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# **Foreword**



Maria Spies Co-Founder, HolonIQ



Patrick Brothers Co-Founder, HolonIQ

We are delighted to share this report, developed with the assistance of AI, as a reflection and summary of the 2025 Global Skills Forum held on March 25 as part of Global Skills Week in Washington, D.C. This pivotal event convened a global network of leaders from industry, higher education, technology, policy, and economic development to explore the evolving landscape of skills, work, jobs and economic opportunity.

Global Skills Week stands as an important forum for stakeholders committed to shaping the future of the global skills economy and for advancing ideas, initiatives, and partnerships aimed at fostering next-generation skills, quality employment opportunities, and sustainable economic growth.

Through a series of practical workshops and thought-provoking sessions, participants collaborated to ideate strategies that bridge the gap between education and industry, fostering innovation and addressing emerging workforce needs.

The themes of Global Skills Week addressed the urgent challenges of a rapidly evolving workforce, the potential of advanced technologies and the critical role of the education system to bridge skills gaps, emphasizing:

- Career Readiness & Navigation: Leveraging real-time data and digital tools to empower learners in skill identification, program choice, and career planning.
- Transforming Higher Education for the Skills Economy: Highlighting how institutions are reengineering to set their students up for sucess in the workforce of the future.
- Al & Digital: Showcasing practical, hands-on applications of Al in education and career readiness, from generative Al workshops to institutional strategies for responsible and ethical Al adoption.
- Workforce Alignment & Employer Engagement: Bridging the gap between education and employment via employer-led strategies that validate and align workforce skills.
- Global Talent Pipelines & Mobility: Analyzing how international education and migration policies shape national competitiveness, focusing on high-demand fields
- Critical Industry Skills: Focusing on essential skills in sectors like advanced manufacturing, green skills, healthcare.

We extend our gratitude to our partners, sponsors, and collaborators, particularly American Student Assistance (ASA), Western Govenors University (WGU), Amazon Web Services (AWS), and QS Quacquarelli Symonds, Jobs for the Future (JFF), InSpring, Intel, OpenAl, BCG, America Succeeds, UNCF, IFC World Bank,1Mentor, Shorelight, Pearson, and University of Virginia. Their commitment and support were instrumental in the success of Global Skills Week.

As we reflect on the insights and connections forged during this week, we are reminded of the collective responsibility to drive innovation and equity in the global skills economy. We look forward to continuing this vital work together.

**Maria Spies** 

Chief Innovation Officer, QS

**B** 

Patrick Brothers Executive Director, QS Holon IQ by QS



Washington, D.C. March 24 - 28, 2025

# Global Skills Week.

### **COLLABORATION PARTNERS**









## **NETWORK PARTNERS**





























## **About the Summit**

Global Skills Week 2025, convened in Washington, D.C. from March 24 to 28, served as a pivotal gathering for leaders across sectors to address the evolving demands of the global skills economy. The event culminated in the Future of Skills & Work Forum on March 26, bringing together 350 participants from government, higher education, economic development, philanthropy, technology companies, and organizations advocating and delivering skills-based solutions to the market. The attendee profile underscored the event's high-level engagement, with CEO's and President's representing 1 in 5 participants and over half, Vice Presidents/ C-suite, reflecting a senior cohort committed to shaping the future of education, work and skills.

Throughout the week, Global Skills Week facilitated discussions through Industry Skills Leadership Councils, focusing on critical areas such as advanced manufacturing, green skills, digital and AI competencies, and health skills. These councils, co-hosted by organizations such as the IFC World Bank, BCG, inSpring, and American Student Assistance, provided platforms for in-depth exploration of sector-specific challenges and opportunities. A recurring theme was career navigation, emphasizing the importance of aligning educational pathways with emerging job opportunities and designing scaled solutions for supporting learners to navigate opportunities through their lifetime. Sessions addressed strategies for mapping career trajectories, integrating AI into curricula, and fostering collaborations between educational institutions and industry to ensure workforce readiness.

The Future of Skills & Work Forum featured a series of workshops and presentations led by organizations such as American Student Assistance, AWS, OpenAI, QS, Western Governors University, Jobs for the Future, 1Mentor and the University of Virginia. These sessions delved into topics like AI and digital skills, reskilling strategies, and the integration of digital skills into various sectors, providing attendees with actionable insights to implement within their respective domains.

The Forum opened with a Plenary 'Connecting the Global Skills Economy' which used compelling data visualizations to illustrate shifting economic dynamics, including labor force trends, job segmentation, and Al's rising impact. Charts mapped changes across 2,000 occupations, highlighting growth in healthcare and education, and declines in manufacturing. Al readiness visualizations identified 2.5 million U.S. jobs at high risk of automation, and explored the accelerating shift toward non-traditional education models driven by global investment, \$500 billion announced in the last year alone for digital and Al upskilling initiatives. Data showed a surge in non-degree credentials, where universities are embracing micro-credentials, while employers and states are beginning to remove degree requirements and codify skills-based hiring. The keynote illustrated how Al is reshaping course selection, student career pathways, with career navigation is emerging as a key service area, spanning support from high school through retirement. The plenary session set the scene for the remainder of the day, reinforcing the urgent need for broad upskilling and reskilling strategies to sustain workforce participation and economic resilience.

Another highlight of the Forum was the Opening Panel, 'The Future of Skills and Economic Opportunity', which featured President of the American Council on Education (ACE), CEO of Jobs for the Future (JFF), EVP of American Student Assistance (ASA), and Executive Director the Blackstone Charitable Foundation. The session explored the U.S. shift toward a skills-based education and workforce model, highlighting the growing demand from employers for verifiable skills over traditional degrees, emphasizing the need to reform higher education, modernize credentialing systems, and foster career readiness from an early age. The discussion pointed to systemic challenges but also clear momentum toward more inclusive, skills-driven pathways to economic opportunity.

Global Skills Week 2025 highlighted the necessity for cross-sector collaboration in addressing the dynamic landscape of workforce development. By bringing together a diverse group of leaders, the event fostered partnerships and initiatives aimed at equipping individuals with the skills needed for success in the new skills economy.

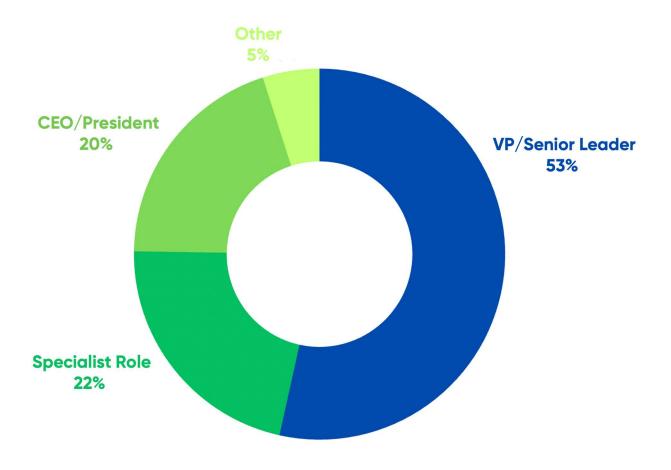
#### 2025 Global Skills Week - Participant Industry Segments

Participants from diverse industry segments enabled rich conversation focused on innovation and equity in the global skills economy



#### 2025 Global Skills Week - Participant Roles

Senior Leaders & Decision-Makers Connected on the Strategic Picture of Skills, Education, Jobs and Economic Advancement



### Al & Digital Skills Leadership Council

#### Tuesday, March 25

Understand global approaches to AI and Digital UpSkilling through public, private and university case studies. Benchmark and explore practical approaches.

9:30am	Registration & Networking		
10:00am	HolonIQ & BCG		
	Opening Remarks and Introductions		
10:15am	AI & Digital, Upskilling & Reskilling Benchmarks		
10:30am	Case Studies		
	Public Sector Case Study & Strategies		
	Higher Education Case Study & Strategies		
	Al & Cloud Case Study & Strategies		
11:45am	2025 Council Agenda		
12:00nm	Lunch Provided		

## Adv. Manufacturing Leadership Council

#### Wednesday, March 26

12:00pm

A Council of global leaders and experts discussing some of the most pressing global challenges in adv. manufacturing skilling. Co-hosted by inSpring. Meeting is by invitation.

11:00am	HolonIQ & inSpring		
	Opening Remarks and Council Introductions		
11:15am	Adv. Manufacturing Skills, Upskilling & Reskilling		
	Benchmarks		
11:30am	Case Study. Al and Advanced Manufacturing		
12:30pm	Networking Lunch		
1:00pm	Case Study. Economic and Workforce Development		
1:45pm	2025 Council Agenda		
	Priorities, Meetings & Closing Remarks		
2:00pm	Close		

This exclusive gathering convenes employers, education leaders, strategists, funders, policymakers, and technology innovators to
develop solutions that better connect education and employment. Hosted by HolonIQ and American Student Assistance (ASA), the Early
Career Navigation Leadership Council brings together key decision-makers shaping the future of education and workforce development.

9:30am	Workshop Part 1: Short Term Credentials
10:15am	Workshop Part 2: Funding Skills Programs
10:45am	Networking Break
11:15am	Workshop Part 3: Work-based Learning
12:00pm	2025 Agenda & Closing Remarks
12:30pm	Lunch Provided

### **Green Skills Leadership Council**

### Tuesday, March 25

Explore the world's most pressing global challenges in Green & Climate Skilling. Case Studies and practical examples. Co-hosted by the IFC, World Bank

1:30pm	Registration & Networking		
2:00pm	HolonIQ & The World Bank, IFC		
	Opening Remarks and Council Introductions		
2:15pm	Green Skills, Upskilling & Reskilling Benchmarks		
2:45pm	IFC World Bank. Insights and Green Skills Report		
3:30pm	Networking Break		
4:00pm	Green Skills Case Studies. US and Global		
4.45pm	2025 Council Agenda		
	Priorities, Meetings & Closing Remarks		
5.00pm	Close. Move to Opening Networking Reception		

## **Health Skills Leadership Council**

### Wednesday, March 26

2:00pm Registration & Networking

A Council of global leaders and experts discussing some of the world's most pressing global challenges in health skilling. Co-hosted by inSpring. Meeting is by invitation.

