Patterns for Designing Poetic Gameplay

Alex Mitchell, Tiffany Neo and Yuin Theng Sim
Department of Communications and New Media
National University of Singapore
alexm@nus.edu.sg, neo.yuhan@u.nus.edu, E0013224@u.nus.edu

Keywords

Game design patterns, poetic gameplay, empirical study, design process, art games

EXTENDED ABSTRACT

Game design patterns (Björk and Holopainen 2003; 2005) provide a standard format for capturing game design knowledge as a form of actionable theory. Patterns both represent an understanding about how to solve a design problem and provide specific ways in which a designer can make use of that understanding in a flexible manner to solve a specific problem in a specific context. In our research, we explore the use of game design patterns to help designers to create "art games" (Bogost 2011; Sharp 2015). What makes "art games" interesting in terms of design patterns is that these games often deliberately undermine player expectations, which may require designers and artists who create this type of game to break commonly held wisdom about designing a "good" game. The overall goal of this project is to develop a better understanding of the challenges and possibilities of capturing and communicating generative design knowledge, particularly for creative or expressive work such as the design of "art games".

In addition to game design patterns, previous work has explored the use of pattern-like approaches to capture design knowledge in the context of creative expression. This has included patterns for writing hypertext fiction (Bernstein 1998), patterns for non-interactive creative fiction (Mitchell and McGee 2011), and design conventions for writing interactive digital narratives (Koenitz et al. 2018; Koenitz, Roth, and Dubbelman 2018). There have also been attempts to define the "poetic devices" that are used to undermine player expectations and elicit an aesthetic response in "art games" (Mitchell 2014; 2016; Mitchell et al. 2020) and interactive life stories (Chew and Mitchell 2020).

In this paper, we explore the possibility of expressing poetic gameplay devices as patterns and examine how practicing game designers make use of these patterns to design an "art game". To do this, we reformulated the poetic gameplay devices described in Mitchell et al. (2020) as a pattern language consisting of 33 patterns. We then asked 8 pairs of game designers to use these patterns to create a simple prototype of an "art game" based on a given theme. Participants were first given 5-10 minutes to look through the patterns and ask any questions about the patterns or how they were to be used. They were then given the theme for the game and asked to take 50 minutes to create a low-fidelity prototype of a game using at least 2 of the patterns,

Proceedings of DiGRA 2024

that would be playable to completion in 15 minutes. After the design session, participants were asked to explain the game idea and the patterns used in the game. They were then engaged in a semi-structured interview about the experience. The design sessions and interviews were audio recorded and coded for emergent themes.

Based on our analysis of the design sessions and semi-structured interviews we observed that although the designers found the patterns to be familiar and referred to them during the latter part of the design exercise, they all consistently argued during the interviews that they would not find these patterns useful during the early, creative portion of their design process. Instead, they claimed that they were more likely to refer to the patterns once they had a preliminary design and were trying to refine the concept. When asked why this was the case, they suggested that they felt game design is initially about problem creation, rather than problem solving, whereas patterns are most useful for problem solving. It was only when they had a preliminary design, which then needed to be refined and revised, that they felt they would shift to a problem-solving approach, at which point the patterns were potentially useful. They also suggested that it wasn't clear to them exactly who would benefit from this type of design knowledge. As expert designers, they felt that were already familiar with the patterns, and would use them solely for reference, whereas they imagined that a completely novice designer may not have enough background knowledge to make use of the patterns.

These findings suggest that more work needs to be done to consider how to incorporate game design patterns into the creative process, particularly for specific forms of game design such as the creation of "art games". Future work will involve seeing how novice designers respond to game design patterns, and exploring alternative approaches to representing design knowledge, such as "strong concepts" (Höök and Löwgren 2012) and "intermediate-level design knowledge" (Löwgren 2013). Understanding how to effectively capture design knowledge for the design of "art games" will help us to better understand the use of game design patterns to represent game design knowledge, and to deepen our understanding of the process of game design more broadly (Kuittinen and Holopainen 2009).

REFERENCES

Bernstein, M. 1998. 'Patterns of Hypertext'. In *Proceedings of Hypertext '98*, 21–29. ACM Press. https://doi.org/10.1145/276627.276630.

Björk, S., and Holopainen, J. 2003. 'Describing Games: An Interaction-Centric Structural Framework'. In *DiGRA 03 - Proceedings of the 2003 DiGRA International Conference: Level Up*. http://www.digra.org/wp-content/uploads/digital-library/05150.10348.pdf.

———. 2005. *Patterns in Game Design*. Cengage Learning.

Bogost, I. 2011. *How to Do Things with Videogames*. U of Minnesota Press.

Chew, E., and Mitchell, A. 2020. 'Bringing Art to Life: Examining Poetic Gameplay Devices in Interactive Life Stories'. *Games and Culture* 15 (8): 874–901. https://doi.org/10.1177/1555412019853372.

Höök, K, and Löwgren, J. 2012. 'Strong Concepts: Intermediate-Level Knowledge in Interaction Design Research'. *ACM Transactions on Computer-Human Interaction (TOCHI)* 19 (3): 1–18.

Koenitz, H., Roth, C., and Dubbelman, T. 2018. 'Creating and Sharing Interactive Narrative Design Knowledge--A Multipronged Approach'. In *International Conference on Interactive Digital Storytelling*, 165–70.

Koenitz, H., Roth, C., Knoller, N., and Dubbelman, T. 2018. '"Clementine Will Remember That"-Methods to Establish Design Conventions for Video Game Narrative.' In *DiGRA Conference*.

Kuittinen, J., and Holopainen, J. 2009. 'Some Notes on the Nature of Game Design.' In *DiGRA Conference*.

Löwgren, J. 2013. 'Annotated Portfolios and Other Forms of Intermediate-Level Knowledge'. *Interactions* 20 (1): 30–34. https://doi.org/10.1145/2405716.2405725.

Mitchell, A. 2014. 'Defamiliarization and Poetic Interaction in Kentucky Route Zero'. *Well Played: A Journal on Video Games, Value and Meaning* 3 (2): 161–78.

———. 2016. 'Making the Familiar Unfamiliar: Techniques for Creating Poetic Gameplay'. In *Proceedings of DiGRA/FDG 2016*.

Mitchell, A, Kway, L., Neo, T., and Sim, Y.T. 2020. 'A Preliminary Categorization of Techniques for Creating Poetic Gameplay'. *Game Studies* 20 (2).

Mitchell, A, and McGee, K. 2011. 'Writing in Style: Pattern Languages and Writing Short Fiction'. *Storyworlds: A Journal of Narrative Studies* 3 (May): 139–60. https://doi.org/10.5250/storyworlds.3.2011.0139.

Sharp, J. 2015. *Works of Game: On the Aesthetics of Games and Art*. Edited by Jesper Juul, Geoffrey Long, and William Uricchio. MIT Press.