To: AI for Education Workshop Organizers
Re: Submission #70
“Augmented Debate-Centered Instruction: A Novel Research Agenda for Responsible AI Integration in Education” Paper
Accepted for Poster Presentation, Day 2

Thank you for considering our submission and for the thoughtful feedback provided.

We identified four distinct themes in the feedback and addressed each in our revisions to the paper. A broader description of our thoughts in each area appears in this letter below. We appreciate your sharing these themes and pressing us for more precise explanations that make our overall project more explicitly defined for readers.

Clarification on DebaterHub's Role in Promoting Social Learning:
To address concerns about the efficacy of DebaterHub in fostering social and socio-emotional skills, it is crucial to elaborate on how this AI-powered online platform is uniquely designed to enhance the human element of debate-centered instruction. In particular, our focus on judging enables us to investigate decision-making broadly and would allow students to learn with and from each other and from the AI assistants. DebaterHub is not merely a repository for debate materials or a forum for asynchronous interaction; instead, it functions as a dynamic social learning environment where students engage in real-time, structured debates with peers and AI assistants. These assistants are programmed to provide content-related support and model and encourage constructive feedback, empathy, and active listening skills critical for socio-emotional learning. DebaterHub aims to replicate and enhance social interactions in traditional classroom settings by simulating real-world debate scenarios and offering personalized feedback. The platform's design includes features that facilitate group work, peer review, and live debates, ensuring that learners engage in the collaborative and interpersonal activities essential for developing social competencies.

Integration of ADCI for Assessment Purposes:
The mention of ADCI for assessment purposes within the context of instructional focus merits clarification, and this is part of the paper we have most improved, thanks to your feedback. The proliferation of generative AI poses significant challenges to traditional forms of assessment, particularly in writing. ADCI represents a pedagogical shift towards performance-based assessments, where students demonstrate their understanding through debate and argumentation, activities that AI has yet to master. This approach aligns with the need for assessments that accurately reflect students' critical thinking, reasoning, and persuasive communication skills—capabilities essential in the age of AI. DebaterHub facilitates this by enabling a platform to evaluate students' debate performances more objectively. New measures that offer a greater understanding of student growth and development in the skills critical for creative work and innovation in a world ever more infused with artificial intelligence can be developed. The research agenda that DebaterHub enables will improve our assessment and measurement of student abilities in considering the quality of arguments, evidence used, and

the ability to engage with opposing viewpoints, thus offering a viable alternative to traditional writing assessments compromised by AI-generated content.

Articulation of the Research Gap:
The research gap identified in the original article could benefit from a more structured presentation to avoid the perception of it being a disconnected array of educational issues and debate's nature. By organizing the sections that discuss the current challenges in education (such as the impact of AI on assessment integrity, the necessity for durable skills development, and the pedagogical value of debate) into a coherent narrative, the paper can more effectively highlight the interconnectedness of these issues. Subheadings like "The Challenge of AI in Education," "The Need for Durable Skills Development," and "Debate as a Pedagogical Tool" would help to segment the discussion, allowing for a clearer exposition of how ADCI and DebaterHub specifically address these interconnected challenges. This organization would also facilitate a smoother transition into explaining how DebaterHub is designed to fill the identified gaps, particularly in leveraging AI to enhance, assess, and teach, rather than detract from, the development of critical thinking and social skills.

Data Analysis Methodology Expansion:
The methodology section now benefits from a more detailed explanation of the mixed methods approach to clarify how the data will be analyzed to assess DebaterHub's impact. Although a bit beyond the scope of this relatively short paper, your feedback has prompted us to dive deeper into the details of the methodology that we will pursue and to begin to think deeply about how a variety of proposed methods might shape our larger research agenda and that of others who will join our call to conduct the unique and meaningful research that DebaterHub is designed to enable. Specifically, while this paper provides a high-level overview of the research methods we and others will employ, we have also begun a more technical addendum that elaborates on how each method—validated instruments, discourse analysis, data analytics, surveys, and interviews—will be applied to capture a comprehensive understanding of ADCI's effectiveness as well as its implications for teaching and learning in an AI-infused future. For instance, validated instruments can measure changes in critical thinking skills and socio-emotional competencies, while discourse analysis can examine the quality of arguments made by students during debates. Data analytics could be employed to track engagement levels and learning progress on the DebaterHub platform, and surveys and interviews would offer insights into students' and teachers' perceptions of the platform's impact on learning outcomes.

These are some of the more traditionally understood research methods in education research, but DebaterHub will also enable us to use data to establish correlations between certain arguments, specific evidence, or evidence types and their impact on persuasion and favorable decision-making. Since humans, as well as bots, will be engaged in judging and making decisions, they will not only learn from each other, but they will enable new measures of constructs like persuasiveness, critical thinking, and evidence analysis that educational researchers have struggled to measure in the absence of the massive datasets that DebaterHub will compile and evaluate. You have pressed us to flesh out the technical aspects of our research agenda more. This work will clarify the call for other researchers to join our project

with DebaterHub as the central platform. We will clarify the theoretical underpinnings of each research method, such as constructivism for discourse analysis or a socio-cognitive framework for surveys. Beyond that, however, the anticipated DebaterHub research agenda transcends the evaluation of DebaterHub as a tool, although that will be an obvious starting point. The research agenda that DebaterHub's data will enable and the host of researchers who will be drawn into the new knowledge will lead to new breakthroughs in understanding how people learn, how they are persuaded, how they reflect critically, and how they make contingent decisions.

We sincerely appreciate your consideration of our paper and your thoughtful feedback. As debate educators, we deeply value critical reflection and feedback, and we appreciate how that effort strengthens our thinking and improves our work. Thank you for allowing us to share our poster at the workshop.

We also look forward to the wide collection of thoughts and ideas we will encounter at the workshop sessions.

Sincerely,

Stefan Bauschard
Devin Gonier
John Hines
Anand Rao
Alan Coverstone