2:30pm	HolonIQ & inSpring			
	Opening Remarks and Council Introductions			
2:45pm	Health Skills, Upskilling & Reskilling Benchmarks			
3:15pm	Case Study: Al and Healthcare Workforces			
3:45pm	Networking Break			
4:00pm	Case Study: Employer + Training Insights			
4.45pm	2025 Council Agenda			
10000000	Priorities, Meetings & Closing Remarks			
E OOnm	Close			

Registration & Networking

Opening Remarks & Introductions

5.00pm



Early Career Navigation Leadership Council - Thursday, March 27, 8:30am - 1:00pm

8:30am

9:00am





New York. September 10-11, 2025.



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## **The Forum**

## **Central Hub**

8:00am	Registration and Breakfast Networking Breakfast	WIFI	Convene stayconnected
9:00am	HolonIQ Opening Plenary. Data + Interactive Connecting the Global Skills Economy		
9:45am	Opening Panel. The Future of Skills & Economic Opport American Student Assistance, American Council on Edu	The second secon	
10:30am	Networking Break	10:30am	Networking Break
11:00am	Policy Landscape for Skills-First Initiatives JFF, National Governors Assoc., JPMorganChase	11:00am	WORKSHOP. PartyRock your Learning: Hands- On Al for Industry-Ready Skills Learn about emerging Al trends in education and
11:30am	The Workforce Equation: Balancing Skills & Jobs ETS, JFFLabs, Gates Foundation, Cognizant		see real examples of how students are gaining industry-ready skills through AWS-powered university programs. Experience building your
12:00pm	International Education & Global Talent Pipelines Shorelight, Samsung, QS		own generative Al application using AWS PartyRock in a hands-on workshop.
12:30pm	Lunch and Networking	12:30pm	Lunch and Networking
1:30pm	The Health Skills Gap: Innovating for Inclusive Care inSpring, Siemens, Johns Hopkins School of Nursing	1:30pm	BRIEFING: World Future Skills Index This session will explore the findings of the QS World Future Skills Index 2025, with a spotlight on
2:00pm	Green Skills: Education for Climate Action The World Bank, IFC		the US. It will examine how education systems, job markets, and economies worldwide are adapting to future skills demands, and what it
2:30pm	Building a Workforce that Works: Alignment Strategies U.S. CoC Fnd'n, Alabama Govn'rs Office, CredLens, BCG		takes for countries to drive sustainable, skills-led economic growth.
3:00pm	Networking Break	3:00pm	Networking Break
3:30pm	Manufacturing 4.0. Unlocking Human Potential Intel, inSpring, Diversified Energy Co., TechBirmingham	3:30pm	WORKSHOP. From Classrooms to Careers - Open Al Education in Action This hands-on session is for leaders seeking to
4:00pm	India and the Global Skills Economy HolonIQ & QS		harness AI to redefine learning and workforce preparation. Gain insights from a university professor pioneering AI-driven transformation.
4:30pm	A Framework for Advancing Responsible AI in HE QS, Luiss Guido Carli University, HolonIQ		Leave with concrete strategies to drive Al adoption and enhance student outcomes.
5:00pm	Closing Networking Reception	5:00pm	Closing Networking Reception

## **Collaboration Partners**









## **Network Partners**









## **Board Room**

tion

10:30am	Networking Break	10:30am	Networking Break
11:00am	WORKSHOP. Enhancing the Value and Recognition of Short-term Credentials Join ASA & JFF in a workshop for those involved in the creation, implementation, or recognition of short-term credentials. We will cover practical approaches to filling gaps without a national dataset & explore what a "good enough" solution might look like.	11:00am	Advanced Manufacturing Skills Council Meeting 11am - 2pm Invitation Only. Co-Hosted by inSpring
12:30pm	Lunch and Networking		
1:30pm	WORKSHOP. How WGU Scales Skills-Based Education for Workforce Readiness Join Western Governors University for this session exploring scalable strategies for integrating skills-based learning, driving institutional transformation, and strengthening career pathways. Leave with actionable insights to future-proof learning and student success.	2:30pm	Health Skills Leadership Council Meeting  2.30pm - 5pm Invitation Only. Co-Hosted by inSpring
3:00pm	Networking Break		
3:30pm	WORKSHOP. Career Readiness Reimagined: A Case Study in Leveraging Al for Student Agency. Join the University of Virginia & 1Mentor for a deep dive into UVA's CareerConnect initiative illustrating how institutions can use real-time data to empower students to identify, develop, and articulate their skills, better aligning academic experience & career aspirations.		
5:00pm	Closing Networking Reception	5:00pm	Closing Networking Reception





















Maria Spies
Co-Founder at HolonIQ & Chief
Innovation Officer at QS



Patrick Brothers

Co-Founder at HolonIQ & Executive Director at QS

## Opening Plenary: Connecting the Global Skills Economy

9.00am in The Forum. This is an Al Generated summary of the session.

#### Global Shifts & Demographic Trends

The presentation begins with an overview of extensive global shifts that are reshaping power dynamics, economies, resources, energy, and societies. Population growth—particularly the dramatic increase over the last 500 years—is emphasized as a central driver. Yet, these changes are uneven: while Asia's numbers may rise until 2030–2050 and then decline, Africa is experiencing an explosive growth, and regions like Europe, Latin America, and North America remain largely flat. Visualizations highlight age-based population trends, where globally, the proportion of individuals aged 80+ will increase dramatically (by sevenfold) and those aged 60–80 will double. In contrast, the younger age brackets (0–20 years) are projected to decline significantly (up to 800 million fewer globally). The United States faces similar challenges with a steep rise in its senior population (80–100 years growing fivefold), underscoring the pressing need for upskilling and reskilling to maintain productivity and labor force participation in an aging society.

#### **Economic Landscape & Workforce Productivity**

The narrative shifts to the changing global economy. The engines of economic growth are evolving; emerging markets like China and India are positioned to potentially outpace traditional Western economies. Amid these transitions, many countries are increasingly focusing on home-grown jobs rather than global cooperation. In the United States, about 30% of the working-age population is not active in the labor force, necessitating efforts to boost labor participation and productivity. By contrast, India already shows over half of its working-age population engaged in the workforce. Overall, economic prosperity in the coming decades hinges on the ability to elevate skills and productivity through strategic upskilling and reskilling initiatives.

#### **Jobs and Skills Taxonomy**

The presentation outlines a comprehensive taxonomy for segmenting jobs and understanding labor market trends. This classification system encompasses several categories, including people-focused industries (education, healthcare), environmental sectors (agriculture, energy, infrastructure), technology, and consumer-oriented roles. By breaking down the U.S. labor force across approximately 2,000 occupations, data reveal profound shifts over the last 50 years. Some sectors, such as private education and healthcare services, have seen significant growth, while traditional manufacturing has contracted despite overall population increases. This taxonomy not only captures where workers are employed today but also informs how skills and workforce needs will evolve in different geographic and industry contexts.

#### **Artificial Intelligence and Technological Impact**

Artificial intelligence (AI) emerges as a dominant theme, recognized as both a threat and an opportunity. Countries worldwide are prioritizing AI capability as a national imperative. Diverse metrics—ranging from R&D investments to AI skill penetration—help map out the AI readiness of different regions. In the U.S., assessments across 2,000 occupations indicate that approximately 2.5 million jobs are highly vulnerable to AI disruption, though there is significant potential for AI to augment existing roles, particularly in technology-heavy sectors. The analysis extends to industry-specific impacts: while technology sectors show high augmentation potential, industries such as construction and certain public sector roles demonstrate lower susceptibility to AI-driven change.

#### Upskilling, Reskilling, and Lifelong Learning

The final segment stresses the critical need for upskilling and reskilling. With a recent infusion of nearly \$500 billion in capital directed toward digital and Al-focused training initiatives globally, the traditional education landscape is rapidly evolving. Universities are increasingly embracing non-degree credentials and micro-credentials, and projections suggest these awards may soon dominate over traditional degrees in the U.S. Moreover, career navigation support is gaining prominence, helping learners—from high school students to lifelong professionals—navigate complex educational pathways and rapidly shifting job requirements. This ecosystem, encompassing skill recognition, digital learner experience, and data-driven evaluation, is becoming essential for securing economic strength and ensuring that both individuals and nations remain competitive as innovation accelerates at unprecedented speeds.



Skills Leadership Councils, which met on the sidelines of Global Skills Week are specialized platforms bringing together leaders from industries, academia, governments, and civil society to address the evolving skill needs in critical sectors. 2025 brought together five Skills Leadership Councils: Advanced Manufacturing, Artificial Intelligence & Digital Skills, Green & Healthcare Skills, and Early Career Navigation.

## **AI & Digital Skills Council**

The AI and Digital Skills Leadership Council, co-hosted by HolonIQ and BCG, convened over 60 global leaders from education, industry, and government to explore the evolving landscape of AI and digital competencies. The session highlighted the strategic urgency of upskilling and reskilling in response to rapid technological advances, particularly those driven by generative AI and automation. HolonIQ shared in-depth insights from its longest-running longitudinal survey on artificial intelligence in education, offering data-driven thematics and trends across regions and sectors. Participants examined how institutions are adjusting curricula, investing in professional development, and forming public-private partnerships to keep pace with AI's transformative influence on the workforce.

