**Real life applications:**

 **Social Media:**The most common use of Artificial Intelligence in social media is facial detection and verification. Artificial Intelligence, along with machine learning, is also used to design your social media feed.

 **Personalized online shopping:**Shopping sites use AI-powered algorithms to curate the list of buying recommendations for users. They use data like users' search history and recent orders to create a list of suggestions that users might like.

 **Agriculture:**Technologies, especially Artificial Intelligence embedded systems, help farmers protect their crops from various adversities like weather, weeds, pests, and changing prices.

 **Smart cars:**Smart cars are another one of the real-life applications of AI. Artificial intelligence collects data from a car’s radar, camera, and GPS to operate the vehicle when the autopilot mode is on.

 **Healthcare:**Artificial Intelligence has come out as a reliable friend of doctors. From intelligent testing to medical recommendations, they assist medical professionals in every possible way.

**Differences:**

| **Artificial Intelligence** | **Machine Learning** | **Deep Learning** |
| --- | --- | --- |
| Artificial Intelligence is the ability of machines to function like the human brain. | Machine learning is processing data, learning from it, and then making informed decisions. | Deep learning uses Artificial Neural Networks to solve complex problems. |
| The goal of AI is to allow machines to think for themselves without the need for human involvement. | The purpose of machine learning is to allow a machine to learn from its previous experiences. | Deep learning's purpose is to use numerous algorithms to tackle complicated problems in the same way that the human brain does. |
| AI is capable of dealing with both structured and semi-structured data. | Machine learning works with both organized and semi-structured data. | Deep learning uses both structured and unstructured data to solve problems. |
| AI is a subset of data science. | Machine Learning is a subset of AI. | Deep learning is a subset of Machine learning. |
| Example- Google Search engine | Example- Image recognition | Example- Automatic car driving system |

**Strong vs Weak AI:**

| **Strong AI** | **Weak AI** |
| --- | --- |
| Strong AI is a theoretical form of AI with a view that machines can develop consciousness and cognitive abilities equal to humans. | Weak AI, also called narrow AI, is AI with limited functionality. It refers to building machines with complex algorithms to accomplish complex problem-solving, but it does not show the entire range of human cognitive capabilities. |
| Strong AI can perform a wide range of functions. | In comparison to strong AI, weak AI has fewer functions. Weak AI is unable of achieving self-awareness or demonstrating the full spectrum of human cognitive capacities and operate within a pre-defined range of functions. |
| Strong AI-powered machines have a mind of their own, and they can think and accomplish tasks on their own. | Weak AI-powered machines do not have a mind of their own. |
| No machine of strong AI exists in reality. | Examples include Siri or Google Assistant. |

**Fuzzy Logic:**

Az elmosódott halmazok logikája (angolul: fuzzy logic) a [többértékű](https://hu.wikipedia.org/wiki/T%C3%B6bb%C3%A9rt%C3%A9k%C5%B1_logika" \o "Többértékű logika) [logikai szemantikák](https://hu.wikipedia.org/wiki/Logikai_szemantika" \o "Logikai szemantika) egyike.

A tágabb értelemben vett fuzzy logika alapját képezi a fuzzy számítógépes rendszereknek, melyek szemben a szokványos rendszerekkel, nem csak *igen* és *nem* (illetve *ki* és *be*, vagy 1 és 0) értékekkel dolgoznak, hanem közbülső „valóságértékekkel” is, mint például 0,5 (féligmeddig), 0,2 (kicsit), 0,8 (eléggé)… Ezáltal az „életlen” (fuzzy) meghatározások (mint például az előbbiek) matematikailag kezelhetővé válnak.

Manapság a fuzzy logika illetve a fuzzy-control, tehát a fuzzy logikán alapuló irányítás, elsősorban gépek és robotok, háztartási készülékek irányításában talál alkalmazásra.