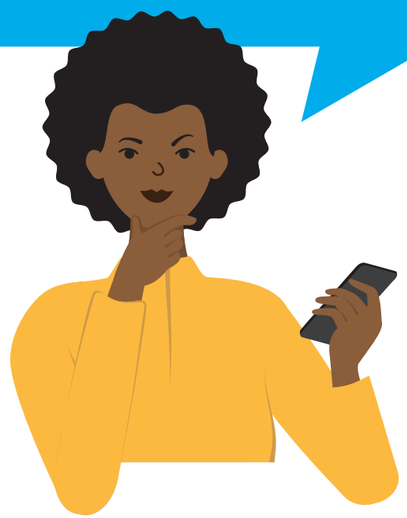
In what ways is AI intelligent?

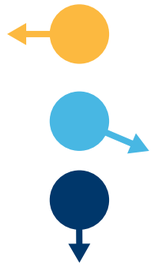
Artificial Intelligence (AI) refers to a collection of technologies that allow computers to use sets of instructions called **algorithms** to sense, learn, reason, and act.

AI technologies share similar characteristics: independence, adaptivity, and task-specificity.

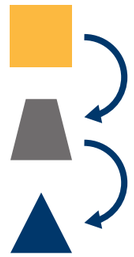


Independent

AI technologies can perform tasks on their own, without constant supervision.



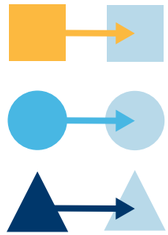
Adaptive



AI technologies can adapt by learning from experience.

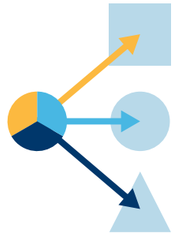
Task-specific

Current AI algorithms are considered **weak** because they are narrowly suited to specific tasks.



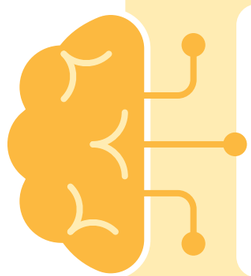
(not yet)

General



Machines that can fully reason like humans would be examples of **strong** AI, but do not yet exist.

How AI Learns



We develop AI technologies based on what we know about how the human brain works. There are two main approaches:

Rule-based AI

Programmers define a set of instructions to guide a **rule-based AI** through a complex task.

Machine Learning

AI algorithms, such as **neural networks**, sift through huge amounts of data, independently identifying underlying patterns to solve problems.

Informed by Data

While they exist as distinct fields, **data science** and **AI** each make use of machine learning techniques.

Museum of Science.