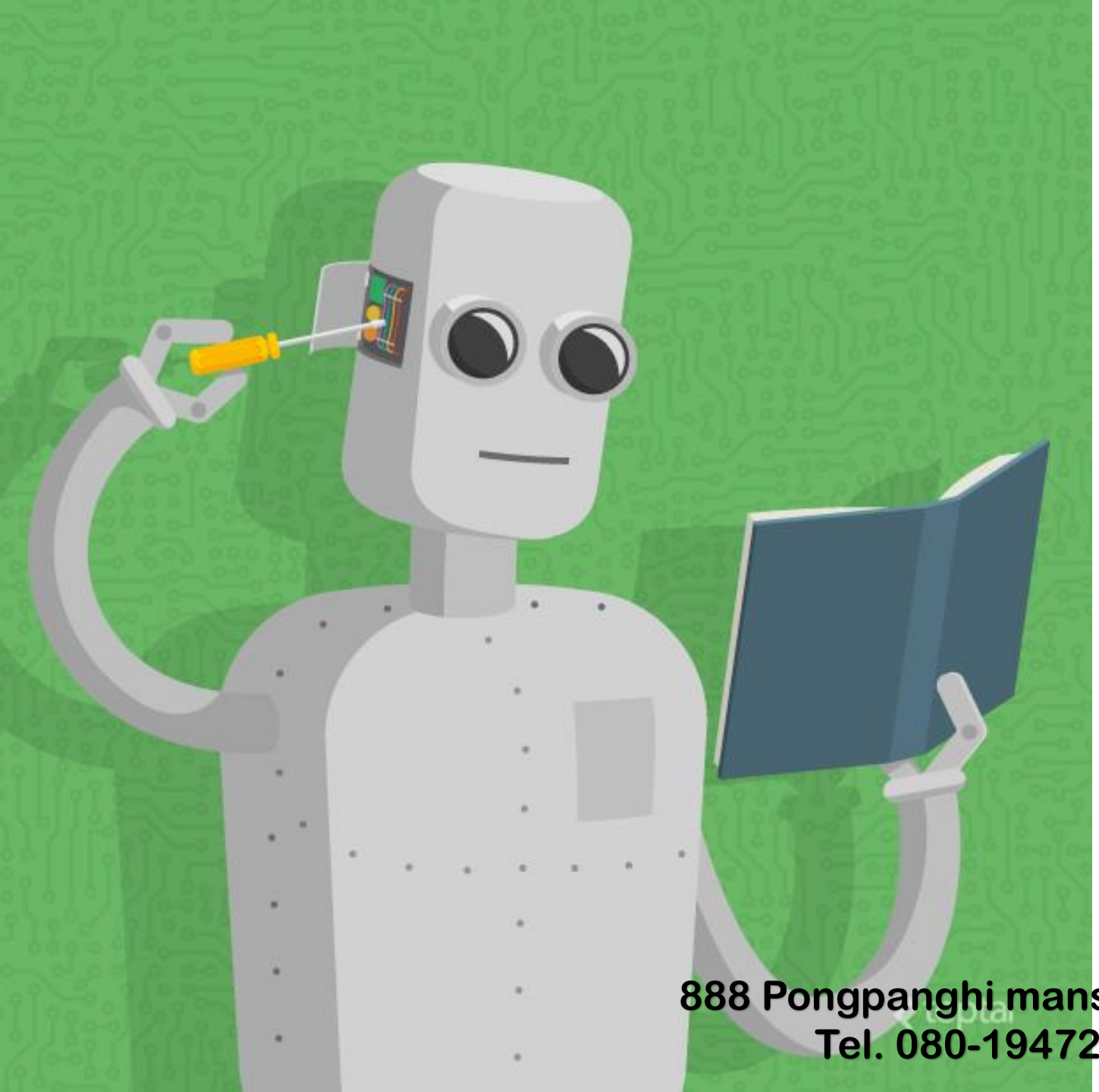

Introduction to Machine Learning

Comdet Phaudphut

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Work Experience

Khon Kaen Maker Club, Khon Kaen

President & Head Advisor — **October, 2016 - Present**

- ✓ Internet of Things Research and Development
- ✓ Embedded System Development
- ✓ Smart Farm and Smart Home Development
- ✓ IoT Advisor
- ✓ Certified NETPIE Trainer (NECTEC)

Department of Computer Science, KKU, Thailand

Machine Learning & Soft-Computing Researcher, Apply Network Technology Lab — **September 2014 - Present**

- ✓ ECG Classification using Soft-Computing
- ✓ Parallel Machine Learning research
- ✓ Wireless and Network research

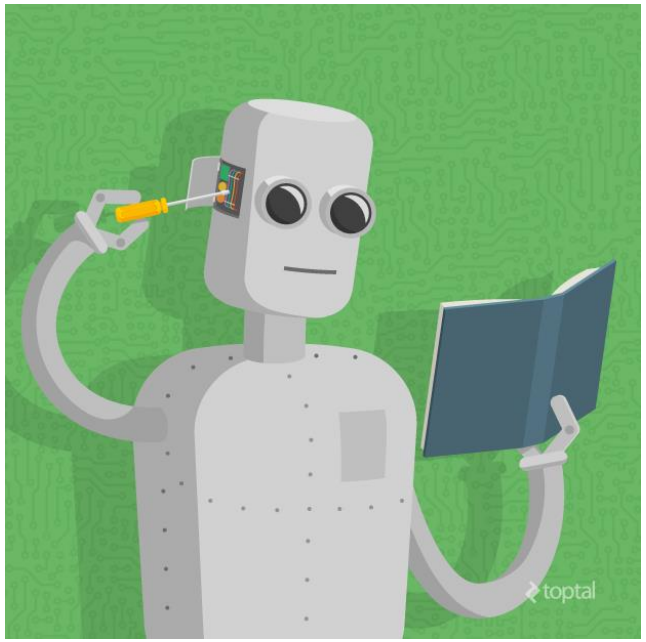
Department of Computer Science, KKU, Thailand

