Advertising Plot Generation System Based on Comprehensive Narrative Analysis of Advertisement Videos

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Abstract

An advertisement video is a narrative based on a short story, and it is among the various narrative techniques used for constructing a plot. Although research into advertisement copies and explanations has been recently conducted, only a few researchers, including us, have discussed the automated generation of advertising stories and plots in detail. This study proposes the prototype of an advertising plot generation system based on a comprehensive analysis of advertisement videos.

1 Introduction

This study proposes a prototype of an advertising plot generation system based on a comprehensive analysis of TV advertisement videos; hereafter, we call "TV advertisement video" "TV ad" in this paper.

For advertisements viewed from a narratology perspective, the need for narratives is often taken up as research themes (Shankar, Elliott & Goulding, 2010; Wilner & Ghassan, 2017; Laer, Visconti & Feiereisen, 2018). Narrative appears that the sensitivity of individual producers has a strong influence, but observing an advertisement from the viewpoint of narratology has great significance. It is possible to discover systematic laws from the empirical and subjective production rules of TV ad creators by discovering common characteristics and structures for narratives formed by the senses of individual producers. The knowledge obtained therein leads to the development of the model of acceptance and production of TV ads by computer science.

Analysis has been conducted as part of the "Creative Genome Project" (Sasaki, 2018). From a broad viewpoint, one of the goals of the Creative Genome Project is to analyze and collect the creative elements for our experiences of contents including advertisements.

2 Background

In this study, we utilize the results to generate an advertising narrative. Through the project, we analyzed more than 1,000 recent advertisements in Japan to attribute adequate parameters of approximately twenty types of tags including concepts, structures, and sensuous features to each advertisement. The analysis has been conducted from the viewpoint of creation of the advertisement.

Furthermore, for generating the TV ad plot, we use the "Integrated Narrative Generation System (INGS)," developed by Ogata (2018). The system can generate plots based on existing TV ads using the analyzed and acquired parameters. It can also generate TV ad plots that deviate from those of existing TV ads via the de-familiarized use of the structures and characteristics of existing TV ads.

Sasaki's Creative Genome Project is an analysis based on the viewpoint of the producer. The project defines many parameters for each advertising work, and further classifies them into macros. It is a concept and practice that is unparalleled, and the details will be described in the section 4. Ogata adds the viewpoint of narrative generation to the project.

In this case, Ogata understood the problem of narrative generation based on each conceptual element, analyzed and described, as well as its parameters, toward the generation of the Creative Genome Project, and proposed a system of connecting all these factors. (Ono, Sasaki & Ogata, 2019).

The achievement of the narratology fueled the discovery of common characteristics and structure in stories and literature. Therefore, advertisements able to be analyzed by the narratology.

These characteristics and structure, at first, appear to be subjective and individualistic. Furthermore, the theory provides an objective criterion for something that previously appeared to be distinctly subjective and from the perspective of the producing individual. One major significance of this study is thought to be similar to this aspect. That is, although the empirical or subjective production rules of advertisement creators are important in terms of "methodology as a difference of creators," there are some production rules that supersede these rules when considering, for example, TV ads. It becomes possible to formulate the method of structure transformation as a group of techniques from acceptance to production using the technology of artificial intelligence and story generation systems.

Creativity is the re-structuring of fragments of the narrative, common structure, and common rules. Gervas (2009) describes computer science storytelling and creativity. Gervas also proposed and developed a computer-scientific narrative generation model from Prop and Genette's narrative theory. In addition, we try to incorporate not only formal methods but also semantic and subjective viewpoints in the generation by using the analysis results of professional sense by modern producers.

Currently, the purpose of using this system is not to directly generate advertisement plots for final use. Rather, this system can, for example, be used at advertisement planning meetings, wherein it can flexibly generate diverse plot candidates according to the users' indications and hopes. In summary, in this study, we present the implementation of a prototype of an advertising plot generation system based on the abovementioned method to clearly demonstrate the system's basic framework and consider the problems in developing a more expanded and large-scale system.

