

Honors ELA

What is Artificial Intelligence and how did we get here?

Unit Essential Questions

1. What is artificial intelligence (AI), and how did we arrive at the current AI landscape?
 2. What are the possible benefits and risks associated with the continued development of AI?
 3. What limitations (if any) should be placed on the use and development of AI?
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Standards

RI.8.2 Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text. District of Columbia Common Core English/Language Arts

RI.8.1 Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text. District of Columbia Common Core English/Language Arts

RI.8.5 Analyze in detail the structure of a specific paragraph in a text, including the role of particular sentences in developing and refining a key concept. District of Columbia Common Core English/Language Arts

Objective

1. SWBAT determine the central idea of an article about Alan Turing
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Agenda

1. (optional) **Independent Choice Reading (10-15 mins)**
 2. **Do Now (10 mins):** Students will independently answer questions as they come in and find their seats.
 1. (5 mins) What does the word "intelligence" mean to you? What does the word "artificial" mean to you?
 2. (5 mins) Discuss answers
 3. **Activate Prior Knowledge (5 mins):** Turn and Talk: What do you already know about artificial intelligence (AI)? What questions do you have about AI?
 4. **Review Week + Today's Objective (2 mins)**
 5. **Vocabulary (3 mins):** "computer"
 1. Root word: compute
 2. Computers were originally created to do math, which is where the name comes from
 6. **Intro to New Material (7 mins):**
 1. History of computers video (4 min): <https://www.youtube.com/watch?v=EDpwP3fEJ24>
 2. What was new or surprising to you in the video?
 7. **Reading (18 mins):** <https://sitn.hms.harvard.edu/flash/2017/history-artificial-intelligence/> (teachers may use AI tool diffit.me to adapt reading passage as necessary)
 1. Read first 2-3 paragraphs aloud as a class and clear up vocabulary as needed. Ask CFU questions.
 2. Students may work with partners to read the remainder of the article and answer the
 8. **Exit Ticket (3 mins):** see assessment below
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Checks for Understanding

1. Who was Alan Turing?
 2. What stopped Turing from actually trying to create artificial intelligence?
 3. Why did the development of AI advance so quickly in the 1990s?
 4. In your own words, what does the future of AI look like?
 5. Select three people from the article who contributed to the development of artificial intelligence and explain their contributions in your own words.
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Assessment

Question(s):

1. Part A: What is the main idea of this passage?
 1. AI has become an integral part of our daily lives and holds great promise for the future.
 2. **The history of AI dates back to the mid-20th century and has evolved over several decades.**
 3. AI research faced a period of reduced funding and interest in the 1970s and 1980s.
 4. Machine learning is a branch of AI that focuses on creating systems that can learn and improve from experience.

2. Part B: Select two quotes that best support the answer to Part A.

1. **"This was the logical framework of his 1950 paper, Computing Machinery and Intelligence in which he discussed how to build intelligent machines and how to test their intelligence." (paragraph 1).**
 2. "What stopped Turing from getting to work right then and there? First, computers needed to fundamentally change." (paragraph 2)
 3. **"In this historic conference, McCarthy, imagining a great collaborative effort, brought together top researchers from various fields for an open ended discussion on artificial intelligence, the term which he coined at the very event." (paragraph 3)**
 4. "The government was particularly interested in a machine that could transcribe and translate spoken language as well as high throughput data processing." (paragraph 4)
 5. "Hans Moravec, a doctoral student of McCarthy at the time, stated that 'computers were still millions of times too weak to exhibit intelligence.'" (paragraph 5)
 6. "It turns out, the fundamental limit of computer storage that was holding us back 30 years ago was no longer a problem." (paragraph 8)
3. How does the graph between paragraphs 4 and 5 contribute to the central idea of the article? **(Model answer: It illustrates the major milestones in AI development from 1930-2000.)**
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Accommodations & Modifications & Differentiation

