

Evaluation of exergames

Methods and instrument for assessing the quality of exergames

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Erklärung zur Abschlussarbeit gemäß § 22 Abs. 7 und § 23 Abs. 7 APB der TU Darmstadt

Hiermit versichere ich, Dustin Grünwald, die vorliegende Seminar Paper ohne Hilfe Dritter und nur mit den angegebenen Quellen und Hilfsmitteln angefertigt zu haben. Alle Stellen, die Quellen entnommen wurden, sind als solche kenntlich gemacht worden. Diese Arbeit hat in gleicher oder ähnlicher Form noch keiner Prüfungsbehörde vorgelegen.

Mir ist bekannt, dass im Fall eines Plagiats (§ 38 Abs. 2 APB) ein Täuschungsversuch vorliegt, der dazu führt, dass die Arbeit mit 5,0 bewertet und damit ein Prüfungsversuch verbraucht wird. Abschlussarbeiten dürfen nur einmal wiederholt werden.

Bei der abgegebenen Thesis stimmen die schriftliche und die zur Archivierung eingereichte elektronische Fassung gemäß § 23 Abs. 7 APB überein.

Bei einer Thesis des Fachbereichs Architektur entspricht die eingereichte elektronische Fassung dem vorgestellten Modell und den vorgelegten Plänen.

Darmstadt,

F. Surname

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Abstract

The abstract goes here...

The following tips, as they are often done incorrectly or questions are often asked in this regard. More examples for images, tables, ..., for example, can be found in the other chapters.

Citations

We are using biblatex for citations. More information can be found here: <https://ctan.org/pkg/biblatex>

\cite «These are the bare citation commands. They print the citation without any additions such as parentheses. The numeric and alphabetic styles still wrap the label in square brackets since the reference may be ambiguous otherwise.», e. g. [1].

\parencite «These commands use a format similar to \cite but enclose the entire citation in parentheses. The numeric and alphabetic styles use square brackets instead.», e. g. [1].

\footcite «These command use a format similar to \cite but put the entire citation in a footnote and add a period at the end.», e. g.¹.

\textcite «These citation commands are provided by all styles that come with this package. They are intended for use in the flow of text, replacing the subject of a sentence. They print the authors or editors followed by a citation label which is enclosed in parentheses. Depending on the citation style, the label may be a number, the year of publication, an abridged version of the title, or something else. The numeric and alphabetic styles use square brackets instead of parentheses. In the verbose styles, the label is provided in a footnote. Trailing punctuation is moved between the author or editor names and the footnote mark.», e. g. *CTAN: Paket BibLaTeX* [1].

\smartcite «Like \parencite in a footnote and like \footcite in the body.», e. g.².

\supercite «This command, which is only provided by the numeric styles, prints numeric citations as superscripts without brackets. It uses \supercitedelim instead of \multicitedelim as citation delimiter.», e. g.^[1].

More examples can be found in *bibliography.bib*[2]–[6].

¹1.

²1.

Acronyms

For an easy introduction into used acronyms we are using *acro*. Acronyms are defined in *acronyms.tex* and used by `\ac{acronym}` for the acronym's singular and `\acp{acronym}` for its plural. The first occurrence of each acronym will be fully written out: Serious Games (SGs), SG. By using `\acresetall` this behavior can be reset.

This is a citation example [7].

1. Introduction

Hint:

This chapter should motivate the thesis, provide a clear description of the problem to be solved, and describe the major contributions of this thesis.

1.1. Motivation

What is the motivation for doing research in this area?

1.2. Problem Statement and Contribution

What is the problem that should be solved with this thesis with its related research question? What are the scientific contributions of your thesis to the field?

1.3. Outline

How is the rest of this thesis structured?

2. Background

Hint:

This chapter should give a comprehensive overview on the background necessary to understand the thesis.

2.1. Background Topic 1

2.2. Background Topic 2

2.3. Summary

3. Related Work

Hint:

This chapter should give a comprehensive overview on the related work done by other authors followed by an analysis why the existing related work is not capable of solving the problem described in the introduction.

3.1. Related Work Area 1



Figure 3.1.: Serious Games circle.



(a) Alternative Serious Games Circle 1



(b) Alternative Serious Games Circle 2

Figure 3.2.: Alternatives of Serious Games circle.

3.2. Related Work Area 2

3.3. Analysis of Related Work

3.4. Summary

4. Design

Hint:

This chapter should describe the design of the own approach on a conceptional level without mentioning the implementation details.

4.1. Requirements and Assumptions

4.2. System Overview

4.2.1. Component 1

4.2.2. Component 2

4.3. Summary

5. Implementation

Hint:

This chapter should describe the details of the implementation addressing the following questions:

1. What are the design decisions made?
2. What is the environment the approach is developed in?
3. How are components mapped to classes of the source code?
4. How do the components interact with each other?
5. What are limitations of the implementation?

5.1. Design Decisions

5.2. Architecture

5.3. Interaction of Components

5.4. Summary

6. Evaluation

Hint:

This chapter should describe how the evaluation of the implemented mechanism was done.

1. Which evaluation method is used and why? Simulations, prototype?
2. What is the goal of the evaluation? Comparison? Proof of concept?
3. Which metrics are used for characterizing the performance, costs, fairness, and efficiency of the system?
4. What are the parameter settings used in the evaluation and why? If possible always justify why a certain threshold has been chosen for a particular parameter.
5. What is the outcome of the evaluation?

6.1. Goal and Methodology

6.2. Evaluation Setup

Parameter	Value
P1.1	V1.1
P1.2	V1.2
P1.3	V1.3
P2	V3
P3	V4

Table 6.1.: Evaluation Parameters

6.3. Evaluation Results

6.4. Analysis of Results

7. Conclusions

Hint:

This chapter should self-critically summarize the thesis and describe the main contributions of the thesis. Subsequently, it should describe possible future work in the context of the thesis. What are limitations of the developed solutions? Which things can be improved?

7.1. Summary

7.2. Contributions

7.3. Future Work

7.4. Final Remarks



List of Acronyms

SG Serious Game



A. Appendix

The appendix goes here... english