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Short Communication

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Human Versus Automated Evaluation Within a Rubric in Higher Education: Opportunities and Challenges

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Introduction

In the contemporary educational landscape, Artificial Intelligence (AI) is rapidly transforming practices across various domains, with teaching and research at the forefront. Educators, researchers, and students are increasingly adopting AI tools that enhance both the learning experience and creative potential. Among these transformations, assessment-especially in higher education, where the cultivation of critical thinking and advanced skills is essential-remains a core component. The integration of automated assessment systems, particularly those using rubrics, is gaining momentum. These systems can either supplement or, in some cases, replace traditional human grading. However, a comparative evaluation of these approaches reveals distinct advantages and limitations that must be addressed to maximize their effectiveness. While AI has evolved impressively, fundamental differences persist between its mechanisms and human cognition [1].

AI is an outcome of human innovation, relying on data and algorithms, whereas the human mind operates analogically and draws from memory, intuition, and experiential learning. AI excels in speed, scale, and consistency, yet it lacks the innate adaptability and emotional depth of human intelligence. This contrast becomes especially evident in educational assessment, where

both cognitive and emotional dimensions are crucial [2]. Rubrics serve as structured tools that enhance the clarity, reliability, and fairness of the assessment process. When thoughtfully designed, they support academic achievement and promote learner self-regulation. Educators benefit from rubrics by ensuring consistent evaluation standards while preserving the flexibility to consider individual student characteristics. However, over-reliance on rigid criteria or poorly implemented rubrics may reduce assessment to a mechanical process, encouraging superficial compliance rather than meaningful learning [3].

Opportunities

AI-driven assessment offers promising benefits, particularly in higher education, where large volumes of work must be evaluated efficiently. Automated systems use algorithms to assess written assignments, coding exercises, and quizzes based on predefined criteria. These systems deliver consistent and objective evaluations while significantly reducing educators' workload, enabling them to dedicate more time to instruction [4]. Moreover, automated tools can provide rapid, formative feedback to students, facilitating real-time learning improvements [5]. In contrast, human assessment retains critical advantages in terms of depth and nuance. Teachers



can interpret subtleties in student responses, offer tailored feedback, and consider non-quantifiable elements such as creativity, context, and effort. The interpersonal interaction between student and educator enriches the learning process, fostering motivation, engagement, and a sense of academic support that technology alone cannot replicate.

Challenges

Despite its strengths, automated assessment encounters notable limitations [6]. Current AI systems often struggle to evaluate qualitative aspects such as originality, tone, or complex argumentation- essential components in higher education. This limitation risks reducing assessments to formulaic judgments. Additionally, overdependence on automated systems may diminish human interaction, weakening the pedagogical bond that supports student development. The effectiveness of automated tools hinges on the quality of the underlying algorithms and rubric design, necessitating rigorous oversight and refinement.

Conclusions

Al represents a powerful ally in the evolution of educational assessment, offering speed, consistency, and scalability. However, assessment is not purely mechanical-it is also emotional and relational. The presence of empathy, intuition, and context-awareness in human grading adds layers of meaning that Al cannot yet replicate. Recognizing the role of emotions and human judgment in education is essential for developing effective evaluation practices. As such, a hybrid assessment model that combines the efficiency and objectivity of Al with the empathy

and adaptability of human insight offers the most balanced and comprehensive approach. This blended method can foster more equitable, reflective, and responsive educational environments.

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Conflict of Interest

No conflict of interest exists.

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