Delete those that do not apply

1. Repeated Directions
 2. Provide Summary of Reading
 3. "Chunking" Assignment
 4. Read Aloud
 5. Instructional Level Text
 6. Line Guide to Track Text
 7. Limited multiple choice options
 8. Sentence Starters
 9. Voice-to-Text
 10. Use of a Dictionary/Word Wall
 11. Extended Time
 12. Frequent Breaks
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Homework

Read the short story "Answer" by Frederic Brown and answer questions, due Friday

Additional Resources:

Visual Timeline of the history of AI: <https://www.livescience.com/47544-history-of-a-i-artificial-intelligence-infographic.html>

Honors ELA

Benefits of Artificial Intelligence, Day 1

Standards

RL.8.2 Determine a theme or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; provide an objective summary of the text. District of Columbia Common Core English/Language Arts

RL.8.1 Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text. District of Columbia Common Core English/Language Arts

Objective

1. SWBAT analyze how a specific industry will benefit from the development of AI
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Agenda

1. (optional) **Independent Choice Reading (10-15 mins)**
 2. **Do Now (10 mins):** Students will independently answer questions as they come in and find their seats.
 1. (5 mins) Read the following quote:

“Artificial intelligence would be the ultimate version of Google. The ultimate search engine that would understand everything on the web. It would understand exactly what you wanted, and it would give you the right thing. We’re nowhere near doing that now. However, we can get incrementally closer to that, and that is basically what we work on.”

—Larry Page
 2. Answer the following questions: What does this quote mean to you? Do you agree or disagree and why? What feelings came up for you when you read this quote?
 3. (5 mins) Discuss answers
 3. **Review/Objective (6 mins):**
 1. Turn and Talk (2 mins): What did we learn in class yesterday?
 2. Share out (3 mins)
 3. Today's objective (1 min)
 4. **Jigsaw, part 1 (__ mins):**
 1. Students will break out into groups of five, then distribute the following articles (4 mins):
 1. Healthcare: <https://www.makeuseof.com/ai-will-power-future-healthcare/>
 2. Education: <https://goldpenguin.org/blog/how-ai-will-permanently-disrupt-the-education-industry/#:~:text=Some%20of%20the%20most%20impactful,grading%20models%20to%20reduce%20bias.>
 3. Military: <https://nxtl.org/how-artificial-intelligence-is-changing-the-future-of-military-defense-strategies/#:~:text=AI%20can%20bridge%20gaps%20in,support%20systems%20are%20more%20enhanced.>
 4. Transportation: <https://www.forbes.com/sites/cognitiveworld/2019/07/26/how-ai-can-transform-the-transportation-industry/?sh=4bf94c394964>
 5. Advertising: <https://www.ibm.com/watson-advertising/thought-leadership/how-ai-is-changing-advertising>
 2. Students will read their articles and answer CFU questions. This may be done independently or in groups of those reading the same articles. (15-20 mins)
 5. **Exit Ticket (8 mins):** see assessment below
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Checks for Understanding

1. Notes from the text: In your OWN WORDS, what are the important points of this article? Jot at least 4-5 notes.
 2. What is the main idea of the text?
 3. Underline 2-3 quotes from the text that show the main idea.
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Assessment

Question(s):

1. How will AI benefit the industry you read about? Include at least two specific examples in your response.
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Accommodations & Modifications & Differentiation

Delete those that do not apply

1. Repeated Directions
2. Provide Summary of Reading
3. "Chunking" Assignment
4. Read Aloud
5. Instructional Level Text

6. Line Guide to Track Text
7. Sentence Starters
8. Voice-to-Text
9. Use of a Dictionary/Word Wall
10. Extended Time
11. Frequent Breaks

Wednesday, May 15th, 2024

Honors ELA

Benefits of Artificial Intelligence, Day 2

Standards

RI.8.9 Analyze a case in which two or more texts provide conflicting information on the same topic and identify where the texts disagree on matters of fact or interpretation.

