MSC THESIS

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AUTOMATIC ANALYSIS AND GRADING OF UTML UML DIAGRAMS

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1. INTRODUCTION

Current state of grading + autograding, University of Twente is looking into ways to save time and money in grading by automating (parts of) it.

2. PROBLEM STATEMENT

Grading takes long time etc. etc. Want a solution that automatically grades UML diagrams (specifically class/sequence/…?), with as main goals: *transparency*, *consistency*, *fairness*. See initial plan description.

2.1. Research Questions

3. RELATED WORK

Work [1], [2], [3], [4], [5], [6], [7], [8], [9], [10], [11], [12], [13], [14], [15], [16]

More focused on interactivity: [17]

Work on AI [18], [19] (nondeterminism of AI [20], [21], [22] + counterarg: inherent lack of transparency, risks of nondeterminism in grading (see sources) == bad because same solution might not give same grade), lack of consistency (contexxt window, importance of reducing prompt length, …)

Experience on TAs [23]

Reliability of human marking/grading in general [24]

4. TOOLS AND TECHNIQUES

Adopt existing tool(s), make own tool, what frameworks/languages, …

5. PLANNING

TODO: Graduation planning. Phases, goals per phase.

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