Charting the Future of Assessments

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IN THE FUTURE

We will measure what matters, not what’s easy to measure.

THE FUTURE OF ASSESSMENT WILL INVOLVE A PARADIGM SHIFT

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<table>
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<tbody>
<tr>
<td><strong>01</strong></td>
<td>Skills for the future</td>
<td>The most valued skills for the future are hard-to-measure skills.</td>
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<tr>
<td><strong>02</strong></td>
<td>Innovative measures</td>
<td>In the future, changes in measurement focus will support both academic and workplace settings.</td>
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<td><strong>03</strong></td>
<td>Methodological breakthroughs in testing operations</td>
<td>Technology and science will make it possible to improve the methods for how we measure skills.</td>
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<td><strong>04</strong></td>
<td>Feedback</td>
<td>Personalized insights provide more value to test-takers than just a score.</td>
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The most valued skills for the future are hard-to-measure skills.

01.
Skills for the future

SKILLS IN DEMAND

Cognitive and meta-cognitive skills

- critical thinking
- creative thinking
- curiosity
- life-long learning
- self-regulation
- analytical thinking
- dependability and attention to detail
- agility

Social and emotional skills

- empathy
- self-efficacy
- responsibility
- collaboration
- active listening
- leadership and social influence
- resilience
- flexibility
- motivation and self-awareness

Practical and physical skills

- technology literacy
- using new information and communication technology devices


AI will have a direct impact on the future of workplace skills.

SURVEY ON THE IMPACT OF AI ON SKILLS

% respondents that agreed with the following statements

- Due to AI, most employees will need to update their skills. 85%
- AI will require workers to have both technical and human skills. 83%
- AI will require a re-evaluation of skills we consider essential. 83%
- AI will amplify the need for career shifts, upskilling and self-reinvention. 80%
- AI will create new job opportunities that don’t exist today. 72%

Source: ETS Human Progress Study, September 2023. Q: “How much do you agree or disagree with the following statements (Strongly disagree/somewhat disagree/somewhat agree/strongly agree).
In the future, changes in measurement focus will support both academic and workforce settings.

CHANGES IN MEASUREMENT FOCUS

From:
- tests
- subjective interviews
- self-report rating
- other-report assessments

To:
- “testless” assessments based on traces of engagement in a variety of environments
- gamified and interactive experiences
- authentic assessments of valued skills in relevant immersive environments

Technology and science will make it possible to improve the methods for how we measure skills.
### The Impact of AI and Technology on Assessment

**Today**

Tests are primarily authored by test developers and pre-tested with real test-takers.

**The Future**

Through generative AI, many elements of the test development cycle (including personalized feedback) will become more efficient.

Employing ethical AI will remove bias in assessments.

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### Advancements Span the Entire Assessment Operations Process

**Design**
- designing around test purposes and administrative constraints
- developing test items (i.e., test questions)
- assembling test forms

**Administration**
- delivering and administering assessments
- all aspects of security
- quality control over the entire process
- item banking

**Scoring**
- reviewing assessments
- scoring
- reporting scores
- evaluating tests

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### Global Survey Respondents Indicate Trust in AI When Used in Assessments.

% Respondents who agreed with the following statements

<table>
<thead>
<tr>
<th>Statement</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>I would trust guidance from an assessment on which skills to improve from AI</td>
<td>72%</td>
</tr>
<tr>
<td>I would trust a learning assessment that was scored by AI</td>
<td>66%</td>
</tr>
<tr>
<td>I would trust a learning assessment that was created by AI</td>
<td>66%</td>
</tr>
</tbody>
</table>

SOURCE: ETS Human Progress Study (September, 2023).
Assessments need to deliver more meaningful and actionable feedback beyond the score to learners.

**PERFORMANCE FEEDBACK FACILITATES LEARNING AND PROGRESS**
Combining assessment, feedback and Intelligent tutoring

**03 Intelligent tutoring**
The learning experience should be more interactive and collaborative between learners, teachers, peers and Al.

**01 Assessment**
Skill-based assessment should be designed to enable performance feedback, not just a score

**02 Performance feedback**
Digital assessments should provide feedback that is clear, accessible and accommodating of diverse student needs

**BENEFITS OF FEEDBACK-BASED ASSESSMENTS**
Percentage respondents reporting increased likelihood of various sentiments resulting from assessment feedback

- **A** Be motivated to acquire new skills or knowledge
- **B** Feel more confident in my abilities
- **C** Feel more confident pursuing new employment or job opportunities
- **D** Feel prepared to face challenges
- **E** Feel recognized for my personal performance
- **F** See a direct link between skill development and career advancement
- **G** Feel less stressed about the future
- **H** Stay with my current employer

**SOURCE:** ETS Human Progress Study (September, 2023). Questions: "If you were able to take skills assessments and receive guidance as a pathway for career growth, would you be more or less likely to do or feel any of the following?" (Less likely/no change/More likely).
The future of assessment will enhance the learning experience and power human progress.

Technology and AI enable us to change how assessments operate and how in-demand skills are measured.

Assessments will be more of a two-way street where learners may provide information to teachers or policy-makers on their skill levels, and learners receive guidance on their strengths and gaps.

More personalized assessments will advance quality and equity in education, resulting in learning of more transferable skills promoting learning and performance for people worldwide.

THE PROBLEM

Educational testing doesn't maximize assessment benefits.

THE SOLUTION

<table>
<thead>
<tr>
<th>Driver</th>
<th>Future Change</th>
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<tbody>
<tr>
<td>Technology and science</td>
<td>Advancements will make creating, administering and scoring much more efficient while minimizing biases.</td>
</tr>
<tr>
<td>Performance feedback</td>
<td>Insights will fuel individual learning and skill gains.</td>
</tr>
<tr>
<td>Demand for lifelong learning</td>
<td>Assessments will expand to workplace settings and create more paths to success.</td>
</tr>
<tr>
<td>Perception shift of scores</td>
<td>Scores will not be viewed as the end goal, but a facilitator of growth and progress.</td>
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</table>
The future must address the threats to both low- and high-stakes assessments.

Future assessments will open doors to opportunities.

### LEARNING ASSESSMENTS CAN:

<table>
<thead>
<tr>
<th>Description</th>
<th>AGREE (%)</th>
<th>STRONGLY AGREE (%)</th>
</tr>
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<tbody>
<tr>
<td>Help individuals achieve better job opportunities and career advancement</td>
<td>85</td>
<td>40</td>
</tr>
<tr>
<td>Contribute significantly to boosting individual self-esteem</td>
<td>84</td>
<td>37</td>
</tr>
<tr>
<td>Can contribute significantly to boosting overall career satisfaction</td>
<td>84</td>
<td>38</td>
</tr>
<tr>
<td>Provide valuable opportunities for advancement</td>
<td>84</td>
<td>34</td>
</tr>
<tr>
<td>Effectively measure skills relevant to emerging industries and job roles</td>
<td>83</td>
<td>35</td>
</tr>
<tr>
<td>Bridge the skills gap to provide equal opportunities for advancement (e.g., across different backgrounds such as socioeconomic, racial, gender, etc.)</td>
<td>82</td>
<td>34</td>
</tr>
</tbody>
</table>

**Percentage of respondents who agree with the following statements**

**Source:** ETS Human Progress Study (September, 2023). Question: “How much do you agree or disagree with the following statements? (Strongly disagree/Somewhat disagree/Somewhat agree/Strongly agree) Note: Column “agree” is overall; “strongly agree” is Gen Z and Millennials only; strongly agree is approximately 10%-20% lower for Gen X and Boomers.