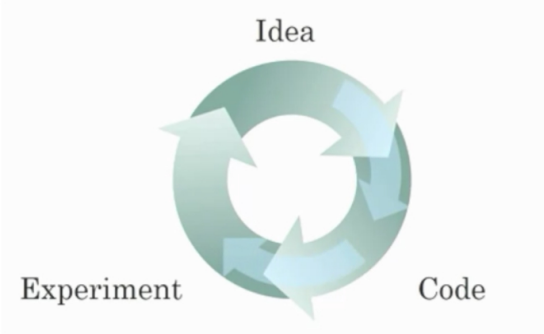
1. Which of the following are some aspects in which AI has transformed business? 1 point

- ○ AI has not been able to transform businesses.
- ○ Creating an AI-powered society.
- ◉ Web searching and advertisement.
- ○ Eliminating the need for health care services.

2. Which of the following are reasons that didn't allow Deep Learning to be developed during the '80s? 1 point

- ☑ Limited computational power.
- ☐ The theoretical tools didn't exist during the 80's.
- ☐ Interesting applications such as image recognition require large amounts of data that were not available.
- ☐ People were afraid of a machine rebellion.

3. Recall this diagram of iterating over different ML ideas. Which of the statements below are true? (Check all that apply.) 1 point



- ☐ Better algorithms allow engineers to get more data and then produce better Deep Learning models.
- ☑ Improvements in the GPU/CPU hardware enable the discovery of better Deep Learning algorithms.
- ☑ Better algorithms can speed up the iterative process by reducing the necessary computation time.
- ☑ Larger amounts of data allow researchers to try more ideas and then produce better algorithms in less time.

4. When experienced deep learning engineers work on a new problem, they can usually use insight from previous problems to train a good model on the first try, without needing to iterate multiple times through different models. True/False? 1 point

- ◉ False
- ○ True

5. ReLU stands for which of the following? 1 point

- ○ Representation Linear Unit
- ○ Recognition Linear Unit
- ○ Rectified Last Unit
- ◉ Rectified Linear Unit

6. Features of animals, such as weight, height, and color, are used for classification between cats, dogs, or others. This is an example of "structured" data, because they are represented as arrays in a computer. True/False? 1 point

- ◉ True

  Yes. The data can be represented by columns of data. This is an example of structured data, unlike images of the animal.
- ○ False

  No. The data can be represented by columns of data. This is an example of structured data, unlike images of the animal.

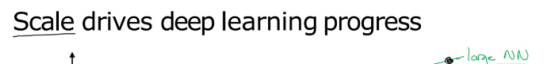
7. A demographic dataset with statistics on different cities' population, GDP per capita, and economic growth is an example of "unstructured" data because it contains data coming from different sources. True/False? 1 point

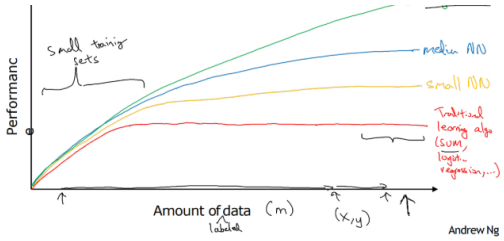
- ○ True
- ◉ False

8. Why can an RNN (Recurrent Neural Network) be used to create English captions to French movies? Choose all that apply. 1 point

- ☐ RNNs are much more powerful than a Convolutional neural Network (CNN).
- ☐ The RNN requires a small number of examples.
- ☑ The RNN is applicable since the input and output of the problem are sequences.
- ☑ It can be trained as a supervised learning problem.

1 point

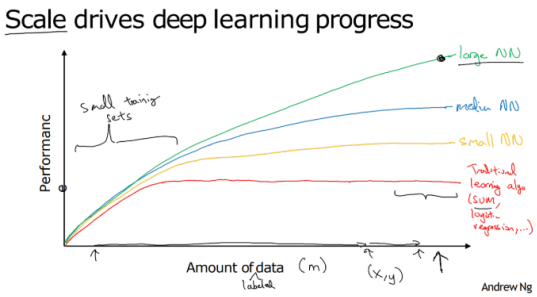




9. Suppose the information given in the diagram is accurate. We can deduce that when using large training sets, for a model to keep improving as the amount of data for training grows, the size of the neural network must grow. True/False?

- ○ False
- ◉ True

10. Assuming the trends described in the figure are accurate. The performance of a NN depends only on the size of the NN. True/False? 1 point



- ◉ False
- ○ True