Bakhtin's Artificial Intelligence: Toward a Poetics of Object-Oriented Storytelling

Frank Ming
Columbia University
School of the Arts
2960 Broadway
New York, NY 10027
+1 (646) 339-4143
c.ming@columbia.edu

EXTENDED ABSTRACT

This paper interrogates the increasing conflation of database narrative and environmental storytelling in video games by proposing a poetics of object-oriented storytelling. Albeit unintentionally, the 1993 video game *Myst* concurrently pointed to two futures of new media storytelling: toward a process of "reading" where a sequence of images is algorithmically instantiated from a computer library; and toward a process of "writing" where user inputs are transcribed into vectorial movements within a quasi-three-dimensional coordinate system. These two trajectories are not unlike the twin "symbolic forms" underscored by media theorist Lev Manovich (2001, 215): the database and the navigable space.

Database and navigable space are no strangers to the game industry. On the contrary, they were both hailed as the medium specificities of video games. The former manifests itself as database narrative, a non-linear structuring principle prioritizing the diversity of configurations over the depth of a singular experience. Available in many forms, database narrative can be loosely categorized into a continuum comprising two endpoints: the hypertext novel and the artificial intelligence story generator. A writerly text transforming players into coauthors, database narrative nevertheless often leads to scripted discursivity or user-generated superficiality.

The latter is depicted elegantly by role-playing games in the tradition of environmental storytelling, where "evocative narrative elements" are carefully planted in explorable spaces to trigger the "narrative process in the player" (Nitsche 2008, 3). The combined effects of photorealistic graphics, interactable objects, and content-filled side quests contribute to spatial journeys "filled with story elements" (Carson 2000). However, as environmental storytelling is often assumed to center around "simulated human characters," it has substantially limited narrative possibilities (Wardrip-Fruin 2012, 16).

Hence, the necessity for a new mode of storytelling that depends not on a marionette-like avatar but on interdependent objects, not on a simulated space but on an organic environment, not on an enclosed diegesis but on an open system—in short, a form of object-oriented storytelling lending control to either game designer or game player but a self-legislating ecosystem. Staging a conversation between Mikhail Bakhtin's concept of "polyphony" and contemporary "object-oriented" discourses, the paper defines object-oriented storytelling by revisiting three critical terms of game studies: object, environment, and system.

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Game objects, the foundational building blocks of a video game, include all in-game entities perceived by a player as self-contained existences, irreducible to smaller components. Unlike the static object which either serves only as a "picture" or reacts merely to player actions, the dynamic object "interacts with other objects in the game world" (Juul 2021, 377). The bricolage of heterogeneous dynamic objects—their actions, reactions, and interactions—negotiates a game environment operated and governed by the rules and mechanics known as a game system. While all games are to a certain extent systemic, object-oriented storytelling highlights openness, emergence, and autonomy as three vital features of an ideal game system.

Thus, three layers of diegesis exist in object-oriented storytelling. The first level, the master-narrative, refers to "broadly defined goals or conflicts" defined by the game system (Jenkins 2004, 124). The third level, the micro-narrative, comprises "localized incidents" due to individual actions of game objects, shaping the player experience in an episodic manner. Each incident can "become compelling on its terms" without contributing much to the master-narrative (Jenkins 2004, 124–125). But the second level is where object-oriented storytelling exquisitely shines. The co-existence of game objects under the game system initiates a game environment. It is where dramatic, surprising, meaningful, and memorable environmental events between game objects are woven into the player's meaning-making as active ingredients, reifying and diversifying the affective effects afforded by the video game as a persuasive narrative unity.

While *Myst* projected a database onto a navigable space, objective-oriented storytelling converts a navigable space into a database. A multilayer neural network aggregates input units to produce a combined output. The same is true for the prospect promised by Metaverse—a future driven by ubiquitous computing, mixed-reality technology, and human-machine interaction. If media philosopher Vilém Flusser (2011, 90–94) is correct, this future will be a whole new society full of "dialogues" and "creativity."

BIBLIOGRAPHY

Carson, D. 2000. "Environmental Storytelling: Creating Immersive 3D Worlds Using Lessons Learned from the Theme Park Industry." *Game Developer*. https://www.gamedeveloper.com/design/environmental-storytelling-creating-immersive-3d-worlds-using-lessons-learned-from-the-theme-park-industry.

Flusser, V. 2011. *Into the Universe of Technical Images*. Minneapolis, MN: University of Minnesota Press.

Jenkins, H. 2004. "Game Design as Narrative Architecture." In *First Person: New Media as Story, Performance, and Game* edited by N. Wardrip-Fruin and P. Harrigan, 118–130. Cambridge, MA: MIT Press.

Juul, J. 2021. "The Game of Video Game Objects: A Minimal Theory of When We See Pixels as Objects Rather than Pictures." *Extended Abstracts of the 2021 Annual Symposium on Computer-Human Interaction in Play (CHIPLAY '21)*, Virtual Event, Austria, 18–21 October. Association for Computing Machinery (ACM). https://dl.acm.org/doi/10.1145/3450337.3483449.

Manovich, L. 2001. *The Language of New Media*. Cambridge, MA: MIT Press.

Nitsche, M. 2008. *Video Game Spaces: Image, Play, and Structure in 3D Game Worlds*. Cambridge, MA: MIT Press.

Wardrip-Fruin, N. 2012. *Expressive Processing: Digital Fictions, Computer Games, and Software Studies*. Cambridge, MA: MIT Press.