

Let's Explore Artificial Intelligence Activity Sheet

Activity 1: Experience AI in action – YouTube!!!

What to do: You have to recognize the various AI systems on the YouTube platform (such as the predictive algorithm, comment classifier, advertisement matching algorithm, etc.)

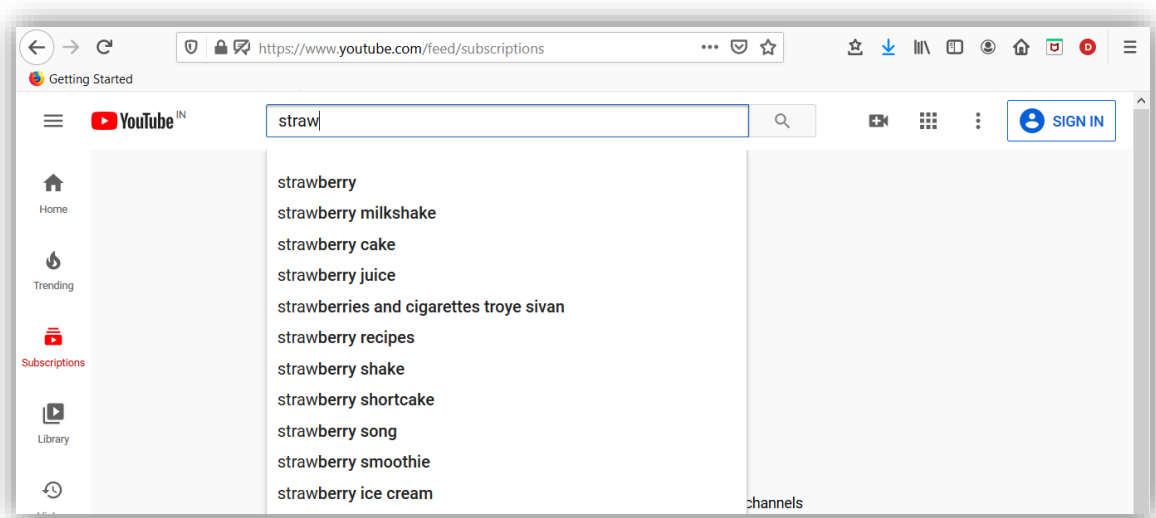
At the end of the activity: You will be able to identify what the algorithm is trying to predict and the dataset the algorithm uses.

Materials Required:

- Computer/ Laptop/ Mobile Phone with Internet connectivity
- Worksheet

Let's get started

- Open browser and go to YouTube (<https://www.youtube.com/>)
- Start typing in the first 4 letters of your favorite type of fruit.
- What happens?



Does YouTube fill in the rest of the search for you?

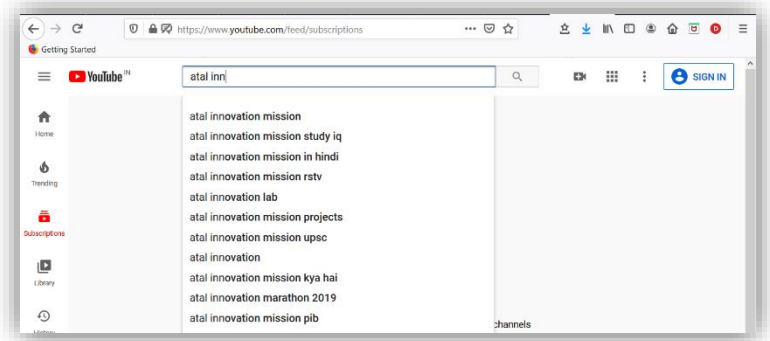
If yes, that's called a **suggested search**.

Now, what did you notice about the suggestions YouTube gave you? Can you write your observations down?

What according to you, is the AI algorithm trying to learn here? Can you write that down?

Was your answer to the above question search history or something similar?

If Yes, then you are correct. YouTube is using data from your previous searches as well as from the searches of other people like you.



Now, explore & discover more features found on YouTube which may be using AI. Continue to search for more videos and content and think of the logic that the site may be using when running these features.

What is the algorithm trying to learn? What input does it take from the user to learn that? and how does it optimize the searches??

Spend some time writing down about what you found, especially about the Youtube features mentioned below.

Suggested Search (Autofill)

- What is the data being used?
- What is it trying to "Learn"?

Recommendations

- What is the data being used?
- What is it trying to "Learn"?

Comments Section

- What is the data being used?
- What is it trying to "Learn"?

Auto Play

- What is the data being used?
- What is it trying to "Learn"?

- The algorithm being used is a machine learning algorithm to suggest videos and maintain its dataset.
- The algorithm takes into account many different factors and ranks them accordingly. The site then tailors these factors so that it can suggest videos and predict searches.

Do you want to explore some more?

Then let's have some fun online!!!

ACTIVITY 2: AI Word Finder

What to do: You have to play an online AI word association game and try to understand how the AI program links words together.

At the end of the activity: You will be able to understand how AI programs learn and associate words together.

