



Intelligence can be loosely defined as the capability to obtain knowledge and skills and to apply those to various situations without supervision. As is the case with children, intelligence is often linked to learning. As a child grows they learn from the parents, siblings, teachers, friends and the society in general as well as how they interact with their environment. While some learning is taught, other concepts are acquired and developed by a child through observation.

Whilst machines are traditionally known to follow rigid instructions, contemporary machines are designed to 'think' and have the capability to perform tasks by learning. The branch of science and technology devoted to the creation of machines that learn and think as intelligently as human beings is known as Artificial Intelligence or AI. According to the father of Artificial Intelligence, John McCarthy, AI is *"The science and engineering of making intelligent machines, especially intelligent computer programs"*.

The fundamental premise of AI is that it can create machines that can intelligently think in the same, or similar, way that humans think. It is designed to acquire knowledge or awareness (cognizance) from its environment, its circumstances, and entities (humans) by learning

AI operates where efforts are made to make a computer, a robot, or a machine think in the same way a smart human being thinks. AI is thus a replication of how the human brain thinks, learns, decides, and works, when it tries to solve problems (Bermudez, 2017) resulting in the creation of an intelligent software system. The purpose of AI is to achieve improvisation in the functionality of computers by way of functions related to human knowledge, such as problem-solving, reasoning, and learning.

### **Intelligence is made up of**

- Reasoning
- Learning
- Problem Solving
- Perception
- Linguistic Intelligence

