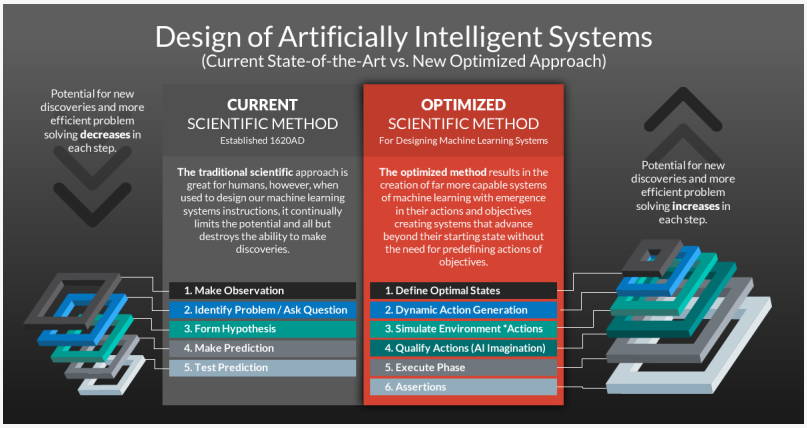
New Type of Artificial Intelligence can Self-Create and Self-Improve its Source Code

A new type of artificial intelligence has been created, one capable of expanding its actions and objectives beyond their starting states automatically.



Comparison of current versus optimized AI design methodologies.

THORNTON, COLORADO, UNITED STATES, February 9, 2022 /EINPresswire.com/ -- A new type of artificial intelligence has been created with the capability to advance its own source code, persist, and use its learning across use cases, and through code generation and modification, advance its action set and objectives beyond their starting state without the need for human intervention. Trevor E. Chandler, the inventor states, "All existing artificial intelligence is limited by human bias. We either tell the AI what actions it can perform or give it data that represents actions it can use. This stunts the potential of our systems, preventing them from achieving emergence. My new approach has overcome this, and other serious issues with machine learning today, resulting in a machine learning system generating emergent actions beyond its initial actions list or data and emergent objectives beyond its initial objectives.".

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>
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This new type of machine learning automatically searches for, finds, and uses code from other artificially Intelligent components as its starting state, continually writing code into itself from preexisting systems, then modifying its own source code as it advances its action set beyond its starting state through use of a built-in code generating and evaluation artificial intelligence. This allows useful information from preexisting machine learning systems to be utilized, not wasted, but only as a starting point. Then, a series of customized reinforcement learning techniques to execute retrieved actions, combinations of retrieved actions and newly created actions through low level decoupling, combining, and mutating of the building blocks of all actions through their

source code. This results in the generation and execution of emergent actions to solve our objectives far beyond the capabilities of the systems starting state.

Mr. Chandler states, “The current state of the art approach to science is the scientific method, a 400-year-old process that works great for human beings but when used to design our technological approaches, it acts as a limiter of potential. Simply put, this is because humans are not capable of processing and memorizing massive amounts of data, however, our technology is. Therefore, to maximize our artificially intelligent capabilities, we need to design for technology, not humanity. That means we need to allow for a new method of design where large numbers of approaches and actions can be used together, even though we don’t think like that as humans very effectively. The current global approach with technology and artificial intelligence is equivalent to hiring a large group of experts in architecture and construction to build a house, (our technology) but then force the entire group of people to build the house with a single approach and a set of actions created by people that have no expertise in home building (us, the programmers). As a result, we are good at solving small and simple problems with artificial intelligence but not complex ones, until now”.

Another major enhancement of the system is an "AI Imagination". This is the ability for the system to clone its environmental states times its total number of actions to qualify each action, then the useful actions are kept, and the incompatible or low reward actions are discarded. During these qualifications, source code for actions is being generated, modified, and deleted according to the usefulness of each action across all states. The system is not limited to a single script, and each script can create additional scripts to scale objectives with a sharing of information across all instances in real-time to avoid duplication of processing.

The system was developed and tested with a variety of 1D, 2D and 3D maps. For our final comparative results, we used a 100x100 grid and compared our results to OpenAI’s default reinforcement learning system. At 1,000,000 moves, the OpenAI system had still not solved the maze, however, our system solved the maze in 68 moves.

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