

Chapter 4

Surprise–Based Narrative Generation in an Automatic Narrative Generation Game

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ABSTRACT

The authors have been developing an automatic narrative generation game using the method of table-talk role playing game (TRPG) that is an analog game based on the interactive process by real humans. This system progresses by repeating of the interaction between a game master (GM) and players (PLs). Although the GM prepares a story as a basis of the process, the PLs can detail and change the story. A basic idea in this chapter is that a gap created through the interaction between the GM and the PLs, namely the gap between the original story by the GM and the changed story, gives various impressive effects for an interesting story or narrative, especially a kind of surprise. Based on the above basic idea, in a previous research the authors studied the relationships between gap and surprise, narrative or story techniques producing surprise, and so on using short stories really generated by the authors' narrative generation system.

INTRODUCTION

A Table-talk Role Playing Game (TRPG)¹ is an analog game for which the story changes upon playing the game. Cooperation and opposition drive this process. TRPG generates narratives in such a way that each campaign can be different from another. All participants contribute to the narration within a game as they assume the roles of characters in a story. Changing a story is large in scale because the flow of a story runs off a prepared story framework. The Integrated Narrative Generation System (INGS) developed by the Authors is a system (Ogata, 2016) that generates the conceptual structure of a story or discourse and of its surface expression. During story generation, the INGS uses input parameters that

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Surprise-Based Narrative Generation in an Automatic Narrative Generation Game

represent the structure of a story, and it generates a story with values similar to the parameters given. The discourse mechanism also has a function that generates structure by input parameters. Furthermore, a generation strategy is employed by means of a narrator in the discourse mechanism. However, the story generation mechanism does not operate strategically in the manner that the discourse mechanism does. Therefore, the authors provide a method for more strategic story generation by introducing a story generation model in TRPGs.

One characteristic of the story generation method of TRPG is that participants act as characters in the story. Participants generate motivation as the role of a game participant operating outside of the story and motivation in the role of a character inside of the story, while the goal being to finish the story. Difference between the outside of the motivation and the inside of it generates an unexpected story.

The Authors developed the TRPG-based Automatic Narrative Generation Game (ANGG) (Ono & Ogata, 2016a, 2016b), which uses the existing story generation mechanism in INGS. The Authors intend to develop a new story generation model in which the result is fed back to the INGS. In this work, the Authors focus on a generation model based upon the narrator-and-listener mutual relationship between the Game Master (GM) and Player (PL) for the INGS. In the result, the authors focused on story generation mechanisms and developed its mechanisms. In concretely, Overview of the ANGG and story generation model in TRPG shown, a story generation mechanism by communication between GM and PL was developed, and story generation using Non-Player Character (NPC) was proposed.

Based on the aforementioned result, the authors suggest a story generation model using “surprise” in this report. In TRPG, PL lets a story progress based on the framework of the story that the GM prepared for. The story may drift away from the frame that the GM initially gave for the story. This difference, referred to herein as “gap,” evokes surprise in the GM and changes the frame that the GM has initially prepared, changing the story into a different one. The authors define these series of flows as surprise-based narrative generation.

BACKGROUND

Table-Top Role-Playing Game

TRPG is an analog game, usually played with dices, paper, and writing instruments utensils and mainly. To be it is often sometimes called referred to as a Role-Playing Game (RPG), but traditional TRPGs are referred to as such in Japan in order to distinguish it them from the RPG video role-playing game genre that is one of the genres in the digital game in current Japan; called TRPG (Nakagawa, 2016). One such TRPG is Dungeons & Dragons (D&D), a pioneering achievement in the TRPG genre created by is the plays that Gyax² (Witwer, 2015). RPG originates in learning means called role playing³; it is added a rule to judge the right or wrong of things.

TRPG is handled as a subject of the studies of the communication (Kato & Fujino, 2015). In another study that focuses on the story-creation process of TRPG, an immersive storytelling model is suggested as the model in which the participant of the story participates as one of the characters. An interviewer shares story space with a narrator, and examples controlling the progress of the story interactively include TRPG. There is the study that focuses on the propensity of a person making a story in TRPG and analyzes three kinds of games with an example (Bergström, 2012). Creativity was the scrutinized factor in this study, but the development of the system using a TRPG-based model is not realized.

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