Discussions emphasized the growing divide between leading institutions and those struggling to adapt, raising concerns about equity and global talent mobility. Case studies demonstrated innovative models in both developed and emerging markets, with emphasis on lifelong learning, micro-credentials, and stackable qualifications. BCG offered strategic frameworks to guide systems-level transformation and sustainable digital capability building.

The council also surfaced key barriers to progress, including the misalignment between industry needs and educational delivery, regulatory uncertainty, and the limited AI literacy among policymakers. Leaders called for stronger coalitions across sectors, better data infrastructure to track outcomes, and expanded investment in digital infrastructure, especially in underserved regions. The session concluded with a consensus that strategic coordination, not just isolated interventions, will be critical for preparing societies to thrive in an AI-enabled future.

This Leadership Council reinforced the critical role of cross-sector leadership in shaping AI education pathways and developing inclusive, scalable, and agile systems. It served as a platform for actionable insights and established a foundation for ongoing collaboration to future-proof the global workforce in the digital era.



## **Green Skills Leadership Council**

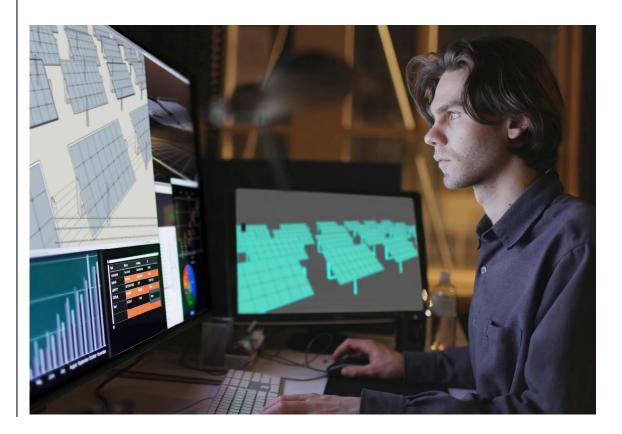
The Green Skills Leadership Council, hosted by the International Finance Corporation (IFC), brought together leading voices in climate, education, workforce development, and economic planning. The council examined global strategies for aligning skills systems with the climate transition, emphasizing the intersection of sustainability and employability. IFC opened the session with research on green skills gaps across major economies, mapping the emerging competencies needed to meet the demands of the net-zero transition.

The discussion was anchored by the urgency of climate adaptation and the socioeconomic opportunities of the green economy. A highlight of the session was the presentation from Jobs for the Future (JFF) on its CREST initiative, which successfully placed 25,000 individuals into quality green jobs across the United States. The case study illustrated how workforce programs can integrate community partnerships, employer engagement, and inclusive access to build equitable pathways into highgrowth sectors like renewable energy, sustainable agriculture, and circular economy industries.

Participants noted that while demand for green skills is growing rapidly, systemic challenges remain. These include limited integration of sustainability into core education curricula, inconsistent policy alignment, and a lack of industry-validated credentials. The council stressed the importance of developing national green skills taxonomies and creating policy incentives for reskilling programs tied to climate goals.

A recurring theme was the need for a whole-of-system response, connecting climate strategies with labor market intelligence, vocational training reform, and investment in green infrastructure. Emerging best practices from Europe, Southeast Asia, and Latin America were shared, highlighting global momentum toward climate-responsive skills ecosystems.

The council concluded with a shared recognition that green skills are not niche, but foundational to economic resilience and environmental stewardship. Moving forward, sustained collaboration between public and private actors will be essential to scale training programs, strengthen data systems, and ensure that green transitions are inclusive and just.



## **Advanced Manufacturing Skills Leadership Council**

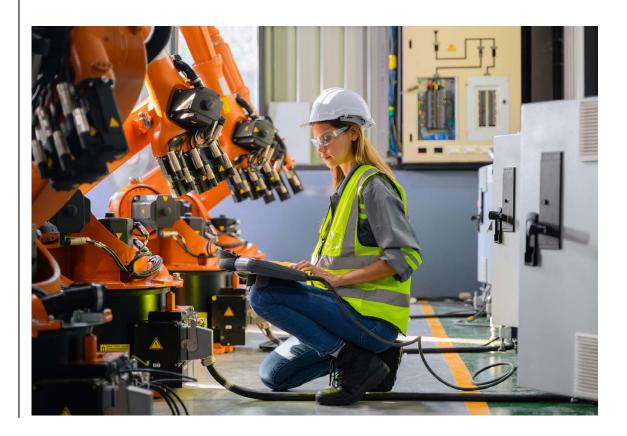
The Advanced Manufacturing Skills Leadership Council convened a targeted group of economic development leaders, training providers, and technology stakeholders to explore the future of industrial capability and workforce readiness in manufacturing. The session underscored the sector's rapid transformation driven by robotics, AI, and smart systems, and the parallel need to modernize the talent pipeline to meet evolving production requirements.

Contributions from leading US tech hubs illuminated innovative approaches to bridging skills gaps and accelerating regional competitiveness. Speakers presented regional strategies including employer-led training consortia, stackable credential pathways, and applied learning models tailored to advanced manufacturing environments. A focal point of the session was a deep-dive case study from Montana, where an emerging tech hub is building out a local skills ecosystem to support high-value manufacturing. The Montana example showcased the integration of community colleges, small manufacturers, and economic development agencies in creating targeted programs that align with both regional labor market needs and national innovation goals.

Participants discussed critical barriers such as aging infrastructure, gaps in educator capacity, and the complexity of aligning training with rapidly evolving technologies. There was a strong call to improve access to simulation labs, digitized equipment, and industry-recognized assessments. Equity was also emphasized—particularly the importance of including rural, Indigenous, and underrepresented populations in the manufacturing talent pipeline.

The council emphasized that successful workforce strategies in advanced manufacturing require place-based innovation, strong employer partnerships, and long-term investment. Public policy must evolve in tandem to support agile funding mechanisms, regulatory alignment, and cross-jurisdictional collaboration.

As industrial policy becomes a focal point of national competitiveness, the session reinforced that talent is central to manufacturing capability. The Council laid the groundwork for future coordination and offered a shared roadmap to scale regional successes to the national level.



## **Health Skills Leadership Council**

The Health Skills Leadership Council convened healthcare practitioners, educators, and policy experts to address the evolving competencies required in a healthcare system increasingly shaped by technology and demographic change. The session opened with cutting-edge research from Johns Hopkins University on the role of artificial intelligence in transforming frontline healthcare workforces. The findings highlighted new hybrid roles emerging in digital health, diagnostics, and patient care coordination, and the need for responsive upskilling strategies.

Following the research presentation, the Council explored a case study from a leading US institution that is spearheading a nurse upskilling initiative. The program equips existing staff with advanced digital, clinical, and communication skills to meet changing patient expectations and to work effectively alongside Al-enabled systems. This example underscored the value of embedding flexible and modular training into the flow of work and the importance of supporting retention and advancement within healthcare systems.

Council participants discussed the growing tension between the demand for health workers and the capacity of training institutions to supply them. Key issues included outdated curricula, regulatory bottlenecks, and limited faculty resources. Equity was also central to the conversation, especially the need to increase pathways for entry-level workers, internationally trained professionals, and underrepresented populations.

The Council called for multi-stakeholder coordination to modernize training systems, integrate digital health literacy, and better align national workforce strategies with evolving care models. It also recognized the emotional and physical toll on frontline workers and advocated for holistic supports to improve well-being and career sustainability.

The session closed with consensus that healthcare resilience depends on investing not only in infrastructure and innovation but in people. Forward-looking workforce planning, underpinned by data and strong partnerships, will be essential to ensuring health systems can adapt, scale, and care for increasingly complex and aging populations.



## **Early Career Navigation Leadership Council**

The Early Career Navigation Council brought together policymakers, education leaders, employers, and youth advocates to address the persistent challenges and emerging solutions in helping young people navigate their transitions from education to employment. The Council focused on the critical importance of ensuring that early career systems are equitable, transparent, and fit for the future of work.

Through a series of interactive workshops and presentations, the Council examined the most pressing barriers facing youth, including fragmented career information, limited access to quality work-based learning, and disconnects between education and evolving job markets. Participants explored models for employer engagement in early career programs, innovations in digital career navigation tools, and strategies for embedding career guidance earlier in the education journey.

A key theme was the need to reimagine career navigation as a developmental process, not a one-time decision. This includes supporting young people to explore their interests, gain practical experience, and develop foundational employability skills. Equity remained a cross-cutting focus, with particular attention to the experiences of marginalized youth and the role of wraparound supports such as mentoring, transportation, and digital access.

Case examples from Australia, the UK, and the US illustrated diverse policy approaches and programmatic models aimed at improving early career transitions. These included industry-led youth apprenticeships, regional career hubs, and school-based guidance reforms. Many of these initiatives emphasized the importance of real-time labor market data and digital tools to personalize and scale support.

The Council concluded by identifying five shared priorities for action: (1) expanding work-integrated learning; (2) improving alignment between qualifications and skills needs; (3) leveraging digital tools; (4) fostering inclusive design; and (5) embedding youth voice in policy development. It laid the groundwork for ongoing collaboration and knowledge-sharing to ensure that all young people can navigate their early careers with confidence and opportunity.







**Julie Lammers**Executive Vice President at
American Student Assistance



Maria Flynn
President and CEO at Jobs for



**Ted Mitchell**President at the American
Council on Education



Maura Polly
Executive Director at Blackstone
Charitable Foundation

# Opening Panel: The Future of Skills and Economic Opportunity

9.45am in The Forum. This is an Al Generated summary of the session.

#### Summary: Evolving Workforce Dynamics and the Shift Toward Skills-Based Education and Hiring

The panel discussion, with speakers from the Blackstone Charitable Foundation, the American Council on Education (ACE), Jobs for the Future (JFF), and American Student Assistance (ASA) illuminated the transformative shift underway in the U.S. workforce and education ecosystem. The dialogue underscored the urgency of moving beyond degree-centric paradigms toward a skills-based model of education, employment, and economic mobility. Several interrelated themes emerged, including employer demand for demonstrable skills, the evolution of higher education, systemic challenges in credentialing, and the importance of early and ongoing career readiness.