3 Proposed System's Overview

Figure 1 indicates the functional configuration of the proposed prototype system. Although this framework is tentative for the time being, the user is the planner/producer of the advertisement, and in the planning work, the system's automatic generation function is used to condense the planning work. The framework is such that the system supports the implementation process of the work.
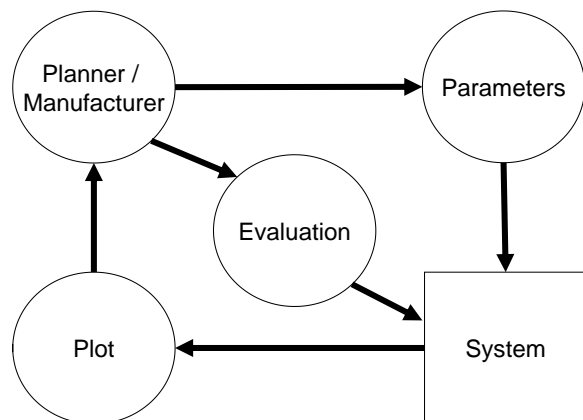

Figure 1. Function plan in proposed system

Figure 2 indicates an overview of the algorithm in the proposed system. The Advertising Plot Generation System is a concrete production method from the viewpoint of the creator's mood to be delivered to the receiver upon combination of the tag of the Creative Genome and the technique/method for constructing the component of the story.
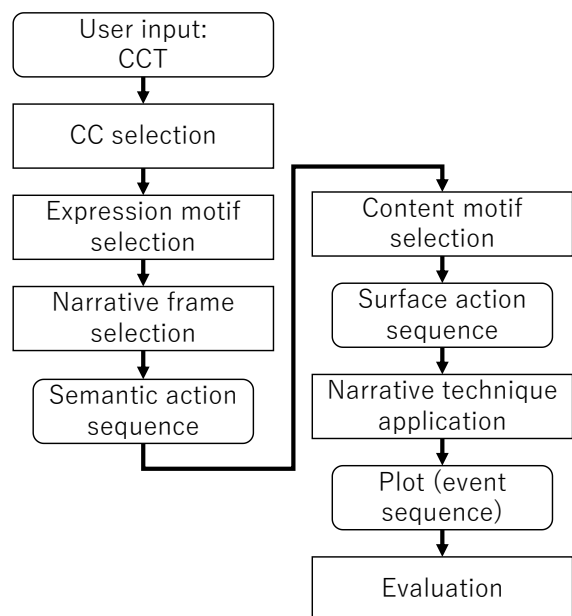

Figure 2. Overview of algorithm

4 Analyses of Advertising Works in Creative Genome Project

The core objective of the Creative Genome Project (Sasaki, 2018) is to extract and convert data to "sense" words (associated with emotions) in the

commercial production site. Sasaki examined the type of narrative pattern that the TV ad industry has inspired using the emotions of the TV ad viewers, and classified the trigger of emotions into approximately 16 types (Sasaki calls the trigger "communication concept tag"). This project aimed to formalize the knowledge of TV ad production in the advertising field, and Sasaki focused on formalizing the empirical rule of TV ad production—the knowledge based on the relationship between the TV ad receivers and producers. This entails the proposal of a new method of creating an ontology based on the intended mood.

Creative Genome is a collection of data that analyze the characteristics of TV ads from the perspective of creators by triggering certain emotional experiences to TV ad viewers. It consists of several types of tags that describe the features of each TV ads in words. A communication concept tag (CCT) is linked to a user experience (UX, i.e., that which is felt by the TV ad viewers). There are more than 10 mutual influence tags (the specific description of the tags is called a parameter).

For example, let us consider "Challenge/Destruction" as a CCT; this can be associated with feelings of exhilaration. This feeling represents an act that challenges and destroys existing frameworks, common sense, and entrainment pressure on society and the world. Many factors can trigger feelings of anarchy.

A parameter that embodies a CCT is called a communication concept (CC). The CCs that belong to "Challenge/Destruction" include "Innovation," "Revolution," and "Rebellion," to name a few. There is, for example, the "Nike Baseball Oath Edition," a TV ad that belongs to the CCT "Challenge/Destruction," with the CC of "Revolution," "Rebellion," expression motifs of "Destruction of Expected Events," "Birth, of Legendary" concrete motifs of "Oath on a Student's Baseball Tournament," narrative frames of "self-reversal," and the narrative techniques of "contrast," "independent," "one-sided," and "gaze."

