https://doi.org/10.46938/tv.2024.663

////// editorial //

GAMING SCIENCE: EXPLORING THE INTERSECTION OF SCIENCE AND VIDEO GAMES

Video games are among the most popular forms of entertainment today, yet their potential goes far beyond just providing captivating experiences. They seem to be able to spark our curiosity, reveal intuitions, and evoke a sense of wonder in ways that are distinct from other less *interactive* forms of media. From this perspective, video games can be seen by philosophers[1] as interactive forms of intuition pumps,[2] that is, carefully crafted thought experiments designed to achieve specific purposes, ranging from entertainment to persuasion (which is why Daniel Dennett also referred to them as "persuasion machines"[3]).

As the old story goes, philosophy — and, arguably, any rational inquiry in general, including science — begins with wonder.[4] Video games, viewed as these "wonder machines," are then uniquely positioned to captivate the scientific mind, serving either as direct objects of study or as tools for advancing scientific research.

In this thematic issue of *Teorie vědy / Theory of Science* titled "Gaming Science: Exploring the Intersection of Science and Video Games" we wanted to focus on how different sciences study video games.

The issue features three papers representing distinct fields of research (history, ecology, and spatial reasoning) and diverse methodological traditions, encompassing both argumentative and experimental approaches.

Study of the past. The first paper, titled "Interacting with the Past: Historical Sciences and Historical Games" by David Černín, explores the complex relationship between historical games and history. The key underlying question of the paper is in what sense can historical games be considered historical. Drawing on the perspective of historical non-representational-

[1] See, e.g., Marcus Schulzke, "Simulating Philosophy: Interpreting Video Games as Executable Thought Experiments," *Philosophy & Technology* 27 (2014): 251–65.
[2] Daniel C. Dennett, *Elbow Room: The Varieties of Free Will Worth Wanting* (Cambridge, MA: MIT Press, 1984).
[3] See Daniel C. Dennett, "An Introduction to Intuition Pumps," *BigThink.com*, December 19, 2014. Compare also with Ian Bogost, *Persuasive Games: The Expressive Power of Videogames* (Cambridge, MA: MIT Press, 2007).
[4] See Plato, *Theaetetus* 155d; Aristotle, *Metaphysics* 1.982b.

This work is licenced under the Creative Commons Attribution 4.0 International License.

ism, Černín concludes that the historical nature of a video game lies in its engagement with ongoing historical discourse.

Study of the future. The second paper, "Virtual Laboratories: Mesocosms and Gameworlds" by Dustin Breitling, examines video games as virtual laboratories for addressing ecological and climate change challenges. The paper asks whether video games can serve as controlled environments for testing future scenarios. By drawing parallels between game worlds and outdoor experimental systems (mesocosms), Breitling concludes that they indeed can.

Study of the present. The final paper, "Analysis of Digital Game Worlds: Spatial Semiotics and Its Reception" by Jakub Škrdla (in Czech), delves into the theoretical foundations and methodologies for studying video game spaces. Its central question is how video game worlds can be understood and analyzed. Škrdla concludes that a promising approach involves analyzing player perception and interactions, and he presents an experiment to support this claim.

We would like to thank all the authors for their contributions and the reviewers for their assistance in the reviewing process. Although this is the first thematic issue of this journal dedicated to the study of video games, we hope it will not be the last. We look forward to seeing more research that explores video games and their multifaceted intersections with science.

Ivo Pezlar and Helena Bendová

Bibliography:

Aristotle. *Metaphysics*, *Volume I: Books 1-9*. Translated by Hugh Tredennick. Loeb Classical Library 271. Cambridge, MA: Harvard University Press, 1933. https://doi.org/10.4159/DLCL.aristotle-metaphysics.1933

Bogost, Ian. *Persuasive Games: The Expressive Power of Videogames*. Cambridge, MA: MIT Press, 2007. https://doi.org/10.7551/mitpress/5334.001.0001

Dennett, Daniel C. "An Introduction to Intuition Pumps." *BigThink.com*, December 19, 2014. https://bigthink.com/videos/daniel-dennett-on-intuition-pumps.

Dennett, Daniel C. *Elbow Room: The Varieties of Free Will Worth Wanting*. Cambridge, MA: MIT Press, 1984.

Plato. *Theaetetus*. Translated by John McDowell. Oxford: Clarendon Press, 1973.

Schulzke, Marcus. "Simulating Philosophy: Interpreting Video Games as Executable Thought Experiments." *Philosophy & Technology* 27 (2014): 251–65. https://doi.org/10.1007/s13347-013-0102-2