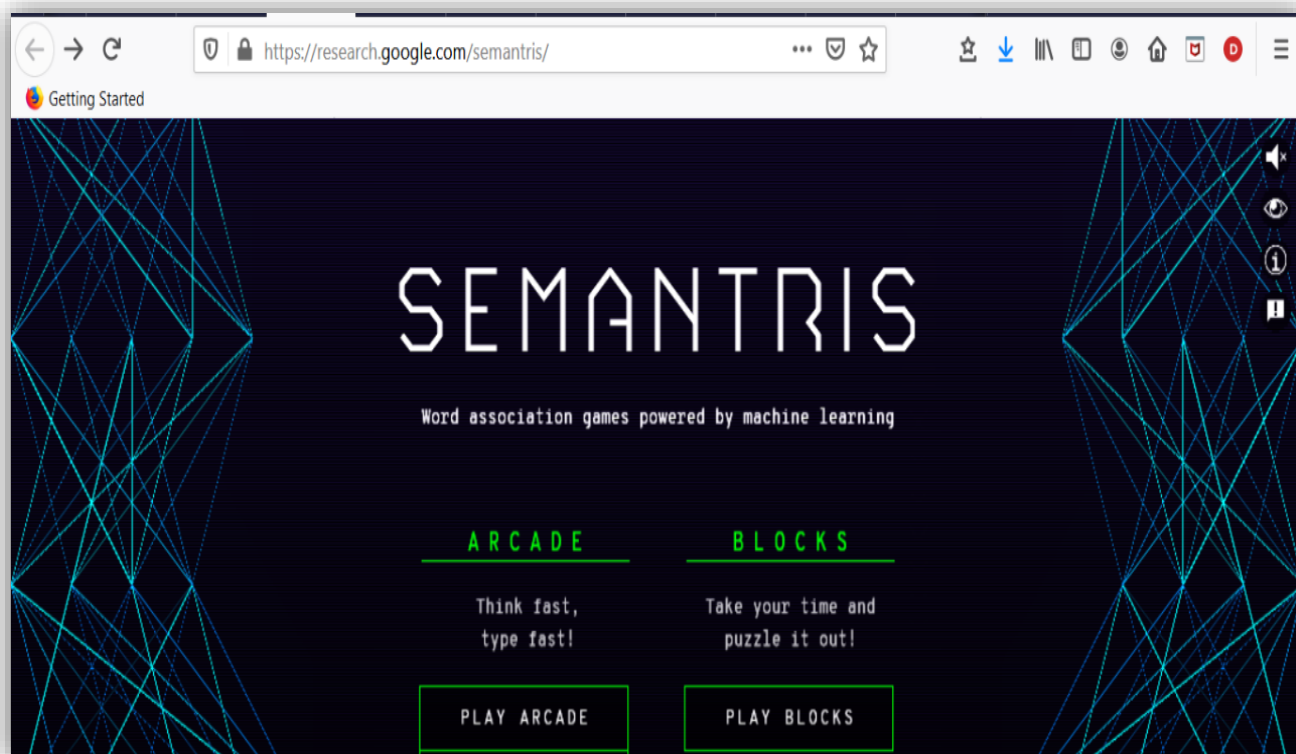
Materials Required:

- Computer/ Laptop/ Mobile Phone with Internet connectivity

Let's get started

- Open browser and paste this link - <https://research.google.com/semantris/>
- Click on ARCADE and go through the tutorial and then play the game

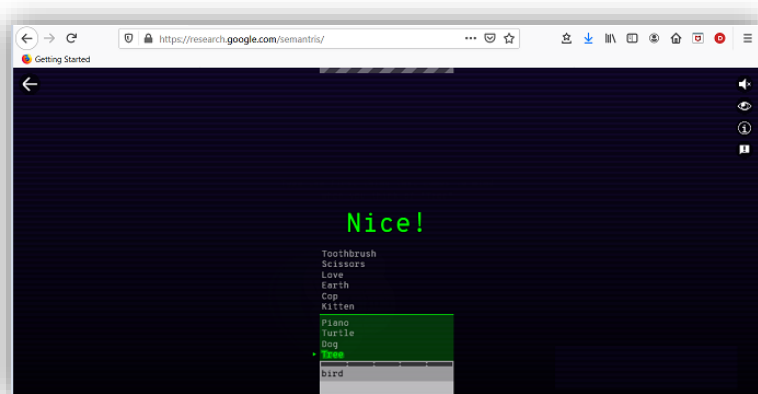
Semantris is a word association game which uses machine-learning and natural language understanding technology. Go through the tutorial for the Arcade and play the game.



How does it work?

In Semantris' Arcade, each time you enter a word, the AI algorithm starts looking at all the available words and chooses the one which is most related to that word.

Since the AI model in this program has been trained using billions of examples of texts that span a large variety of topics, it can make many types of associations.



When AI learns from the data, it is able to predict how likely one statement would follow another as a response.

Semantris simply considers what the user types, to be an input statement, searching and looking in a database of possible responses to find the one that would most likely be associated with the input statement.

After seeing all the available responses, the program learns to identify what a good response might look like, and predicts the response to the input statement, i.e. the word you typed.

This is just the start!

You can further explore [Semantris' Blocks](#) game and see how AI implements word associations and the types of word associations the program understands best.
