SOCIETY for INDUSTRIAL and ORGANIZATIONAL PSYCHOLOGY

SCIENCE FOR A SMARTER WORKPLACE

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SIOP Statement on the use of Artificial Intelligence (AI) for Hiring:
Guidance on the Effective use of AI-Based Assessments

Concerns about AI-Based Assessments
Decisions about whom to hire are made many thousands of times each day and many organizations are looking for ways to make these decisions more accurately and efficiently to remain competitive in a demanding marketplace. To this end, there has been a growing interest in the use of artificial intelligence (AI) for pre-employment screening of job candidates. AI refers to a broad range of technologies and statistical techniques that have the potential to identify patterns in candidate information that are predictive of future job performance. At the same time, there have been increasing calls for scrutiny of AI-based assessments, reflecting concerns over privacy, fairness, lack of transparency, and the accuracy of their predictions.

To address these concerns, AI-based decision tools require the same level of scrutiny that traditional employment tests have been subjected to for decades. In fact, state and federal regulatory control specific to the use of AI in organizational decision making has already occurred in some places and seems imminent in others. Policy makers and employers looking for guidance on AI-based hiring tools can find scientifically-based information on this topic from the field of Industrial and Organizational Psychology.

The Role of Industrial and Organizational Psychologists
Industrial and Organizational (I-O) Psychologists are rigorously trained in the development and evaluation of tests, assessments, and other selection procedures that are used to make hiring and promotion decisions. Given their training, I-O Psychologists have been advocating for accuracy and fairness in hiring procedures for decades.

To guide professionals and inform those responsible for staffing in organizations, the Society for Industrial and Organizational Psychology (SIOP) has published the *Principles for the Validation and Use of Personnel Selection Procedures*, which is updated regularly to reflect current scientific research and best practices in hiring and promotion. This document summarizes the fundamental requirements for selection procedures that should guide the evaluation of assessments. Importantly, these professional guidelines are applicable to *all selection procedures*, including technology-based hiring and promotion procedures that incorporate AI, machine learning, and other novel assessment techniques (e.g., game-based assessments, evaluation of voice and facial characteristics).

Guidelines for AI-Based Assessments in Hiring
Building on the guidelines published by SIOP, there are five key criteria for evaluating AI-based assessments:

1. AI-based assessments should produce scores that are considered fair and unbiased.

2. The content and scoring of AI-based assessments should be clearly related to the job.

3. AI-based assessments should produce scores that predict future job performance (or other relevant outcomes) accurately.

4. AI-based assessments should produce consistent scores that measure job-related characteristics (e.g., upon re-assessment).

5. All steps and decisions relating to the development and scoring of AI-based assessments should be documented for verification and auditing.

These five key criteria are intended to represent the ***minimal*** requirements necessary to justify the use of AI-based assessments for hiring and promotion decisions. Employers considering the use of an AI-based assessment should ensure that their assessments meet these basic criteria.

For Additional Information:

Principles for the Validation and Use of Personnel Selection Procedures (5th Ed.; SIOP, 2018)

Article by Chamorro-Premuzic et al. (2016) on new approaches to assessing talent

Article by Landers and Behrend (2021) providing a framework for AI audits to evaluate fairness and bias in AI-based assessments

Article by Tippins et al. (2021) on the scientific, legal, and ethical concerns about AI-based assessments

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