#### **Employer Perspectives: A Panoramic View from Industry**

The panel opened with a macroeconomic overview from Maura Pally, Executive Director of the Blackstone Charitable Foundation, which manages a global portfolio spanning more than 230 companies and 700,000 employees. The moderator emphasized that workforce needs vary dramatically across sectors—whether in data centers, food services, infrastructure, or education technology. Blackstone's workforce development initiatives, such as its Launchpad program for first-generation and low-income students, reflect the growing private-sector recognition that traditional degrees are no longer sufficient indicators of job readiness. Increasingly, employers are prioritizing adaptability, real-world problem-solving, and demonstrable skills over academic pedigree.

#### Higher Education's Response: Embedding Skills into Traditional Pathways

Ted Mitchell, President of ACE, acknowledged criticism that higher education has become detached from workforce needs. Nevertheless, he highlighted promising reforms such as partnerships with tech firms—e.g., the University of Texas integrating Google and Coursera certificates into credit—bearing programs. This "bolt—on" model enhances traditional degrees with market—relevant competencies. Mitchell further noted the reorganization of the Carnegie Classification system and the potential of Al to map course—based skills to job requirements. These developments aim to transform academic transcripts into skills—based records that are legible to employers, signaling a shift from degree inflation to skill articulation.

#### Nonprofit Advocacy: Skills-First Hiring and Cultural Transformation

Maria Flynn, President & CEO of JFF presented stark labor market disparities: only 38 million out of 160 million U.S. workers from historically marginalized groups currently hold quality jobs. JFF's objective is to raise this figure to 75 million by 2033. Flynn noted a persistent misalignment between executive-level commitment to skills-first hiring and the practices of frontline hiring managers, many of whom continue to default to degree requirements. The joint JFF-ASA "Degrees of Risk" report highlights hiring inertia and risk aversion toward nontraditional candidates. Flynn called for a systemic "rewiring" of hiring and promotion practices to align with inclusive, competency-based frameworks.

#### Early Career Readiness: Intervening Before Postsecondary Education

Julie Lammers, Executive Vice President of ASA advocated for introducing career readiness initiatives as early as middle school. She stressed that waiting until college to expose students to career pathways overlooks critical formative years. ASA promotes work-based learning and experiential opportunities during high school, emphasizing their influence on lifelong trajectories. However, she observed that most K–12 systems are ill-equipped to support the shift toward a skills-based economy, resulting in a disconnect between early education and workforce demands.

#### Systemic Challenges in Credentialing and Skill Navigation

A key theme in the extended discussion was the difficulty learners face in navigating the fragmented credential landscape. According to Credential Engine (2023), the U.S. offers over one million distinct credentials, many lacking transparent quality indicators. This surplus has created confusion among both learners and employers. ASA and JFF's research finds that 65% of young people are interested in non-degree pathways, but fear of failure and lack of trusted guidance push them toward conventional routes. To address this, initiatives like ASA's Career Navigation program and JFF's employer engagement strategies aim to enhance transparency and accessibility in career preparation.

#### Partnerships and Institutional Innovation

Institutions are experimenting with innovative models through peripheral structures or "skunkworks" that can circumvent traditional academic bureaucracy. Examples include Coursera collaborations, Harvard Extension School, and the U.S. Chamber of Commerce's EPIC project, which links K–12 education with industry through real-world learning challenges. These efforts represent early prototypes of a demand-driven, collaborative education-to-employment ecosystem.

#### The Role of AI and Digital Equity

Al emerged as both a catalyst and a concern. While Al can streamline hiring, personalize learning, and identify hidden skills, it also risks exacerbating digital divides. Anecdotes from classrooms—such as middle school teachers avoiding technology due to fears of Al misuse—illustrate the sector's lack of readiness to harness its benefits constructively.

#### Conclusion: Toward an Integrated, Equitable Ecosystem

The discussion culminated in a consensus that the dichotomy between degrees and skills is outdated. Instead, the future lies in integrated models that elevate skills while embedding them into traditional learning pathways. Success will depend on the alignment of policy, institutional practice, employer engagement, and learner support. Until then, many students will continue to navigate a complex and opaque system with limited tools, perpetuating inequities and underemployment. The panelists called for urgent action—anchored in collaboration, innovation, and equity—to translate decades of discourse into tangible, systemic change.





Karishma Merchant
Associate Vice President, Policy & Advocacy at Jobs for the Future



**Taylor Maag**Director of Workforce Policy at
Jobs for the Future



Amanda Winters
Program Director of
Postsecondary Education at
National Governors Association



Brianna McCain
Vice President at
JPMorganChase Policy Center

## Policy Landscape for Skills-First Initiatives

11.00am in The Forum. This is an Al Generated summary of the session.

#### **Introduction and Session Overview**

The session commenced with Karishma Merchant introducing herself as the Associate Vice President of Policy and Advocacy at Jobs for the Future (JFF) and introduced her colleague, Taylor Maag, Director of Workforce Policy for JFF. The panel also included Amanda Winters from the National Governors Association and Brianna McCain from JP Morgan Chase.

#### JFF's Role and Policy Priorities

Karishma outlined JFF's strategy, noting that the organization had been driven by insights from workforce boards, employers, community colleges, and education training providers. She stressed that policy reform at the federal level was essential for ensuring that non-partisan, practice-informed solutions reached all areas of the education-to-careers continuum and provided key insights from recent research that showed key policy areas—such as career preparation, expanded economic opportunities, apprenticeship programs, and childcare affordability—received strong bipartisan support. Skills-based hiring, which had reaffirmed the need for policies that directly connected workforce development with career pathways was also strongly backed.

#### Federal Policy Outlook and Legislative Dynamics

The discussion had then moved to the federal policy outlook. The speakers had observed that the U.S. Congress, now tightly divided with a strong Republican majority in both the House and the Senate, had limited legislative flexibility. The panel had explained that traditional congressional channels for passing comprehensive legislation had been constrained by the 60-vote threshold in the Senate, leading to greater reliance on budget reconciliation as a tool for advancing policy changes. Karishma had outlined several fiscal topics on the docket for the year, including debt ceiling negotiations, the expiration of tax cuts from President Trump's first term, and proposed spending adjustments in Medicare, Medicaid, border security, and energy. Additionally, she had noted that critical legislative priorities—such as the reauthorization of the Workforce Innovation and Opportunity Act and the expansion of Workforce Pell for job training—had been championed by key figures in the administration and were under active review.

#### **Emphasis on Cross-Sector Collaboration and Best Practices**

Speakers stressed that the development of effective skills-first policies was not a siloed endeavor, underlining the importance of forging partnerships among federal and state governments, employers, and educational institutions. Amanda had described how the National Governors Association had supported states in exploring skills-first approaches, noting that multiple governors had issued executive orders aimed at eliminating the bachelor's degree requirement for public sector roles. She highlighted that though states defined "skills-first" differently, common themes such as data modernization and enhanced alignment between curricula and employer needs had emerged. Peerto-peer learning had been instrumental in disseminating best practices and avoiding policies that had failed elsewhere.

Brianna McCain complemented these insights by outlining JP Morgan Chase's strategies for engaging diverse talent and upskilling its workforce, referencing emerging talent programs, continuous educational funding for employees, and advocacy for streamlining apprenticeship regulations across states as integral to bolstering the talent pipeline for high-quality jobs.

#### **Concluding Remarks and Key Policy Recommendations**

In closing, the panel distilled the discussion into three critical themes: the necessity of cross-sector and cross-level collaboration, the crucial need for data modernization in state systems, and the momentum underlying the skills-first agenda. Both Amanda and Brianna agreed that, if given the opportunity to wield a "magic wand," they would prioritize policies that modernized data systems and better aligned educational curriculum development with the concrete needs of employers.



**Kennon Harrison**Head of Corporate Workforce
Partnerships at ETS



**Kristina Francis**Executive Director at JFFLabs



Matt Gee
Director, U.S. Programs Data at
Gates Foundation



**Simone Rodriguez**Chief of Staff to the CEO at Cognizant

# The Workforce Equation: Balancing Skills Development and Job Requirements

11.30am in The Forum. This is an Al Generated summary of the session.

#### **Introduction and Session Context**

The moderator, Kennon Harrison from ETS, introduced himself as a leader of corporate workforce partnerships with a global presence and emphasized the importance of providing better information about skills to various stakeholders—including individuals, businesses, workforce organizations, governments, and educational institutions. He stressed that a true skills-based ecosystem depended on network activation, data transparency, catalytic capital, and employer engagement.

#### **Panelist Introductions**

Kristina Francis, Executive Director for JFF Labs, shared that she led the innovation and experimentation arm at Jobs for the Future (JFF) Kristina underscored the critical objective of JFF: to identify 41 million Americans (on top of the 38 million already in quality jobs) without a college degree and guide them toward quality employment. Matt Gee then provided insights from the Gates Foundation, where he directed efforts focused on leveraging data and Al across educational and workforce programs. Finally, Simone Rodriguez, Chief of Staff to the CEO at Cognizant, explained that Cognizant was a global IT services company employing over 335,000 associates worldwide and that learning and development formed a core part of their business model.

#### Framing the Discussion Around Skills Gaps and Data Insights

The moderator reiterated that the session aimed to identify the gaps in the education-to-workforce continuum, discussing not only the challenges of talent shortages and skills mismatches but also how data-driven insights could offer solutions. Kristina explained that while there were several initiatives tackling different aspects of the problem—such as mapping talent and job matching—one significant challenge remained: the lack of an interoperable platform that integrated all stakeholder perspectives. She noted that it was essential to address how individuals, employers, and educational institutions could better align when validating and verifying skills. Moreover, she stressed the need to "de-risk" the process for millions of learners by using emerging technology and Al-driven decision-making tools. This approach was intended to support better data analysis that translated into actionable interventions for workforce and postsecondary educational settings.

