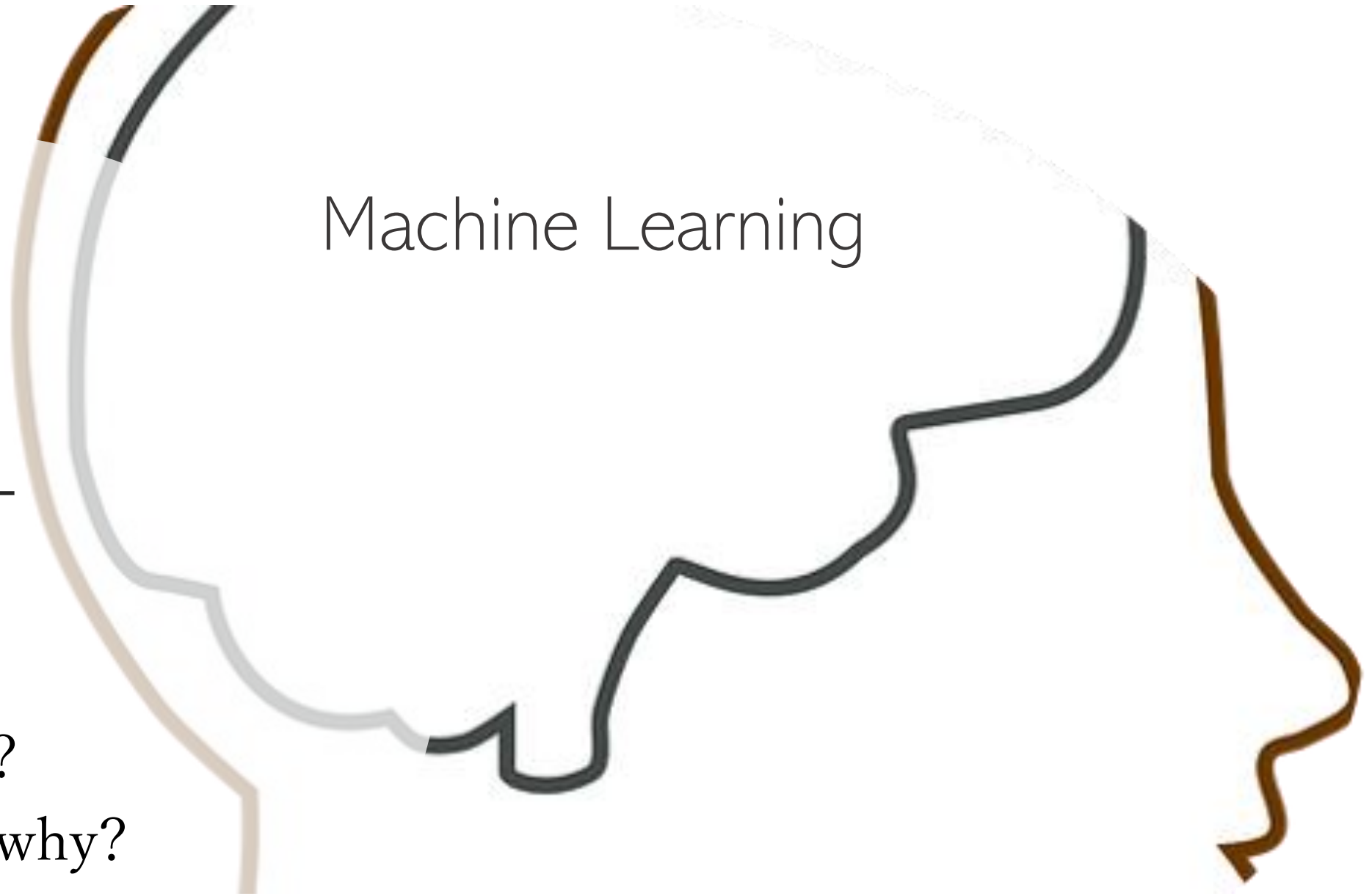


# Ai

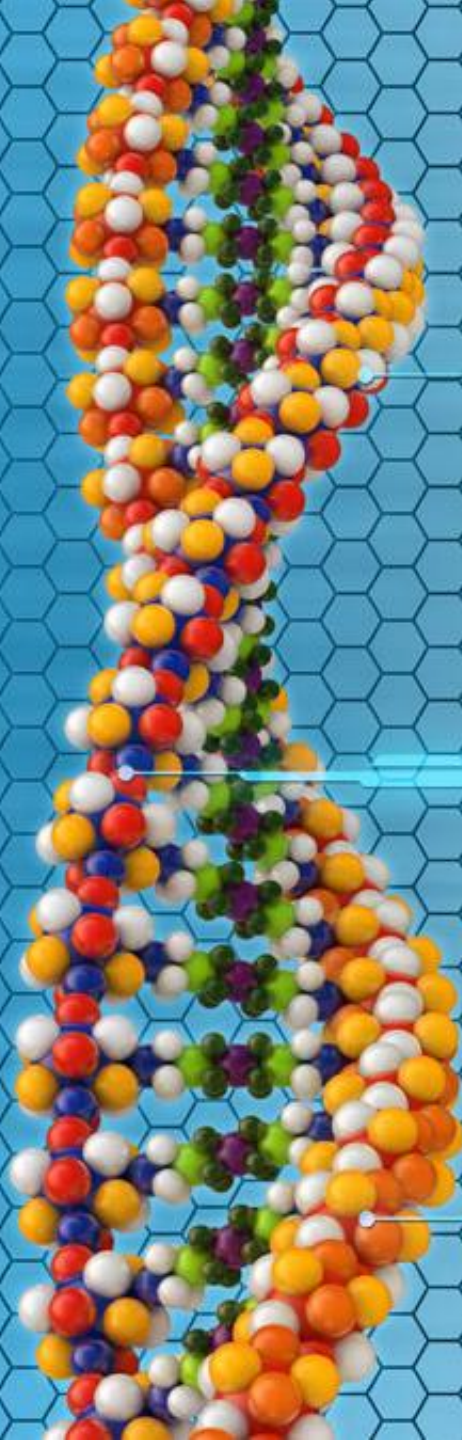
Machine Learning

In medical  
Engineering

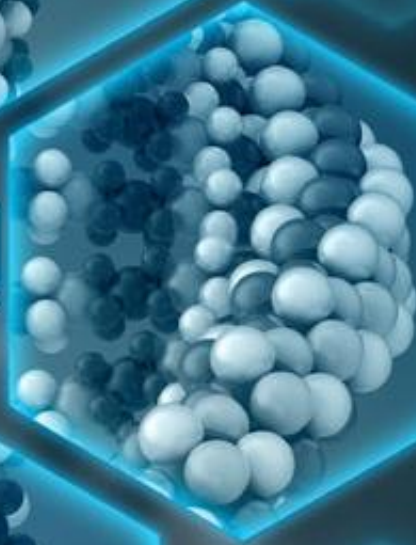
- What exists now?
- Who uses it and why?
- Where is it most likely to go?



