69. 人間と AI の未来予想(1)：構造理解

On December 7th, 2017 a crucial milestone was reached,

not when a computer defeated a human at chess — that was old news —

but when Google's AlphaZero program defeated the Stockfish 8 program.

Stockfish 8 was the world's computer chess champion for 2016. It had access

to centuries of accumulated human experience in chess, as well as to decades of computer experience.

It was able to calculate 70 million chess positions per second. In contrast, AlphaZero performed

only 80,000 such calculations per second, and its human creators never taught it any chess strategies

— not even standard openings. Rather, AlphaZero used the latest machine-learning principles

to self-learn chess by playing against itself. Nevertheless, out of a hundred games

the novice AlphaZero played against Stockfish, AlphaZero won twenty-eight and tied seventy-two.

It didn't lose even once. Since AlphaZero learned nothing from any human,

many of its winning moves and strategies seemed unconventional to human eyes.

They may well be considered creative, if not downright genius.