

OBITUARIES

In the first quarter of 2001 two great scientists passed away. Both had seminal contributions to computer chess. We therefore considered it appropriate to honour them by obituaries, for which we would like to thank Ken Thompson, Hans Berliner and Fernand Gobet. – Ed.

CLAUDE SHANNON (1916-2001): FUNDAMENTAL CONTRIBUTIONS

*Ken Thompson*¹

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Claude Shannon, born April 30, 1916, died February 24, 2001, after a long struggle with Alzheimer's disease. No other person, except possibly Alan Turing, made such deep and fundamental contributions to the computer era. His contributions underlie every aspect of our digital society. He made major advances to the analysis and synthesis of digital circuits and he founded the fields of information theory and coding theory. He was a consummate gadgeteer. He built a maze-solving mouse in 1950, and he built the *Ultimate Machine*.

Of course, Shannon's greatest contribution was founding the field of computer chess. He wrote a paper with the first workable plan for a computer to play chess. In typical fashion, this paper contained not one, but two algorithms. Over the years, chess programmers have split into two cantankerous camps following each algorithm, brute force and selective search. Today it seems that the two methods have melded into a brute force search to varying depths depending on features found during search.

This is a microcosm of Shannon's life. He went where his interests took him - typically long before anyone else and before there was any practical use. Ultimately his ideas survived. Sometimes his contributions fell short and did not start a new field of science. By his own admission, he spent a lot of time on frivolous things. Above all he had fun.

On a personal level, Shannon was someone that you instinctively liked. He was always ready to talk to anyone about any subject. He was the special guest of the ICCA at the 1980 computer championship in Linz. He made a point of roaming the hall introducing himself to the programmers and learning what he could about the programs. He was just a nice guy. He will be missed.

On Neil Sloane's web page, you will find an excellent biography of Claude Shannon along with collected works. <http://www.research.att.com/~njas/doc/ces5.html>

CLAUDE SHANNON (1916-2001): THANK YOU

Jaap van den Herik

Some researchers of the younger generation are privileged: they have met Claude Elwood Shannon, the founding father of computer chess. In some sense he completed a fine triumvirate over three centuries: Baron Wolfgang von Kempelen (who launched the first ideas on chess-playing automatons in 1769), Charles Babbage (who expressed the idea that the analytical engine could play games, in 1833) and Claude Shannon (who lectured on *Programming a Computer for Playing Chess* in New York, on March 9, 1949). The lecture was published in *Philosophical Magazine* (1950) and is still a source of inspiration. It is self containing and has pointed out the computer-chess research directions for the second half of the last century.

After his retirement as a Professor at MIT, Shannon remained interested in scientific progress and was eager to follow the advancements in computer games at the tournament sides. Together with his wife Mary Shannon he attended as Guest of Honour the third World Computer-Chess Championship in Linz 1980, the sixth World Computer-Chess Championship in Alberta 1989, and the First Computer Olympiad in London 1989.

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