

Toward More Just Technological Futures: Empowering Educators to Critically Approach Educational Technologies

Marie K. Heath
Loyola University Maryland

Abstract

In schools and society, technologies are often viewed as central to productivity and progress. However, technologies always include trade-offs with downsides that cause disproportionate harm to often already marginalized groups. Recent enthusiasm for how to use large language models (LLMs) to support student learning has tended to sidestep concerns that LLMs could reproduce inequality through centering majoritarian perspectives and accelerating learning for those traditionally advantaged in the K-12 education system. This leads to an urgent need to build an understanding. My larger research aims to prepare educators to consider not just the benefits of technology and LLMs specifically, but also harms and injustices caused by LLMs. In the long term, the proposed work has the potential to empower citizens to interrogate the effects of technologies on our individual and collective lives in order to work toward a more democratic and just intersection of technologies and society. In the near term, this work will prepare teachers to consider the challenges and benefits of using generative AI in their lives and classrooms. Because of the CELSJE Summer Research Grant, I was able to:

- Apply for a \$316,000 RAPID NSF grant on AI in Education;

- Host an online conference engaging over 300 practitioners in technoskeptical and data justice actions;

- Develop and disseminate a research agenda to guide the field of educational technology and teacher education in using and investigating LLMs (invited to be published in [ETRD](#), a top-tier journal in education technology research)

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In November of 2022, Open AI introduced ChatGPT to the world, prompting hundreds of articles, think pieces, and emerging research (e.g. Chiang, 2023; Harwell & Tiku, 2023; Roose, 2023) on the effects of large language models (LLMs) on society,

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