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Alexander (Alex) Szabo,

a computer scientist, physicist, chess player, at times professional computer chess programmer, and along with [Barbara Szabo](#) conducting a computer programming services company, located in [San Antonio, New Mexico](#) ^[1]. In the 80s they were active in computer chess business and research, [Szabo Software](#) located in [Borrego Springs, California](#), distributed their commercial chess program [TechMate](#) for the [Atari ST](#). Alex Szabo holds a M.Sc. in physics, 1980, and a M.Sc. in CS, 1984, both from [University of British Columbia, Vancouver, British Columbia, Canada](#).

Tech 3

In his 1984 thesis *Computer-Chess Tactics and Strategy*, Alex Szabo elaborates on [tactics](#) and [strategy](#) exemplified by his thesis chess program [Tech 3](#). In the spirit of the original [Tech](#) program by [James Gillogly](#), he claims that [knowledge](#) is best applied at the top of the [search tree](#) as positional presort rather than at the [leaf nodes](#) using complex [evaluation](#).

Tech3's performance on [Reinfeld's Win at Chess](#) (WAC) problem set is 274/300, which compares favourable with [Belle's](#), considering machine power. He developed a [technology curve](#) as a tool for measuring the effectiveness of knowledge encoding, and found in this respect [Nuchess](#) as the best chess program of that time ^[2].

TechMate



TechMate Screen [\[4\]](#) [\[5\]](#)

During the mid 80s, Alex Szabo developed [TechMate](#) for the [Atari ST](#). It was derived from [Tech 3](#) with the addition of a simple strategic component, a more profound [evaluation function](#). TechMate was commercially market by [Szabo Software](#) [\[3\]](#).

The Technology Curve

As published in their 1988 [ICCA Journal](#) paper [\[6\]](#), Alex and Barbara Szabo revisited the [technology curve](#) by playing 6882 games between copies of TechMate set at different time rates, with the conclusion that the advantage of improved technology rapidly decreases when [machines](#) and [algorithms](#) become more powerful. [Ernst A. Heinz](#) in his self-play memo on the experiment of the Szabos [\[7\]](#):

The Szabos determined the technology curve of their chess program TechMate that self-played 6,882 games on two Atari ST computers. The number of games per match between longer and shorter searching versions of the program varied strongly from a minimum of 32 to a maximum of 1367. The gain in playing strength averaged at 156 rating points per doubling of available search time (computing power). The experimental data indicated slight [diminishing returns](#) at longer search times. However, the Szabos simply did not play enough games at long times to draw reliable conclusions.

WAC 230

In a 2001 [CCC](#) forum post, Alex Szabo proposed several corrections on [Win at Chess](#), in particular that in WAC 230, a position from [Hans Kmoch](#) vs [Aron Nimzowitsch](#) [\[8\]](#), [Bad Niendorf](#), 1927 [\[9\]](#), 50... Rb4 does not win [\[10\]](#):

2b5/1r6/2kBp1p1/p2pP1P1/2pP4/
1pP3K1/1R3P2/8 b - -

#230 [Rb4 does not win. The main line is,
1... Rb4!? 2.cxb4 a4
3.b5+ Kxb5 4.Ba3
c3 5.Re2! Kc4 6.f4 Kxd4
7.f5 exf5 8.e6 Kd3
9.e7 Bd7 10.Kf3 d4
11.Rh2 Kc4 12.Rh8 b2 13
.Rb8 d3 14.Bxb2
cxb2 15.Rxb2 a3 16.Rb7
Be8 17.Ra7 Kb3 18.Ke3 a
2 19.Kxd3 Kb2 20
.Rb7+ Kc1 21.Ra7 =]
Ra7, Rb6, Rb5, Rd7
, Rf7, Rg7, Rh7, Bd7, K
d7, Kb6, Kb5, a4, and R
c7 are just as good as the book solution Rb4 -- they all hold the game.

In August 2010, [Dann Corbit](#) posted an allegedly refutation of Szabo's refutation found by [Stockfish 1.8](#) ^[12].

Selected Publications

[\[12\]](#)

- [Alexander Szabo](#) (1980). *The Co Distribution Around $l=30^\circ$, $b=0^\circ$* . M.Sc. Thesis, [University of British Columbia](#), [pdf](#)
- [Alexander Szabo](#) (1984). [Computer-Chess Tactics and Strategy](#). M.Sc. Thesis, [University of British Columbia](#), [pdf](#)
- [Alexander Szabo](#), [Barbara Szabo](#) (1988). *The Technology Curve Revisited*. [ICCA Journal](#) Vol. 11, No. 1

Forum Posts

- [WAC Corrections](#) by [Alex Szabo](#), [CCC](#), April 12, 2001

- [WAC 230 and Alexander Szabo's refutation revisited](#) by [Dann Corbit](#), [CCC](#), August 01, 2005
- [WAC.230 revisited yet again](#) by [Dann Corbit](#), [CCC](#), July 11, 2009
- [Stockfish 1.8 demolishes WAC.230](#) by [Dann Corbit](#), [CCC](#), August 02, 2010

External Links

- [Alexander Szabo chess games - 365Chess.com](#)
- [Alexander Szabo of Alexander And Barbara A Szabo - San Antonio, NM 87832](#)

References

1. ^ [Alexander Szabo of Alexander And Barbara A Szabo - San Antonio, NM 87832](#)
2. ^ [Alexander Szabo](#) (1984). [Computer-Chess Tactics and Strategy](#). M.Sc. Thesis, [University of British Columbia](#)
3. ^ [Gregg Pearlman](#) (1986). [ST New Products](#). [Antic Vol. 5, No. 8](#)
4. ^ [TechMate Chess for Atari ST](#) - The [Video Games Museum](#)
5. ^ [Christopher Chabris](#) (1987). [Reviews: The Game of Kings - START's First Chess Tournament](#). [STart Vol. 2, No. 2](#)
6. ^ [Alexander Szabo](#), [Barbara Szabo](#) (1988). [The Technology Curve Revisited](#). [ICCA Journal](#), Vol. 11, No. 1
7. ^ [Ernst A. Heinz](#) (2000). [A New Self-Play Experiment in Computer Chess](#). [Massachusetts Institute of Technology](#), Laboratory of Computer Science, Technical Memo No. 608, [zipped ps](#), [pdf](#)
8. ^ [Hans Kmoeh vs Aron Nimzowitsch \(1927\)](#) from [chessgames.com](#)
9. ^ [Bad Niendorf 1927 - 365Chess.com Tournaments](#)
10. ^ [WAC Corrections](#) by [Alex Szabo](#), [CCC](#), April 12, 2001
11. ^ [Stockfish 1.8 demolishes WAC.230](#) by [Dann Corbit](#), [CCC](#), August 02, 2010
12. ^ [ICGA Reference Database](#) (pdf)

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