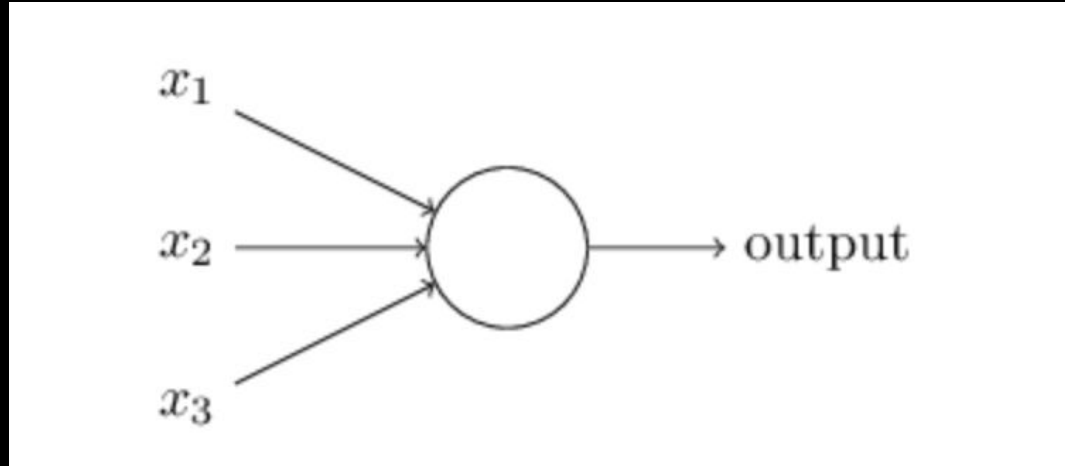


# Introduction to Deep Learning

—

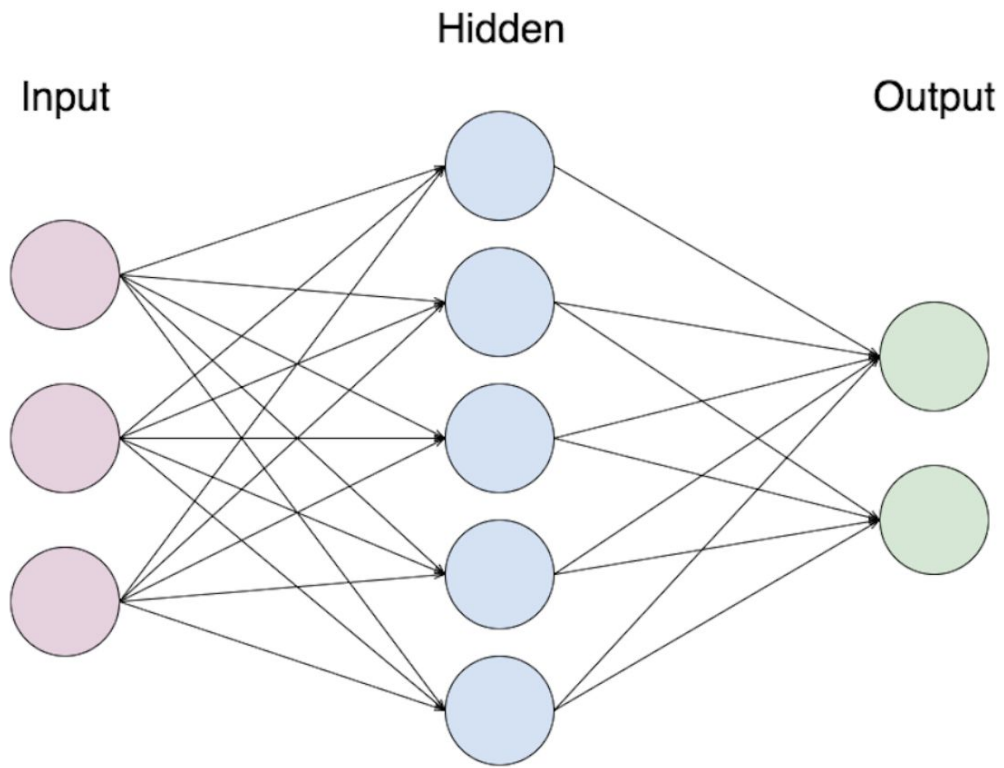
*Starting out with Machine Learning aspect  
that we have covered!*