#### **Industry Perspectives and Practical Examples**

Simone provided concrete examples from Cognizant's internal initiatives. She discussed how Cognizant leveraged its talent intelligence platform—known as "My Skills"—to dynamically update its learning curriculum based on real-time data from both internal and external sources. This platform allowed Cognizant to anticipate emerging market trends and adjust training programs accordingly. Simone noted that while high-performing technical staff experienced modest productivity increases with Al support, lower-performing staff saw much larger gains. She emphasized that the major challenge lay in measuring and nurturing soft skills—critical thinking, innovation, self-awareness, grit, and perseverance—which were not as easily quantified but essential for long-term career advancement.

Matt reinforced the value of using Al for translating unstructured, multimodal data (such as video content) into structured insights. He highlighted partnerships with research institutions, which aimed to better assess "durable skills" and ultimately enhance each employee's self-perception and efficacy.

#### **Future Directions**

In conclusion, the panel emphasized that solving the education-to-workforce gap required a collaborative and data-rich approach that integrated emerging technologies with robust analytical frameworks. They agreed that aligning technical skills training with critical soft skill development was essential for driving upward mobility and enhancing organizational performance. The discussion underscored that fostering innovation, ensuring data interoperability, and establishing strong public-private partnerships were key to transforming workforce development and tackling deep-seated talent shortages.





**Dominic Berardi**Vice President, Government
Affairs at Shorelight



**Rebecca Peters Corley**Director, Semiconductor Public
Policy at Samsung Electronics
America



Matteo Quacquarelli Vice President, Strategy & Analytics at QS Quacquarelli Symonds

# Future of International Education & Global Talent Pipelines

12.00pm in The Forum. This is an Al Generated summary of the session.

#### Introduction and Session Overview

The moderator opened the session by welcoming the audience and emphasizing that, after an intense three hours of discussion, a new panel was about to begin just before lunch. The focus was set on the future of international education and global talent pipelines, with a particular lens on addressing high-skilled talent shortages in the United States. The moderator explained that the conversation was to be steered from an industry perspective, rather than solely through the traditional higher education lens, as international student mobility and global recruitment strategies were central to closing the skills gap in the domestic market.

#### **Moderator and Panelist Introductions**

Matteo Quacquarelli, Vice President of Strategy and Analytics at QS, assumed the role of the moderator. He presented QS's longstanding support for higher education institutions in areas such as performance, research, reputation, and international recruitment. Matteo highlighted that QS had worked with over 7,000 institutions worldwide and engaged tens of millions of prospective international students every year. He also mentioned the launch of the World Future Skills Index, which underscored the connection between workforce development and international education. Following his introduction, Matteo invited the panelists to introduce themselves.

Rebecca Peters Corley, a Director of Semiconductor Public Policy at Samsung, provided an industry perspective. She recounted Samsung's history in the US, noting that the company had been the first foreign national semiconductor manufacturer in Austin in 1996, and since expanded its investment substantially—including recent large—scale investments in Texas driven by the Chips and Science Act. She stressed that Samsung's initiatives had been instrumental in creating thousands of jobs in the semiconductor sector, which had been facing significant talent shortages.

Matteo then turned the floor to Dominic Berardi, Vice President, Government Affairs at Shorelight Education, who emphasized his company's role in facilitating international student mobility. Dom recalled that Shorelight successfully brought over 25,000 students to the United States and built partnerships through the coalition, Compete America, which joined industry and higher education to address America's strategic competitive challenges in talent pipelines.

#### Setting the Stage with Data and Global Trends

The moderator laid out a macro view of the talent landscape by presenting key data points. He shared that by 2030, an estimated 85 million jobs worldwide were predicted to go unfilled, which represented a potential \$8.5 trillion revenue risk for global companies. He underscored that talent shortages were particularly acute in the US, where 70% of firms reported difficulties in identifying the appropriate talent to fill open vacancies. In addition, the panel discussed domestic demographic trends—including a decline in the young population in the US over the next 75 years—and contrasted these trends with international student mobility metrics. For example, QS data indicated that the average US institution hosted merely around 2,900 international students per year compared with higher figures in countries like the United Kingdom.

#### **Industry Perspectives on Talent Pipelines and Solutions**

Rebecca then provided a detailed industry outlook from the semiconductor sector. She noted that, following the enactment of the Chips Act, the semiconductor industry invested about \$550 billion in the United States, resulting in tens of thousands of direct operational and construction jobs. However, she highlighted that the industry had faced a shortage of skilled workers—especially in STEM fields—with an estimated deficit of 1.4 million qualified professionals in science, technology, engineering, and math, which directly impacted hiring in critical roles such as engineering and computer science. Rebecca also discussed short-term and long-term solutions, emphasizing the importance of immigration as a stopgap measure given that a significant portion of STEM graduates in the US had been foreign nationals. She outlined efforts to invest in domestic workforce pipelines, including scholarships, upskilling programs, and partnerships with local educational institutions.

Dom elaborated on the evolving global mobility of skilled talent, noting that while the United States still attracted a considerable number of international students, its share of globally mobile talent had declined relative to traditional English-speaking destinations. He stressed that this trend highlighted the need for immigration reforms and clearer pathways for high-skilled talent, with the industry urging policies that would fast-track green cards for individuals with advanced STEM degrees.

#### **Policy Discussion and Concluding Remarks**

The panel then shifted towards policy considerations, as questions from the audience had sparked discussions on developing Al-based skills matching systems and improving the connection between educational curricula and industry needs. The panelists debated the merits of a national skills matching application, citing the current mismatch between job descriptions and actual skill requirements. They concluded that cross-sector collaboration, effective data modernization, and improved immigration policies were essential to bridge the gap between education and workforce outcomes. The session wrapped up with final remarks emphasizing the urgency of these policy interventions, as well as the potential benefits of aligning international education strategies with domestic labor market needs.





Geoffrey Roche
Director, Workforce
Development, North America at



**Olga Yakusheva**Professor at Johns Hopkins
School of Nursing



**Chris Hoehn-Saric**Co-Founder at inSpring

# Closing the Health Skills Gap: Innovating for Inclusive Care

1.30pm in The Forum. This is an Al Generated summary of the session.

#### **Panel Introductions and Context**

The discussion opened with moderator Chris Hoehn-Saric, Co-Founder at inSpring, introducing the session on the health skills gap. Panelists Geoffrey Roche, an experienced healthcare expert and director of workforce development at Siemens Healthineers, and Olga Yakushiva, a professor at Johns Hopkins University specializing in the economic value of nursing, were introduced.

#### **Evolving Skill Gaps in Healthcare**

A central theme was the challenge of defining skill gaps amid rapidly changing healthcare dynamics. Olga Yakushiva pointed out that traditional assessments of skill shortages might be less relevant because the healthcare landscape is in constant flux, particularly with the integration of Al. Instead of static gaps, there appears to be a mismatch between the skill intensity required for certain roles and the actual training provided. For example, while primary care physicians undergo extensive training, nurse practitioners often operate within similar scopes despite relatively shorter formal education.

#### Upskilling and the Role of Continuing Education

Panelists emphasized the need for hospitals to invest not only in new technology but also in comprehensive continuing education. Geoffrey Roche highlighted that Siemens Healthineers actively collaborates with academic institutions to ensure faculty and clinical staff receive up-to-date training. This includes offering open access to learning management systems and personalized development plans for technologists and clinicians. Roche underscored that meeting FDA requirements is just a baseline; the goal is to upscale, retain, and grow talent through continuous education integrated with clinical practice.

#### Integration of AI in Clinical Practice

The discussion centered on Al's role in nursing, highlighting its ability to handle routine tasks like documentation while reinforcing that it won't replace human caregivers. Instead, Al is seen as a tool to reduce administrative burdens and enhance patient care. Olga Yakushiva emphasized that nurses' interpersonal skills are less likely to be automated and argued that nurses should lead Al integration, ensuring technologies are designed with their needs in mind.

#### **Regulatory Demands and Micro Credentialing**

The panel discussed the complex regulatory environment in healthcare tech and education, emphasizing the need for training alongside new technology to ensure safe use. Varying state credentialing requirements add further challenges. In response, models like micro-credentialing and apprenticeships are gaining traction. UW Health in Wisconsin was highlighted for its scalable apprenticeship programs, which provide flexible, stackable pathways from entry-level roles to advanced credentials, helping build a sustainable healthcare workforce.

#### The Value of Soft Skills in Healthcare

Complementing the discussion on technical skills was an appreciation of the intrinsic value of soft skills in nursing. Panelists argued that while technical skills may be more easily automated, soft skills—such as empathy, communication, and patient engagement—are essential for high-quality care. This distinction reinforces the argument that technology should serve as an adjunct rather than a replacement for human interaction in healthcare.

#### **Concluding Thoughts**

The panel concluded that addressing the health skills gap requires a collaborative, multifaceted approach that includes recalibrating educational frameworks, leveraging AI responsibly, and prioritizing soft skills development. The ultimate vision is to create a healthcare environment where technology seamlessly supports human caregivers, ensuring both innovation and compassionate patient care.



**Alejandro Caballero**Principal Education Specialist at
IFC The World Bank Group



Valeria Vecchi
Investment Officer - Global
Health & Education at IFC The
World Bank Group

## **Green Skills. Education for Climate Action**

2.00pm in The Forum. This is an Al Generated summary of the session.