District of Columbia Common Core English/Language Arts

RI.8.1 Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text. District of Columbia Common Core English/Language Arts

SL.8.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly. District of Columbia Common Core English/Language Arts

Objective

1. SWBAT evaluate the potential impacts of AI on different industries

Agenda

1. (optional) **Independent Choice Reading (10-15 mins)**: students who were absent yesterday can take this time to read one of the articles
2. **Do Now (10 mins)**: Students will independently answer questions as they come in and find their seats.
 1. "Artificial intelligence will reach human levels by around 2029. Follow that out further to, say, 2045, we will have multiplied the intelligence, the human biological machine intelligence of our civilization a billion-fold."
—Ray Kurzweil
 2. Answer the following questions: What does this quote mean to you? Do you agree or disagree and why? What feelings came up for you when you read this quote?
 3. (5 mins) Discuss answers
3. **Objective + Preview Exit Ticket Question (3 mins)**
4. **Jigsaw, part 2 (26 mins)**:
 1. Students meet with others who read the same article and compare notes (6 mins)
 2. In their original groups, each student takes 3 minutes to share about their industry (15 mins)
 3. Group discussion about which industry was most impacted/wiggle room if groups don't finish (5 mins)
5. **Exit Ticket (8 mins)**: see assessment below

Assessment

Question(s):

1. In your opinion, which field will benefit the MOST from AI? Support your claim with specific examples or quotes from the text.

Accommodations & Modifications & Differentiation

Delete those that do not apply

1. Repeated Directions
2. Provide Copy of Notes
3. Provide Summary of Reading
4. Sentence Starters
5. Graphic Organizer
6. Voice-to-Text
7. Use of a Dictionary/Word Wall
8. Extended Time
9. Frequent Breaks

Honors ELA

Concerns about Artificial Intelligence

Standards

RI.8.9 Analyze a case in which two or more texts provide conflicting information on the same topic and identify where the texts disagree on matters of fact or interpretation.

District of Columbia Common Core English/Language Arts

RI.8.1 Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text. District of Columbia Common Core English/Language Arts

RL.8.2 Determine a theme or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; provide an objective summary of the text. District of Columbia Common Core English/Language Arts

RI.8.8 Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced. District of Columbia Common Core English/Language Arts

W.8.1 Write arguments to support claims with clear reasons and relevant evidence. District of Columbia Common Core English/Language Arts

Objective

1. SWBAT evaluate whether scientists should continue developing artificial intelligence or not
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Agenda

1. (optional) **Independent Choice Reading (10-15 mins)**
 2. **Do Now (10 mins):** Students will independently answer questions as they come in and find their seats.
 1. (5 mins) Read the following quote:
“The development of full artificial intelligence could spell the end of the human race....It would take off on its own, and re-design itself at an ever increasing rate. Humans, who are limited by slow biological evolution, couldn’t compete, and would be superseded.”
— Stephen Hawking told the BBC
 2. Answer the following questions: What does this quote mean to you? Do you agree or disagree and why? What feelings came up for you when you read this quote?
 3. (5 mins) Discuss answers
 3. **Review (5 mins):**
 1. Turn and Talk: What are some of the benefits AI will offer us?
 2. Share out
 4. **Objective (2 mins)**
 5. **Gallery Walk (10 mins):** <https://www.forbes.com/sites/bernardmarr/2023/06/02/the-15-biggest-risks-of-artificial-intelligence/?sh=50c2f0c52706> Cut out each concern and place them around the room.
 1. Students will walk silently to the different gallery exhibits and take notes (8 mins)
 2. Students will turn and talk about what they noticed and wondered
 6. **Independent Research (15 mins):** Students can either:
 1. Research AI risks independently using computers
 2. Choose an article from a teacher-provided set to read and take notes. Article options:
 1. <https://www.nytimes.com/2023/05/01/technology/ai-problems-danger-chatgpt.html>
 2. <https://www.pbs.org/newshour/show/the-potential-dangers-as-artificial-intelligence-grows-more-sophisticated-and-popular>
 3. <https://theconversation.com/ai-isnt-close-to-becoming-sentient-the-real-danger-lies-in-how-easily-were-prone-to-anthropomorphize-it-200525>
 4. <https://medium.com/swlh/the-terminator-isnt-real-but-it-will-be-soon-get-ready-749773b07034>
 7. Exit Ticket (8 mins): see assessment below
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Checks for Understanding

Gallery Walk notes:

1. What do you notice in the gallery exhibits? What do you wonder? What emotions (if any) came up for you while viewing the gallery?

