Is there any (artificial) intelligence in gaming?

Dear readers all over the world,

Over the years, gaming and the industry has much matured. Today, in video games, artificial intelligence (AI) is used to generate responsive, adaptive or intelligent behaviours primarily in non-player characters (NPCs) similar to human-like intelligence. Use of artificial intelligence is not new in gaming. It has been an integral part of video games since their inception in the 1950s (Grant and Lander, 1952). AI in video games is a distinct subfield to research, differing from academic AI, as it serves to improve the game-player experience rather than machine learning or decision making (Artificial Intelligence in Video Games, 2022). Think about 'sandbox gaming', where a broad set of algorithms is in use in high-end games to facilitate a gamer's next move or step with the game running smoothly.

But also, there is AI in techniques shaping gaming theory, steering computer graphics and experience and in collecting gamers' outcome. In that way, AI does not facilitate the game to learn and mature by itself, but help in speeding up control, have a fluent user experience or have a predefined response on input. And here we may have a problem. For in algorithm land, an algorithm basically learns what it is taught. And it may predict the next user experience or outcome based on that. But humans like to vary and explore in gaming, some even prefer going the off-beaten path in real life as in gaming.

Would it not be interesting to hand-over games that may learn by itself based on algorithms, shaping and building their next gen of games by a variety of user experience? Or in contrast, to have it played under more strict conditions to see if we can indeed get a predicable outcome – interesting for research purposes and beyond. For what is needed to constitute ethically sound and inclusive games (and is that what we should want). Now that in itself is a question. Because for some of us, it may be great fun to do the 'naughty' things in play. It is even suggested that this may prevent unwanted behaviour or misconduct in real life. The public may oppose though, believing that gaming is also about priming and shaping; thus, we should shy away from

the rather popular games including violence or abuse. Aren't these exactly the things to be researched when thinking about how to best use AI in games?

We, as editors of *Simulation and Gaming*, would like to encourage you on the debate, and in particular, on the research. For it would be better not to have an intelligent guess, but an intelligent algorithm to answer our questions in gaming!

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