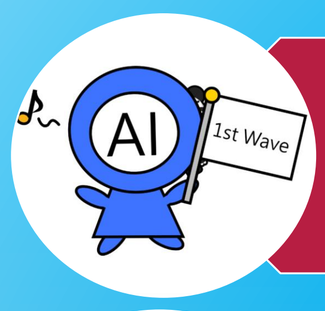
TIME STATION: AI

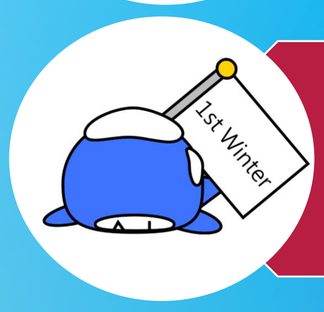
The Birth of Artificial Intelligence (1943–1956)

The foundation of artificial intelligence began with early research on how machines could imitate human thinking. In 1943, Warren McCulloch and Walter Pitts introduced a mathematical model of artificial neurons, which inspired future neural network research. During this period, scientists started exploring whether computers could solve problems and make logical decisions like humans.



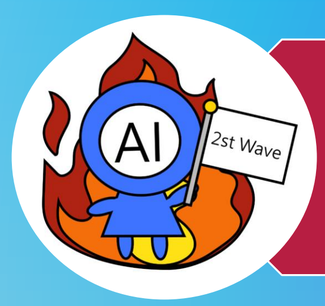
The First Wave – The Golden Age (1956–1974)

In 1956, the Dartmouth Conference officially introduced the term "Artificial Intelligence." Researchers were highly optimistic and believed machines would soon perform tasks equal to human intelligence. Early AI programs successfully solved math problems, played games, and processed simple language, leading to rapid growth in funding and research.



The First AI Winter (1974–1980)

Despite early excitement, AI systems struggled with real-world complexity and lacked enough computing power. Many projects failed to meet expectations, causing governments and companies to reduce financial support. This period became known as the first "AI Winter," when progress in AI research slowed significantly.



The Second Wave – Expansion and Prosperity (1980–1987)

AI returned with the rise of expert systems, which were designed to imitate human specialists in fields such as medicine and business. Companies invested heavily in AI technology because these systems could improve decision-making and productivity. Japan's Fifth Generation Computer Project also increased global competition and interest in AI development.

The Second AI Winter (1987–1993)

The popularity of expert systems eventually declined because they were expensive to maintain and difficult to update. At the same time, specialized AI hardware lost value as personal computers became more powerful and affordable. As a result, many AI companies collapsed, leading to another period of reduced investment and slower advancement.

The Third Wave – Big Data and Machine Learning (1993–2019)

The growth of the internet created massive amounts of digital data, while faster computers allowed researchers to train more advanced machine learning models. AI achieved major breakthroughs in speech recognition, image processing, and recommendation systems. In 2016, DeepMind's AlphaGo defeated world champion Lee Sedol, showing the remarkable power of modern AI.

The Fourth Wave – Reinforcement Learning and Large Language Models (2020–Present)

Since 2020, AI has entered a new era driven by reinforcement learning and large language models. Systems such as ChatGPT and other generative AI tools can create text, images, music, and code with impressive accuracy. Today, AI is widely used in education, healthcare, business, entertainment, and scientific research, continuing to transform modern society.

Thanks to the dedication and innovation of the pioneers before us, we now live in an era where AI resources are more accessible than ever. Artificial intelligence has become a powerful tool that helps people learn faster, solve problems more efficiently, and explore new ideas without limits. As the next generation, we should use AI responsibly, continue improving our creativity and critical thinking, and combine human wisdom with technology to create a better future for society.

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