A Model and an Interactive System for Plot Composition and Adaptation, based on Plan Recognition and Plan Generation

**TESE DE DOUTORADO** 

## **DEPARTAMENTO DE INFORMÁTICA**

Postgraduate Program in Informatics



# A Model and an Interactive System for Plot Composition and Adaptation, based on Plan Recognition and Plan Generation

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Thesis presented to the Postgraduate Program in Informatics of the Departamento de Informática, PUC-Rio as partial fulfilment of the requirements for the degree of Doutor em Informática.

Advisor: Antonio L. Furtado Co-Advisor: Bruno Feijó



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#### Resumo

Karlsson, Börje Felipe Fernandes; Furtado, Antonio Luz; Feijó, Bruno. Um Modelo e um Sistema Interativo para Composição e Adaptação de Enredos, baseados em Reconhecimento e Geração de Planos. Rio de Janeiro, 2010. 157p. Tese de Doutorado — Departamento de Informática, Pontifícia Universidade Católica do Rio de Janeiro.

Este trabalho tem por alvo um modelo e um sistema interativo para a composição e adaptação de enredos, com base em um paradigma de reconhecimento de planos / geração de planos. Os enredos gerados devem pertencer a algum gênero escolhido, previamente especificado em termos de aspectos estáticos, dinâmicos e comportamentais. A técnica de modelagem envolve a análise de enredos sob uma perspectiva quádrupla, em vista de relações sintagmáticas, paradigmáticas, antitéticas e meronímicas entre os eventos constituintes. O sistema interativo implementado, de nome LogTell-R, demonstra a viabilidade do modelo proposto.

#### Palavras-chave

Narração Digital de Estórias; Modelagem Conceitual; Reconhecimento de Planos; Geração de Planos; Semiótica.

#### Abstract

Karlsson, Börje Felipe Fernandes; Furtado, Antonio Luz; Feijó, Bruno. A Model and an Interactive System for Plot Composition and Adaptation, based on Plan Recognition and Plan Generation. Rio de Janeiro, 2010. 157p. Doctorate Thesis – Departamento de Informática, Pontifícia Universidade Católica do Rio de Janeiro.

This work aims at a model and an interactive system for plot composition and adaptation, based on a plan-recognition / plan-generation paradigm. The generated plots must belong to some chosen genre, to be previously specified in terms of static, dynamic and behavioural aspects. The modeling technique involves the analysis of plots under a fourfold perspective, in view of syntagmatic, paradigmatic, antithetic and meronymic relations between the constituent events. The implemented interactive system, named LogTell-R, demonstrates the feasibility of the proposed model.

### Keywords

Digital Storytelling; Conceptual Modeling; Plan Recognition; Plan Generation; Semiotics.

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