



University of
South Australia

Big Data & Artificial Intelligence

1

Recall – Big Data

- Data sets whose **volume**, **velocity** or **variety** is so large and complex that it is difficult to store, manage, process and analyse using traditional database systems and data processing tools.



2

Artificial Intelligence (AI)



Photo by Arseny Togulev on Unsplash

- Systems that can think and learn as intelligent humans would.
- E.g. in business:
 - Analyse vast amounts of consumer data and apply results to enhance customer experience.

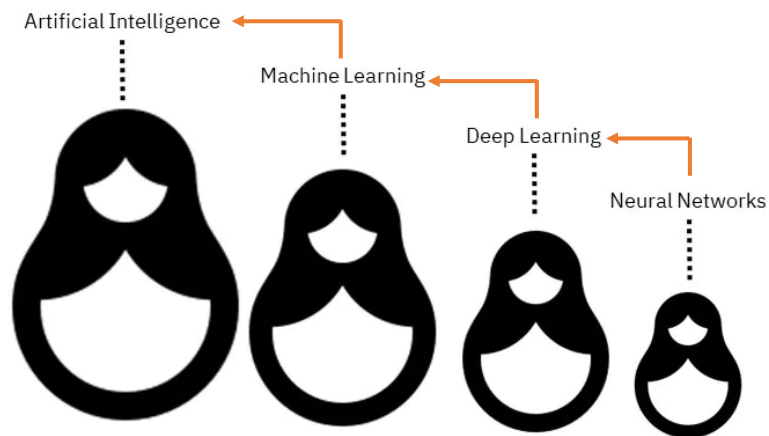
Machine learning



Photo by Kevin Ku on Unsplash

- Algorithms that allow machines to learn from data inputs.
- One of characteristics a system must possess to be considered intelligent.

Four nested technologies



5

What's the link ?

- AI provides the large-scale analytics needed to extract meaning and value from Big Data.
- Big Data provides the knowledge needed for AI to continue to learn and evolve.



6

AI and Big Data in action



Image
recognition



Speech
recognition



Self-driving
car



Consumer
finance

WARNING

This material has been reproduced and communicated to you by or on behalf of the **University of South Australia** in accordance with section 113P of the *Copyright Act 1968 (Act)*.

The material in this communication may be subject to copyright under the Act. Any further reproduction or communication of this material by you may be the subject of copyright protection under the Act.

Do not remove this notice