Teaching assistant(Network I, Information and Communication Technology Security, Wireless and Mobile Communication Networks) — **June, 2015 – Present**

- ✓ Computer Network ;
- ✓ Information and Communication Technology Security ;
- ✓ Wireless and Mobile Communication Networks ;

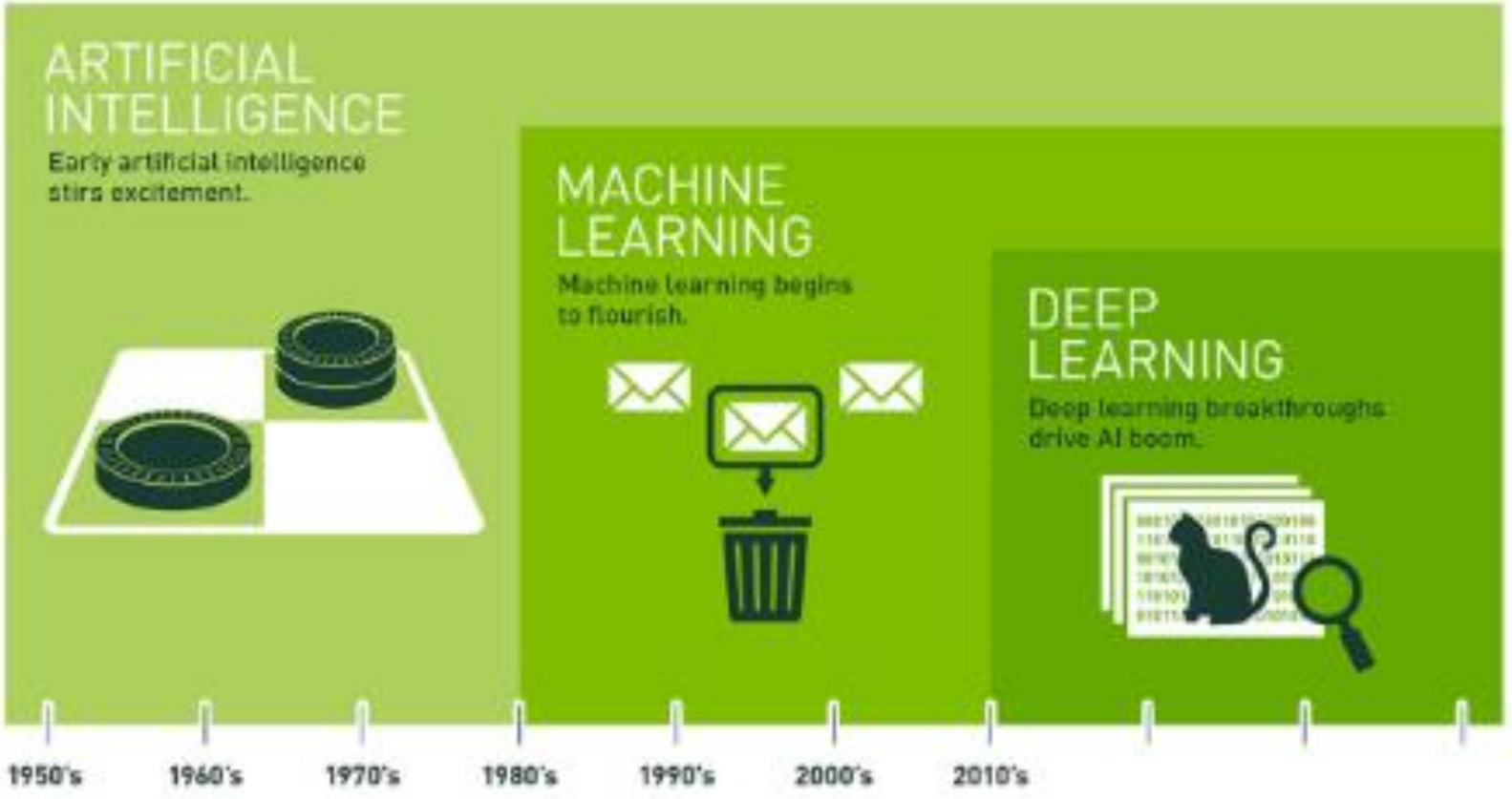
Key Skills			
Experienced or proficient in major of computer science, Internet of Things, Machine learning, Embedded System.			
C#, Matlab JAVA, Python, C, Nodejs	Machine Learning, AI Chatbot, Big Data	Tensorflow, Caffe R Lang, Torch 7, CNN	IoT, NodeMCU, Arduino Raspberry Pi

