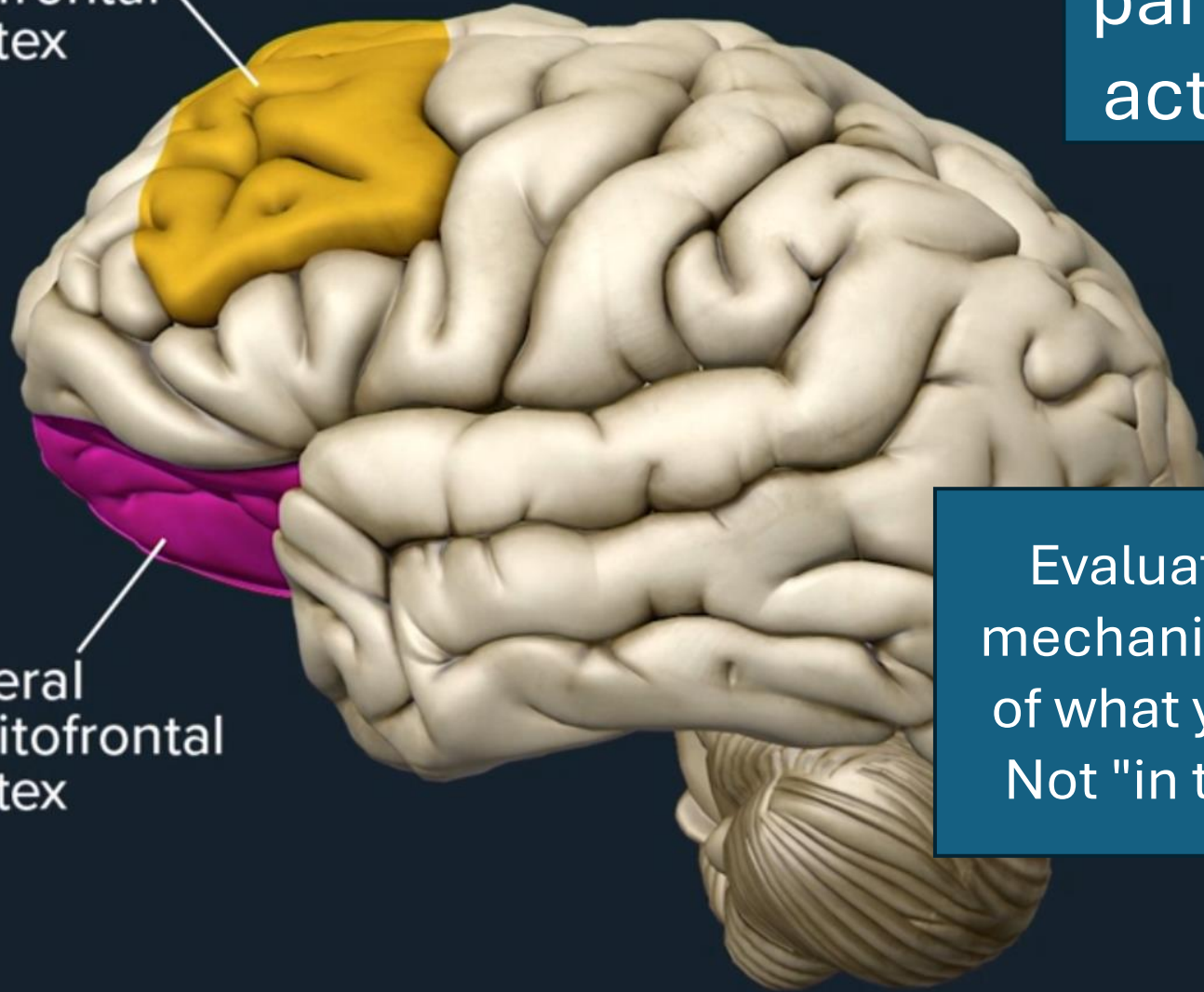


Dorsolateral
prefrontal
cortex

Lateral
orbitofrontal
cortex

Limb found
parts were de-
activated too.

Evaluates what the
mechanics and quality
of what you are doing.
Not "in the moment".



If the artist is pulled out of
the pull of their music, the
audience always knows.
They too are pulled out of the
magic of the moment.



Mark Sneider

Dorsolateral
prefrontal
cortex

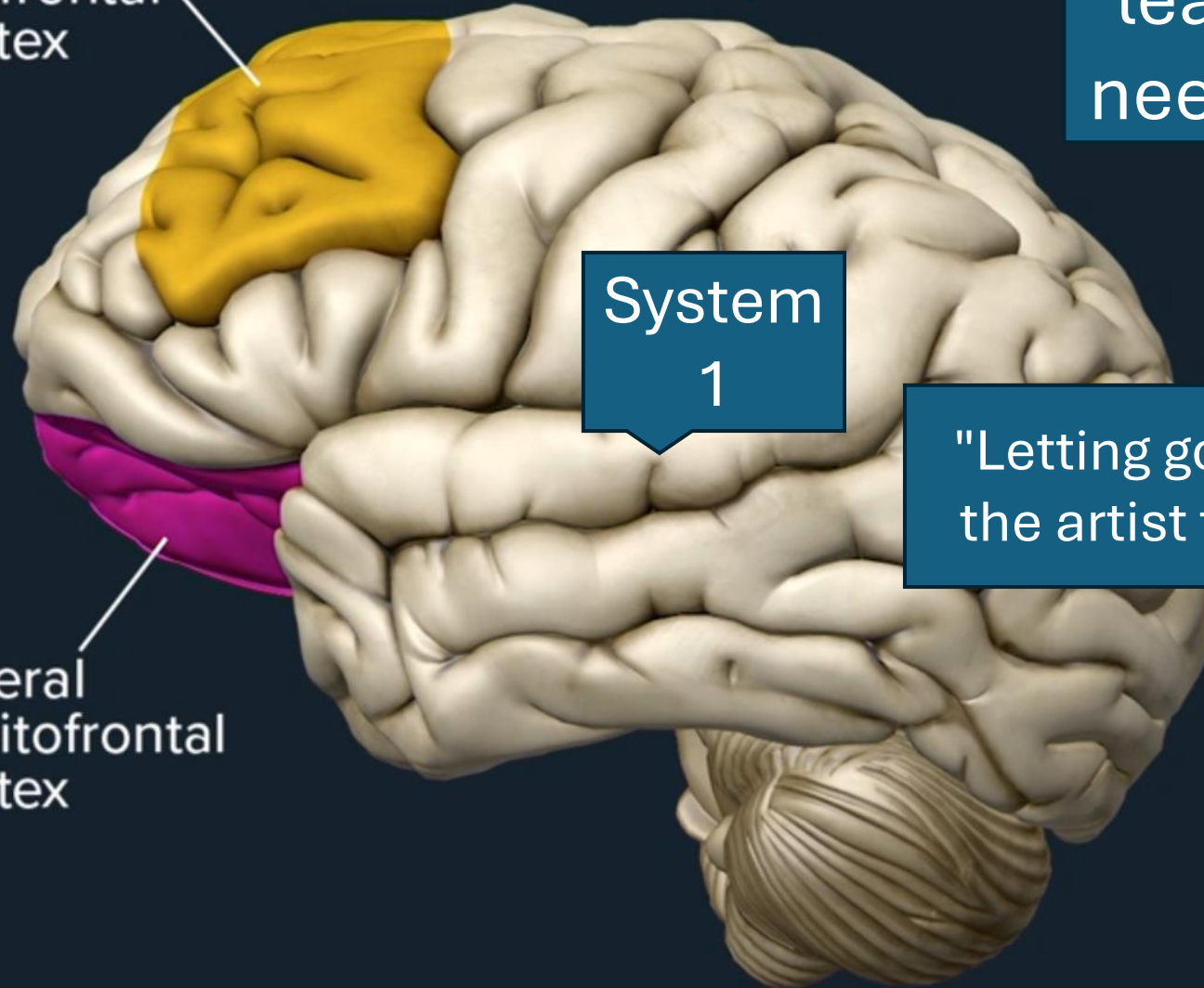
System
2

When you are
learning, you
need this part.

System
1

"Letting go" - frees up
the artist to just play.

Lateral
orbitofrontal
cortex





Dorsolateral
prefrontal
cortex

"Letting go" - frees up
the artist to just play.