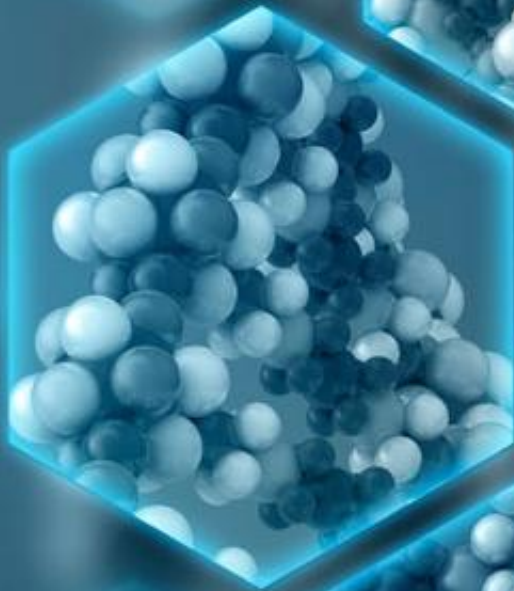




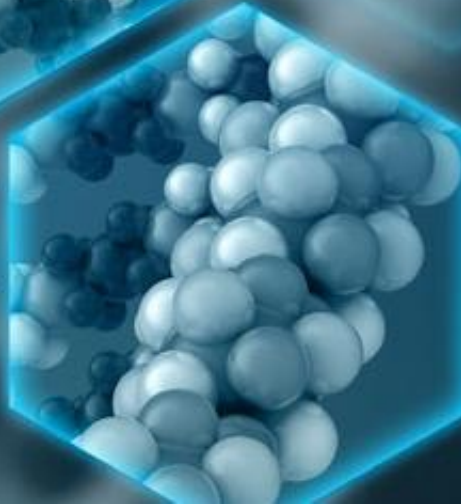
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TTTGCTAAACAAGGTTTTATAAAATAGTTG  
AAATAATAGAAAACAACTAAAATGAAAAT  
TATTACTTAACAAATAGTTTTTAAGAATTAT  
AATAAAGATATCTTATAATTATTGTATGACT