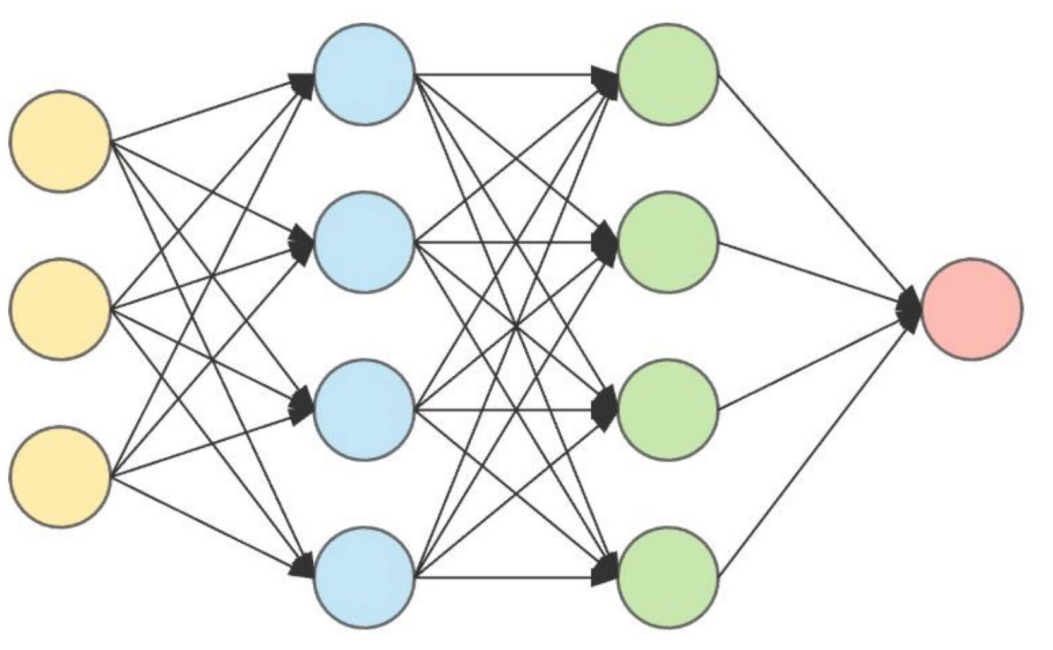




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$Y = \text{Salary}$ ,  $X = \text{Age, Experience, Education}$



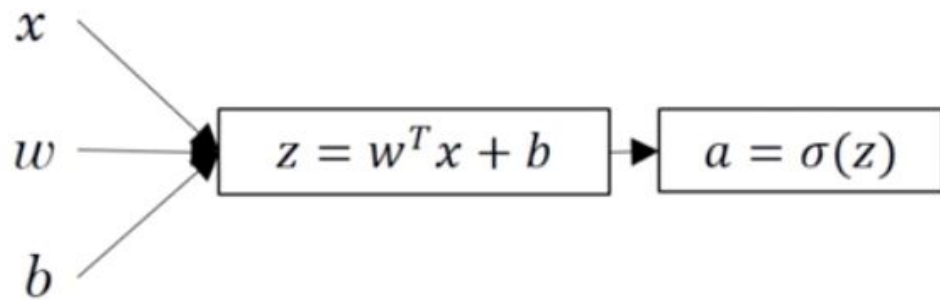
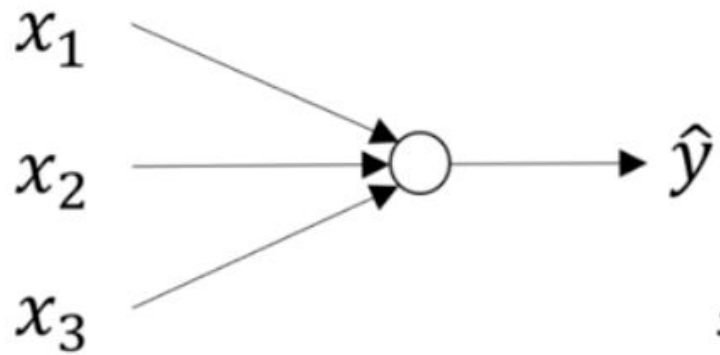


—

Do you see any shortcoming with such stacking of layers of connection?

Concept of Non-Linearity!

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Have we seen something like this before?

Logistic Regression!



Deep Learning thus is in a way combination of many Logistic Regression models.



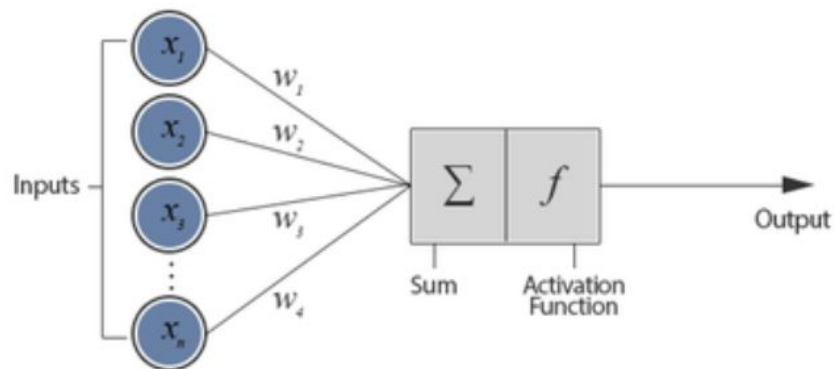
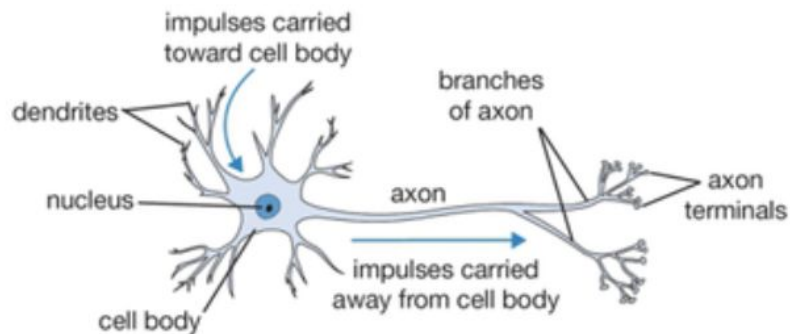
# Artificial Neural Networks!

The popular other name (in fact, the earlier and the more general name)

So why is it called that anyway?

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## Biological Neuron versus Artificial Neural Network



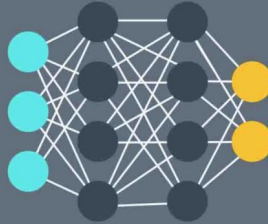
# NEURAL NETWORK ARCHITECTURE TYPES



**SINGLE LAYER  
PERCEPTRON**



**RADIAL BASIS  
NETWORK**



**MULTI LAYER PERCEPTRON**



**RECURRENT NEURAL  
NETWORK**



**LSTM RECURRENT  
NEURAL NETWORK**



**HOPFIELD NETWORK**



**BOLTZMANN MACHINE**

Everything boils down to the same basics we have covered today!



Thank You!