We analyzed the events that occurred in the TV ad and its components were initially analyzed by Sasaki. Figure 3 presents the TV ad analysis process. We analyzed the events that occurred in and elements that make up the TV ad. Table 1 indicates the results of the event sequence analysis,

and Table 2 indicates the results of the element analysis. The examples shown in the two tables are the analysis results of the "Nike Baseball" case described in Section 4. In addition, after the two analyses, we also analyzed the action visually expressed in the TV ad (surface action sequence), and the semantic content expressed by the action (semantic action sequence).
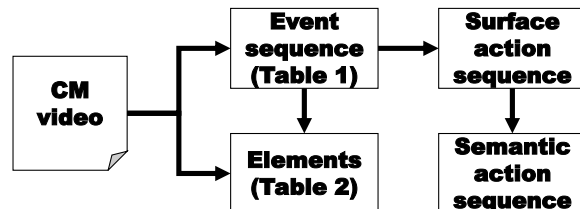

Figure 3. Action analysis flow

First, the analysis of the events that occurred in the TV ad is explained in Table 1. The sequence of events in the TV ad is referred to as the event sequence. The event sequence is composed of descriptions of one or more events, and the descriptions are created based on the TV ad. The description is composed of "subject of event" and "content of event." The place where the event occurs is described as the background. Subsequently, characters, objects, places, and times are extracted from Table 1 and summarized as shown in Table 2.

Next, we analyze the actions mainly based on Table 1. First, an abstract is created by summarizing one or more events in the event sequence. This abstracted event is called a surface action sequence. For example, "raise one hand" along with "speak" or "take an oath."

Subsequently, based on the surface action sequence, the semantic content expressed by the action is analyzed. The result of this analysis is called a semantic action sequence, and specific examples will be described in the section 5.2.

The following section shows the process of using the analysis results for generation. At this stage, the analysis results shown here are the concrete contents used in plot generation. Genome parameters used for generation are CCT, CC, expression motif, story frame, concrete motif, story technique, etc. Among them, the story frame is a parameter corresponding to the deep event sequence, and the specific motif corresponds to the constituent element and the surface event sequence. CCT, CC, and expression motif are parameters for referring to the story frame. The

event sequence shown in Table 1 is positioned as data generated as a result of applying the narrative technique to the surface event sequence.

The analysis of the surface event sequence relates to the analysis of the narrative technique. Narrative techniques are examined based on the difference between the surface event sequence and the event sequence shown in Table 1. The former and the latter are positioned as event sequences before and after the application of the narrative technique, and the method for compensating for the difference is referred to as the narrative technique.

5　Narrative Generation System

In this section, we refer to the Integrated Narrative Generation System (INGS)—a second element that is the basis for writing this paper—as a mechanism strongly related to the automatic generation of advertisement scenarios (plots) in this research. The "story generation mechanism" is described in detail.

5.1 Overview of INGS

The INGS possesses primary generation modules for story, narrative discourse, and expression, including language, music, and images. The story and narrative discourse are represented by their respective conceptual representation forms. All modules are controlled by each local control mechanism under global control. Story and discourse generation are performed using story and discourse techniques, respectively. Furthermore, the INGS contains dictionaries, including for conceptual inference and language, and various knowledge bases, including those for story content and state-event transformation. In addition, as stated in the previous section, several literary theories are incorporated into the INGS for the practice of expanded literary theory.

5.2 Story generation process

The INGS provides mechanisms that control both the entire narrative generation process and each point of narrative generation. During the story generation phase, the system generates a story using a tree structure with three basic elements: event, relation, and state, which are organized by time. Each event is constructed using an event concept and semantically related noun concepts. The conceptual representation form is used as a

frame structure to semantically categorize each noun concept using eight basic cases ("agent," "counter-agent," "object," "location," "time," "instrument," "from," and "to") and nine special cases ("adverb," "possessive," "situation," "purpose," "experiencer," "source," "idiom," "information," and "as"). Each event accompanies the preposition and the resulting state at the beginning and end of the event. Concurrently, each relationship links an event or aspect of the tree structure (which includes events) to another event or aspect of the tree to create a new structure, where events and states have a top-level relationship. Many relationships, such as "cause-effect," "sequence," and "script," are created therein. Figure 4 presents an example of a story structure that includes relations, events, and states.
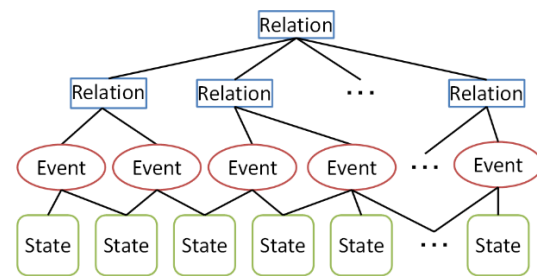