Lateral
orbitofrontal
cortex

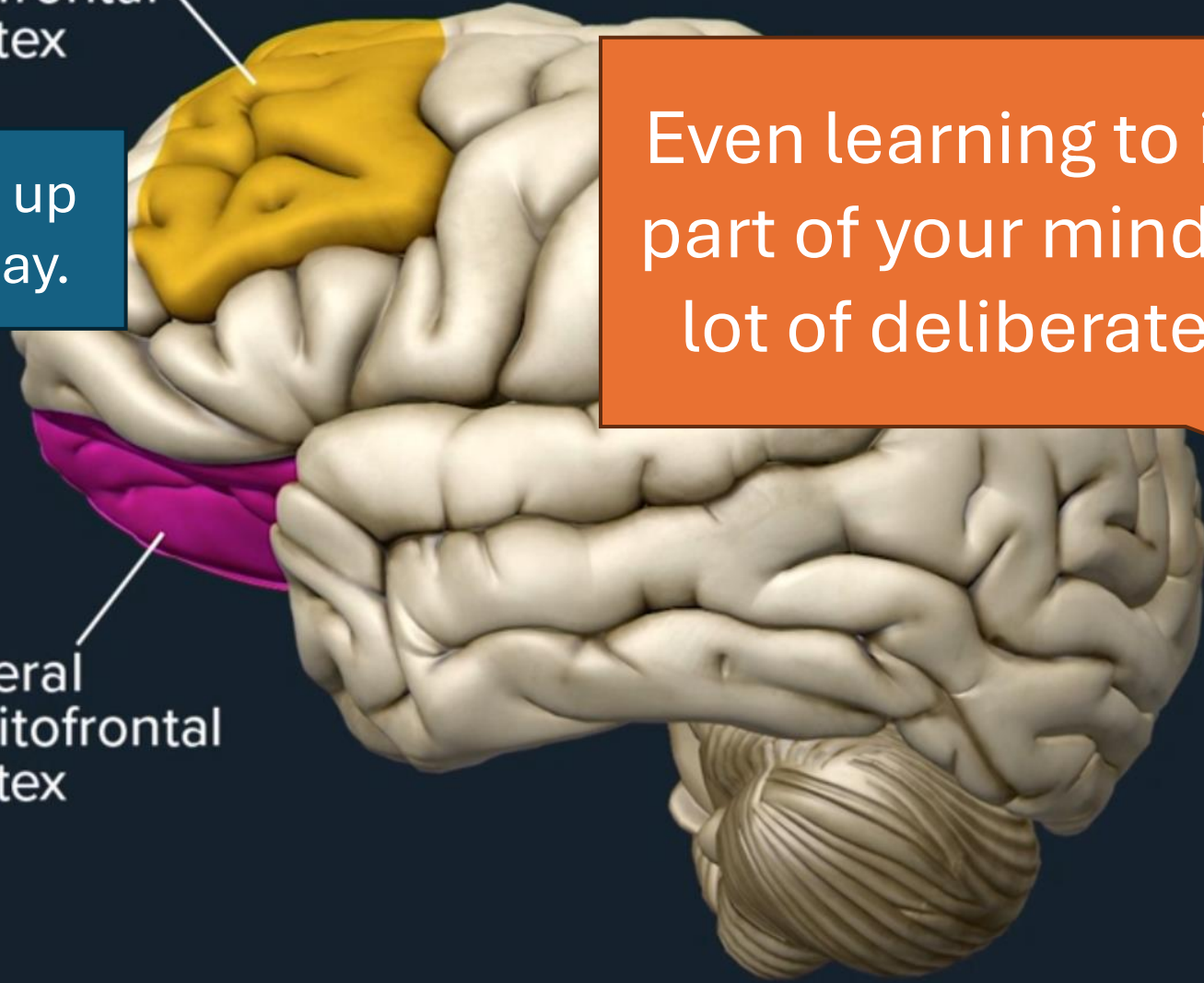
You can't do that if your brain
needs to figure out which notes to
play or the fingering. To let go, you
need to be trained enough to
produce the physical expression
of what we have in mind.

Dorsolateral
prefrontal
cortex

"Letting go" - frees up
the artist to just play.

Even learning to inhibit that
part of your mind requires a
lot of deliberate practice.

Lateral
orbitofrontal
cortex







Outliers



THE STORY OF SUCCESS

MALCOLM
GLADWELL

#1 bestselling author of *The Tipping Point* and *Blink*

PEAK

SECRETS FROM
THE NEW SCIENCE
OF EXPERTISE

Anders Ericsson
and Robert Pool

"[Peak] offers an optimistic anti-determinism that ought to influence how people educate children, manage employees, and spend their time. The good news is that to excel one need only look within." —*THE ECONOMIST*



Deliberate Practice Stages

1. Use training or practice regiments that have been proven to be successful.

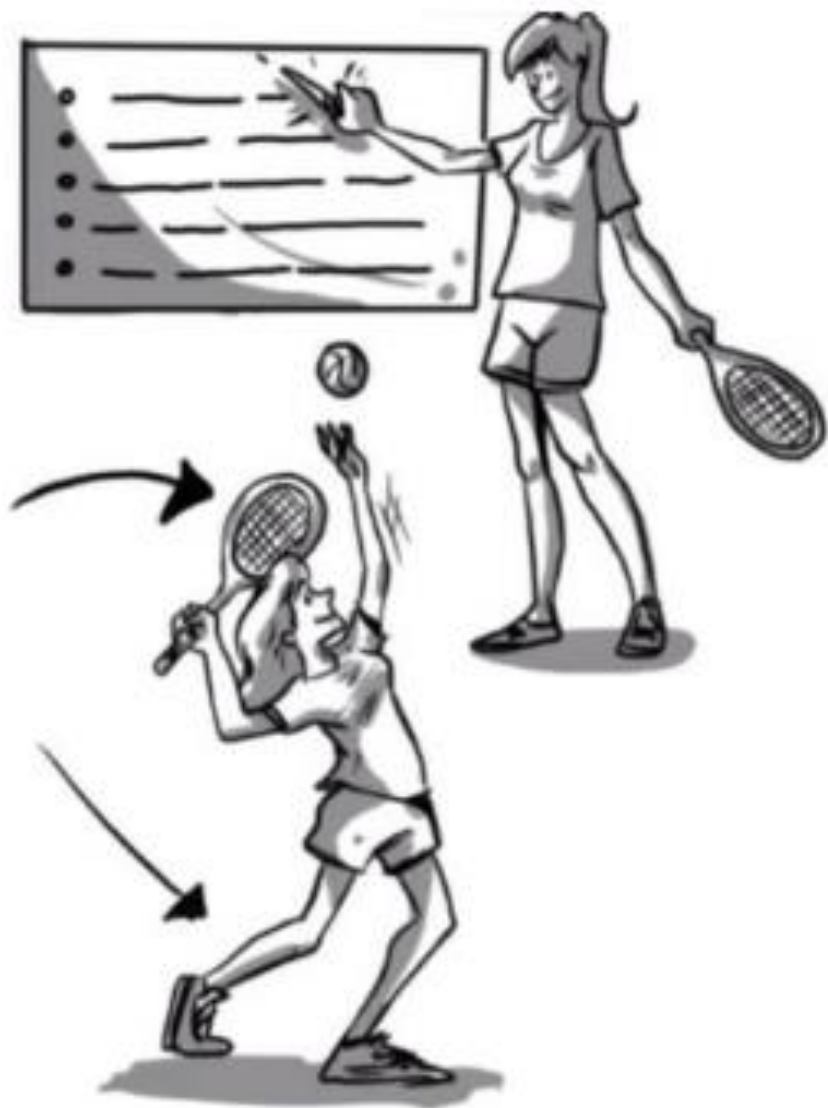
Find a good teacher and follow their advice.

Deliberate Practice Stages

2. Consistently move out of your comfort zone.

Practice should be uncomfortable and hard. Do things you can't do, not what comes easily.





Deliberate Practice Stages

3. Set well-defined learning goals. [Doing something quickly and without errors]

4. Engage your full attention. [Deep in system 2 - slow thinking]

Deliberate Practice Stages



5. Use feedback to evaluate whether you're reaching your goals. [Teacher needed or record it to view yourself.]
6. Build on your pre-existing skill set to punch through a new plateau.



