Synopsis of November 11, 2024 Webinar, "Assessment for Deeper Learning: Making sense of machine-driven feedback in the age of AI

Panelists: Hillary Walker, Christopher Mah, Kevin Dublin

Moderators: Dr. Brent Duckor and Dr. Carrie Holmberg

Introduction

In the transformative age of artificial intelligence (AI), educators are grappling with a pivotal question: How can AI-assisted technologies shape the development of student writers in a way that promotes equity, creativity, and deeper learning? This was the focus of a recent webinar hosted by the Center for Innovation in Applied Education Policy at San José State University. Bringing together educators, researchers, and practitioners, the panel explored the intersection of AI, writing instruction, and educational equity. The insights shared offer a roadmap for leveraging AI to augment—not replace—the essential human dimensions of teaching and learning.

The Promise of AI for Writing Instruction

AI tools, from ChatGPT to domain-specific applications like Khanmigo, hold significant promise for transforming the teaching and learning of writing. Panelist Chris Mah highlighted three compelling opportunities:

1. **Expanding Feedback Access**: Individual feedback is often cited as one of the most effective ways to improve writing, but the logistical challenges of providing timely, personalized feedback to hundreds of students remain a barrier. AI has the potential to democratize access to feedback, offering students insights at every stage of the writing process.

2. **Promoting Divergent Thinking**: AI can help students explore a range of perspectives and ideas, prompting creativity and critical engagement with content. With guided coaching, these tools can foster rich, varied responses to prompts, moving beyond formulaic approaches.

3. **Sparking Meaningful Conversations**: The presence of AI in classrooms has spurred discussions about the purpose of writing. Historically, writing has often been treated as a vehicle for assessing knowledge rather than as a creative or critical skill in its own right. AI's ability to generate essays and analyses forces educators to rethink the "why" behind writing instruction, potentially leading to richer, more diverse writing experiences for students.

Panelist Hilary Walker emphasized the value of these conversations as a means of challenging traditional hierarchies between teachers and students, advocating for a collaborative and exploratory approach to writing.

Challenges in the Integration of AI Tools

Despite these promises, the panel cautioned against an uncritical embrace of AI. Several key concerns emerged:

- **Equity and Access**: The "digital divide" risks widening if under-resourced schools focus on banning AI while wealthier districts invest in critical AI literacy and integration. Mah recounted contrasting experiences in professional development—one in a resource-poor district that had banned AI tools outright and another in a well-funded district exploring AI's potential.

- **Authenticity and Voice**: Walker raised a fundamental question about identity in writing: "Where does the voice go?" She shared an example of students using AI to produce poetry, only to reject the AI-generated output as lacking the emotional depth and authenticity of human expression. This underscores the need to position AI as a tool for exploration, not a substitute for genuine human creativity.

- **Dependence vs. Agency**: There is a risk that students may see AI as a shortcut rather than a tool for growth. Educators must balance encouraging independent, critical thinking with teaching students how to use AI tools effectively.

Best Practices for Professional Learning

The integration of AI tools into writing instruction hinges on robust professional learning for teachers. The panel identified several guiding principles:

1. **Start with Goals, Not Tools**: Effective professional learning begins with identifying instructional goals, then exploring how AI can support those objectives. For example, Mah's lab at Stanford works with districts to align AI integration with existing teaching priorities.

2. **Leverage Collaborative Models**: Walker highlighted the value of "collegial pedagogy," where teachers share strategies, student work, and questions in collaborative settings. These discussions provide opportunities for collective problem-solving and innovation.

3. **Focus on Process, Not Product**: Teaching writing as a process rather than a product can help mitigate concerns about AI-assisted cheating. Transparent workflows that

emphasize drafting, revision, and reflection allow students to demonstrate their learning at every stage.

4. **Embed AI in Disciplinary Contexts**: Professional learning should be discipline-specific, grounding AI tools in the unique demands of each subject area.

Reimagining Writing for Equity and Creativity

The panelists repeatedly stressed the importance of using AI to enhance—not diminish—students' identities as writers. AI's potential lies in its ability to amplify students' voices and expand their creative horizons. For example, using AI to generate multiple interpretations of a text can help students see writing as a dynamic, iterative process rather than a static exercise.

At the same time, educators must navigate the ethical dimensions of AI use. As Mah noted, large language models reflect the biases of the data they are trained on. Teachers play a critical role in guiding students to think critically about the assumptions embedded in AI outputs and to recognize their own agency in shaping their writing.

Looking Ahead: Questions and Imperatives

The webinar concluded with a call to action for educators and researchers to address lingering questions about the role of AI in writing education:

- **What is the Purpose of Writing?**: As AI automates certain types of writing, what forms of expression will remain most valued? How can schools foster writing that is tied to human experience and identity?

- **How Do We Measure Impact?**: More research is needed to assess the effects of AI on student outcomes, particularly for historically underserved populations. Data on both the benefits and potential pitfalls of AI integration will be critical.

- **What About Sustainability?**: The environmental impact of AI technologies, from energy consumption to data storage, is a growing concern. As usage scales up, educators must consider the broader implications of these tools.

Conclusion

The integration of AI into writing instruction is not without risks, but it offers profound opportunities to rethink how we teach and learn writing. By centering equity, creativity, and collaboration, educators can harness AI to support deeper learning and foster students' identities as writers. As one panelist put it, "The uses of AI will only be as good as the uses we're already putting into mental models of what we consider writing." The challenge for educators is to ensure that these tools are used to expand—rather than constrain—the possibilities for students' growth and expression.