What’s Machine Learning



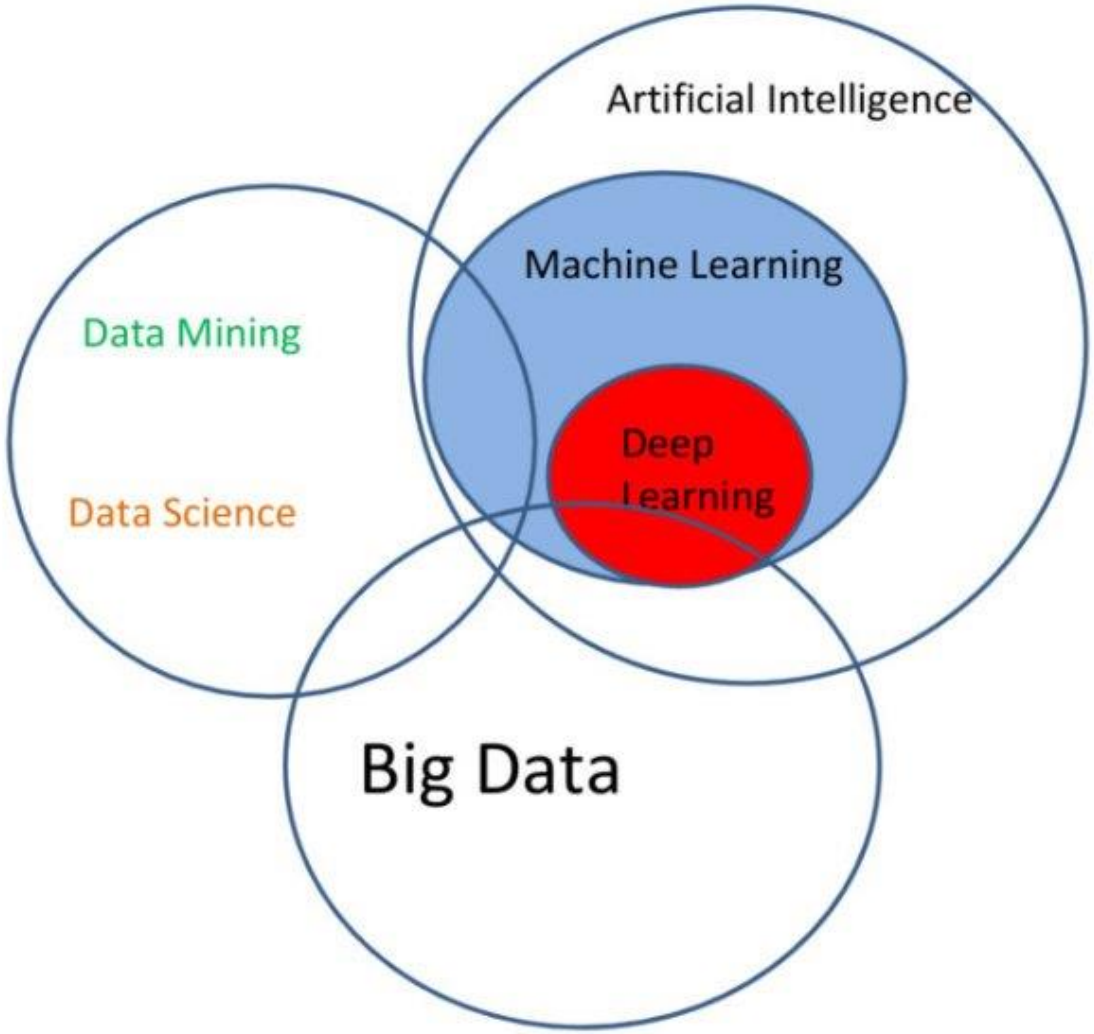
- **Machine Learning** เป็นศาสตร์แขนงหนึ่งที่ทำให้คอมพิวเตอร์มีความสามารถในการเรียนรู้ด้วยตนเอง เมื่อมีข้อมูลเข้าสามารถทำนายหรือตัดสินใจได้โดยปราศจากการทำงานตามลำดับคำสั่งโปรแกรม แปลไทยเป็นไทยอีกรอบก็คือสามารถคิดได้ด้วยตนเองนั่นเอง

History

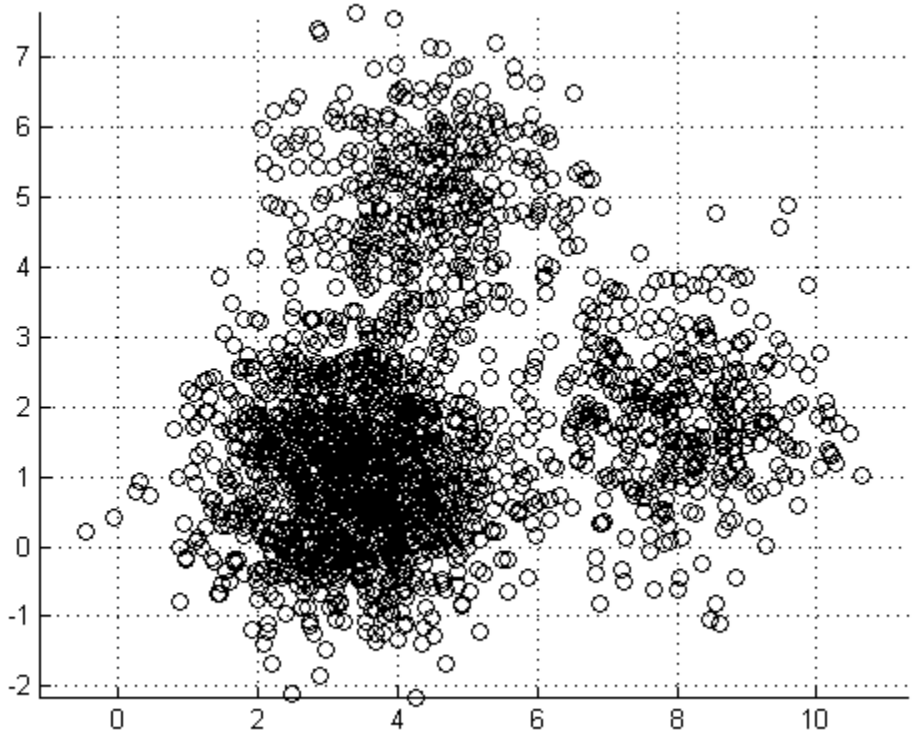


Since an early flush of optimism in the 1950s, smaller subsets of artificial intelligence – first machine learning, then deep learning, a subset of machine learning – have created ever larger disruptions.

