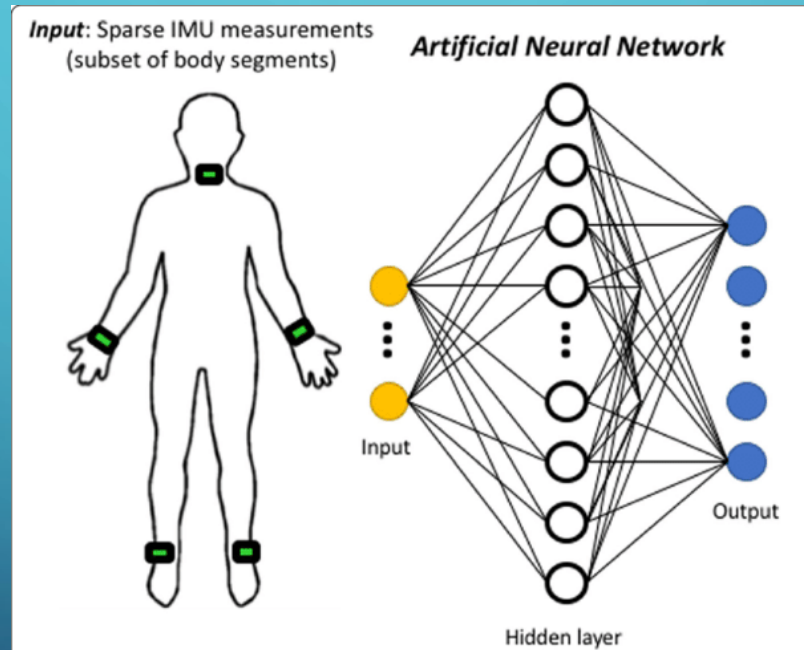


An abstract graphic on the left side of the slide, consisting of a network of white lines and small circles on a dark blue background, resembling a circuit board or neural network structure.

ARTIFICIAL INTELLIGENCE

WHATS IS ARTIFICIAL INTELLIGENCE

Artificial Intelligence is self-learning computational per of data



STRANDS OF ARTIFICIAL INTELLIGENCE

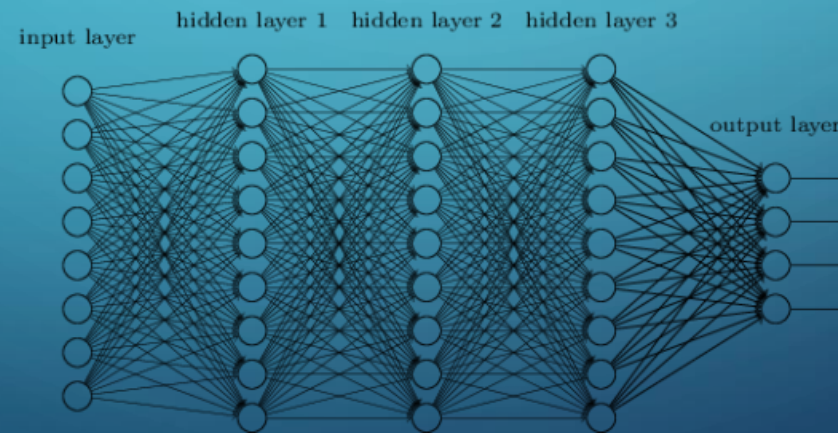
We have the following areas pertaining to artificial intelligence.