Independent Research notes:

1. What is the title of the article you chose to read?
 2. What is the author's claim about AI?
 3. What evidence or reasoning does the author use to support their claim?
 4. Do you agree with the author? Why or why not?
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Assessment

Question(s):

1. Given what you know about the potential benefits and concerns relating to artificial intelligence, should computer scientists continue developing AI? Defend your claim with specific examples and reasoning.
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Accommodations & Modifications & Differentiation

Delete those that do not apply

1. Repeated Directions
 2. Provide Summary of Reading
 3. Provide Video in lieu of Text
 4. "Chunking" Assignment
 5. Read Aloud
 6. Instructional Level Text
 7. Line Guide to Track Text
 8. Sentence Starters
 9. Graphic Organizer
 10. Voice-to-Text
 11. Use of a Dictionary/Word Wall
 12. Extended Time
 13. Frequent Breaks
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Additional Resources

Images from movies about AI, including Terminator, Wall-E, Avengers: Age of Ultron, the Matrix, Mitchells vs the Machines, etc. may be added to the Gallery Walk

Additional quotes about AI may be added to the gallery walk: <https://bernardmarr.com/28-best-quotes-about-artificial-intelligence/>

Honors ELA

Investigating + Evaluating the EU's AI Legislation

Standards

RI.8.2 Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text. District of Columbia Common Core English/Language Arts

RI.8.1 Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text. District of Columbia Common Core English/Language Arts

W.8.1 Write arguments to support claims with clear reasons and relevant evidence. District of Columbia Common Core English/Language Arts

Objective

1. SWBAT evaluate whether the US should adopt the EU's AI legislation
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Agenda

1. (optional) **Independent Choice Reading (10-15 mins)**
 2. **Do Now (10 mins):** Students will independently answer questions as they come in and find their seats.
 1. (5 mins) Read the following quote: "I'm increasingly inclined to think that there should be some regulatory oversight, maybe at the national and international level, just to make sure that we don't do something very foolish. I mean with artificial intelligence we're summoning the demon."
—Elon Musk warned at MIT's AeroAstro Centennial Symposium
 2. Answer the following questions: What does this quote mean to you? Do you agree or disagree and why? What feelings came up for you when you read this quote?
 3. (5 mins) Discuss answers
 3. **Discuss (10 mins):** If you were in charge of regulating the development and use of AI, what would be allowed? What would be prohibited?
 1. Turn and talk (5 mins)
 2. Share out (5 mins)
 4. **Objective (2 mins)**
 5. **Guided Reading(10 mins):** Read the following article as a class, stopping to clarify important points or provide examples as needed: <https://www.mhc.ie/hubs/the-eu-artificial-intelligence-act/eu-ai-act-risk-categories>
 1. Students will answer CFU questions and begin articulating their opinions
 6. **Exit Ticket (12 mins):** see assessment below
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Checks for Understanding

These are embedded throughout the lesson above and called out here for clarity:

1. What uses of AI are not allowed based on these laws?
 2. Do you agree with the EU's definition of "unacceptable risk"? Explain.
 3. What uses of AI are considered "high risk"?
 4. Is there anything you would add or take away from the "high risk" category?
 5. What is required of "limited risk" AI systems?
 6. Do you think notifying a person that they are interacting with AI is necessary? Should there be even MORE requirements? Explain.
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Assessment

Question(s):

1. Based on everything you have read this week about artificial intelligence, should the United States adopt the European Union's laws regulating AI? If you think they should be changed before the United States adopts them, what would you change? Defend your answer fully with evidence and reasoning.
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Accommodations & Modifications & Differentiation

Delete those that do not apply

1. Repeated Directions
2. Provide Copy of Notes
3. "Chunking" Assignment
4. Sentence Starters
5. Graphic Organizer
6. Voice-to-Text
7. Use of a Dictionary/Word Wall
8. Extended Time

