AI DEVELOPMENT TIMELINE

AI has been around for the last 70 years - follow the timeline below to see a snapshot of its developments.

1950
1960
1970
1980
1990
2000
2002
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020

1950's

AI Term Originated

The term 'Artificial Intelligence' was created at the Dartmouth College summer AI conference.

Some scientists favoured a *"top down"* approach to AI (pre-programming rules into a computer to enable it to reason as effectively as humans) as opposed to *"bottom-up"* approach (machines learning by simulating brain cells or neural networks).

1960 to 1990

Initial Developments

1960's : "Eliza" early **natural language processing** program - set up to act like a psychotherapist

1970's : the first robot to use AI called "Shaky" planned its routes by building a spatial map from its surroundings.

1980's : growth of "Expert Systems" - knowledge systems using rules and logic based approaches to support specific decision making.

1990's : Deep Blue beats Gary Kasparov – first time AI uses tactics instead of strategy. It's an example of **reactive & top-down AI** designed for a specific purpose.

2002

1st Autonomous Vacuum

iRobot released Roomba, the first autonomous vacuum cleaner that developed its decision making capabilities using AI.

Again its **narrow AI -** focused on a specific - task but it had less layers of behaviour-generating systems than Shakey so quicker & enough intelligence to clean a home!

2008 & 2009

Cars & Phones

Google app using speech recognition appeared on Apple iPhone. It used an army of parallel **neural networks** to learn patterns

Google build first Self-driving car.

This type of AI contains some limited memory such as being able to identify, over time, the direction or speed of others on the road

2011

IBM Watson wins game show Jeopardy

Watson won the game show against contestants who had been previous winners of the show.

The machine was trained for over three years using many AI techniques such as **Natural Language Processing** and **Neural Networks** to recognise patterns in questions and answers.

Its **algorithms** and computational power reproduced the questions and associated answers, so is narrow AI

2010's

SUBTITLE HERE

2014 : Ian Goodfellow creates **General Adversial Network** which is where two **deep learning** algorithms are pitted against each other using the same data. One generates outputs whilst the other compares these outputs to the original dataset.

2016 : AlphaGo, Google's computer programme beats Go champion Lee Sedol.

It learnt from approximately 30 million moves done by expert Go players and then played against itself! This then produced new moves which were better than any human experts.

It learnt using one of three **Machine Learning** sub types called reinforcement learning.

Sources:

1 Computer History Museum - Timeline of Computer History - AI & Robotics

2 Understanding Four Types of AI - from reactive robots to self-aware beings Arend Hintze

3 BBC news story - AI: 15 key moments in the story of artificial intelligence