#### Introduction and Institutional Context

Valeria Vecchi, an Investment Officer at the International Finance Corporation (IFC) within the World Bank Group, opens the presentation by outlining IFC's role in investing in private markets across emerging economies. She explains that IFC supports a range of sectors—from infrastructure to education—and increasingly focuses on integrating climate priorities. Investment figures are provided to illustrate scale; for example, over the past fiscal year, IFC invested nearly US\$34 billion in emerging markets, with roughly 60% targeting mass markets and about US\$4 billion categorized as climate investments. This financial commitment aligns with the World Bank's revised mission: ending poverty on a livable planet.

#### Integrating Education, Climate, and Jobs

Alejandro takes the floor to elaborate on how education and climate intersect and the related transformative potential for economies and societies. He emphasizes a key shift in the World Bank's vision made about a year ago—from a focus solely on poverty alleviation to including sustainability and livability. This pivot has influenced how various units within both the World Bank and IFC approach their work. A strong emphasis is placed on the evolving "jobs agenda," which now links directly to the skills agenda. Skills—especially green and technical skills—are described as the new drivers for economic growth, productivity, and the creation of decent jobs, including green jobs. Education is repositioned as an industry-led initiative, meaning that upskilling efforts need to be aligned with the practical needs of diverse sectors such as healthcare, mining, financial services, tourism, and agribusiness.

#### Impact of Climate Change on Education

The speakers outline how climate change is already affecting education outcomes. A notable point is the adverse effect of elevated temperatures on learning; temperatures above 24°C are reported to impair student performance. In addition, extreme weather events—ranging from unusually heavy snowfalls causing school closures (as experienced in the DMV region) to more frequent and severe climate shocks in vulnerable developing countries—disrupt educational continuity. Alejandro also references hard data showing that the number of people affected by climate shocks has more than doubled from 34 million in 1981 to 77 million in 2020. These impacts underscore the disproportionate burden borne by the most vulnerable communities, who have contributed least to the causes of climate change.

#### Education as a Catalyst for Climate Action

The presentation highlights a more optimistic perspective, arguing that education and training are critical levers in the fight against climate change. It is explained that quality education—from early childhood through secondary and tertiary levels—can drive widespread behavior change and foster innovation. This "bottom up" approach is demonstrated through examples such as students campaigning for sustainability within their schools and universities, influencing governance, and even prompting curriculum changes toward greener practices. Empirical data suggests that greater educational attainment correlates with increased concern for climate issues and enhanced readiness for climate action, with differences of up to 22 percentage points observed in countries such as Argentina and the Philippines.

#### Financial and Advisory Support for Green Transitions

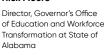
Valeria returns to detail how IFC's sustainable finance products are tailored to support green transitions within the education sector. IFC offers financing instruments such as loans and bonds that either

tie to the use of proceeds for green projects (like retrofitting educational buildings) or set targets for environmental performance improvements verified by third parties. These sustainable finance products are designed not only to reduce greenhouse gas emissions but also to generate cost savings via improved energy and water efficiency.





**Nick Moore** 





Peter Beard Vice President, Policy and Programs at U.S. Chamber of Commerce Foundation



Stacey Caldwell President and CEO at CredLens



Lane McBride Managing Director & Senior Partner at BCG

## **Building a Workforce That Works: Strategies to** Align Education, Credentials, and Employer Needs

2.30pm in The Forum. This is an Al Generated summary of the session.

#### **Introduction and Context**

Lane McBride, a senior partner at Boston Consulting Group, opened the session by highlighting BCG's work across sectors in education and workforce development. He emphasized the value of crosssector collaboration and thanked HolonIQ for hosting. McBride underlined the need for stronger partnerships between education providers and employers to better align training with labor market needs. He illustrated this with the Blue Sky Institute in Tennessee, a 27-month accelerated bachelor's degree program formed through a partnership between an insurance company and a higher education institution. Serving about 30 students annually, it demonstrates how targeted, employer-informed programs can accelerate workforce readiness.

#### The Alabama Talent Triad and State-Level Innovation

McBride introduced panelists including Nick Moore from Alabama's Governor's Office of Education and Workforce Transformation. Moore discussed the Alabama Talent Triad, a major state initiative designed to address systemic fragmentation from early education to the workforce. Governor Kay Ivey had prioritized overcoming silos and addressing the state's low labor force participation rate. The Talent Triad integrated three tools: a skills-based job description generator, a learning and employment record, and a credential registry. These tools translate various forms of learning into standardized competencies, helping employers and job seekers better navigate the labor market. Developed with sector-specific input, they aim to match talent supply with demand, especially in tight labor conditions.

#### Addressing Outcomes Data and the Role of Credlens

Stacy Caldwell, President and CEO of Credlens, described her organization's mission to fill a critical gap in outcomes data for non-degree credentials. Launched by Strada as a nonprofit national data trust, Credlens connects credential data to labor market outcomes like wages and employment trajectories. Using a secure, anonymized data infrastructure, it produces dashboards that allow credential issuers to assess and improve their programs. Caldwell emphasized that these insights help validate the realworld value of micro-credentials and certificates. She also noted ongoing efforts to partner with statelevel initiatives, broadening the potential impact of these data tools.

#### **Employer Engagement and Collaborative Approaches**

Peter Beard of the U.S. Chamber of Commerce Foundation highlighted the essential role of employers in driving education reform. Drawing on work in Houston and national efforts, Beard emphasized the importance of employers defining day-one skill needs. Employers helped build competency models and co-created job descriptions aligned with real business requirements. He detailed how structured engagement-such as "fish bowl" conversations where employers offer candid feedback-has fostered alignment with education providers. These collaborations have shortened onboarding times and enhanced the relevance of workforce credentials by translating employer input into actionable program design.

#### **Forward-Looking Initiatives**

In the final "lightning round," panelists shared upcoming innovations. These included expanding the Credlens data trust, releasing white papers on credential gaps, and exploring a "skills savings account" model that would function like a flexible spending account for continuous learning. The panel closed with a call to scale these efforts, increase participation from both employers and job seekers, and ensure the longevity of these reforms. As labor market demands evolve, maintaining momentum and fostering innovation will be key to building an adaptive, skills-based workforce system.



**Anshul Sonak** Head and Global Director -Intel Digital Readiness Programs



**Darby Westfall**Founder at Leapfrog Systems



**Deontée Gordon**CEO at TechBirmingham



**Imran Oomer**Co-Founder at inSpring

# Manufacturing 4.0. Unlocking Human Potential in the Advanced Manufacturing Revolution

3,30pm in The Forum. This is an Al Generated summary of the session.

#### **Introduction and Definition**

The session opened with a welcome from the moderator, who introduced the focus on manufacturing 4.0, setting the stage with a reference to Klaus Schwab, founder of the World Economic Forum, who coined the term "Industry 4.0" in 2016. Schwab defined it as the era of rapid technological advancement in the 21st century. This definition anchored the conversation, as panelists shared how manufacturing 4.0 applied within their unique industry and regional contexts.

#### **Panelist Introductions and Ecosystem Overviews**

Deontée Gordon, President and CEO of Tech Birmingham, spoke first, explaining his organization's role as a regional technology council advocating for innovation in Birmingham and Alabama. Tech Birmingham's work spanned startup promotion, policy advocacy, and workforce development, including digital skills training through initiatives like Ed Farm, a partnership with Apple focused on inclusive digital education. Gordon defined manufacturing 4.0 as the integration of computing and creativity to generate new value in industrial processes.

Darby Westfall of LeapFrog Systems followed, representing a long-standing software consultancy that implements AI in manufacturing globally. He expressed surprise that the "4.0" label was formalized only recently, noting his firm had worked in advanced manufacturing for years. Westfall addressed concerns around job displacement by highlighting how AI transforms rather than replaces work, and emphasized the critical role experienced workers play in guiding successful AI implementation.

Anshul Sonat from Intel brought a global perspective, drawing on Intel's leadership in semiconductor design. He framed manufacturing 4.0 as the convergence of cyber, physical, biological systems, and intelligence, driven by advances in computing power (Moore's Law. He stressed the importance of forming public-private partnerships to promote inclusive technological progress, including Intel's goal to upskill 30 million people worldwide by 2030.

#### Public-Private Partnerships and Workforce Transformation

The panel explored how cross-sector collaboration enables workforce transformation. Sonat shared Intel's case study in Vietnam, where a partnership with local governments and universities led to large-scale technical training, thousands of new high-tech jobs, and greater digital inclusion.

Gordon gave a regional example from Birmingham, describing the Ed Farm initiative that delivered devices, digital curriculum, and teacher training to under-resourced schools. Backed by city leadership, school districts, and corporate partners, the program created a scalable model for digital education, equipping both students and educators for future workforce demands.

#### ROI, AI Literacy, and Future Agility

The conversation then turned to measuring return on investment (ROI) for AI in manufacturing. Panelists agreed that success depended on clear goals, appropriate metrics, and executive-level commitment. Outcomes like cost reduction or revenue growth had to be tracked systematically. They also stressed the urgent need for AI literacy, both in leadership and within the broader education system. Early exposure to AI concepts in K–12 education was seen as essential for building a future-ready workforce capable of adapting to rapid technological change.

#### **Concluding Remarks**

The session concluded with panelists reaffirming key priorities: collaborative public-private partnerships, robust ROI frameworks, and early AI education. Together, these elements were seen as foundational to ensuring that manufacturing 4.0 drives not just innovation, but also inclusive, sustainable economic growth.



Patrick Brothers
Co-Founder at HolonIQ &
Executive Director at QS

# India and the Global Skills Economy: Challenges and Opportunities

4.00pm in The Forum. This is an Al Generated summary of the session.

### **Introduction and Overview**

The speaker had initiated the session by announcing a data burst focused on India and the global skills economy. He had highlighted that the analysis would cover India's current status and future trajectory concerning its economy, demographic shifts, workforce pipeline, and the transformative impact of artificial intelligence on automation and augmentation. The session had promised to present insights into how India was poised to become a dominant global economic force by the end of the century, and how its education and talent pipelines were evolving in the face of global trends.