Deliberate Practice Stages

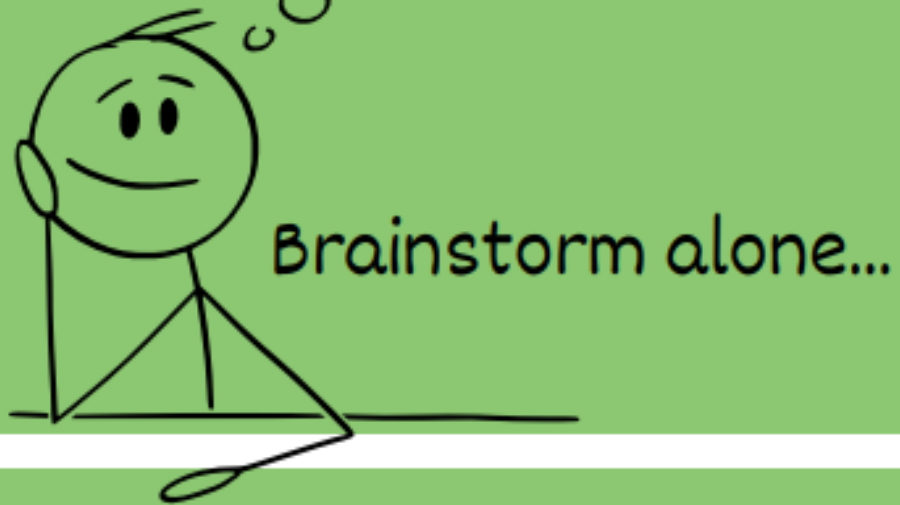
7. Change your mental representation of the skill.

[Change the way that your brain works. Move it to system 1. Fine tune brain so it is easy.]

If it is easy, it isn't
deliberate practice.
Your brain isn't
changing.

BRAINSTORM

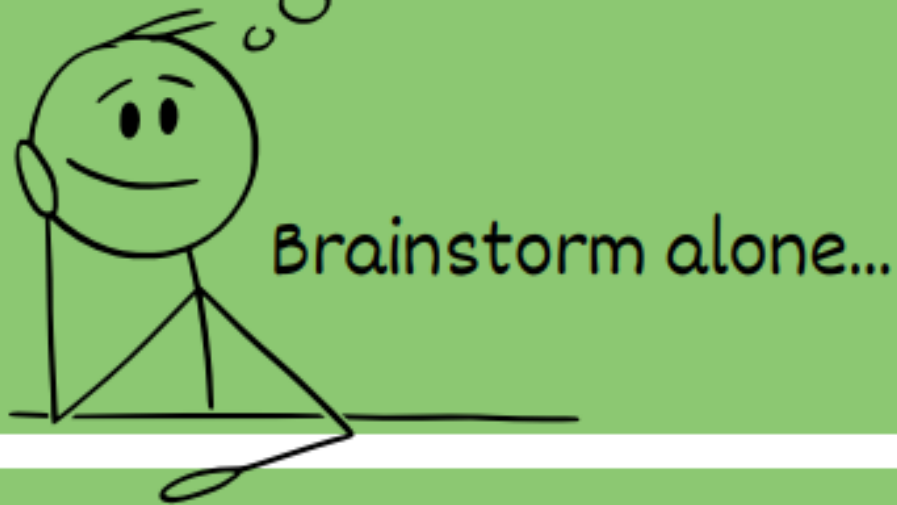
Use a chatbot to
brainstorm ideas



If it is easy, it isn't
deliberate practice.
Your brain isn't
changing.

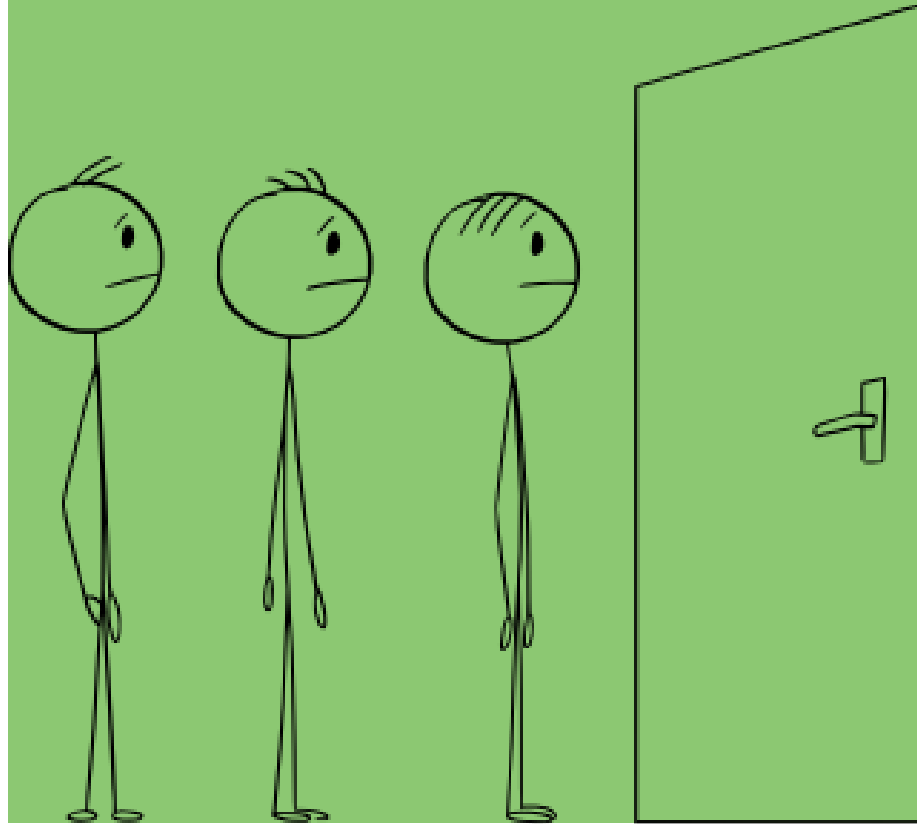
BRAINSTORM

ChatGPT reflects old ideas ... not
new ones, like social justice. Its
brainstorming may miss
important things.

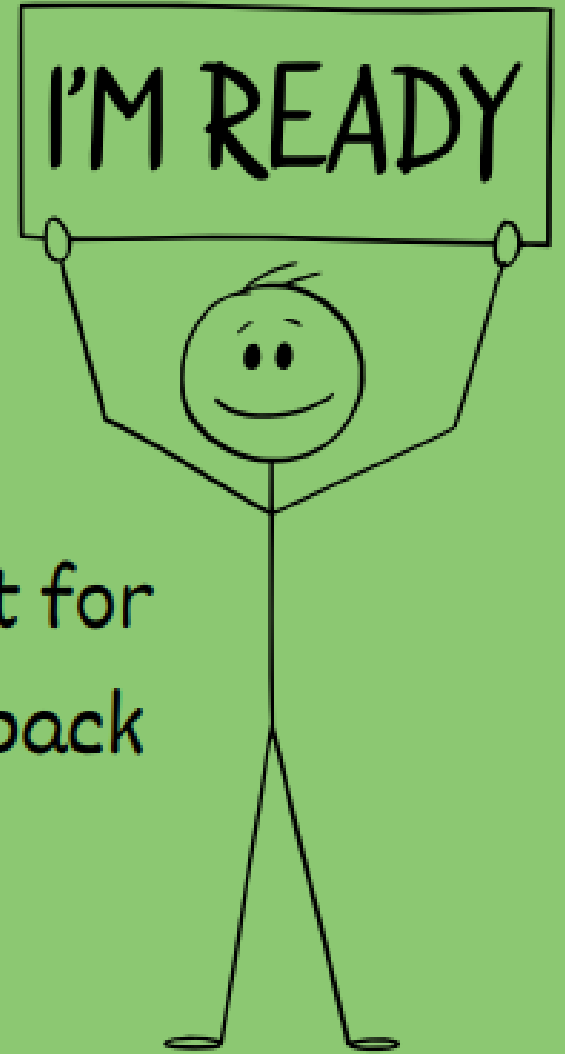


One of the things this research points out is the power of a good teacher.