Artificial Intelligent / Machine Learning / Big Data

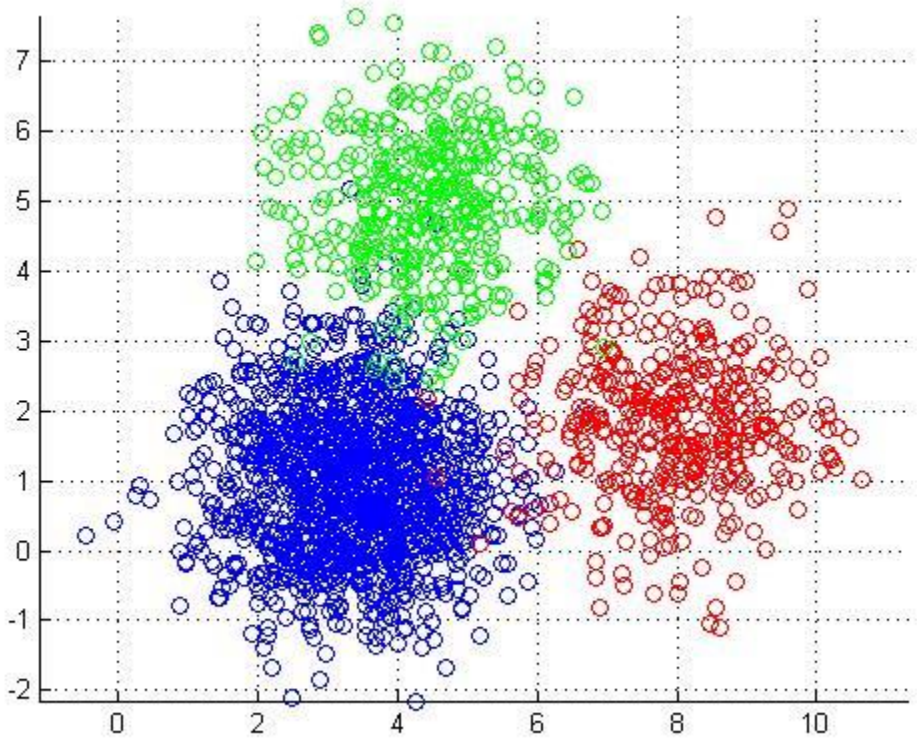


Unsupervised



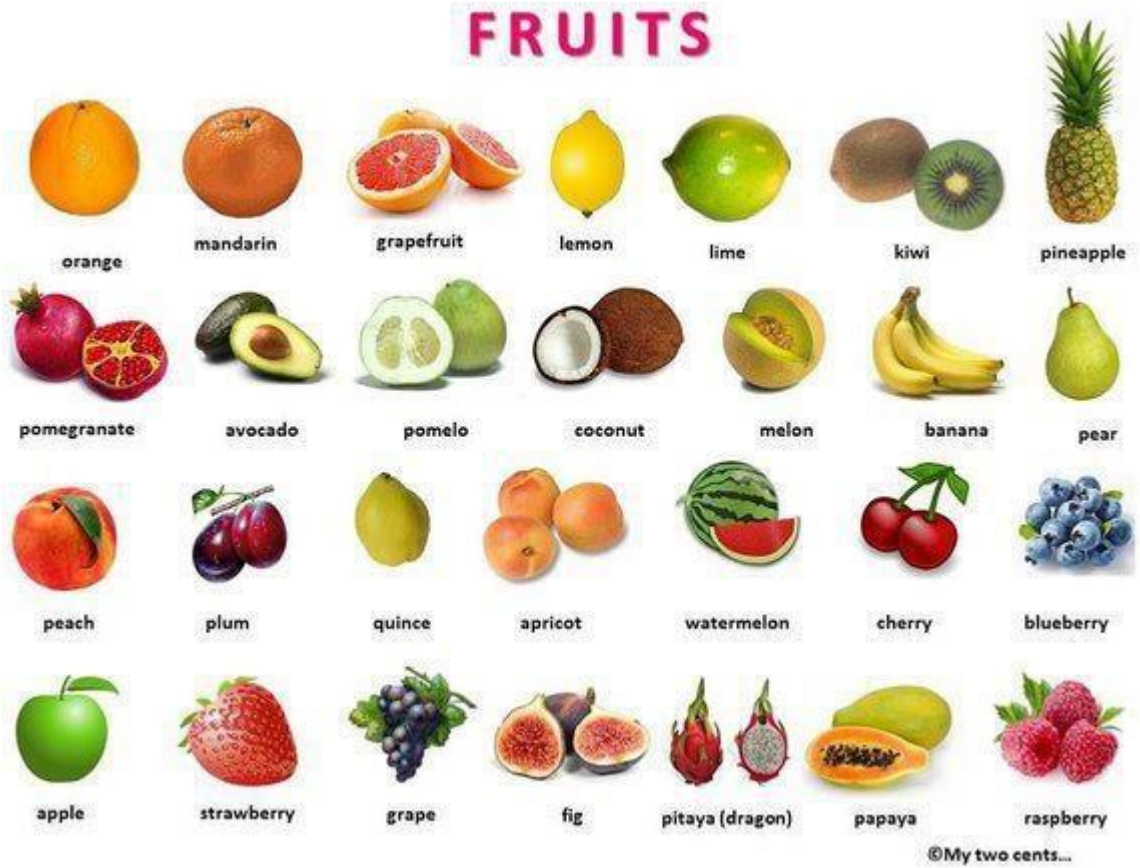
- How many group in this images

Unsupervised



