

先端科学技術研究科 修士論文要旨

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要旨			
<p>Educational applications, including adaptive learning platforms and intelligent tutoring systems, need to provide personalized content with feedback in order to help improve learners' skills, and it is important for such applications to understand the individual learning level. When using large language models (LLMs) for educational applications leveraging its response generation capacity, the LLMs should be able to provide appropriate feedbacks to users.</p> <p>This work investigates how well LLMs can implicitly adjust their difficulty level to match with the user input when generating their responses. We introduce a new dataset from Stack-Overflow, consisting of question-answer pairs related to programming, and propose a method to analyze the ability in aligning text difficulties by measuring the correlation with various text difficulty metrics.</p> <p>Experimental results on our Stack-Overflow dataset show that LLMs can implicitly adjust text difficulty between user input and its generated responses. Similar trends were observed for the multi-turn English lesson dataset of Teacher Student Chatroom Corpus (TSCC). We also observed that some LLMs, when instruction-tuned, can surpass humans in varying text difficulty.</p>			