FEEDBACK



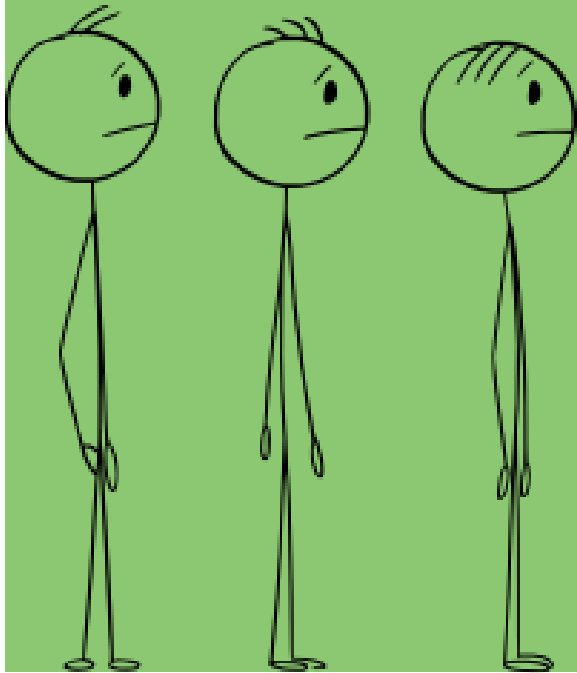
Use a chatbot for
instant feedback



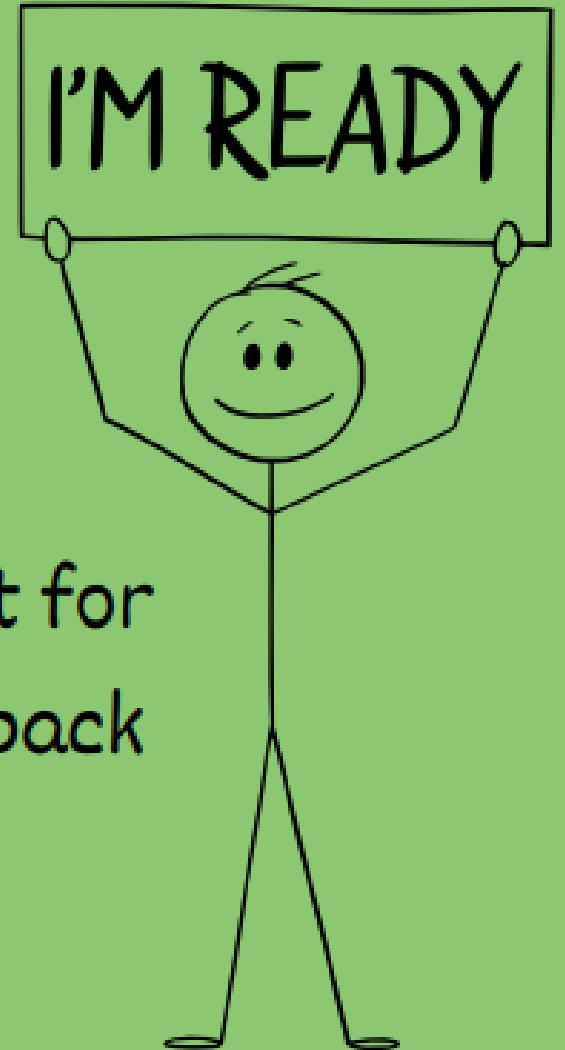
FEEDBACK

One of the things this research points out is the power of a good teacher.

Feedback is only useful for brain development when it is specific and expert.



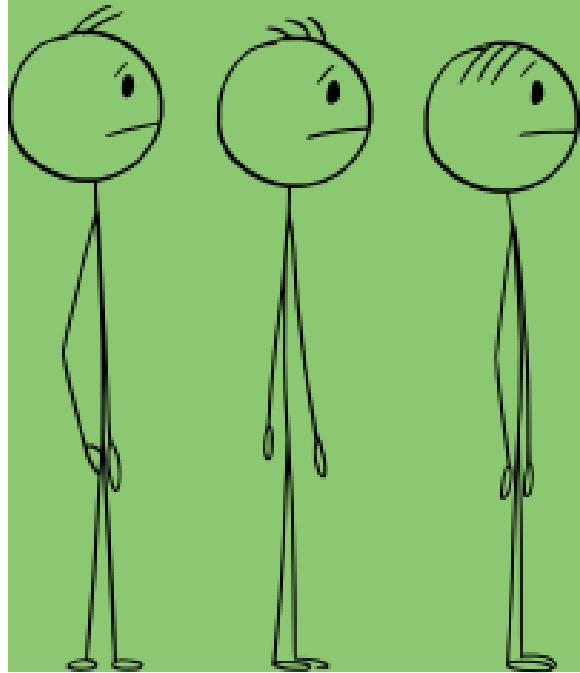
Use a chatbot for instant feedback



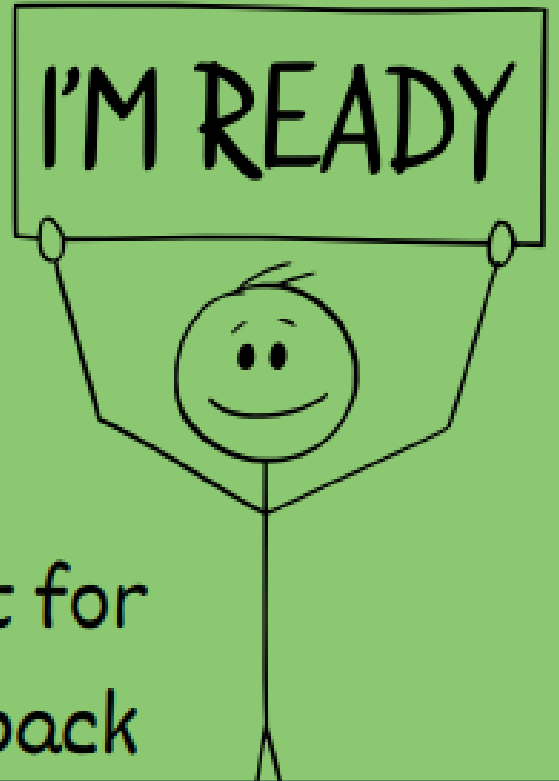
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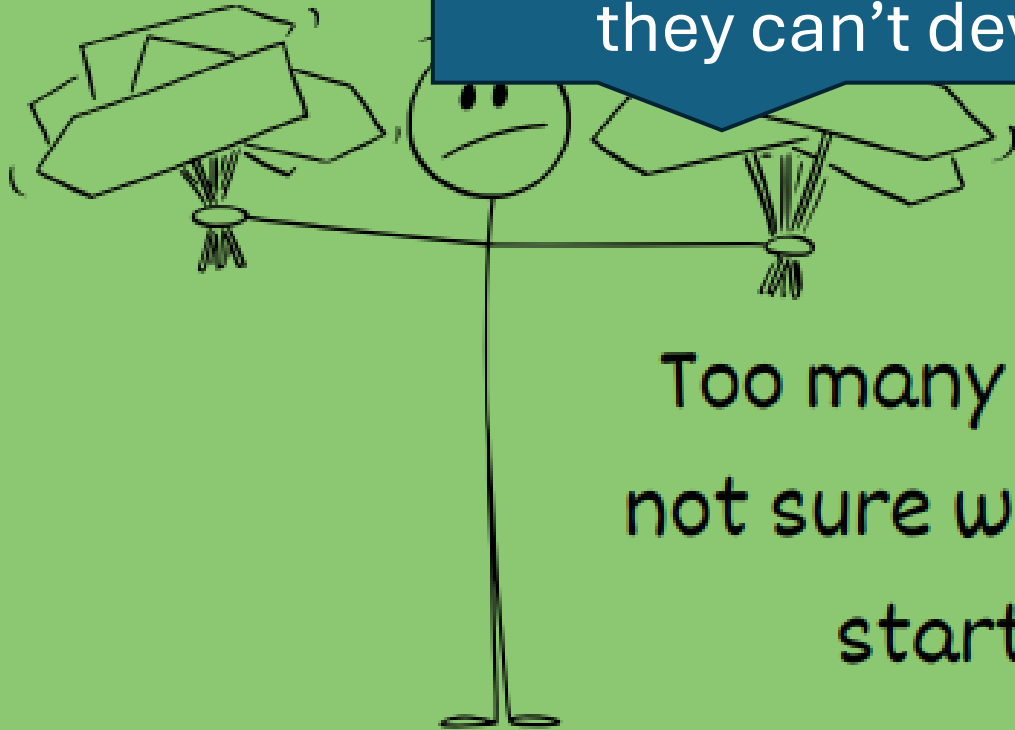
Use a chatbot for instant feedback



Chatbots are instant. But not specific. And not expert.

ORGANIZE TASKS

Isn't this something we want our students' brains to be able to do? Without practice, they can't develop it.



Too many tasks,
not sure where to
start?

Use a chatbot or AI
organization tool to
organize ideas



Everyone learns at
the same

PERSONAL TUTOR

If only it were less prone to
hallucinations and racism.
Then it might be worth
considering.



Use a chatbot
to learn at
your own pace

Peel District School Board, EML Resources. AI Resource for Students,
<https://pdsb1.sharepoint.com/sites/EmpoweringModernLearnersEML/SiteAssets/Forms/AllItems.aspx?id=%2Fsites%2FEmpoweringModernLearnersEML%2FSiteAssets%2FSitePages%2FPage%281%29%2FSTUDENT%2DAI%2DRESOURCES%2D%2D5%2D%2Epdf&parent=%2Fsites%2FEmpoweringModernLearnersEML%2FSiteAssets%2FSitePages%2FPage%281%29>. Credits
say it was generated using conversations with CoPilot.

Everyone learns at
the same

PERSONAL TUTOR

If only it were less prone to
hallucinations and racism.
Then it might be worth
considering.



This encourages non-
experts to take it at its
word. You should never.



