A semiotic approach to narrative manipulation

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Abstract

In the design of multimedia communication artifacts few, if any, tools support the early stage of a creative process: the heuristic project. In this work we give a proof of concept of an application addressed to a specific kind of heuristic project: given the logical sequence of episodes of a narrative, the *fabula*, the goal is to obtain different plots expressed in multi-modal language. The case study is provided by the task of transposing a written synopsis to the multi-modal language of a movie. We adopted the semiotic theory of Greimas to analyze the narrative and reveal its deep structure. The application enables users to interact with this structure in order to simulate and anticipate the effects of meaning resulting from their manipulation.

Keywords: Structural Semiotics, Narratology, Multimedia Communication Artifacts.

The background

NarToo - Narrative Tool, is a prototype to be used by an author dealing with a specific kind of heuristic project, the early stage of the creative process: given the logical sequence of episodes of a narrative, the *fabula*, the goal is to obtain different *plots* expressed in multimedia language. In our case study the task is transposing a written synopsis to the multimedia language of a movie.

Semiotics discloses a very powerful perspective to look at the empirical field of design. In particular, structural semiotics applied to narratology, the tradition linking Propp to Greimas, define the elements system and the combination rules to be applied to accomplish the task of generating new plots from a fabula. The theory is used to analyze the narrative and reveal its deep structure. It provides a user interaction model as well, imposing the degree of freedom by defining legal and illegal operations, and suggesting an inventory of samples and hints that are helpful during the inventive process.

NarToo and the story

The case study is provided by a synopsis based on the Borgia's, a very powerful family active in Rome. The story, starting in 1492 and extending through 1503, tells us how Rodrigo ascended the pontifical seat and managed his religious and secular power in an unscrupulous and unbiased manner. The plot, exploited several times because of its muddled nature and complex mix of human and political feelings, is related with a dark phase of the history of the papacy. The application core is fueled by the data of this story but it can be used with other subjects.

A trainee director is coping with the task of de-structuring the written text to produce new plots in a different expressive medium: for instance, a movie. The task deals with two different subtasks, addressing the different levels of *content* and *expression*. NarToo supports the early stage of the inventive process, at both levels. The trainee manipulates the chronological sequence of the events in the *fabula*, applying for instance flashback or flash-forward, in order to produce different kinds of filmic plots, assigns to actors their functional roles in each episode of the narrative and decides upon the point of view in a scene, attributing the role of narrator to an actor. At the expression level, starting from the skeleton of the narrative substratum the author enriches the structural elements with figurative details, shifting from a mono-medium expression, which employs just the linguistic medium, to a multimedia expression, involving several perceptive registers and triggering sensorial interaction phenomena and synesthesic perceptions. Indeed, the application provides a means to interact with the narrative substratum, so that it will appear with more evidence and an archive, initially empty, where users will store their first attempts of iconographic and multimedia material to express the new plot.

The application interface provides two interaction modes: editing and browsing. A session may imply switching back and forth between the two modes. The editing mask is a matrix chart. Browsing mode enables users to sort and organize the multimedia material stored in the library during previous editing sessions, in order to analyze their poetic choices and experiment with different effects of meaning while manipulating the narrative.

The goal of film making is obviously beyond NarToo scope, that instead grants users the possibility of anticipating and simulating different effects of meaning in their initial creative process, by matching experimentally images, sounds or videos, according to their poetics. The application provides a useful tool to evaluate in advance different project solutions, preventing costly changes in later reviews.

Implementation Notes

The core of the application is an object-oriented database, implemented in Java on Jeevan from W3apps Inc., whose objects model the elements of the semiotic analysis of the text: themes, scenes, narrative units, actors and actantial roles. The graphical interface is implemented in Macromedia Flash[TM].

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