Posudek diplomové práce

Matematicko-fyzikální fakulta Univerzity Karlovy

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Název práce Procedural Generator of Short Detective-like Stories

Rok odevzdání 2022

Studijní program Informatika **Studijní obor** Počítačová grafíka a vývoj počítačových her

Autor posudku Mgr. Jakub Gemrot, Ph.D. Role Vedoucí

Pracoviště KSVI

Text posudku:

Submit thesis deals with the procedural generation of interactive stories (PGIS). The work is structured into several chapters.

After the introduction, the student gives an overview of key AI concepts relevant to PGIS, multi-agent systems, automated planning and scheduling and procedural content generation systems in general. Half of the chapter is then devoted to the description of common terms of interactive storytelling describing three-act and five-act dramatic structure, introducing believable agents, story-centric and character-centric designs, among others. The chapter is written well and provides a well-structured introduction to the topic.

Second chapter gives an overview of the related works, which is well researched and mentions old (Tale-spin systém, The Oz Project) to newer systems like classic Façade as well as numerous systems that has arisen from the research led by Mark Riedl and others. It thus gives a solid ground for further study to the reader.

Third short chapter is labelled as "Overview of the Framework", though it lists mainly softwares used or integrated within the student's work more than describing high-level architecture of the system.

In the fourth chapter, the student is describing an algorithm he is proposing for interactive story generation. It features rather standard components such as Planner, Drama Manager, Narrative generator and the Storyworld connected with user's (designer's) input and also the output module (targets being either a GraphViz for visualisation of the story's graph structure and Twine for interactive execution of the generated story). Each component is then discussed.

In the fifth chapter, the student discusses the relationship between "interactive story" as discussed in the beginning and "quest" and his opinion on the matter. The relation to the thesis is not clear as the term "quest" has not been previously introduced.

Sixth chapter describes the implementation, which refers to the actual implementation without any (e.g. UML) schemas. The text mixes in implementation details (names of classes and methods), which are not rendered in different typesets, which troubles the comprehension of the text.

From the text, it is apparent that the student spent a long time researching the topic and implementing the system, which (judged from the high-level perspective) has the potential of generating interactive stories. However, the student has not submitted its implementation, and does not discuss any experiments or executions of his system, which completely prevents its assessment. Minor problems would be then absence of more info-graphics, like UML schemas, or low-quality of used ones, violated typographic conventions, confusing citing. My recommendations for finishing the thesis are:

1. Write at least a section on the target goal of the thesis.

- 2. Connect the design of the algorithm with the sought goal.
- 3. Provide description of system use-cases connecting it the description with the algorithm design.
- 4. Evaluate the system on several runs of the system ideally with human subjects who would play and feedback generated stories using Twine.
- 5. Pay attention to the text and its form.

Práci nedoporučuji k obhajobě.

Práci nenavrhuji na zvláštní ocenění.

Pokud práci navrhujete na zvláštní ocenění (cena děkana apod.), prosím uveďte zde stručné zdůvodnění (vzniklé publikace, významnost tématu, inovativnost práce apod.).

Datum 30.8.2022 **Podpis**