Human vs machine Go showdown kicks off in Seoul

March 9 2016, by Jung Ha-Won

Fans watch a live broadcast of South Korean Lee Se-Dol's clash with the Google-developed supercomputer AlphaGo in Seoul on March 9, 2016

A 3,000-year-old Chinese board game was the focus of a very 21st century showdown Wednesday as South Korean Go grandmaster Lee Se-Dol kicked off his highly anticipated clash with the Google-developed supercomputer, AlphaGo.

Experts were reluctant to tip a winner between Lee, one of the greatest Go players of the modern era who has topped the world ranking for most of the past decade, and the computer, which has already crushed European champion Fan Hui in a 5-0 whitewash.

AlphaGo's creators say the computer, which employs algorithms that allow it to learn and improve from matchplay experience, is even stronger now than when it took on Fan last October.

Playing black in Game One, Lee made the first move of the match being held on the sixth floor of the Four Seasons hotel in Seoul.

The game was observed by a referee and hundreds of experts, reporters and VIPs packed into an adjacent press room with a large TV screen.

The match-up has sparked enough interest to warrant an Internet live-stream as well as live TV broadcasts in South Korea, China and Japan.

The five-day battle for supremacy between man and machine is being seen as a major test of what scientists and engineers have achieved in the sphere of Artificial Intelligence (AI) over the past 10 years or so.

South Korean grandmaster Lee Se-Dol plays against AlphaGo during the Google DeepMind Challenge Match in Seoul on March 9, 2016

The most famous AI victory to date came in 1997, when the IBM-developed supercomputer Deep Blue beat the then-world class chess champion Garry Kasparov.

Our 'Mount Everest'

But experts say Go presents an entirely different challenge as the complexity of the game and incomputable number of move options mean that the computer must be capable of human-like "intuition" to prevail.

"Go really is our Mount Everest," said Demis Hassabis, the CEO of AlphaGo developer DeepMind, adding that the public response to the

challenge with Lee had been "far bigger than we expected."

Commentators sit next to a big screen showing the match between Lee Se-Dol and AlphaGo in Seoul on March 9, 2016

When Lee first accepted the AI challenge, he had confidently predicted a clear-cut win, saying that AlphaGo's performance against Fan had been nowhere near good enough to defeat him.

But the grandmaster was less bullish at a press conference in Seoul on Tuesday, where he confessed to some pre-match nerves.

"Now I think I may not beat AlphaGo by such a large margin like 5-0. It's only right that I'm a little nervous about the match," he said.

Go reputedly has more possible board configurations than there are atoms in the Universe, and mastery of the game by a computer was thought to be at least a decade away until the victory over Fan.

South Korean Go game fans watch a television screen broadcasting live footage of the Google DeepMind Challenge Match in Seoul on March 9, 2016

"At the beginning of the match, I never imagined I could lose," Fan told AFP ahead of the showdown in Seoul.

'Human-like' approach

Creating "general" or multi-purpose, rather than "narrow", task-specific intelligence, is the ultimate goal in AI—something resembling human

reasoning based on a variety of inputs, and self-learning from experience

In the case of Go, Google developers realised a more "human-like" approach would win over brute computing power.

AlphaGo uses two sets of "deep neural networks" containing millions of connections similar to neurons in the brain.

It is able to predict a winner from each move, thus reducing the search base to manageable levels—something co-creator David Silver has described as "more akin to imagination".

The match at the Four Seasons promises a $1-million payout for the winner.

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