Figure 4. Hierarchical conceptual structure of a story [Source: Ogata (2019)]

States and events correspond to static and dynamic informational elements, respectively. The main functions of a state are to manage knowledge about the story world, and the flow, from event to event. Although a story is a temporary organization of events, its semantic consistency is managed by relationships and states.

5.3 Story techniques and story content knowledge

The tree structure of a story, including those of events and relations, is expanded by applying a story technique to any object in the structure. When the story technique is applied to a point, the knowledge contents from conceptual dictionaries and the story content knowledge base are used. At this point, the mechanism of narrative generation is related to the aspect of narrative contents. Moreover, when an event is generated in a story generation process, the states relating to the event are also generated.

A story structure consisting of events and relations can be generated using story techniques as part of the applicable narrative techniques, and

Table 1: Event sequence

Event	Location
司会、「出場校を代表して」[A moderator, "on behalf of the participating school"]	野球場 [Baseball ground]
司会、「選手宣誓をします」[The moderator, "Please swear"]	
選手、檀上に上がる[A player goes up to the platform]	
ジャーナリストたち、カメラを構える[Journalists hold their cameras]	
選手、「宣誓」[The player, "Oath"]	
選手たち、旗を構える[Players holding a flag]	
選手、「我々は」[The player , "We..."]	
吹奏楽部部員たち、選手を見つめる[Wind club members look at the players]	
選手、「というか」[The player "...rather"]	
司会、疑問を感じる[Moderator feels doubt]	
ジャーナリスト、カメラから顔を離す[Journalist moves his face away from the camera]	
選手、「ぼくに注目して下さい」[The player, "Please pay attention to me"]	
吹奏楽部部員、ばちを取り落す[A brass band member removes a bee]	
吹奏学部部員、呆然とする[A member of the School of Winds, stunned]	
選手、「ぼくは」[The player, "I..."]	
チアリーディング部部員、選手を見つめる[Cheerleading club members, staring at players]	
選手、「この大会でみんなを」[The player, "Everyone in this tournament"]	
選手、「驚愕させます」[The player, "Surprised"]	
男，顔をあげる[Man looking up]	マッサージの部屋 [Massage room]
男、TVの選手に注目する[Focus on men and TV players]	
選手、「スカウトは」[The player, "Scout is"]	放送室 [Broadcast room]
放送職員、画面越しの選手に注目する[Pay attention to broadcast staff and players over the screen]	
タクシー運転手、ラジオの音量を上げる[Taxi driver raises radio volume]	タクシー [Taxi]
選手、「百年に一人の怪物として」[The player, "As a monster in one hundred years"]	
乗客、笑う[Passenger, smiled wryly]	
選手、「騒ぎ立てるでしょう」[The player, "I 'll make a fuss"]	街中 [In town]
群衆，大型ディスプレイに映る選手に注目する[Focus on the crowd, players on the large display]	
選手、「ぼくの髪型は大流行し」[The player, "My hairstyle is very popular"]	野球場 [Baseball ground]
男、「坊主だろ」[A man, "You've shaved."]	
男、隣の客を見る[The man looking at the customer next door]	
男、「なぁ」[The man, "Right?"]	
選手、「笑顔だって超高校級」[The player, "Even if you smile, you're super high school"]	野球場 [Baseball ground]
選手、地面を踏みしめる[The player steps on the ground]	
選手、足に力こめる[The player puts their feet on their feet]	
選手、「集団に埋もれて」[The player, "buried in the group"]	
選手、走り出す[The player runs]	
選手、「自分を失うのはもうやめ」[The player, "I'm no longer losing myself"]	
選手、走る[The player, runs]	
選手、「手に入れらる全てを」[The player, "You can get everything"]	
選手、走る[The player, runs]	
選手、「全力で手に入れることを」[The player, "Getting it with all your power"]	
選手、「ここに誓います」[The player, "I swear here"]	
選手、頭を下げる[The player, head down]	
選手、頭を上げる[The players raise their heads]	
ナイキのロゴ [Nike's logo]	黒地 [Black background]

any states associated with the created events are developed according to another mechanism.

