

Ethical Considerations for AI and Large-Scale Assessment

August 9, 2024

Goal

The purpose of this session is to identify key ethical considerations for inclusion in Board policy regarding AI and the National Assessment of Educational Progress (NAEP). The Board recently launched an Ad Hoc Committee on AI, and one of its key goals is to recommend overarching policy guidance for the ethical use of AI in NAEP. While the committee is charged with leading this effort, it is important the full Board gain understanding of the major issues as AI is likely to impact work across all Board standing committees. This session will include three experts who have been at the forefront of thinking through ethical considerations when implementing AI in assessment and industry. The information gleaned from this session will inform draft policy guidance for the ethical use of AI in NAEP following the meeting.

Overview

This session will be moderated by Board member Marty West and will include panelists to address ethical considerations when incorporating AI in situations relevant to NAEP. Rebecca Finlay of the Partnership on AI has extensive experience working with public and private sector entities on responsible AI implementation. Alina von Davier, the Chief Researcher at Duolingo English Test, has led efforts to ensure responsible, human-centered approaches for incorporating AI tools on the Duolingo English Test (DET), including developing AI standards available [here](#). Michael Walker, Principal Scientist with HumRRO, has focused his career on equity and fairness, and recently has considered this in the context of AI in large-scale assessment, including as an advisor to Smarter Balanced.

Background

Since May 2023, the Governing Board has engaged in a series of learning sessions about AI and considered its impact on NAEP policy. In May 2024 the Governing Board established the [Ad Hoc Committee on Artificial Intelligence](#), with the following charges:

1. Participate in ongoing learning regarding advancements in artificial intelligence (AI) technologies and capabilities;
2. Lead the Board in identifying potential opportunities and impacts of AI to the National Assessment of Educational Progress (NAEP); and
3. Recommend Board policy on ways AI could strengthen NAEP's quality, utility, and efficiency while protecting privacy and intellectual property, and safeguarding against bias.

The charge further clarifies that the committee will lead the Board's engagement with experts to (1) offer recommendations to the Board on policy guidelines for the use of AI within NAEP that protects privacy and intellectual property, safeguards against bias and promotes ethical use of AI technologies, and (2) explore and recommend promising use cases for AI to advance quality, utility and efficiency in NAEP.

This charge acknowledges the promise for new AI technologies to strengthen the NAEP program while highlighting the importance of understanding and mitigating risks through policy. At the May quarterly Board meeting, AI Ad Hoc committee chair Ron Reynolds noted one priority of the committee is to identify policy guidelines needed to safeguard privacy, protect the security of valuable NAEP intellectual property, and promote ethical use of AI technologies. This session is a prelude to this task.

As the Board has learned from prior presentations, there are various ways in which the National Center for Education Statistics (NCES) is currently working towards AI incorporation in NAEP. NCES has made careful consideration to ethical considerations as they work to mitigate risks to security and privacy and to reduce the potential for bias associated with AI. At this point, there is no official policy on the use of AI in NAEP, and the program would benefit from, when appropriate, formalizing current procedures regarding ethical uses of AI and ensuring policy guidance is in place for additional uses of AI in assessment (including, to the extent possible, those uses not yet possible but that may be so in the near future).

In addition to the presentation to the Board on August 9, the Governing Board's AI Ad Hoc committee on AI has a meeting scheduled for July 29 that includes a discussion with the Smarter Balanced leadership to learn about their processes for developing ethical guidance for use of AI in large-scale educational assessment. All Board members are invited to attend, and Board staff will summarize the key points following the meeting.

Presenter Biographies



Rebecca Finlay is CEO at Partnership on AI, a global nonprofit bringing together a cross-sectoral community of over 100 partners in 17 countries to ensure developments in AI advance positive outcomes for people and society. With an influential career at the intersection of technology and society, Rebecca has held leadership roles in civil society, research organizations and industry.

Prior to PAI, she founded the AI & Society program at global research organization CIFAR, one of the first international, multistakeholder initiatives on the impact of AI in society. Rebecca's insights have been featured in books and media including *The Financial Times*, *The Guardian*, *Politico* and *Nature Machine Intelligence*. She speaks at venues such as SXSW, Wall Street Journal, OECD, FTC, and the UK AI Safety Summit.

She is a Fellow of the American Association for the Advancement of Sciences (AAAS) and sits on advisory bodies in Canada, France and the U.S. She lives in Toronto and holds degrees from McGill and the University of Cambridge.



Dr. Alina Anca von Davier is a psychometrician and researcher in computational psychometrics, machine learning, and education. She has over 20 years of experience in EdTech and in the assessment industry. As one of the pioneers of the field of computational psychometrics, von Davier has dedicated her career to advancing the field through her work in both academia and industry. She served as Chief Officer at ACT leading ACTNext, an R&D-based innovation division. Prior to this, she worked for 15 years at Educational Testing Service, where her latest position was Senior Center Director. In 2020, she left her position at ACT and joined Duolingo as Chief of Assessment for the [Duolingo English Test](#), where she leads the Duolingo English Test research and development area. She is also the Founder and CEO of EdAstra Tech, a service-oriented EdTech company. In 2022, she joined the University of Oxford as an Honorary Research Fellow, and Carnegie Mellon University as a Senior Research Fellow.

Von Davier has made significant contributions to the field of psychometrics through her work in academic settings. She was

the Chair of the Editorial Council of the Psychometric Society, and an associate editor of *Psychometrika*. She also served as guest editor for both *Applied Psychological Measurement* and the *Journal of Educational Measurement*. In 2022 she served as the Chairperson of the global board of directors for the Association of Test Publishers, and was the president of the International Association of Computerized Adaptive Testing from 2019 to 2022.



Dr. Michael E. Walker is a Principal Scientist at the Human Resources Research Organization (HumRRO). Walker holds a Ph.D. in quantitative psychology and an MS in statistics from the University of Illinois, Urbana Champaign, USA. He holds an MA and a BA in Psychology, both from Wake Forest University, Winston-Salem, NC USA. With decades of involvement in the field of testing, Walker is a recognized expert in all aspects of designing and maintaining testing programs. Published work includes fair test design and use, maintaining and transitioning testing programs; test scaling and equating; test reliability; essay scoring, and comparability of remotely proctored and in-person assessments. Walker has lectured extensively on issues related to psychometrics and education, both domestically and abroad. The major focus of current work is equity in education. His most recent publications focus on culturally responsive assessment as well as ethical use of artificial intelligence in education. Prior to joining HumRRO, Walker was a Distinguished Presidential Appointee at ETS, directing its Center for Equity.

Walker is active in the educational measurement community. He is currently the Immediate Past President of the National Council on Measurement in Education (NCME), having served as President from 2023 to 2024. He is on the Editorial Board of the *Journal of Educational Measurement*.