### India's Economic Future and Global Standing

The speaker had predicted that India would likely emerge as the world's largest economy by the end of this century, based on current rolling forward assumptions. He had cited academic research and benchmarks that traced global GDP shares back to ancient times, noting that India had once been the largest economy before its share declined during the British colonial era. However, by 2023, India had started gaining momentum, doubling the US GDP growth over the past 25 years and outpacing its G20 peers. The analysis had also compared India's projected growth with that of other nations, including China and Indonesia, emphasizing that although the differences in absolute GDP values might be modest in the next 10 to 20 years, India's ranking would experience significant leaps.

#### **Demographic and Educational Shifts**

The presentation had shifted focus to India's demographic landscape and the education system. South Asia, led by India, had represented one-quarter of the world's working-age population. The analysis had shown that India was set to remain the most populous country until the end of the century, even as its youth population had already peaked. Graphs had illustrated that while the share of children in the 0–20 age group had historically been substantial, in the coming generation, that share was expected to decline significantly. Furthermore, the speaker had warned that 60% of India's population had not completed secondary education. However, a stark projection had revealed that India would award more than 150 million post-secondary credentials over the next 25 years – a surge attributed to the heavy investments made by the Indian government in expanding educational capacity, including the establishment of transnational campuses.

### **Workforce Composition and Automation Risk**

The session had detailed the composition and size of India's workforce, which was projected to consist of approximately 600 million workers. The speaker had underlined the unique nature of India's labor market, noting that the workforce was characterized by a large informal segment, with many individuals engaged in self-employment or casual labor. These conditions had necessitated a unique approach to upskilling and reskilling. Furthermore, the data had shown that around 100 million jobs were at high or very high risk of automation. In contrast, about 50 million jobs were estimated to benefit from Al-powered augmentation. The analysis had emphasized that while India faced a considerable risk of job displacement due to automation, there were also substantial opportunities for productivity improvements through targeted skills development and better workforce participation.

### STEM, Talent Pipeline, and Global Mobility

The speaker had discussed how India had become a global STEM powerhouse. Charts had demonstrated that a significant majority of Indian international students in the United States were pursuing STEM fields at both undergraduate and postgraduate levels. This trend had reinforced the view that India's educational system was strongly oriented toward technical and scientific disciplines, which were critical for advancing the country's global economic ambitions.

Moreover, the presentation had highlighted the need to mobilize a larger share of the working-age population into the formal economy. Expanding workforce participation and enhancing productivity through systematic upskilling had been identified as key levers to translate India's demographic dividend into sustainable economic growth.

### **Concluding Insights**

In closing, the session had tied together the multifaceted analysis, underscoring that India's continued rise depended not only on demographic and educational reforms but also on navigating the challenges of automation and AI-driven transformation. With a projected massive increase in post-secondary credentials and a robust, though complex, labor market, India had been positioned as a critical player in the global skills economy. The speaker had concluded by inviting questions to further explore these dynamic insights into India's future economic landscape.

### **QS AI Capability Framework**

Four Pillars, Segmented Into 14 Categories, Encompassing Over 30 Indicators to Assess Institutional Capabilities

### **QS AI Capability Framework for Higher Education**

The QS Al Capability Framework is a structured tool that helps higher education institutions assess and enhance their Al integration through four pillars, 14 categories, and over 30 indicators to guide strategic improvement.

GOVERNANCE & HUMAN COMMITMENT	OUTREACH & OPERATIONAL EFFICIENCY	TEACHING, LEARNING & CURRICULUM	RESEARCH & SCHOLARSHIP
1.1 Regulatory & Ethical Standards	2.1 Al-Enhanced Recruitment	3.1 Course Design & Curriculum	Al in Resesrch 4.1 Practices & Processes
Governance & Risk Management	2.2 Personalized Student Support	3.2 Personalized Learning	4.2 Scholarship of Al in Practice
1.3 Code of Conduct & Privacy Protection	Faculty & 2.3 Administrative Efficiency	Assessment, 3.3 Grading & Feedback	4.3 Al Research
1.4 Leadership & Capability	Corporate 2.4 Enagement & Partnerships		



**Nunzio Quacquarelli**President at QS Quacquarelli
Symonds



Enzo Peruffo

Dean at Luiss Graduate School & Professor of Strategy at Luiss Guido Carli University



Maria Spies
Co-Founder at HolonIQ & Chief
Innovation Officer at QS

# Advancing Responsible Al: A Global Consortium for Ethical Al Adoption in Higher Education

4.30pm in The Forum. This is an Al Generated summary of the session.

The session had been introduced by Maria Spies, who had welcomed the attendees and set the stage for the session on advancing responsible Al. Maria had introduced herself as the co-founder of HolonIQ and Chief Innovation Officer at QS. She had welcomed an international panel, including Enzo Peruffo (the Dean at Luiss Graduate School of Business from Italy) and Nunzio Quacquarelli (President and Founder of QS). The moderator had emphasized that the discussion would focus on responsible Al and how higher education institutions had a duty to lead in this space by collaborating through a global consortium.

### Overview of the Responsible AI Consortium

Nunzio had described the Responsible AI Consortium as a collaborative platform initiated with the support of several prestigious institutions including Lewis Business School, Imperial College London, and EDEC. He had explained that the consortium had been created to avoid reinventing the wheel across individual universities, instead allowing them to co-create common frameworks, share best practices, and advance collective understanding of AI. Four key pillars of the consortium had been summarized:

- Research and Thought Leadership: Universities had jointly worked to explore the frontiers of Al
  usage from the perspective of higher education.
- Safe Experimentation: A sandbox had been established, where members experimented with new Al tools and assessed their impact on teaching, learning, and operations safely.
- Al Literacy and Experiential Learning: The consortium had supported initiatives that provided students with hands-on experience, enabling them to develop their employability skills through collaborative Al projects.
- Al Competency Framework: In partnership with industry giants like Microsoft and AWS—as well as contributions from Imperial College and government experts—a framework had been developed and piloted to help institutions enhance governance, human capital development, and operational use of Al.

### Strategic Participation and Institutional Alignment

Enzo had detailed why his institution had chosen to become a founding member of the consortium. He had emphasized that, operating in a highly regulated European environment, his school had found value in sharing knowledge and aligning Al initiatives with overall university strategy. By joining the consortium, the institution had sought to avoid isolated efforts and instead benefit from collective investments, shared research, and the spillover effects of multi-disciplinary collaboration. Enzo had stressed that the consortium had been embedded in his university's long-term strategy, aiming not only to strengthen their Al capabilities but also to influence policy and governance practices across the sector.

### Academic Staff Engagement and Collaborative Working Groups

The discussion had also tackled the challenges and opportunities in engaging academic staff with Al. Panelists had noted that while academic staff could be resistant to change, the consortium's structure—enabling the creation of specialized working groups—had provided a supportive framework for collaboration across different institutions. One example had involved developing "avatars" or digital twins of faculty members to ensure continued delivery of classes even when they were absent. Additionally, working groups had been organized to improve administrative efficiencies through Al, thereby reducing operational costs. Such collaborations had served to demystify Al and promote its practical applications within academia.

### Responsible AI: Ethics, Governance, and Broader Impact

A key theme of the discussion had been the notion of "responsible" Al. Nunzio had expanded on this by underlining that responsibility encompassed not only ethical issues but also long-term social value creation. The consortium had aimed to develop best practices in governance and equitable access, encouraging universities to adopt standards that ensured ethical deployment of Al technologies across teaching, research, and administration. Panelists had acknowledged challenges such as algorithmic bias, privacy concerns under GDPR, and the broader risks associated with job displacement. They had stressed the importance of collaborative frameworks to guide both policy and practical implementation.

### **Concluding Remarks and Call to Action**

In concluding, the panel had collectively advised that institutions should not rush AI investments but rather adopt an iterative "do and fix" approach. They had recommended that university leaders begin by joining collaborative platforms like the Responsible AI Consortium to gain from shared insights, pilot projects, and collective expertise. The discussion had ended with a call for interested institutions to reach out via the provided contact details, emphasizing that responsible, inclusive, and sustainable AI adoption was a global imperative.







# PartyRock Your Learning: Hands-On Al for Industry-Ready Skills

The AWS-hosted workshop titled "Party Rock Your Learning: Hands-On AI for Industry-Ready Skills" was a practical, engaging session aimed at demystifying generative AI. At its core, the workshop focused on PartyRock, an AWS-powered, no-code AI playground built on Amazon Bedrock, designed for users to build, share, and iterate on generative AI applications using intuitive, drag-and-drop functionality and natural language prompts.

The session was structured to provide participants with both conceptual frameworks and hands-on experience, culminating in the creation of their own application using PartyRock. The workshop also spotlighted real-world applications of AWS education initiatives that are advancing equity, resilience, and innovation in public and nonprofit sectors.

#### AWS's Mission-Driven Approach to Applied Learning

The session opened with an introduction to AWS's global education mission: accelerating innovation across education, research, and the workforce by making learning personal, applicable, and lifelong. Emphasis was placed on AWS's "working backwards" methodology, which starts with the needs of the customer—in this context, learners, educators, and institutions—and is grounded in Amazon's core leadership principle of customer obsession.

Three pillars guide AWS's strategy in education:

- **Customer-Centric Innovation** Solutions are designed by identifying and addressing the specific challenges faced by institutions, learners, and governments.
- **Data and Al-Driven Transformation** The use of data and Al is central to uncovering previously inaccessible insights that can improve learning outcomes and institutional decision-making.
- Resilience and Security In response to increasing cybersecurity threats, especially in higher
  education (notably in the UK), AWS is focusing on bolstering digital resilience through secure cloud
  solutions.