- Machine Learning
 - Demands less processing
 - Needs data to base learning
- Deep Learning
 - demands high processing
 - Self learning

COMPLEMENTATION FOR LEARNING

Use neural network to increase the layers of neurons to enhance learning in:

- Machine Learning
- Deep Learning



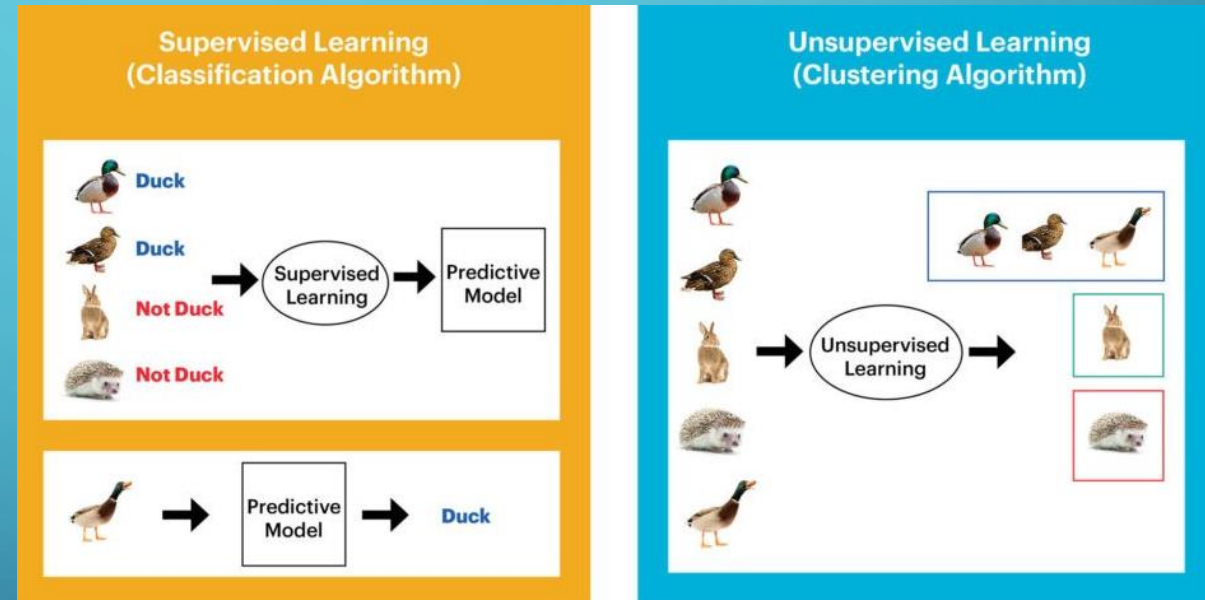
TRAINING OPTIONS

- Machine learning:

- Supervised
- Unsupervision
- Reinforcement

Deep Learning:

- just provides the data



LEARNING ADJUSTMENT

- Bias
- Activation function
- Epocs
- Population
- learning rate
- Image dimension

```
[6] ▶ MI
model.fit(x_train, y_train, epochs=5)

Train on 60000 samples
Epoch 1/5
60000/60000 [=====] - 4s 68us/sample - loss: 0.2991 - accuracy: 0.9123
Epoch 2/5
60000/60000 [=====] - 3s 52us/sample - loss: 0.1463 - accuracy: 0.9563
Epoch 3/5
60000/60000 [=====] - 3s 53us/sample - loss: 0.1081 - accuracy: 0.9667
Epoch 4/5
60000/60000 [=====] - 3s 54us/sample - loss: 0.0885 - accuracy: 0.9733
Epoch 5/5
60000/60000 [=====] - 3s 55us/sample - loss: 0.0744 - accuracy: 0.9763

<tensorflow.python.keras.callbacks.History at 0x292692d40c8>

[7] ▶ MI
model.evaluate(x_test, y_test, verbose=2)

10000/1 - 0s - loss: 0.0368 - accuracy: 0.9783
```

WHERE CAN IT BE APPLIED?

Can be applied in:

- Detection of objections
- Predictions
- Watch the vídeo:

https://www.youtube.com/watch?v=r8KWciNmEGw&ab_channel=UniversoProgramado

QUESTIONS

- What is the difference between reinforcement learning and supervised learning?
- What are the forms of machine learning training?
- Tell a difference between machine learning and deep learning
- Does each season generate a new population?
- Does the neural network increase the neuron layer?