Artificial Intelligence Recognizing Handwriting

Directory

Research

AI stand for Artificial Intelligence. AI is the programing for a computer to learn new things like us humans. An example of machine learning is teaching AI to identify different shoes. If you show one example of a shoe the computer needs more examples. The computers thinks all shoes are the same so we show different types of shoes to teach the computer that all shoes are not the same. We tell computers that all shoes is different.

AI helps us to translate languages or helps us to learn almost anything. AI is in robots or website to perform tasks and answer our questions. People can use AI for coding, programming and to make anything on computer. AI is able to do so many things.

Questions

Is it possible the computer AI to recognize two different sets of handwritings?

Hypothesis

If the computer program can already be taught to recognize emotions, then it will be able to recognize handwriting if taught.

Variables

The independent variable is Person #1 and Person #2 handwriting samples.

The dependent variable is to see if the computer can recognize the different handwritings.

The controlled variable is the computer program.

Experiment Procedure

1: One person grabs 10 flashcards and writes 10 words.

2: The other person has to get another 10 flashcards and write 10 words, too.

3: Then scan the flashcards and upload the pictures to computers.

5:Once uploaded to the computer, I will upload it to the website with the program.

6: Scan 5 more words from each person.

Check to see if the program can identify and sort the handwriting correctly.

6: When done, then I will show the review the results.

Links / address of websites.

https://teachablemachine.withgoogle.com/models/Wx9RWLqjf/

Data

Words	AI's guess (in percent) of which person wrote the word	Accuracy
Poster Data: Person #1 HW	Person #2: 96% Person #1 : 4%	incorrect
Water Bottle: Person #1 HW	Person #2: 41% Person #1 : 51%	correct
Water Bottle: Person #2 HW	Person #2: 3% Person #1 : 98%	incorrect
Mass: Person #2 HW	Person #2: 79% Person #1 : 21%	correct
Mass: Person #1 HW	Person #2: 97% Person #1 : 5%	incorrect
Liquid: Person #2 HW	Person #2: 99% Person #1 : 1%	correct
Liquid: Person #1 HW	Person #2: 89% Person #1: 11%	incorrect
Slime: Person #2 HW	Person #2 15% Person #1: 87%	incorrect

Conclusion

The handwriting recognition program had an average of 37.5% right identification and 62.5% wrong identification. This means my hypothesis is not correct. If I do this experiment again, then I would do letters instead of words. I would also use a different person because I want to see if the program would recognized a different person's of handwritten letters. The reason why I want a different person, is because the person I used for the experiment has complicated handwriting. The program kept getting identifying wrong and I want it to be 100 percent correct. Later, I realized the AI required I used the same original ten words in order to accurately guess which person wrote the word. If the words show to the AI were different than the original words, but one of the two people wrote it, then the program's chance to be wrong was higher. This means that my AI may be able to later identify unknown words to the correct writer if the AI had more writing samples to learn from.