In summary, a story generated by such a mechanism is defined by either the content of a narrative or the temporal sequence of events. It is represented by a tree structure that consists of the three types of basic units: event, relation, and state. An event is described in conceptual representation form as a frame or case structure that includes a verb concept and the related noun concepts. It is the principal combination of preceding and subsequent states.

A relation semantically combines events or sub-structures (such as "cause-effect," "continuation," and "script"). A "state" is the static information within a story, while an "event" corresponds to the dynamic information. The chief functions of the state are to maintain the knowledge of a story's environment and ensure the coherency of the flow of events.

Table 2: Elements

Character	選手 [Player], 選手たち [Players], 吹奏楽部員 [Brass band member], 司会 [Moderator], ジャーナリスト [Journalist], チアリーディング部員 [Cheerleading member], 男 [Man], 放送職員[Broadcast staff], タクシー運転手 [Taxi driver], 乗客 [Passenger], 群衆 [Crowd], ウグイス嬢[narrator]
Object	旗[flag], ばち[stick], カメラ[camera]
Location	野球場 [Baseball ground], マッサージの部屋 [Massage room], 放送室 [Broadcast room], タクシー [Taxi], 街中 [In town]
Time	日中 [Daytime]

6 Advertising Plot Generation Process

The flow of plot generation is explained based on the analysis example of the "Nike Baseball Swearing" edition shown in Sections 4.

6.1 Parameter selection

The system receives the CCT input from the user, and the parameters for generation are determined. Figure 5 presents the selection flow of the parameters. Each parameter has a relationship based on the Creative Genome. For example, CCT "Challenge/Destruction" corresponds to "Revolution" and "Rebellion" in the CC tag, as well as parameters such as "new" and "unexpected." This CC is a theme for hosting a CCT called "Challenge/Destruction." The expression motif and narrative frame are developed from the CC to more concrete contents, and the narrative frame is the structure for providing the user (viewer) with the UX corresponding to the CCT.
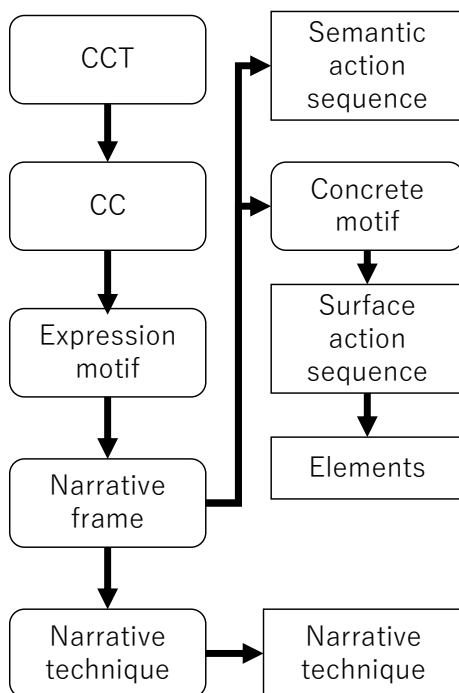

Figure 5. Parameter selection flow

6.2 Plot structure generation

The selection of parameters determines the data and procedural processing used for generation. The contents to be determined are surface action sequence, semantic action sequence, elements, and narrative technique. Figure 6 presents the flow of data development. The semantic action sequence is expanded to the surface action sequence, and the surface action sequence is expanded to a finer event sequence. In the development, the element and event sequence indicated by the concrete motif are used, and the story structure is transformed by the narrative technique.
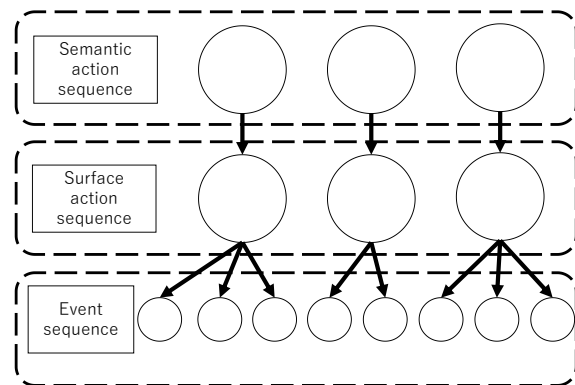

