Automated Essay Scoring: A Reflection on the State of the Art

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Abstract

While steady progress has been made on the task of automated essay scoring (AES) in the past decade, much of the recent work in this area has focused on developing models that beat existing models on a standard evaluation dataset. While improving performance numbers remains an important goal in the short term, such a focus is not necessarily beneficial for the long-term development of the field. We reflect on the state of the art in AES research, discussing issues that we believe can encourage researchers to think bigger than improving performance numbers, with the ultimate goal of triggering discussion among AES researchers on how we should move forward.

1 Introduction

Automated Essay Scoring (AES), the task of automatically assigning a holistic score to an essay that summarizes its overall quality, is arguably one of the most important applications in natural language processing (NLP). As an example of AES, consider the essay in Table **??**, which is written in response to the prompt shown at the top of the table. Given the scoring rubric in Table **??**, an AES system should assign a score of 3 to this essay for the following reasons. First, its author takes a position but fails to provide adequate support and details....

[...CONTENT MISSING: SECTIONS 2 THROUGH CONCLUSION DUE TO PDF EXTRACTION LIMITS...]

2 State of the Art

[MISSING]

3 Methodologies

[MISSING]

4 Issues and Reflections

[MISSING]

5 Conclusion

[MISSING]

References

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Table 1: Example essay and prompt.

Prompt:	[MISSING - Content from original Table 1 not visible in scan]
Essay:	[MISSING - Essay content from original Table 1 not visible in scan]

Note: Content from original table is missing from extraction.

Table 2: Scoring Rubric (Example).

Score	Criteria
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