

Applications of AI Planning: Story Telling

Overview

- Introduction
- Story world modeling
- Differences to classical planning
- Concrete Approaches
 - Fabula
 - Discourse
- Conclusion

Introduction

- Structural similarity
- Sequence of character actions
- Useful when sth new
- \rightarrow IS

Story world modeling

- Small example + visuals
- $\neg \wedge \vee \Pi = \langle A, I, O, \gamma \rangle$

Differences to classical planning

- Similar on basic level
- More sophistication → differences → challenges
 - Shortness
 - Interestingness, etc.
- Specialized planners
- IS

Concrete approaches

- Fabula
 - explanation
- Discourse
 - explanation

Planning a fabula

- fabula
- Origin, compilations
- intentionality

Planning a discourse

- Discourse
- IS
- narrative control knowledg + PoV
- Decomposition

Conclusion

- Approachable on different levels
- Specialized planners vs. modeling
- IS future bleh

Sources

- Julie Porteous, Marc Cavazza, and Fred Charles. Applying planning to interactive storytelling: Narrative control using state constraints. *ACM Trans. Intell. Syst. Technol.*, 1(2):10:1–10:21, 2010.
- M.O. Riedl and R.M. Young. An intent-driven planner for multi-agent story generation. In *Autonomous Agents and Multiagent Systems*, 2004. AAMAS 2004. Proceedings of the Third International Joint Conference on, pages 186–193, July 2004.
- S.B. Chatman. *Story and Discourse: Narrative Structure in Fiction and Film*. Cornell Paperbacks. Cornell University Press, 1980.
- D. Herman, M. Jahn, and M.L. Ryan. *Routledge Encyclopedia of Narrative Theory*. Taylor & Francis, 2010.
- Patrik Haslum. Narrative planning: Compilations to classical planning. *Journal of Artificial Intelligence Research*, 44:383–395, 2012.
- Mark O. Riedl and R. Michael Young. Narrative planning: Balancing plot and character. *Journal of Artificial Intelligence Research*, 39(1):217–268, September 2010.
- Alfonso E. Gerevini, Patrik Haslum, Derek Long, Alessandro Saetti, and Yannis Dimopoulos. Deterministic planning in the fifth international planning competition: PDDL3 and experimental evaluation of the planners. *Artificial Intelligence*, 173(5–6):619 – 668, 2009.
- Stephen Ware, R. Young, Christian Stith, and Phillip Wright. Interactive narrative planning in the best laid plans. *AAAI Conference on Artificial Intelligence*, 2015.