

CS I • Tue Oct 6, 2026 • Independent Reading Items

Ted Chiang • "ChatGPT Is a Blurry JPEG of the Web"

The New Yorker, Feb 9, 2023

NAME:

PERIOD: ☐ Period 1 ☐ Period 2 ☐ Period 4 DATE: Oct 6, 2026

DIRECTIONS

1. Open the article on your Chromebook at muggsofcompsci.net/d/chiang (link posted on the board by the sub).
 2. **Read the essay first — all the way through.** It is about 8 pages of magazine text. Give it ~25 minutes. Read with a pencil in your hand; underline or circle anything that surprises you.
 3. **Then come to this packet** and answer the items below. Everything you need is in the article.
 4. Multiple choice: circle one letter. Written response: use the lined space.
 5. **No phones. No AI.** The point of today is to read a human writing about a machine. Using the machine to do it defeats the whole lesson.
 6. **Hand this packet to the sub at the bell.** Keep both pages together.
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Part 1 • The Xerox Photocopier Story (first 2 pages of the article)

1.1 The 2013 Xerox photocopier incident Chiang describes was dangerous because:

- A. The copies were obviously blurry so no one trusted them
- B. The copies were **readable but incorrect** — they looked accurate when they weren't
- C. The copier printed on the wrong paper
- D. The copier only worked on photographs

1.2 Chiang defines **lossy compression** as:

- A. Compression that preserves every detail of the original
- B. Compression where the restored file is only an approximation; some information is permanently discarded
- C. Compression that only works on text files
- D. A kind of error that only affects photocopiers

1.3 In your own words, explain the Xerox photocopier story in 3-4 sentences, and name what Chiang says made it dangerous.

Part 2 • The JPEG-of-the-Web Analogy

2.1 In Chiang's thought experiment where you lose internet access and have to compress all the text on the web, what trade-off does the lossy algorithm force on you?

- A. You lose access to all the text
- B. The compressed form is faster but less complete than the original
- C. You can't look up exact quotes — you can only ask questions and get paraphrased answers
- D. The compression process destroys your private server

2.2 According to Chiang, ChatGPT is to the web as:

- A. A library is to its books
- B. A JPEG is to the higher-resolution image it was compressed from
- C. A search engine is to its results
- D. A copy is to the original

2.3 Explain Chiang's "blurry JPEG of the web" metaphor in 3-4 sentences. What is being compressed, what is lost, and what do you get back when you query it?

Part 3 • Hallucinations

3.1 Chiang says hallucinations are:

- A. Random errors with no explanation
- B. Intentional lies the AI is programmed to tell
- C. **Compression artifacts** — predictable results of a system that discarded most of the original information
- D. Caused by viruses in the training data

3.2 Chiang uses "losing a sock in the dryer in the style of the Declaration of Independence" as an example of:

- A. Something ChatGPT cannot do
- B. Interpolation — ChatGPT generating text that sits between two points in "lexical space"
- C. A real historical event
- D. A sign that ChatGPT understands American history

3.3 Think of a time you (or someone you know) got a wrong answer from an AI. Does Chiang's "compression artifact" framing explain what happened? Three to four sentences.

Part 4 · The GPT-3 Arithmetic Problem

4.1 When Chiang describes GPT-3 doing arithmetic, what pattern does he describe?

- A. GPT-3 is excellent at all arithmetic
- B. GPT-3 is good at 2-digit arithmetic but fails on 5-digit arithmetic — it has not derived the principles, only done statistics
- C. GPT-3 refuses to do arithmetic
- D. GPT-3 only does arithmetic if asked in a specific language

4.2 According to Chiang, why does ChatGPT's **rephrasing** of material make it SEEM smarter than if it just quoted sources exactly?

- A. Rephrasing creates the illusion of understanding — the way a student explaining in her own words seems to understand more than one who just recites
- B. Rephrasing is actually a form of understanding
- C. Rephrasing lets ChatGPT answer faster
- D. Rephrasing uses fewer tokens

4.3 In your words, explain Chiang's paradox: *why does ChatGPT's inability to produce exact quotes make it seem more intelligent to us?* Three to four sentences.

Part 5 • The Argument About Writing

5.1 Chiang argues that when students write essays, the hours spent "choosing the right word and rearranging sentences" are:

- A. Wasted time that AI can save them from
- B. **What teach you how meaning is conveyed by prose** — the thing writing is actually for
- C. Only important for English class, not other subjects
- D. Something you only need to do once

5.2 Chiang's quote: *"Starting with a blurry copy of unoriginal work isn't a good way to create original work."* His argument is:

- A. Students who use AI to draft work lose the practice that would let them eventually write original work
- B. AI writing is always obviously fake
- C. Students will get caught using AI
- D. Original work is overrated

5.3 Chiang says a human first draft is NOT "an unoriginal idea expressed clearly" — it is **"an original idea expressed poorly, accompanied by your amorphous dissatisfaction, your awareness of the distance between what it says and what you want it to say."** In 4-5 sentences, explain what Chiang means by that distinction, and connect it to one time you wrote something and felt that "distance" he describes.

Part 6 • Connection to What You Already Know

6.1 In our Tech Stack Unit we said *"a model is a file"* and *"no single parameter holds a fact — the pattern is spread across billions of them."* Chiang's "lossy compression" framing is:

- A. A completely different idea than what we taught
- B. The same idea in different words — compression is another way to describe what the parameters are doing
- C. Specific to ChatGPT and doesn't apply to other models
- D. A metaphor that only makes sense if you have never seen inside a model

6.2 In 4-5 sentences, connect Chiang's essay to ONE specific thing we learned in class this year. Which Chiang argument matches which class concept, and why do they match?

Part 7 • The Closing Question

Chiang's essay ends with this question: *"What use is there in having something that rephrases the Web? If we were losing our access to the Internet forever and had to store a copy on a private server with limited space, a large language model like ChatGPT might be a good solution... But we aren't losing our access to the Internet. So just how much use is a blurry JPEG, when you still have the original?"*

7.1 In 5-7 sentences, answer Chiang's closing question for yourself. For a high school student in 2026 who has access to the whole internet and to AI tools — when is reaching for the AI actually useful, and when are you choosing the blurry copy over the original? Be specific. Name a situation where you think AI genuinely helps you learn, and a situation where you think it is replacing something you should have done yourself.

STUDENT SIGNATURE:

Hand this packet to the sub at the bell.