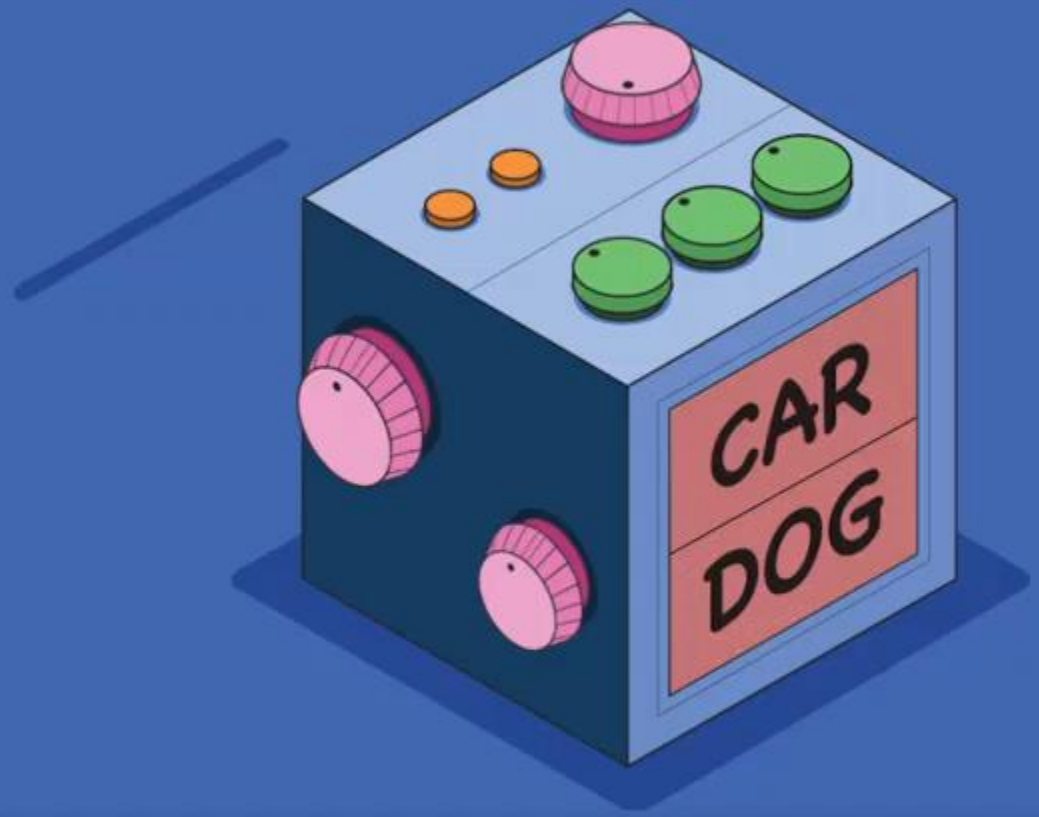
- How many group in this images

Supervised

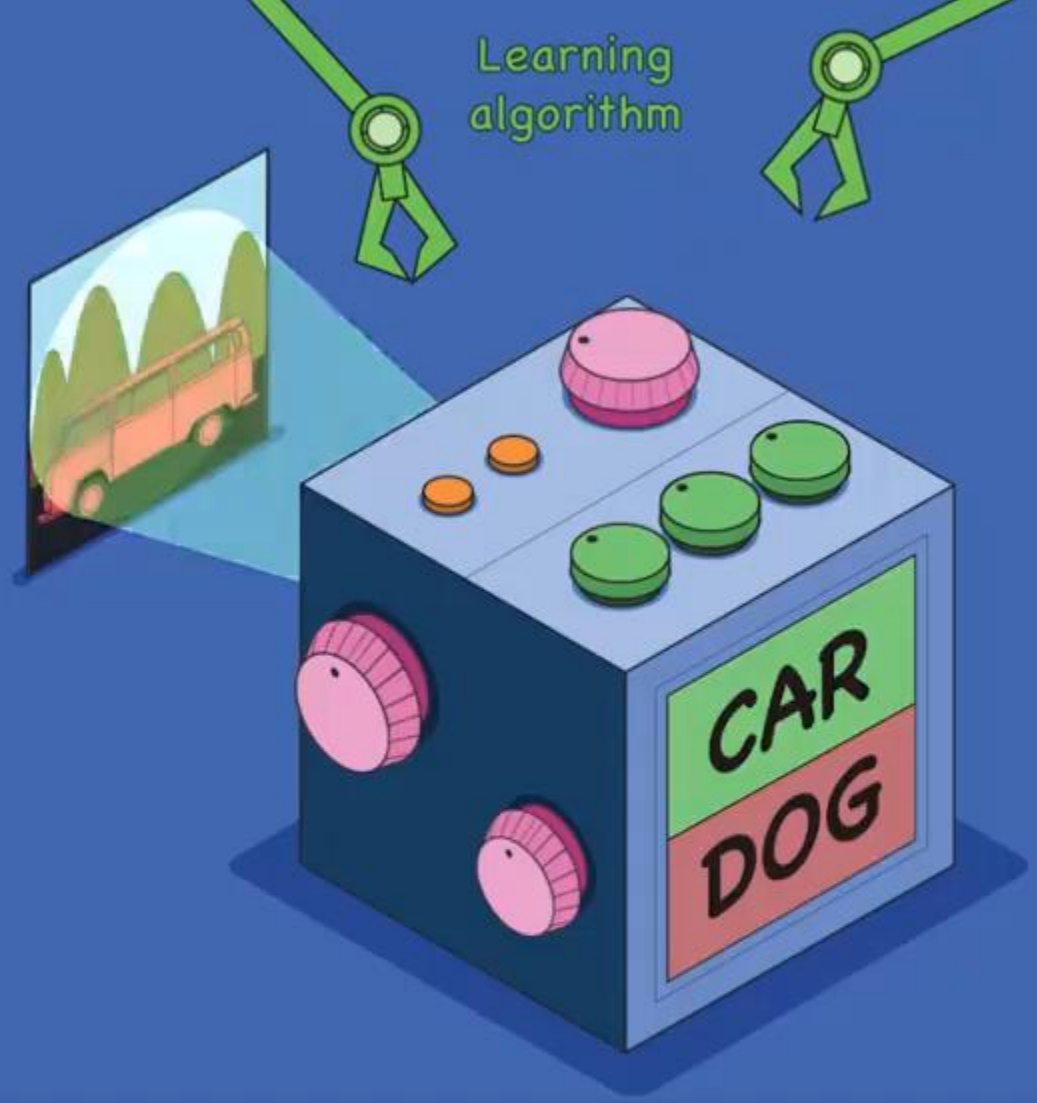


- You’re loss memory and doctor keep telling you what ‘this’ things is.

