# What is a Convention in Interactive Narrative Design?

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**Abstract.** This paper reports on an aspect of a long-term project to create a body of evidence-based interactive narrative design methods. In this context, we discuss aspects of formal design descriptions as a basis for a quantitative approach to verify the effects of design choices on the experience of audiences. Specifically, we discuss the notion of 'design conventions' by acknowledging earlier usages of the term and the related discourse in video game studies.

**Keywords:** Interactive digital narrative · Interactive narrative design · User study · Design conventions

## 1  Introduction

In 2012, Janet Murray recognized the need for specific design conventions as one of the central challenges for digital interactive design [1]. More recently, one of the authors presented a range of design strategies for interactive digital narrative [2] and identified a lack of generalized design conventions. In this paper, we discuss the notion of 'design conventions' as an important aspect of our approach towards the identification and verification of such generalizable design methods.

## 2  Context

The aim of our longer-term project is to collect a body of empirically-based design methods for interactive narrative to be used by practitioners and in education [3]. In order for such an effort to be most useful, it should be contextualized in two dimensions: (1) existing vocabulary (2) existing knowledge. For the first dimension, this means to understand what terminology around 'design conventions' is already in use. For the second aspect, this means to contextualize our approach in the light of existing published design knowledge, most prominently in video game studies.

### 2.1  Design Conventions

What is a 'design convention'? Our initial understanding of the term is the following: A concrete design method that manifests the intention of a creator so that it transports

said intention and shapes the interactor's experience accordingly. Conventions are not shared equally between creator and audience. The creator designs her work in such a way that it evokes a conventional understanding in the audience. For example, the initial description and certain graphical hints on the screen can script the interactor to accept a certain role. This means the designer here uses text and graphics with a specific intention, while the interactor interprets these clues and uses them in a process of "active creation of belief" [4] Therefore, conventions are consciously used by creators to be nearly unconsciously received and applied by audiences. For example, Weizenbaum "scripts the interactor" [4] of his famous 'virtual therapist' *Eliza* [5] by starting with an on-screen question ("How are you today… What would you like to discuss?") and by providing a blinking insertion mark that prompts the user to reply. These concrete design choices (question and text input prompt) in connection with the contemporary cultural context (popularity of psychoanalysis in the US and a strong believe in the capabilities of artificial intelligence) compelled users to accept their role as patients in a therapy session and act accordingly.

Conventions also depend on a level of literacy in the specific mediated format – for example, we are used to the cinematic convention of 'continuity editing.' This practice of leaving out visual information (e.g. showing a person walking towards a door, then a door handle being pressed and then the same person outside a building, without showing the intermediate visuals) works on the knowledge that missing pieces of visual information will be supplied by the audience's imagination automatically. However, such "cultural conventions" [6] might only be shared by some members even in seemingly homogeneous western societies, e.g. the WASD keyboard convention for interactor movement in 3D games is only a convention for the group of people literate in 3D games. It might therefore be more appropriate to understand this aspect of conventions as group specific. As a result of this discussion, we can now clarify our usage of the term 'design convention' as short hand to mean 'concrete design methods to create conventional comprehension and effects in interactors.'

## 2.2   Design Conventions in Earlier Media

In *Inventing the Medium*, Janet Murray positions the invention and refinement of conventions as a central aspect in applying the potential of the digital medium for expression and meaning making:

> Designing any single artifact within this new medium is part of the broader collective effort of making meaning through the invention and refinement of digital media **conventions**. (our emphasis) [1]

Murray's usage of 'conventions' here extends the earlier usage of the term in cognitivist film studies and other disciplines. There, conventions cannot be 'invented' in the fullest sense of the word; rather, a certain technique (e.g. the jump cut) might be invented (or used for the first time) by a filmmaker. This technique becomes a convention only once it is routinely understood by audiences. However, even with regards to film, the process can be more immediate, as the famous 'Kuleshev effect' demonstrates: This early Soviet filmmaker created several versions of the same clip by intersecting it with

emotionally charged images. By observing his audience he was able to demonstrate that the perception of the original clip changed depending on the intersected material. We may understand the result of his experimental setup as the discovery of a convention since Kuleshev's audiences shared a certain understanding of the different clips without being prompted.

