Picture this, a machine that could organize your cupboard just as you like it, or serve every member of the house a customized cup of coffee, makes your day easier. Doesn't it? These are the products of artificial Intelligence. But why use the term artificial Intelligence? Well, these machines are artificially incorporated with human-like Intelligence to perform tasks as we do. This Intelligence is built using complex algorithms and mathematical functions. But AI may not be as obvious as in the previous examples. In fact, AI is used in smart phones, cars, social media feeds, video games, banking, surveillance, and many other aspects of our daily life.

The real question is, what does an AI do at its core? Here is a robot we built in our lab, which is now dropped onto a field in spite of the variation in lighting, landscape, and dimensions of the field. The AI robot must perform as expected. This ability to react appropriately to a new situation is called generalized learning. The robot is now at a crossroad. One that is paved, and the other rocky. The robot must determine which path to take based on the circumstances. This portrays the robots reasoning ability. After a short stroll, the robot now encounters a stream that it cannot swim across. Using the plank provided as an input, the robot is able to cross the stream. So our robot uses the given input and finds the solution for a problem. This is problem-solving. These three capabilities, make the robot artificially intelligent. In short, AI provides machines with the capability to adapt, reason and provide solutions.

Well, now that we know what AI is, let's have a look at the two broad categories in AI is classified into. Weak AI also called narrow AI focuses solely on one task. For example, Alpha go is a maestro of the game go, but you can't expect it to be even remotely good at Chess. This makes Alpha go a weak AI. You might say Alexa is definitely not a weak AI since it can perform multiple tasks. That's not really true. When you ask Alexa to play DESPACITO, it picks up the key words, play and the despacito, and runs a program is trained to. Alexa cannot respond to a question it isn't trained to answer. For instance, try asking Alexa “the status of traffic from work to home”. Alexa can not provide you this Information as she is not trained to.

And that brings us to our second category of AI, strong AI. Now, this is much like the robots that only exist in fiction as of now. Ultron from a vengeance is an ideal example of a strong AI. That's because it's self-aware and eventually even develop the motions. This makes AI's response unpredictable. You must be wondering how is artificial intelligence different from machine learning and deep learning? We saw what AI is. Machine learning is a technique to achieve AI and deep learning, in turn, is a subset of machine learning. Machine learning provides a machine with the capability to learn from data and experience through algorithms. Deep learning does this learning through ways inspired by the human brain. This means through deep learning, data and patterns can be better perceived. Ray Kurzweil a well-known futurist, predicts that by the year 2045, we would have robots as smart as humans. This is called the point of singularity. That's not all. In fact, Elon Musk predicts that the human mind and body will be enhanced by AI implants, which would make us partly Cyborgs.

Here's a question for you, which of the below AI projects don't exist yet? A) an AI robot with citizenship; B) a robot with a muscular, skeletal system; C) AI that can read its own emotions; D) AI that develops emotions over time. Give it a thought and leave your answers in the comment section below. Three lucky winners will receive Amazon gift vouchers. Since the human brain is still a mystery, it's no surprise that AI too, has a lot of unventure domains. For now, AI is built to work with humans and make our tasks easier. However, with the maturation of technology, we can only wait and watch what the future of AI holds for us.