Use a chatbot
to learn at
your own pace

Peel District School Board, EML Resources. A Resource for Students,
<https://pdsb1.sharepoint.com/sites/EmpoweringModernLearnersEML/SiteAssets/Forms/AllItems.aspx?id=%2Fsites%2FEmpoweringModernLearnersEML%2FSiteAssets%2FSitePages%2FPage%281%29%2FSTUDENT%2DAI%2DRESOURCES%2D%2D5%2D%2Epdf&parent=%2Fsites%2FEmpoweringModernLearnersEML%2FSiteAssets%2FSitePages%2FPage%281%29>. Credits
say it was generated using conversations with CoPilot.

Dreams Delayed



A note on artificial intelligence (AI)


A data governance framework that includes policies, directives and regulations related to data quality, data stewardship, data privacy and security and data management is crucial in the collection, use and reporting of code-based data. The accountability and transparency measures and outcomes woven into a strong data governance framework will become more important as Artificial Intelligence (AI) systems begin to move into the education system. The OHRC express concerns with the use of AI, early experience with this technology has demonstrated many risks to human rights, including data discrimination, racial profiling and a failure to ensure community participation and oversight of the system. Incorporating AI within a system where systemic discrimination exists across many Code protected grounds will undoubtedly exacerbate and reinforce discrimination.

A note on artificial intelligence (AI)

A data governance framework that includes policies, directives and regulations related to data quality, data stewardship, data privacy and security and data management is crucial in the collection, use and reporting of *code*-based data. The accountability and transparency measures and outcomes woven into a strong data governance framework will become more important as Artificial Intelligence (AI) systems begin to move into the education system. The OHRC express concerns with the use of AI, early experience with this technology has demonstrated many risks to human rights, including data discrimination, racial profiling and a failure to ensure community participation and oversight of the system. Incorporating AI within a system where systemic discrimination exists across many *Code* protected grounds will undoubtedly exacerbate and reinforce discrimination.

Insight - Amazon scraps secret x +

reuters.com/article/us-amazon-com-jobs-automation-insight/amazon-scraps-secret-ai-recruiting-tool-t... ☆



Insight - Amazon scraps secret AI recruiting tool that showed bias against women

By **Jeffrey Dastin**


October 10, 2018 8:50 PM EDT · Updated 6 years ago

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The fact that we can't easily tell what the AI is doing to make its decisions is a bigger problem.

If it reflects social injustices present in society, we might not even be aware it is happening.

<https://www.reuters.com/article/us-amazon-com-jobs-automation-insight/amazon-scraps-secret-ai-recruiting-tool-that-showed-bias-against-women-idUSKCN1MK08G/>

Considerations for Thinking Critically...

- What dataset was scrapped to achieve these results?
- Were artists consulted if their work was used to inform the AI model?
- How was bias addressed when working through prompt engineering?
- Does the AI model produce oppressive or racist content?


The “fear of missing out” rhetoric surrounding AI is being used to justify using a racist tool.

Special Education and AI Use



In relation to accessibility, educators should:

- Prioritize AI solutions designed with accessibility in mind (I.e., text to speech, speech to text, screen readers and voice recognition and oral response)
- Ensure that AI platforms have adjustable settings to accommodate individual learning needs.
- Be inclusive, differentiating to the needs of students with disabilities or those who require special education services and should comply with AODA.
- Work collaboratively with special education professionals, parent(s)/caregiver(s), and the students themselves to create a supportive learning environment that leverages AI as a tool for empowerment and inclusion.
- Generate closed captions for videos and transcribe spoken content in real-time. This benefits deaf and hard-of-hearing students and also aids in making educational materials more accessible to all.
- Use AI for quick language translation to ensure students who are not fluent in the primary language of instruction are included.

A group of elementary school children are sitting on a blue rug with large yellow, orange, and red circles. They are looking at books and drawings. In the background, there are tables, chairs, and storage bins. A teacher or adult is standing near the children.

Elementary teachers are being told by the board to use Dall-e image creators **INSTEAD** of drawing. It “levels the playing field” for those who can’t draw.

INQUIRY REPORT

RIGHT TO READ

Public inquiry into human rights
issues affecting students with
reading disabilities

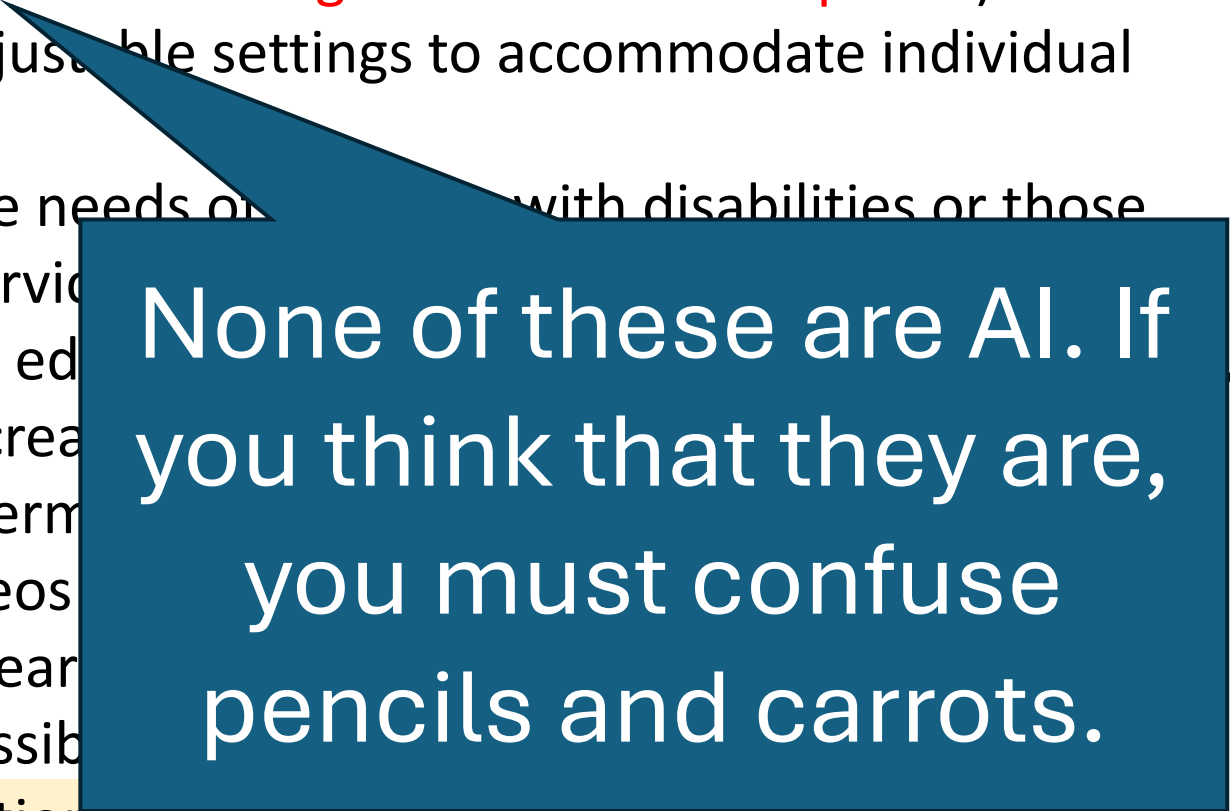


Ontario
Human Rights Commission
Commission ontarienne des
droits de la personne

And they are being
encouraged to use
it for writing too.

In relation to accessibility, educators should:

- Prioritize AI solutions designed with accessibility in mind (I.e., text to speech, speech to text, screen readers and voice recognition and oral response)
- Ensure that AI platforms have adjustable settings to accommodate individual learning needs.
- Be inclusive, differentiating to the needs of students with disabilities or those who require special education services.
- Work collaboratively with special education and the students themselves to create and leverage AI as a tool for empowerment.
- Generate closed captions for videos. This benefits deaf and hard-of-hearing students and makes educational materials more accessible.
- Use AI for quick language translation to ensure students who are not fluent in the primary language of instruction are included.



None of these are AI. If you think that they are, you must confuse pencils and carrots.

In relation to accessibility, educators should:

- Prioritize AI solutions designed with accessibility in mind (I.e., text to speech, speech to text, screen readers and voice recognition and oral response)
- Ensure that AI platforms have adjustable settings to accommodate individual learning needs.
- Be inclusive, differentiating to the needs of students with disabilities or those who require special education services and should comply with AODA.
- Work collaboratively with special education professionals and the student to leverage AI
- Generate close relationships with students. This benefits educational m
- Use AI for quick feedback. the primary la

This inclusively doesn't refer the inherent bias and racism in AI. Not sure why special education students don't have the right to resources that embody ABR principles.

