

Mastering the Game: The Advantage of Training With AI



By INSEAD Knowledge with Henning Piezunka , INSEAD

In the same way chess computers gave players a competitive edge, AI has the power to elevate skills and enhance performance.

Artificial intelligence (AI) has already demonstrated its ability to amplify performance and reshape competitive dynamics. A prime example lies in the pivotal role played by chess computers as artificial training partners, **boosting players' capabilities.**

Introduced in the late 1970s, chess computers gained popularity in Western countries but were not available in the former Soviet Union due to microchip shortages. Building on this staggered diffusion, INSEAD's Henning Piezunka and Fabian Gaessler from Pompeu Fabra University examined how AI influenced chess player performance under conditions where computers were exclusively accessible in the West vs. being available in both regions.

Their **research findings** are compelling. Access to chess computers significantly boosted human performance, with players becoming substantially better. Furthermore, AI training helped level the playing field, especially benefitting disadvantaged players and those without access to

human training partners.

In this podcast, Piezunka emphasises the critical factors that determine the effectiveness of AI training. For optimal outcomes, the AI must surpass the player's skill level, providing training beyond what the player can anticipate. AI's value as a substitute for human training partners is particularly pronounced in environments where training resources are scant.

[Listen to "Mastering the Game: The Advantage of Training With AI" on Spreaker.](#)

However, AI training has its limitations, such as its inability to replicate human vulnerabilities. This becomes crucial in strategic interactions, where recognising and capitalising on human mistakes are integral to success. Piezunka highlights the importance of a balanced approach, combining AI-powered training with real-world practice and human interactions to offer a holistic learning experience.

From executive education to customer service training, AI-powered platforms can offer scalable learning experiences, democratising access to skill development. Yet, Piezunka cautions against the complete substitution of human training partners, as AI lacks the nuances of human errors and responses.

He also underscores how AI-powered training challenges the importance of personal and professional networks, as AI can provide feedback and training previously obtained from such networks. This could narrow performance disparities and benefit both novice and experienced individuals across industries.

As AI continues to advance, the growing interaction between artificial and human intelligence could reshape not just how people learn new skills, but also how they formulate strategies and excel in various fields.

Find article at

<https://knowledge.insead.edu/strategy/mastering-game-advantage-training-ai>

About the author(s)

INSEAD Knowledge is the expert opinion and management insights portal of INSEAD, The Business School for the World.

Henning Piezunka is an Associate Professor of Entrepreneurship and Family Enterprise at INSEAD and a Visiting Professor at The Wharton School.

About the series

AI: Disruption and Adaptation

Delve deeper into developments in artificial intelligence, especially the disruptions across value chains. This series examines AI's impact on a range of sectors, including business consulting, education and the media. It also sizes up the regulatory and ethical questions tied to this game-changing technology.