TECNOLÓGICO NACIONAL DE MÉXICO

CAMPUS CULIACÁN

ING. EN SISTEMAS COMPUTACIONALES

Inteligencia Artificial

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Tarea #2 Besumen

1.2.1 The "Dark Ages" or the birth of artificial intelligence

In 1943, Warren Mculloch and Walter Pitts presented the first recognized work in articial intelligence (AI), proposing a model of artificial neural network. Despite the binary neural model's later experimentals shorts comings McCulloch became a key figure in AI Jonh von newman influenced by Moulloch's work supported the creation of the first neural network computer in 1951.

1.2.2 The rise of artificial intelligence, or the era of great expectations

In the 1956 to 1960 era of AI, marked by the Dartmooth workshop, John Mcarthy corned the term artificial intelligence and developed the lisp lengoaje. He proposed the advice taker, the first knowledge-based system. Marvin Minsk introduced the theory of rames, Advanced in neurall computing continued and the general problem soiyer (GPS) by Allen newell and Herbert Simon aimed to simulated human problem but faced challenged and was abandoned.

1.2.3 Unfulfilled promises, or the impact of reality

In late 1960's - early 1970's, AI researchers fell short of promises to create human-scale intelligent machine by the 1980's. White some programs showed limited intelligence in toy problems, braader task and real-world challenges proyect difficult AI faced issu with general methods lacking domains-specift knowledge and a misconception about scaling up.

1.2.4 The technology of expert systems, or the key to sucess

In the early 1970's, a crucial shift occurred in AI with the realization the succesful intelligent machines needed to focus on narrow domains. this marked a paradigm shift from general-purpose knowledge-sparse, weak methods to domains, knowledge-intensive techniques The DENDRAL program explicit Fied this shift by succesfully analyzing chemicals, using specific rules from human expert, forming the base of the first knowledge-based system.

DENDRAL'S significance included a paradigm shift AI, achieving expert level performance in narrow domains and the methodology of expert systems.

1.2.5 How to make a machine learn, or the birth of neural network

In the mid-1980 disilosionment with experts systems led to reevaluation of AI approaches, triggering a resurgence of interest in neural networks. Although foundational concepts for neural computing existed since the late 1960's technological limitations and theoretical setback, such as minky and paperts work on one layer perceptions, hindered progress in 1970 saw dramatic revival of neural network due to advancements in computer thechnology, progress in neuroscience and the brain like the information procesing.

1.2.6 Evolutionary computation, or learning by doing

Evolutionary computation in AI draws inspirations from natural evolution, simulating biological processes to achieve high-level intelligence. This involving simulating population, evaluating performance and generating new population. The three main techniques are generic algorithms, evolutionary strategies and genetic programming.

1.2.7 The new era of knowledge engineering or computation with words

Neural network technology, with ability to learn adapt, and handle fuzzy neural network complement or incorporate information provides a more natural interaction with the real world than simbolic reasoning system. Despite lacking explanation facilities and training processes, neural network complement expert systems. Expert systems, proficient in closed-system applications, benefit from neural networks in extracting hidden knowledge from large datasets.