ACGGTTTTTTTGGACTCATGTAGATGGATC  
AGAGTTTATTGACGGCGTGCACTATTTTT  
TTTTATTTGTTGTCCATGCAATAAGTGTA  
TATTCATTCCACTTGTTTGAGTCGGGGT





- Details the effects and treatment implications of cancer gene alterations
- ML algorithms applied to learn relationships of genome sequences
- A future of prediction beyond just cancer



**418**  
Genes

**3035**  
Variants

**38**  
Tumor Types

**58**  
Drugs

# Research and Drug Discovery





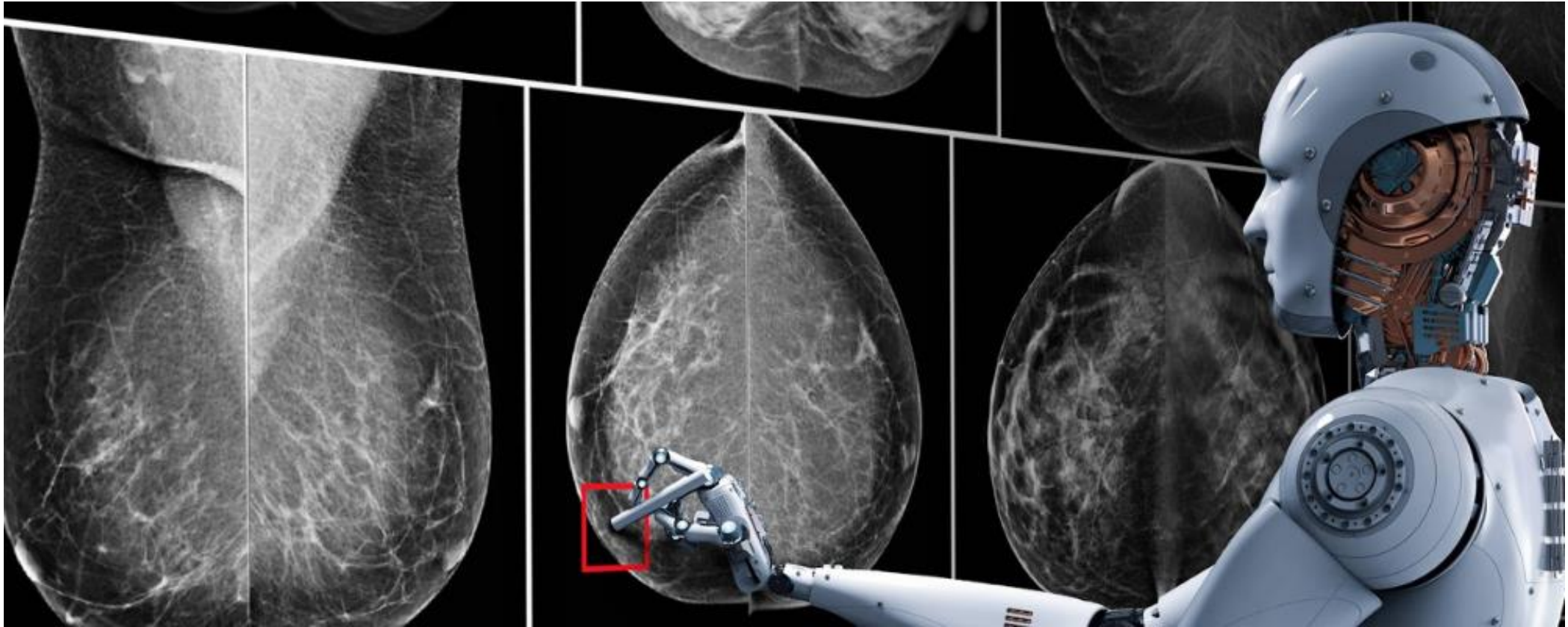
# Epidemic Prediction



- Dengue Fever in China
- Spread of Malaria in India
- Low cost, advanced warning



# Clinical Diagnostics



- Potentially high accuracy, much faster
- Cost reduction, avoiding expensive techniques
- Already demonstrated using classifiers:
- Breast cancer detection, brain tumour, etc.