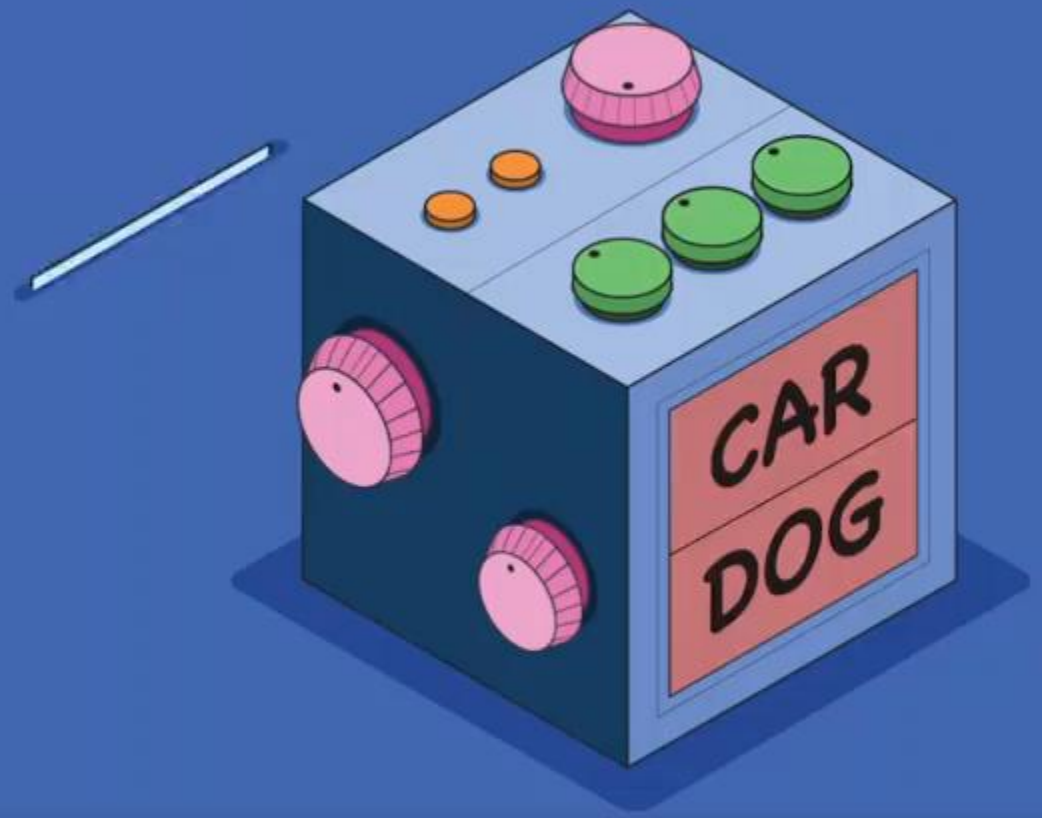
So a typical example is that you want to build a machine that recognizes images



because it’s kind of random a little bit.

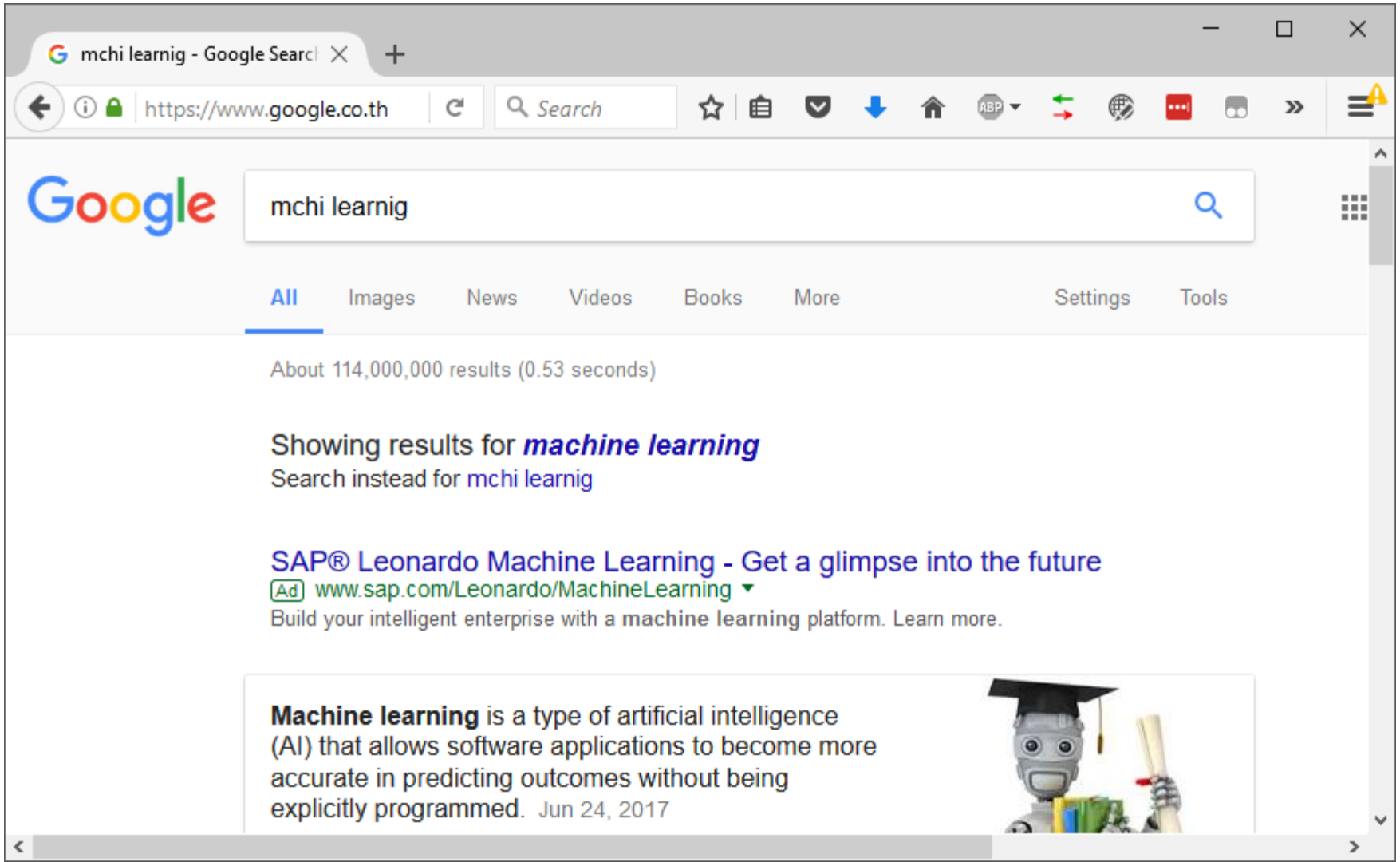


And that what's the learning algorithm is really,
is the technique for adjusting the parameters.



and it will give you the right answer for all the good proportion of all the images you showed.