Figure 6. Plot structure generation

7 Results and Discussion

In this section, the results of each generation stage are presented and described (Figure 7 and figure 8). "Nike Baseball" is generated, and the surface action sequence is "player introduction and player swearing in" → "private ambition swearing" → "silence in the venue." The semantic action sequence is "expectation of typical action" → "rebellion to type" → "embarrassment and cold reaction."

In the future, in particular, surface action sequence analyses and semantic action sequence analysis must be refined. Specifically, in the analysis of the surface action sequence, it was established that it is necessary to refer to the finer details of the event that occurred. For example, in

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($root
 ($「選手紹介と選手宣誓」 [Player Introduction and Player Swearing]
  (event アナウンスする 1 [announce] ((agent (&sc ウグイス嬢[narrator]))))
  (event 上がる 1 [step up] ((agent (&sc 選手[player])) (to (&sc 檀上[stage]))))
  (event 構える 1 [take] ((agent (&sc ジャーナリストたち[journalists])) (object (&sc カメラ[camera]))))
  (event 始める 1 [begin] ((agent (&sc 選手[player])) (object (&sc 選手宣誓[player's oath]))))
  (event 構える 1[put up] ((agent (&sc 選手たち[players])) (object (&sc 旗[flag]))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath]))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath])))))
 ($「私的な野心の宣誓」 [Private Ambition Swearing]
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath]))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath]))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath]))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath]))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath]))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath]))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath]))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath]))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath]))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath]))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath]))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath]))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath]))))
  (event 一礼する 1[bow] ((agent (&sc 選手[player])))))))
```

Figure 7. Generated 1st plot based on surface action sequence

the case of "Nike Baseball" as shown, in a simple view, "the player starts the oath" and "the player states, 'If you do not divide it into two'," swearing to achieve a specific ambition. The content expressed in the TV ad is missing. In view of this point, there are cases where the current analysis results have a high degree of abstraction. Therefore, a new surface action sequence must be considered. Further, TV ads with the same semantic action sequence may be considered for different surface action sequences.

Currently, a single TV ad plot is generated. As it is based on two TV ad data points, it is possible to simulate the TV ad production flow, although there are only two types of generation results. At this stage, the Creative Genome is not linked to the elements of the narrative in detail. Therefore, automatic selection of ad plots is not performed simply by selecting Genome parameters. The example in this study is an image of a concrete example that includes manual work; however, if the connection mentioned above can be created, this will lead to actual TV ads plot generation. Therefore, the problem is how to connect the genome and the concrete elements through the INGS and product introduction rhetoric. Thus, we approach the problem by programming the knowledge of folktale's motifs and analyzing the event structure of TV ads analyzed earlier by the genome.

8 Conclusion

In this study, we presented a TV ad plot generation system that uses parameters for representing the features of actual advertisement works acquired through an organizational advertisement analysis of the Creative Genome Project. Subsequently, the system generates diverse TV ad plots similar to ordinary narrative plots. Furthermore, we indicated the results of TV ad plots generated by the proposed system and investigated them.

References

Gervas, P. (2009). Computational Approaches to Storytelling and Creativity. AI Magazine, 30(3), 49. https://doi.org/10.1609/aimag.v30i3.2250

Laer, T. V., Visconti, M.V. & Feiereisen, S. (2018). Need for Narrative. Journal of Marketing Management. 34 (Issue 5-6).

Ogata, T. (2019). Toward a post-narratology or the narratology of narrative generation. In T. Ogata & T. Akimoto, *Post-Narratology Through Computational and Cognitive Approaches*. 85-142. Hershey, PA, USA: Information Science Reference.

Ono, J., Sasaki, A. & Ogata T. (2019). A prototype of CM plot generation using an integrated narrative

generation system and "Creative Genome." In *Proceedings of the 3rd. International Workshop on Language Sense on Computer in IJCAI2019*.

Sasaki, A. (2019). Multiple emotional tagging by integration of two datasets: definitions of human values and storytelling methods: The first prototype of an app 'The Guidebook by Your Suggestions produced by 'Relevant Intelligence Communication Consortium.' In *Proceedings of the 33rd Annual Conference of the Japanese Society for Artificial Intelligence,* 1F2-NFC-1-01.

Shankar, A., Elliott, R. & Goulding, C. (2010). Co-constructing the Narrative Experience: Staging and Consuming the American Civil War at Gettysburg. Journal of Marketing Management. 24 (Issue 1-2).

Wilner, S. S. & Ghassan, A. (2017). Tales of Seduction and Intrigue: Design as Narrative Agent of Brand Revitalisation. Journal of Marketing Management. 24 (Issue 1-2).