### 2.3   Video Game Design Conventions

Before proceeding with our definition and vocabulary, we wish to consider the discourse in video game studies and design. This related field might already have established terminology which could be used in our effort. There is certainly no scarcity of publications on video game design. However, only a subset is concerned with the issue of establishing a descriptive and formal design vocabulary. When we find a development of terminology (as in [7, 8]), the focus is on formal descriptions for games. This leaves us with a much smaller group of publications focusing on the design process itself, for example Dough Church's *Formal Abstract Design Tools*. [9]

A popular approach towards a formal description of concrete design choices in video games is 'design patterns.' This kind of formalism is designed to provide a flexible, reusable solution towards solving specific problems [10]. Two collections of design patterns especially gained prominence: the *400 Project* [11] and Björk and Holopainen's book [12]. The latter authors describe game design patterns as "semiformal interdependent descriptions of commonly reoccurring parts of the design of a game" [12] While these collections provide valuable knowledge for game designers, there are considerable differences in their particular approaches. As Kreitmeier points out, quoting Gemma et al. [13]: "One person's pattern can be another person's primitive building block." The biggest drawback of game design patterns is therefore the lack of a precise (and shared) definition that would allow for direct comparison. Another drawback of this situation is that no collection can extend others without considerable work to bridge the gaps between different ontological categories. Yet, in a field with little consensus on terms and concepts, design patterns is still one of the most widely accepted concepts as Richard Rouse III reminds us more recently [14]. Yet, as Rouse concedes, for many designers, design rules are personal, written down only in their "own rule book."

## 3   Abstract Concepts vs. Design Conventions

A further aspect is the distinction between abstract concepts and concrete design conventions. For a first study [3], we selected "scripting the interactor" (StI) [4], a design concept originally identified by Janet Murray. StI casts an interactor into her role by providing context, managing expectations and exposing opportunities for action. Examples can include communicating roles and goals or informing the interactor of the experience to be expected. StI is therefore not a design convention by itself, but a conceptual abstraction which translates into a range of concrete designs conventions, for example a textual intro at the beginning of a game.

## 4   Conclusion

In this paper, we introduced our definition of 'design conventions' and discussed this concept in relation to fields like film studies and video game design. We align with Murray's definition and identify differences to earlier definitions. In video game studies we find a plethora of terms, but little shared vocabulary. Given this state of affairs, the term 'design convention' – while being a shorthand for a more complex relationship between the work of a creator and its audience – has the advantage of a clear lineage to earlier media forms via Murray's definition. Therefore, we will continue to use the term in our research effort.

## References

1. Murray, J.H.: Inventing the Medium: Principles of Interaction Design as a Cultural Practice. MIT Press, Cambridge (2012)
2. Koenitz, H.: Design approaches for interactive digital narrative. In: Schoenau-Fog, H., Bruni, L.E., Louchart, S., Baceviciute, S. (eds.) ICIDS 2015. LNCS, vol. 9445, pp. 50–57. Springer, Cham (2015). https://doi.org/10.1007/978-3-319-27036-4_5
3. Roth, C., Koenitz, H.: Towards creating a body of evidence-based interactive digital narrative design knowledge: approaches and challenges. In: Proceedings of 2nd International Workshop on Multimedia Alternate Realities, AltMM 2017. ACM, New York (2017)
4. Murray, J.H.: Hamlet on the Holodeck: The Future of Narrative in Cyberspace. Free Press, New York (1997)
5. Weizenbaum, J.: Eliza — a computer program for the study of natural language communication between man and machine. Commun. ACM **9**, 36–45 (1966)
6. Norman, D.A.: Affordance, conventions, and design. Interactions **6**, 38–43 (1999)
7. Salen, K., Zimmerman, E.: Rules of Play. MIT Press, Cambridge (2004)
8. Costikyan, G.: I have no words & i must design: toward a critical vocabulary for games. In: Mäyrä, F. (ed.) Proceedings of Computer Games and Digital Cultures Conference, pp. 9–33. Tampere (2002)
9. Church, D.: Formal Abstract Design Tools (1999). https://www.gamasutra.com/view/feature/131764/formal_abstract_design_tools.php
10. Alexander, C., Ishikawa, S., Silverstein, M.: A Pattern Language. Oxford University Press, New York (1977)
11. Barwood, H., Falstein, N.: The 400 Project. http://www.theinspiracy.com/the-400-project.html
12. Björk, S., Holopainen, J.: Patterns in Game Design (Game Development Series). Charles River Media, Rockland (2004)
13. Gamma, E., Helm, R., Johnson, R., Vlissides, J.: Design patterns: abstraction and reuse of object-oriented design. In: Broy, M., Denert, E. (eds.) Software Pioneers. Springer, Heidelberg (2002). https://doi.org/10.1007/978-3-642-59412-0_40
14. Rouse III, R.: The Rise and Fall and Rise Again of Game Design Rules. http://www.gamasutra.com/blogs/RichardRouseIII/20150218/236699/The_Rise_and_Fall_and_Rise_Again_of_Game_Design_Rules.php