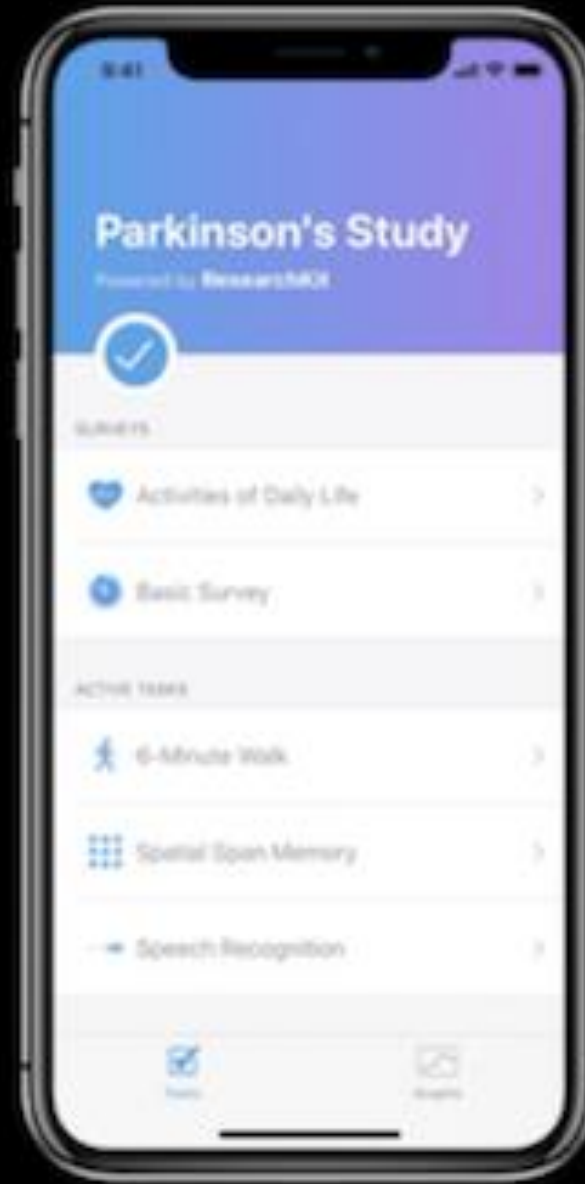




# Movement Disorder API for Apple's *Research Kit*



**watchOS 5**  
**Movement Disorder API**



**iPhone**  
**ResearchKit Study App**



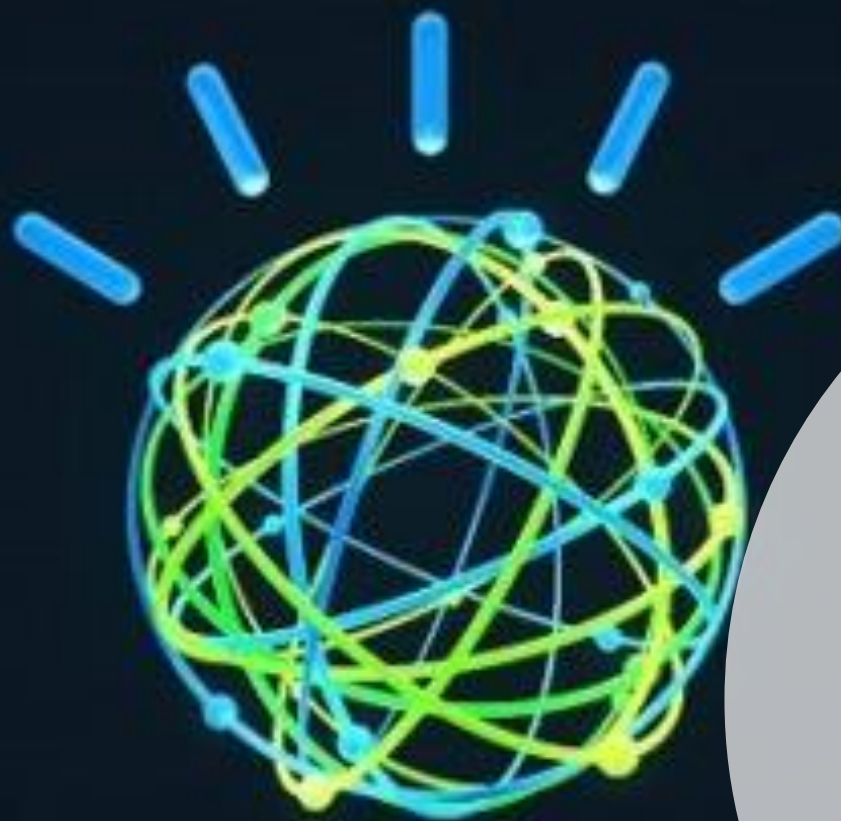
A man with a beard and sunglasses is on the left, looking towards a woman on the right. The woman is also wearing sunglasses and holding a lit cigarette, with smoke rising from it. The background is a blurred outdoor setting with a building. The Somatix logo is overlaid in the upper center.