```
($root
 ($「選手紹介と選手宣誓」 [Player Introduction and Player Swearing]
  (event アナウンスする 1 [announce] ((agent (&sc ウグイス嬢[narrator]))))
  (event 上がる 1 [step up] ((agent (&sc 選手[player])) (to (&sc 檀上[stage]))))
  (event 構える 1 [take] ((agent (&sc ジャーナリストたち[journalists])) (object (&sc カメラ[camera]))))
  (event 始める 1 [begin] ((agent (&sc 選手[player])) (object (&sc 選手宣誓[player's oath]))))
  (event 構える 1[put up] ((agent (&sc 選手たち[players])) (object (&sc 旗[flag]))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath]))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath])))))
 ($「私的な野心の宣誓」 [Private Ambition Swearing]
  (event 感じる 1 [wonder]((agent (&sc 司会[moderator])) (object (&sc 選手宣誓[player's oath]))))
  (event 離す 1[tale] ((agent (&sc ジャーナリスト[journalist]))
            (object (&sc カメラ[camera]) (from (&sc 顔[face])))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath]))))
  (event 落とす 1[drop] ((agent (&sc 吹奏楽部部員[brass band member])) (object (&sc ばち[stick]))))
  (event 呆然とする 1[stunned] ((agent (&sc 吹奏学部部員[brass band member]))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath]))))
  (event 見つめる 1 [gaze] ((agent (&sc チアリーディング部部員[Cheerleading member])) (object (&sc 選手
[player]))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath]))))
  (event あげる 1[face-up] ((agent (&sc マッサージを受ける男 [customer who is massaged ]))))
  (event 注目する 1[look-up] ((agent (&sc マッサージを受ける男[customer who is massaged ]))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath]))))
  (event 注目する 1[look-up] ((agent (&sc 放送職員[broadcast staff]))
            (object (&sc 画面越しの選手[player that be displayed]))))
  (event 上げる 1[inclease] ((agent (&sc タクシー運転手[taxi-driver]))
            (object (&sc 車内のラジオの音量 [car-stereo-volume]))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath]))))
  (event 笑う 1[laugh] ((agent (&sc 乗客)) (object (&sc 選手宣誓[player's oath]))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath]))))
  (event 注目する 1[look-up] ((agent (&sc 群衆[crowd])) (object (&sc 大型ディスプレイ[large display]))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath]))))
  (event 笑う 1[laugh] ((agent (&sc 男[man])) (object (&sc 選手の髪形[player's hair-style]))))
  (event 求める 1[ask] ((agent (&sc 男[man])) (object (&sc 隣の客[audience who sits in the neighbor]))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath]))))
  (event 走り始める 1[begin-run] ((agent (&sc 選手[player]))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath]))))
  (event 走り出す 1 [run] ((agent (&sc 選手[player]))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath]))))
  (event 走る 1 [run] ((agent (&sc 選手[player]))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath]))))
  (event 走る 1[run] ((agent (&sc 選手[player]))))
  (event 続ける 1[continue] ((agent (&sc 選手[player])) (object (&sc [player's oath]))))
  (event 一礼する 1[bow] ((agent (&sc 選手[player]))))
  (event 表示される 1[display] ((object (&sc ナイキのロゴ[Nike's logo]))))))
```

Figure 8. Generated 2nd plot based on the 1st plot