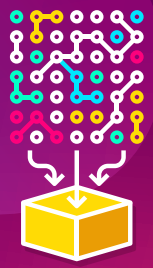
THE LANGUAGE OF AI

Often used interchangeably, "big data," "algorithms," "machine learning" and "artificial intelligence" are actually different – but closely related – concepts. Here's a simple way to explain each:

BIG DATA

Extremely large datasets (both long/many cases and wide/many variables per case) which, thanks to powerful computers, allow for the identification of subtle patterns, trends and associations.



ARTIFICIAL NARROW INTELLIGENCE (WEAK AI)

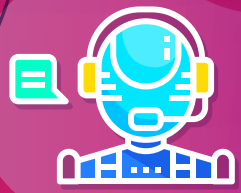
Algorithms that can perform narrowly defined tasks such as recommending movies, understanding natural language, or driving a car.

ALGORITHMS

A set of steps that a computer can take to accomplish a goal. Algorithms underlie all forms of Artificial Intelligence.

MACHINE LEARNING

Algorithms that can identify patterns in data and then generalize those patterns to make predictions or judgments. Machine learning algorithms underlie many ANI applications.

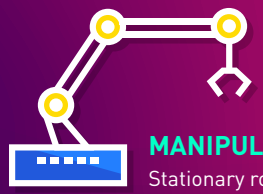


ARTIFICIAL GENERAL INTELLIGENCE (STRONG AI)

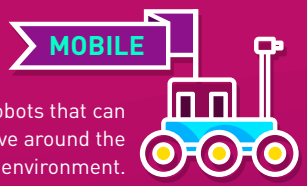
A hypothetical technology that would be the equivalent of a human intelligence in terms of its flexibility and capability of performing and learning a vast range of tasks.

ROBOTS NEED LOVE, TOO

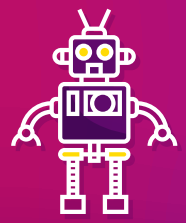
Robots are physically embodied agents that can sense and manipulate their environment and perform tasks autonomously. There are three types of robots:



MANIPULATORS
Stationary robotic arms.



MOBILE
Robots that can move around the environment.



HUMANOID
Robots that mimic the human body and can move around and manipulate the environment like humans do.

**Definitions provided by Noah Castelo, Assistant Professor, Alberta School of Business*

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