*Data with a purpose*  
somatix™



A Challenging, Yet Promising Future

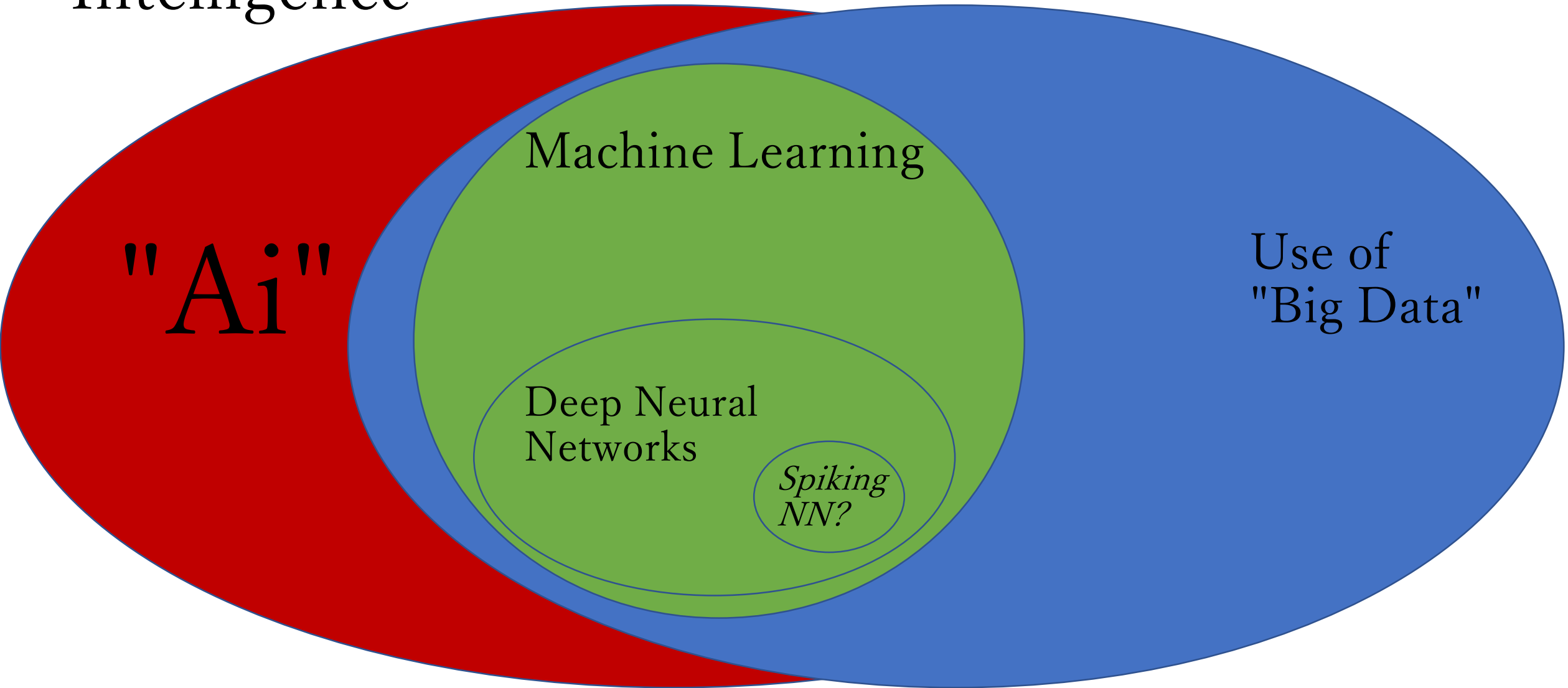




# Question Time

Thanks for listening!

# Basic Terminology Surrounding "Artificial Intelligence"





# References, pictures

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