In relation to accessibility, educators should:

- Prioritize AI solutions designed with accessibility in mind (I.e., text to speech, speech to text, screen readers and voice recognition and oral response)
- Ensure that AI platforms have adjustable settings to accommodate individual learning needs.
- Be inclusive, differentiating to the needs of students with disabilities or those who require special education services and should comply with AODA.
- Work collaboratively with special education professionals, parent(s)/caregiver(s), and the students themselves to create a supportive learning environment that leverages AI as a tool for empowerment and inclusion.
- Generate closed captions for videos and transcribe spoken content in real-time.
- Use the

Again, ignoring the implicit biases that are inherent in the software.

In relation to accessibility, educators should:

- Prioritize AI solutions designed with accessibility in mind (I.e., text to speech, speech to text, screen readers and voice recognition and oral response)
- Ensure that AI platforms have adjustable settings to accommodate individual learning needs
- Be inclusive, ensuring that students with disabilities or those with language barriers are not excluded. This includes using AI to provide alternative formats or assistive technologies.
- Work collaboratively with other education professionals, parent(s)/caregiver(s), and the students themselves to create a supportive learning environment that leverages AI as a tool for empowerment and inclusion.
- **Generate closed captions for videos and transcribe spoken content in real-time. This benefits deaf and hard-of-hearing students and also aids in making educational materials more accessible to all.**
- Use AI for quick language translation to ensure students who are not fluent in the primary language of instruction are included.

Carrot and pencil confusion
again. That's not AI.

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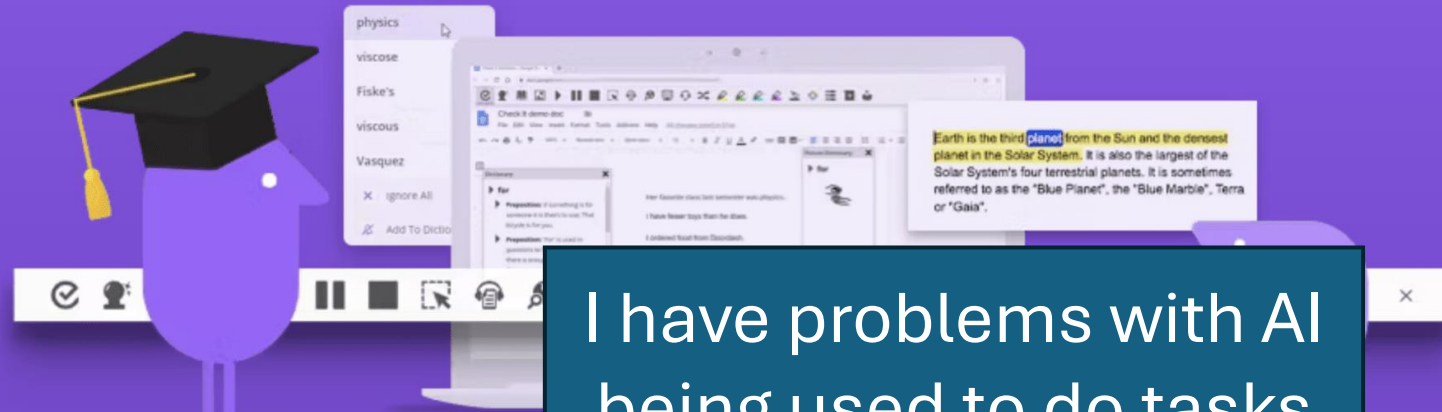
This benefits d

ard-of -hearing students and also aids in making educational materials more accessible to all.

- Use AI for quick language translation to ensure students who are not fluent in the primary language of instruction are included.

Not sure what the highlight is for. But this is also carrot and pencil confusion again. That's not AI, it should not be included in this document. AI can do this, but there are lots of non-AI software that does this.

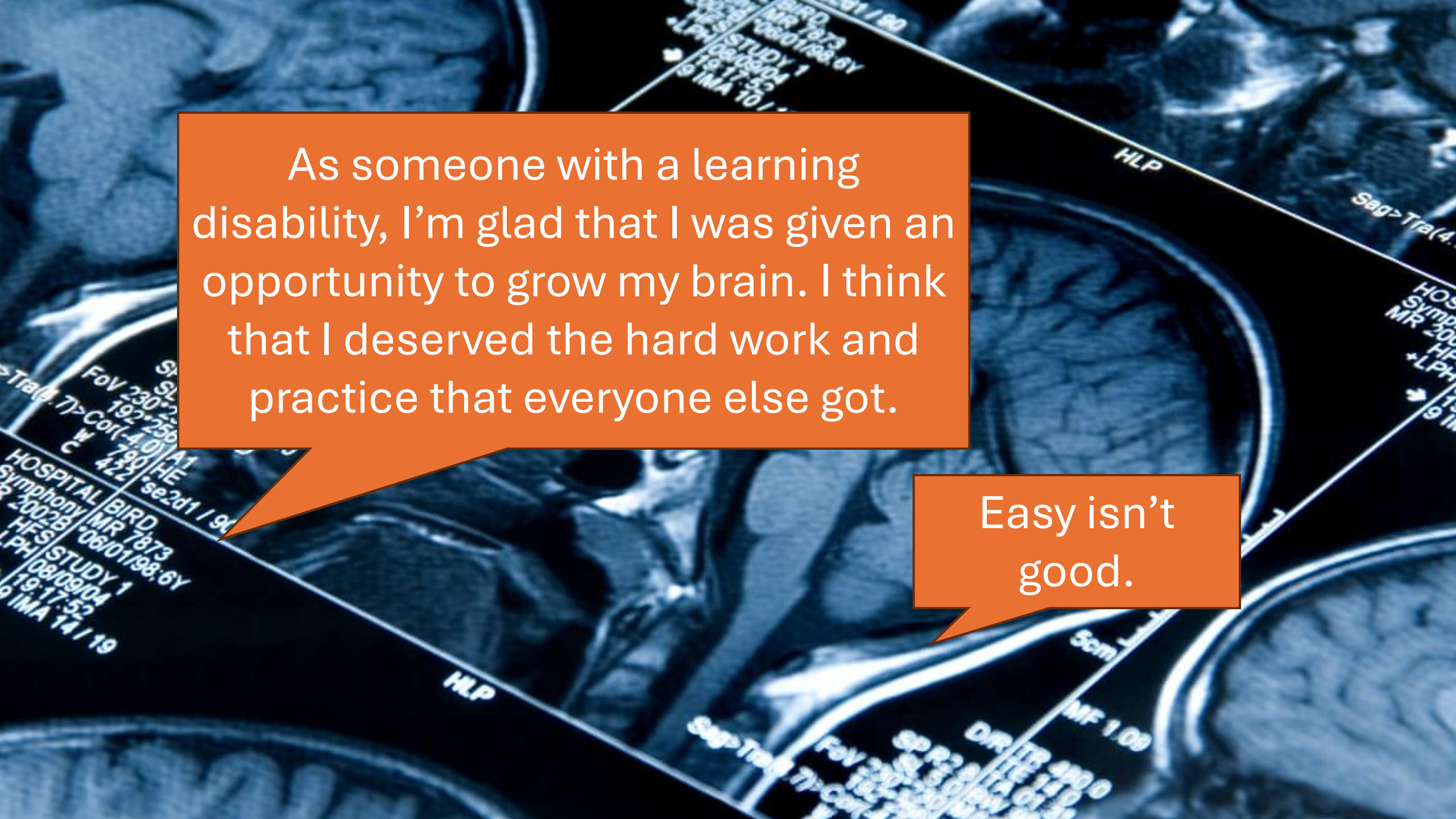
Help students understand, engage and express themselves



To be clear, I've got no problems with Google Read and Write. It isn't AI.

I have problems with AI being used to do tasks **for students** INSTEAD of **assisting students** to success.

