Procedurally Generated, Non-linear Stories

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Summary

The purpose of my research is to use narratology principles to find new and exciting ways to procedurally generate stories from data.

Stories are typically linear and non-interactive. Even in computer games and online media, the events of a story are laid out in a way that only allows the user to experience the narrative in a pre-determined, linear way.

However, the stories embedded within data are often non-linear and complex, involving many different characters and simultaneously occurring interactions and events. By combining narratology research with Artificial Intelligence techniques, my aim is to find better ways to present these types of narrative.

The technology behind this research is taken from the ideas behind Semantic Web research. By building a story ontology (a type of database that stores the meanings and relationships between events, actors and objects) and feeding data into it, Artificial Intelligence technologies such as reasoners can be used to procedurally generate stories.

Relevance to Facebook

This research is relevant to Facebook because the same technology can be applied to the timeline data of one or many users. You take a narrative ontology and add the events and interactions that occur between a person and their friends. This allows a story to be built.

The technology behind this research would integrate very well into Facebook's Open Graph system, where stories can already be created by applications. The scope and nature of these stories could be expanded from what is presently possible, to stories that better show the relationship between a person and their friends. It could even infer that two friends were in the same location together without being explicitly told so.

Social games could be created where the users friends are themselves characters. These in-game characters would behave consistently with the personalities of a user's real life friends, since they would be derived from these real-life friends' data. Based on a player's actions within the game, the system can procedurally create a satisfying story that reacts to their actions.

Other uses could be to run simulations to see how a person's friends might react to certain status updates. Or to procedurally create comics based upon an event that friends have shared.

Facebook allows people to connect with friends to share experiences. This research would help them to create richer, more memorable and interesting stories based on these experiences.