Example ML in real life



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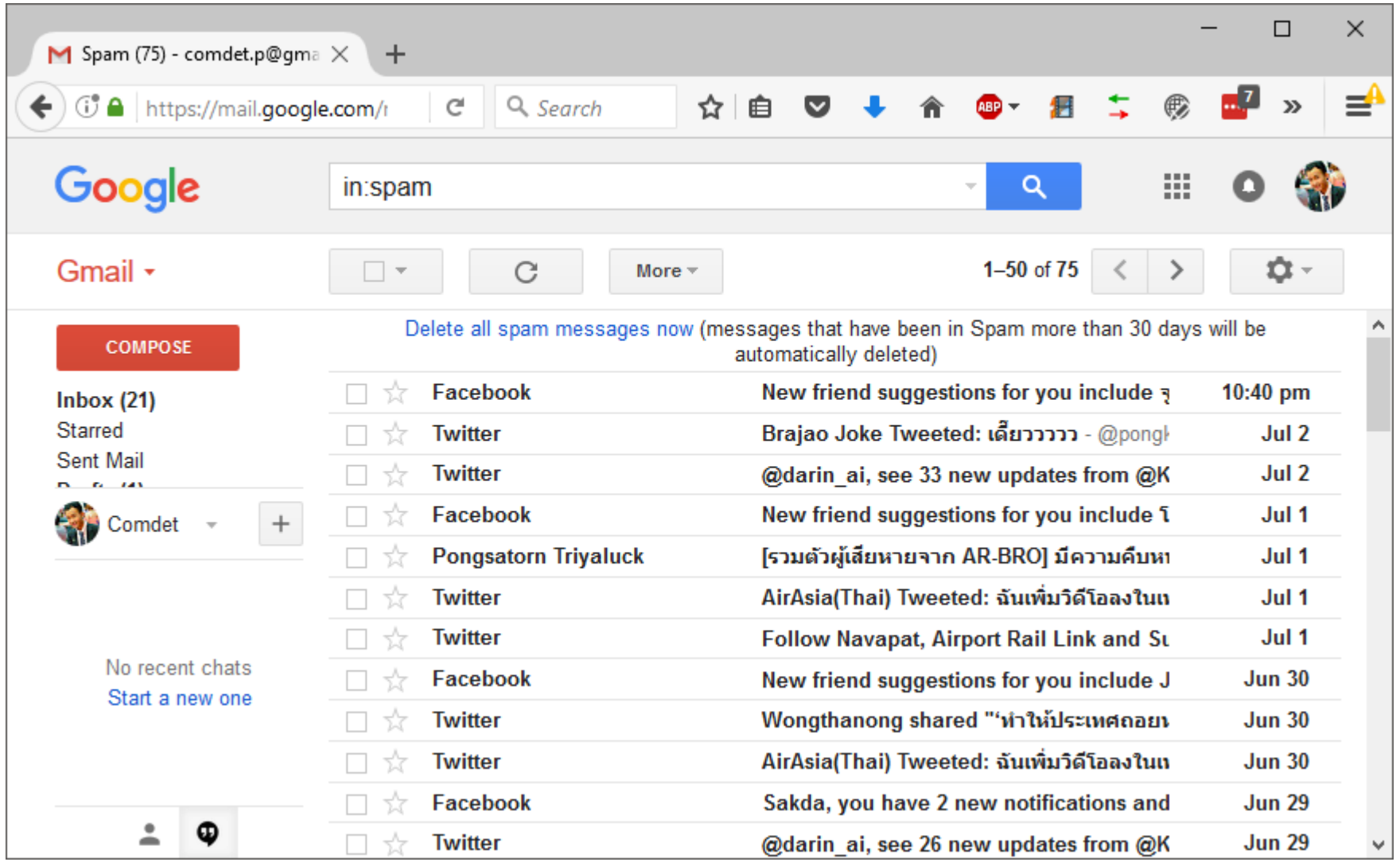