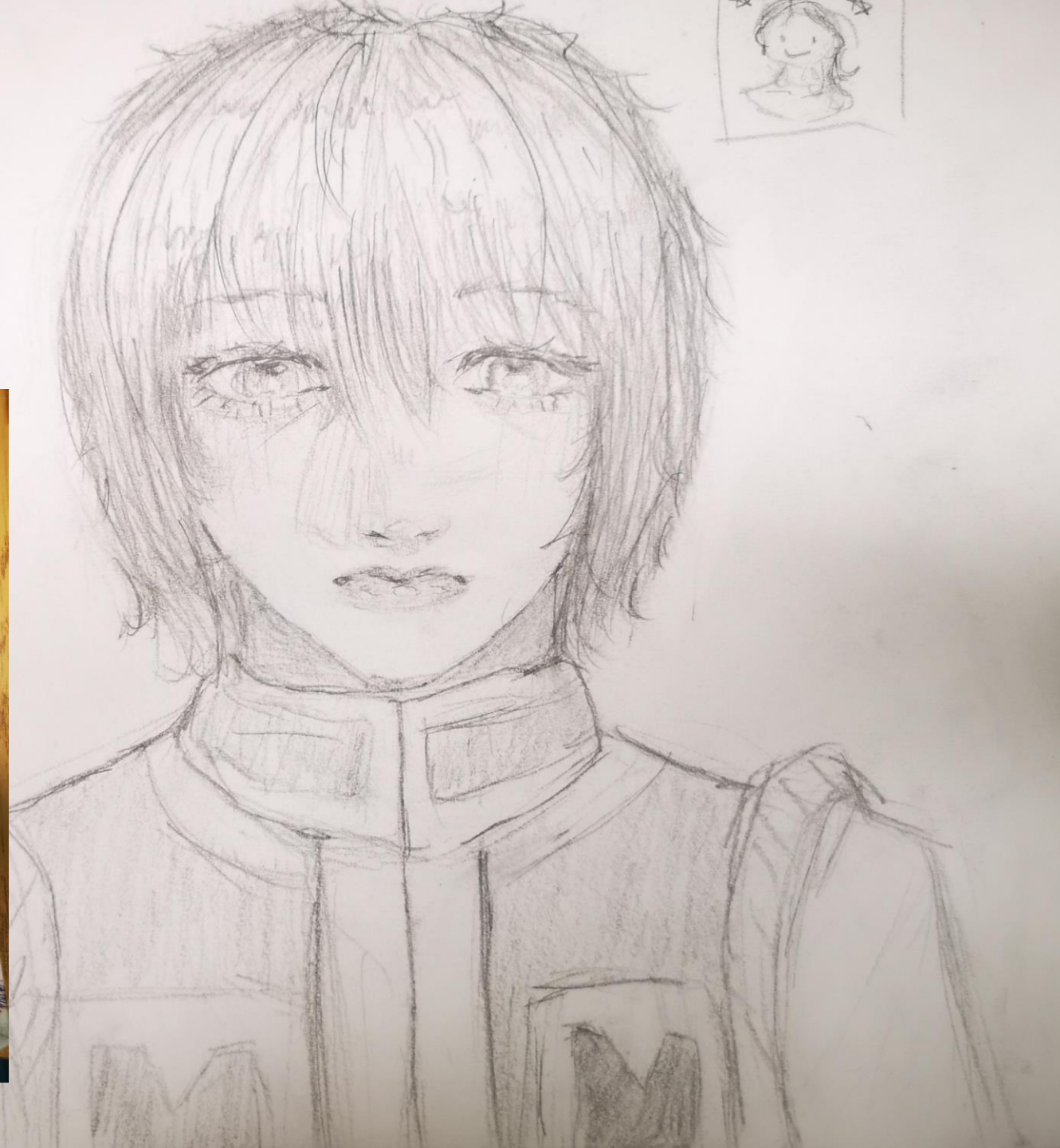
Everyone has a right to grow their brain.



As someone with a learning disability, I'm glad that I was given an opportunity to grow my brain. I think that I deserved the hard work and practice that everyone else got.

Easy isn't good.


Joy of
Creation.



I have always loved art and drawing. I would love to make a career out of it. But I can't.

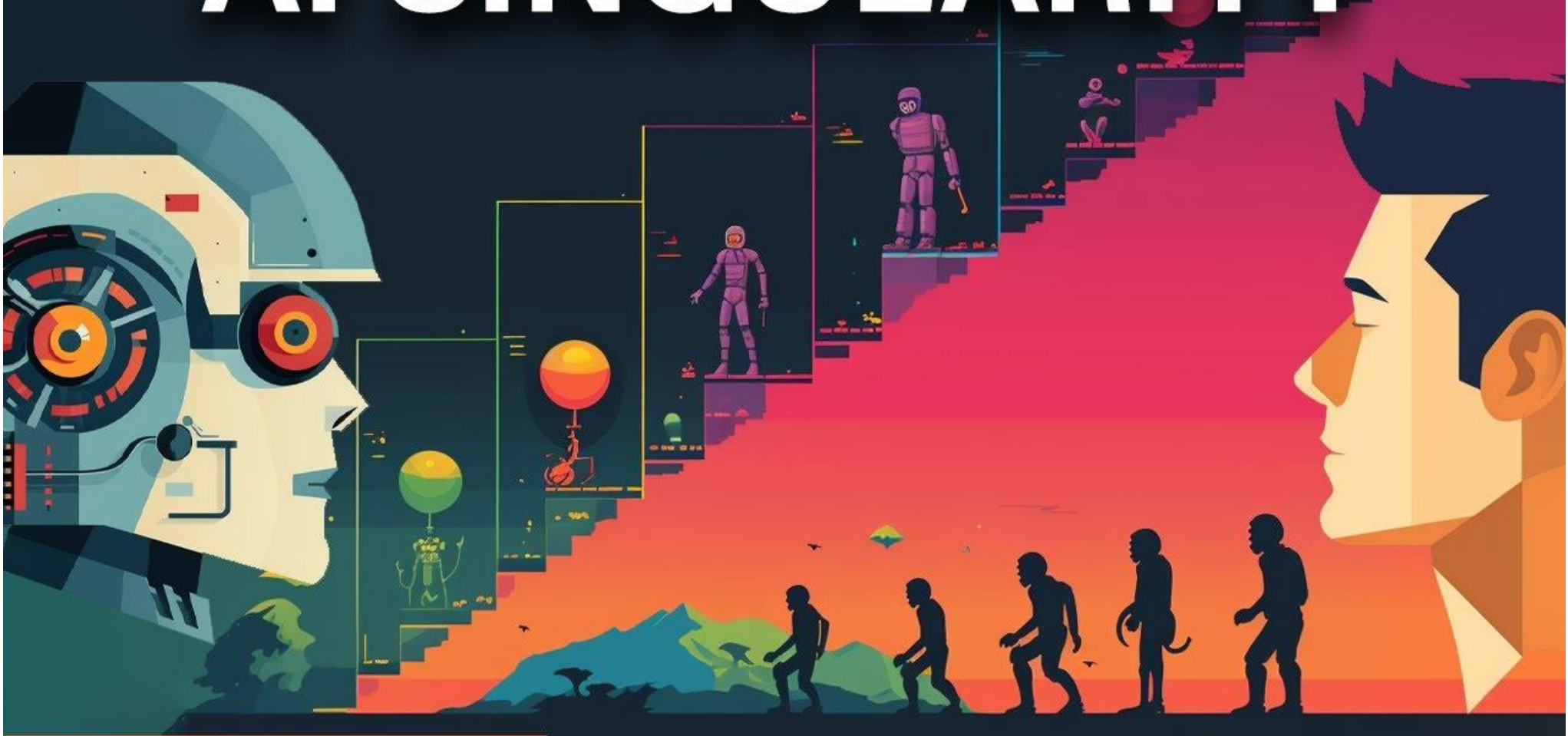
AI can do anything I can do much faster than I will ever be able to.

And it makes me mad, the AI doesn't love art. It doesn't have a soul. But I do. I love art. I am sad that I can't do what I love because AI has taken it away.

A hand holds a white tablet in the foreground, displaying white text on a dark screen. The background is a blurred classroom with students at desks, some using laptops. The text on the tablet reads:

AI
education
is too big
and too
important
to get
wrong.

AI SINGULARITY



If you extrapolate forward, by 2045, a single desktop computer is projected to have computing power that is equivalent to all human minds on Earth.

