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KEY NOTE: Rethinking Measurement for the 21st Century

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As public trust in standardized testing declines, AI-driven methods such as machine learning and natural language processing are increasingly being applied to optimize traditional measurement approaches. While these innovations offer important gains in efficiency, cost, and scalability, there is a risk that, without also addressing broader concerns of trust, equity, and relevance, psychometrics may become increasingly disconnected from evolving scientific standards, societal needs, and ethical principles.

Psychometrics has been instrumental in establishing psychology and education as scientific disciplines, sharpening clinical diagnosis, advancing prevention, promoting educational equity, and exposing systemic inequities. Yet, as we navigate the complexities of an increasingly diverse and technology driven 21st century, it is necessary to ask whether our current assessments, still largely grounded in 20th-century measurement theories and assumptions, are adequately equipped to meet the evolving needs of today's test users.

This presentation offers a critical yet constructive reflection on how fragmented assessment systems, outdated assumptions, and rigid adherence to technical standards detached from the lived realities of those being assessed can unintentionally limit our collective impact and overlook opportunities to better serve society. By revisiting classic debates, I invite us to question long-held measurement mantras and consider how the field can evolve to better serve a rapidly changing world. Through concrete examples, I advocate for assessment systems that are responsive to real-world contexts, address the diverse needs of test users, and thoughtfully balance implementation trade-offs by considering opportunity costs.

Ultimately, aligning psychometrics with the demands of the 21st century will position us to leverage AI-driven methods not only to optimize traditional measurement, but also to become more scientifically interdisciplinary, socially responsive, and ethically grounded in advancing societal progress.

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