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# Impacts of Artificial Intelligence and Machine Learning: How the A.I. BOTS in Our Lives Learn

Lesson 9: What A.I. does well and does not do well, part 2 - what A.I. does not do well (Alana):

# **Learning Target:**

- Students identify types of tasks A.I. does well and explain how they know this.
- Students identify types of tasks A.I. does not do well and explain how they know this.
- Students understand that an Al is a computer program

#### **Standards:**

#### K-1.CT.2 Computational Thinking - Data Analysis & Visualization

Identify different kinds of data that can be collected from everyday life.

#### 2-3.IC.1 Impacts of Computing

Identify and analyze how computing technology has changed the way people live and work.

#### 2-3.IC.3 Impacts of Computing

Discuss and explain how computing technology can be used in society and the world.

#### 2-3.IC.5 Impacts of Computing

Identify and discuss how computers are programmed to make decisions without direct human input in daily life.

#### 4-6.CT.1 Computational Thinking - Modeling & Simulation

Develop a computational model of a system that shows changes in output when there are changes in inputs.

#### Introduction/Hook

Source: Love Letters to Computers | Hello Ruby

The teacher shows the video <u>Episode 09: Machine Learning and Al</u> and students are prompted to think about what Al does not do well.

#### Mini-Lesson (We do):

The teacher guides students to think about what AI does not do well based on <u>Episode 09</u>: <u>Machine Learning and AI</u> video and the teacher highlights a key point from the video that AI lack common sense. Students will list 2 to 3 notices and wonders that they have after watching the video. The teacher wil use the Notice and Wonder protocol with the students. The students will provide notice statements: "I notice..." Then the students will provide wonder statements: "I wonder if.., I wonder how..., I wonder why..., or I wonder whether..." The teacher will make notes of each new notices and wonders.

# **Independent Activity (You do):**

Sources:

ISTE's Hands-On Al Projects for the Classroom: A Guide for Elementary Teachers
Write With Transformer

Students will work in pairs to use the Write With Transformer app.

The teacher will first lead a class demonstration of Write with Transformer, which is a web app. Students can choose from the custom snippet list of sentences or choose from the repository list of sentences. When the student pair choose a text snippet from one of the five checkpoint or model options, they then type in a phrase or sentence, and the Al will generate three suggestions for the next phrase or sentence.

The teacher can demonstrate this so students see how it works. Student pairs can then try many multiple options, which allows students to compare how each response to the same

initial prompt. Student pairs will see that the Al-generated text is nonsensical and incoherent.

At the end of the activity, student pairs reflect on the Al used in this App and answer the following questions:

- did the AI do a good job in writing?
- which AI did a better job the Tic-Tac-Toe or Write With Transformer? Why?

### Wrap-Up-Debrief/Reflection: How do you want to be assessed? Peer or Self Assessment

## Conversation Talk about the activity with your peer (Peer Assessment)

- What did you learn about A.I. from this activity?
- What are you still confused about or have a question about?
- What did you enjoy about the activity?

# Exit Ticket (Self-Assessment) Choose one question to answer

- What did you learn about A.I.?
- What did you enjoy about this activity?
- List 3 examples of A.I. in your life and what makes it A.I.?
- What do you still have a question about or are confused about?