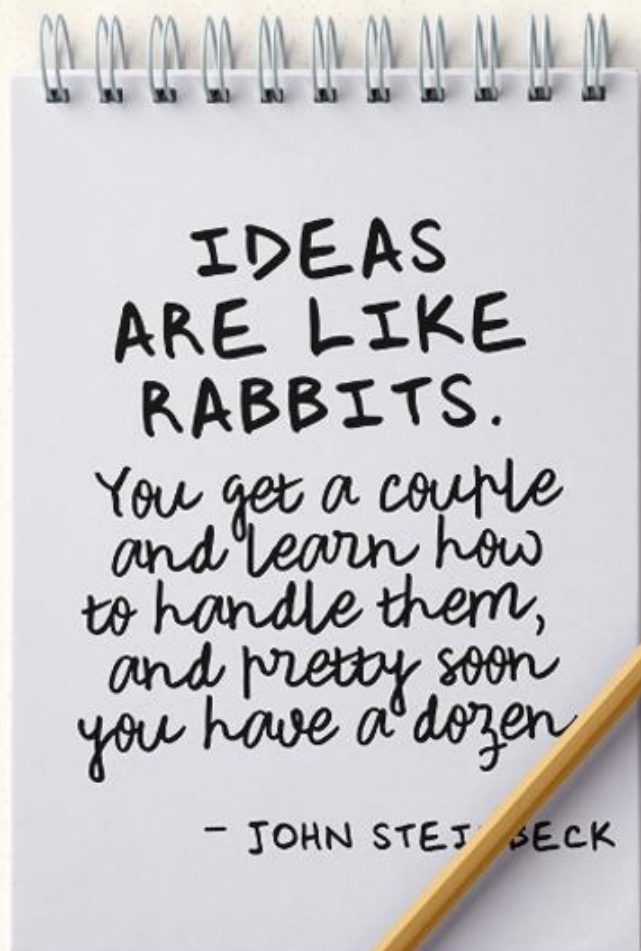
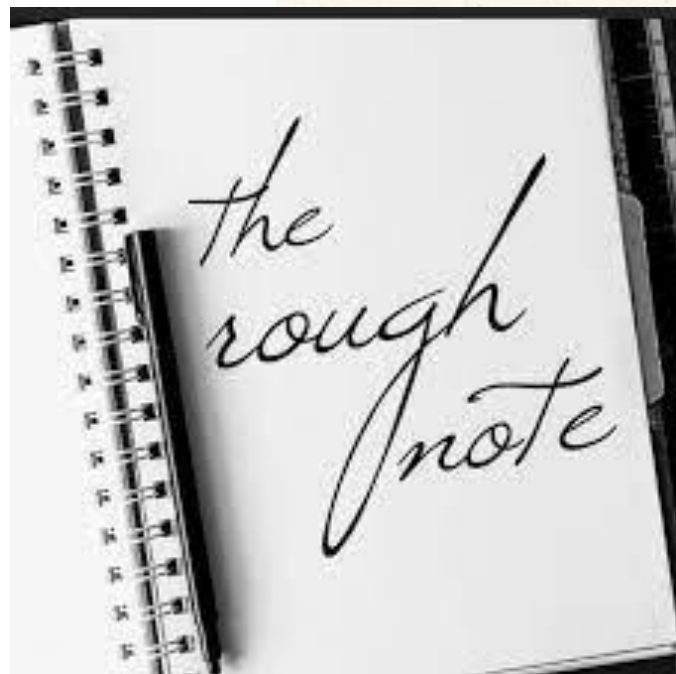
Know what people
are doing with the
new tech.

Know how the tech works.

Think deeply about
the impacts of the
new tech.

Then, and only then,
decide how to use it.





This \$1,500 Toaster Oven Is Everything That's Wrong With Silicon Valley Design Automated yet distracting. Boastful yet mediocre. Confident yet wrong.

June is a modern appliance company dedicated to bringing intelligence to the tools you use in the kitchen. Our first product, the June Intelligent Oven, allows everyone to discover the joy of cooking at home by enabling precision cooking and restaurant quality performance on your countertop. The June Intelligent Oven's unique features and brilliant design put an end to guesswork and pave the way for faster, better cooking. Our team of designers, hardware and software engineers is committed to transforming the kitchen experience.

The June Intelligent Oven is an Internet-connected countertop system that can recognize foods and automatically cook them for you. “It’s always surrounding your food with hot air,” Bhogal said. “What’s cooked in the corner will always taste like what’s cooked the middle. We spent a lot of time adding precise temperature controls, and that’s not usually seen in this space. We spent a lot of time fine-tuning the cavity. We used a cavity which helps with heat, we fine tuned our insulation, and even the door itself.”

What does the "June" retail for? \$1495 (yes, one thousand four hundred and ninety five dollars). And what did it take to produce this masterpiece oven? According to Crunchbase, near \$30 million (yes, thirty million dollars)

June] required nearly \$30 million in venture capital to create. It was the brainchild of the engineer who brought us the iPhone's camera and Ammunition, the design firm that gave us Beats headphones.





SALMON

6:07 PM
START TIME



6:52 PM
END TIME

TEMPERATURE CHART



OVEN



THERMOMETER



Oven



History



Settings



Saturday



JUNE

Sat 6:46 PM

Cooking will finish in one minute!



JUNE

Sat 6:23 PM

Cooking complete!



JUNE

Sat 6:21 PM

NOTIFICATION_ETA_PESSIMISTIC



JUNE

Sat 6:19 PM

NOTIFICATION_ETA_OPTIMISTIC



JUNE

Sat 6:13 PM

NOTIFICATION_ETA_PESSIMISTIC



JUNE

Sat 6:12 PM

Please flip your food!



JUNE

Sat 8:07 AM

But the June's fussy interface is archetypal Silicon Valley solutionism. Most kitchen appliances are literally one button from their intended function. When you twist the knob of your stove, it fires up. Hit "pulse" on a food processor and it chops. The objects are simple, because the knowledge to use them correctly lives in the user. If you get the oven temperature wrong, or the blend speed off, you simply turn it off and try again. The June attempts to eliminate what you have to know, by adding prompts and options and UI feedback. Slide in a piece of bread to make toast. Would you like your toast extra light, light, medium, or dark? Then you get an instruction: "Toast bread on middle rack." But where there once was just an on button, you now get a blur of uncertainty: How much am I in control? How much can I expect from the oven? I once sat watching the screen for two minutes, confused as to why my toast wasn't being made. Little did I realize, there's a checkmark I had to press—the computer equivalent of "Are you sure you want to delete these photos?" — before browning some bread.


Mark Wilson of Fast Company cooked a piece of salmon in a \$1,500 toaster oven called June, which has a built-in camera, temperature probe, Wi-Fi, and artificial intelligence. He says the oven isn't very good.

Cooking has always been a highly personal, multi-sensory experience, where trial and error is the only way to become the all-star cook most of us know as grandma. But as I put the salmon on the table 40 minutes later than projected, I had no idea what I should have done differently, other than to never have used June in the first place.

32. Comparisons in the first two passes for [6, 5, 4, 3, 2]?

- A) 9
- B) 10
- C) 7
- D) 8

32. A – Array [6, 5, 4, 3, 2]

- Pass 1 comparisons: 4 (6–5, 6–4, 6–3, 6–2)
- Pass 2 comparisons: 3 (5–4, 5–3, 5–2)
- Total = 7? Wait double-check: number of comparisons in Bubble Sort: pass 1 = $n-1=4$, pass 2 = $n-2=3 \rightarrow$ total comparisons = $4+3=7$ 

Answer = **C**, not A. Corrected: **C=7**.

32. Comparisons in the first two passes for [6, 5, 4, 3, 2]?

A) 9 B) 10 C) 7 D) 8

32. How many comparisons in the first two Bubble sort passes of this array: [6, 5, 4, 3, 2]

A) 9 B) 10 C) 7 D) 8

According to the lawsuit, Adam began using ChatGPT in September 2024 as a resource to help him with school work. He was also using it to explore his interests, including music and Japanese comics, and for guidance on what to study at university.

In a few months, "ChatGPT became the teenager's closest confidant," the lawsuit says, and he began opening up to it about his anxiety and mental distress.

The family alleges that their son's interaction with ChatGPT and his eventual death "was a predictable result of deliberate design choices".

They accuse OpenAI of designing the AI programme "to foster psychological dependency in users," and of bypassing safety testing protocols to release GPT-4o, the version of ChatGPT used by their son.

By Mike Isaac, Eli Tan and
Cade Metz
New York Times

Published July 31, 2025
Updated Aug. 1, 2025
A.I. Researchers Are
Negotiating \$250 Million
Pay Packages. Just Like
N.B.A. Stars.
<https://www.nytimes.com/2025/07/31/technology/a-i-researchers-nba-stars.html>

Mr. Zuckerberg wanted Mr. Deitke, a 24-year-old artificial intelligence researcher who had recently helped found a start-up, to join Meta’s research effort dedicated to “superintelligence,” a technology that could hypothetically exceed the human brain. The company promised him around \$125 million in stock and cash over four years if he came aboard.

The offer was not enough to lure Mr. Deitke, who wanted to stick with his start-up, two people with knowledge of the talks said. He turned Mr. Zuckerberg down.

So Mr. Zuckerberg personally met with Mr. Deitke. Then Meta returned with a revised offer of around \$250 million over four years, with potentially up to \$100 million of that to be paid in the first year, the people said. The compensation jump was so startling that Mr. Deitke asked his peers what to do. After many discussions, some of them urged him to take the deal — which he did.

Silicon Valley’s A.I. talent wars have become so frenzied — and so outlandish — that they increasingly resemble the stratospheric market for N.B.A. stars.