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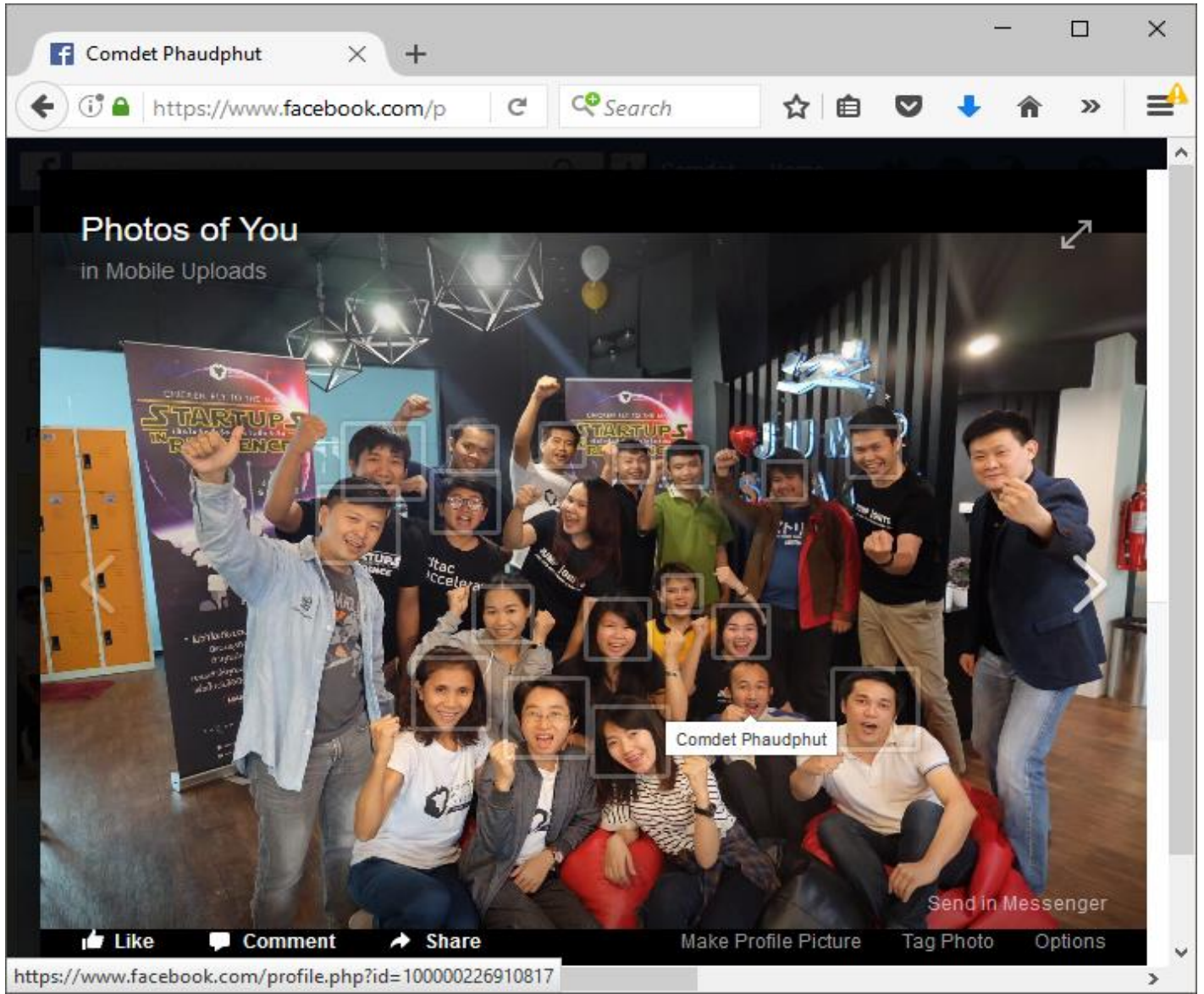

Example ML in real life

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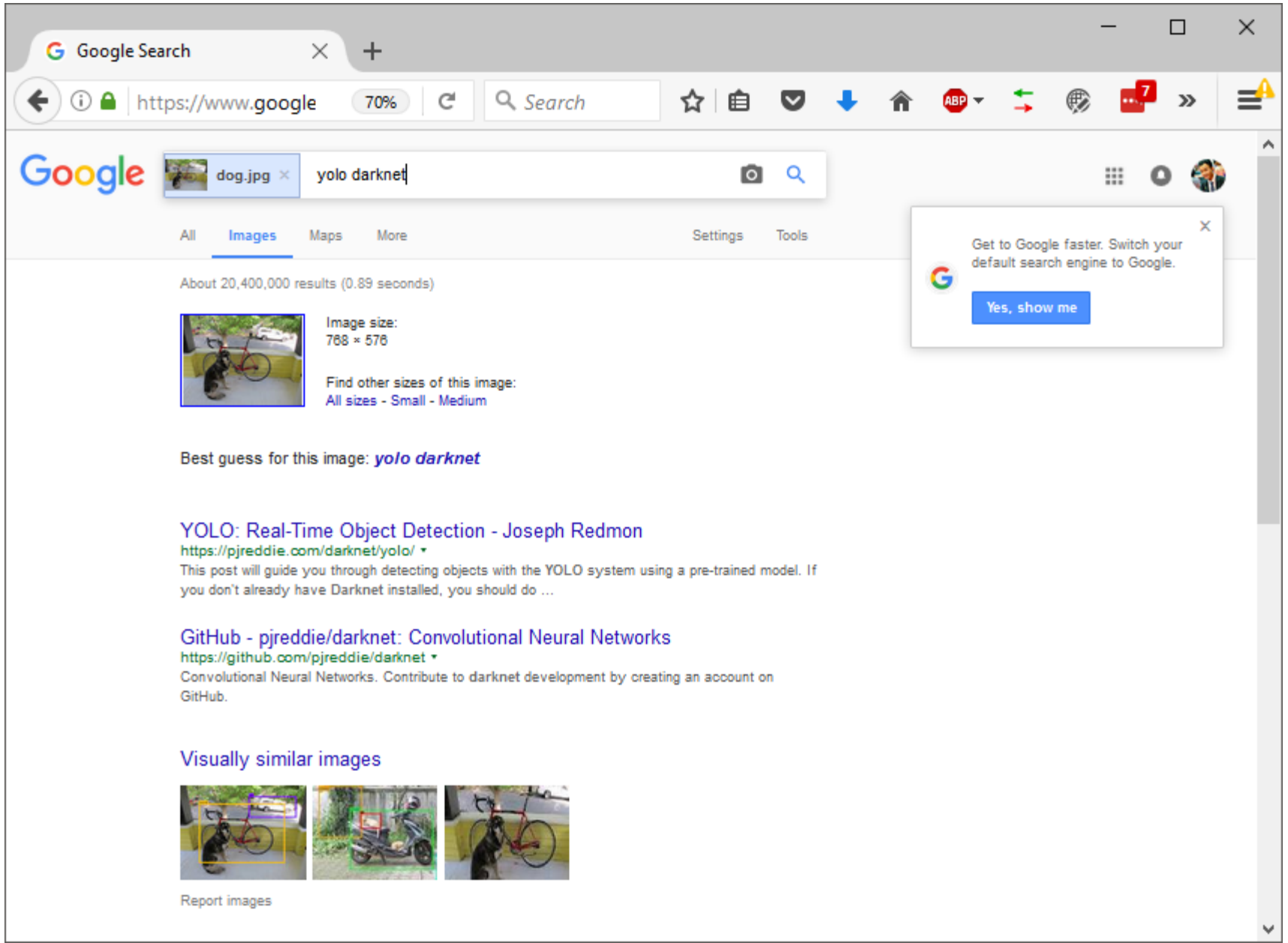
Example ML in real life