#### **AWS Education Initiatives: From Equity to Global Talent Pipelines**

The workshop delved into several flagship initiatives. The AWS Education Equity Initiative, launched in late 2024, represents a \$100 million commitment to providing cloud credits and technical expertise to socially minded edtechs, non-profits, and CSR initiatives working to support underserved learners. Applications for this funding close at the end of March, with AWS actively seeking organizations aligned with equity-driven innovation.

Noah Eden, head of the AWS Cloud Innovation Centers (CIC) program, provided a deeper look at AWS's public-private university partnerships. These centers enable students to build real-world AI and cloud-based solutions for government and nonprofit clients. Highlighted projects included a generative AI chatbot for municipal compliance assessment, a pharmacy training simulation using conversational AI, and a multilingual communication tool for high schools. One standout example involved an accessibility solution that dramatically lowered the cost of remediating PDF documents, potentially saving institutions millions of dollars.

Each CIC project culminates in a demo and the open-sourcing of code to ensure broader public benefit and scale. Students involved not only gain technical competencies but also write public blog posts to showcase their work, enhancing their employability.

Cal Poly student and CIC participant Naz described how the CIC enabled him to apply classroom theory to real-world public sector problems. His project—a chatbot for a county assessor's office—helped democratize access to complex property assessment information. Beyond technical skills, Naz emphasized the program's impact on developing soft skills, such as customer engagement and public speaking.

### The Tech Alliance and Global Workforce Development

Tekla Moquin, representing AWS's Skills to Jobs Tech Alliance, discussed the coalition's work in connecting learners to high-demand tech jobs by modernizing curricula and strengthening industry alignment. With over 780 employer partners and initiatives spanning 11 countries, the Tech Alliance supports skill development in cloud support, data analytics, software development, and more. Efforts include aligning curriculum to industry-validated skills maps updated biannually, and supporting faculty with teaching resources.

### Hands-On Experience with Generative AI via PartyRock

The workshop concluded with an interactive session using PartyRock, AWS's no-code generative Al application builder hosted on Amazon Bedrock. This tool allows educators and developers to build apps leveraging foundation models without needing advanced programming knowledge. The handson segment illustrated three key use cases of generative Al:

- Customer Experience Enhancement Chatbots and virtual agents that improve service delivery.
- Employee Productivity Tools for summarization, content generation, and knowledge search.
- Business Process Optimization Al-driven document Q&A, fraud detection, and workflow automation.

The AWS generative AI stack was explained as a three-tier model: infrastructure (e.g., Trainium, Inferentia chips, GPU clusters), platform-level services (e.g., Amazon Bedrock), and application-level tools (e.g., Amazon Q for business and developer productivity).

AWS's education strategy reflects a comprehensive ecosystem approach—integrating cloud infrastructure, Al applications, and industry collaboration to support learner success and institutional innovation. By emphasizing real-world problem solving, open-source collaboration, and equitable access, AWS aims to scale solutions that not only upskill the next generation of talent but also serve public good. The workshop provided participants with both a strategic view and tactical tools to begin applying these concepts in their own educational contexts.

For more information about AWS Education Programs, visit AWS Education.

# QS QUACQUARELLI SYMONDS

### **World Future Skills Index Briefing**

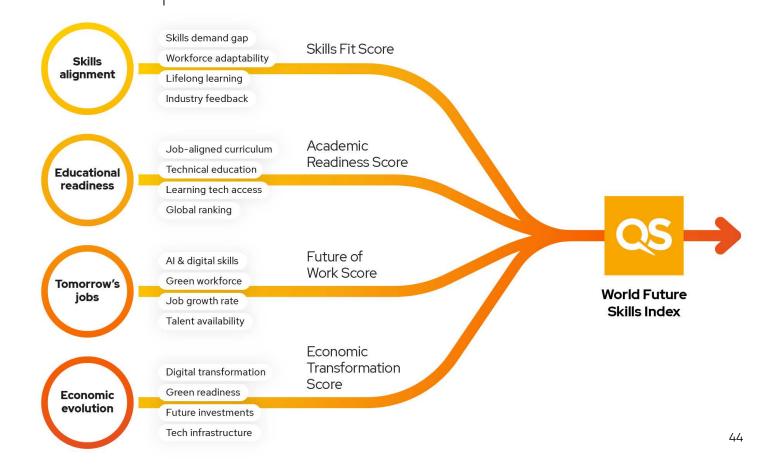
The world of work is changing. Governments and higher education systems must work together to build the capacity necessary to reskill and upskill workers. At Global Skills Week, Matteo Quacquarelli hosted a session on the QS World Future Skills Index. The Index benchmarks the preparedness of national higher education systems to meet future labor market needs. To do this, the Index uses four indicators to measure a country's preparedness to thrive in an increasingly skills-driven global economy.

### **QS World Future Skills Index Key Findings**

During his briefing, Matteo discussed one of the key findings of the Index. Countries can be placed into two clusters: Rapid industry innovation, and workforce readiness. 30% of countries are in the rapid industry innovation cluster, meaning their industries are evolving at a faster rate than their workforce can adopt new skills. The remaining 70% of countries fall into the workforce readiness cluster, where the potential future skills supply of workers is strong but there's insufficient economic growth and innovation to yield value. For each cluster, Matteo delivered some key recommendations for higher education institutions. When speaking about countries in the rapid industry innovation cluster, he said:

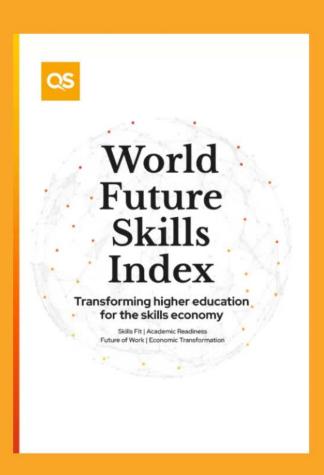
"In the medium term, policy makers and higher education need to work together to identify industries, occupations, and workers that are most at risk of displacement, and to engage in large scale reskilling of the workforce. That's going to take time to implement real root and branch overhaul. In the short term, collecting highly skilled international talent to close those identified skills gaps that needs to be hyper targeted and rooted in the workforce needs, essentially using immigration as a lever to close skills gaps."

Matteo Quacquarelli, QS Vice President, Strategy and Analytics



For those in the workforce readiness cluster, higher education can stimulate economies by continually producing highly skilled, satisfied graduates, and fostering spin-outs. However, Matteo noted that "there's absolutely no guarantee" that this leads to economic growth. "As a consequence, higher education systems will need to build greater agility to sit at the center of this workforce transformation, connecting government policy, the future workforce and industry to deliver long term workforce reskilling and qualified skills adoption that will drive productivity in tomorrow's workforce and industrial innovation."

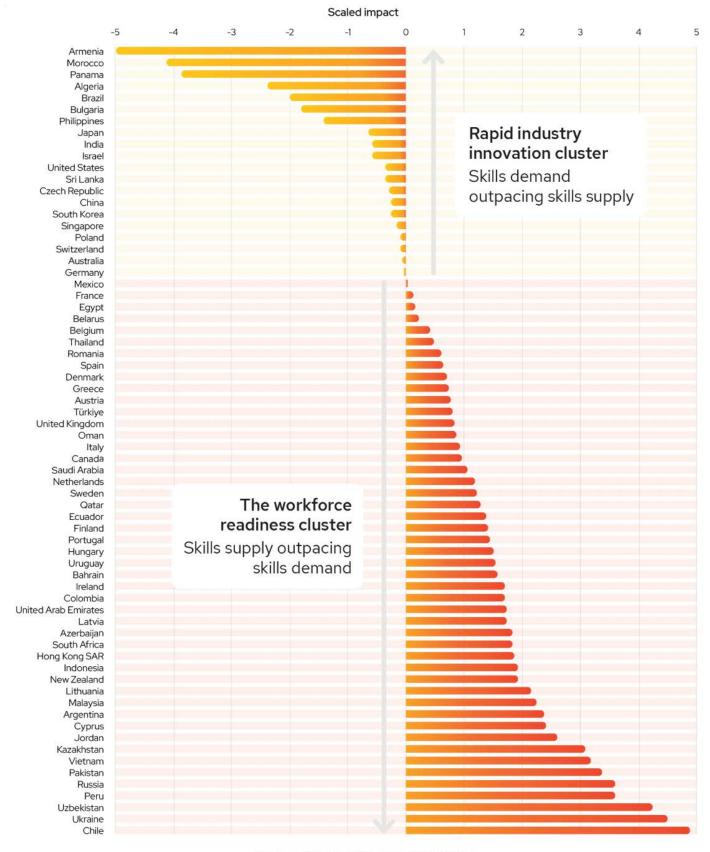
The session concluded with a workshop led by Dr Michelle Wieser, QS Business School Strategy Lead, North America. The workshop asked the audience to consider how higher education and industry to collaborate to create reskilling pathways for US workers, and to identify how curricula could be adapted in light of an evolving workforce.



# Download the QS World Future Skills Index Briefing Paper

- Understand higher education's relationship to a country's economy
- Get in-depth analysis of the Index results
- Access recommendations for higher education and governments





Source: QS World Future Skills Index



### **S**OpenAI

## From Classrooms to Careers - OpenAl Education in Action

This 90-minute session explored OpenAl's vision for an "Al Native University" and showcased how institutions are using Al to enhance teaching, learning, and campus operations. Leaders from OpenAl's education team walked through case studies, product capabilities (including ChatGPT Edu and custom GPTs), and the emerging maturity curve for institutional Al adoption. American University's Kogod School of Business shared its approach to implementing Al across its curriculum and building an internal culture of experimentation and trust around Al usage. The session concluded with Q&A and insights from active faculty and administrators navigating this transformation.

### Objectives

- Understand the concept of an "Al Native University" and how it is evolving across higher education
- Explore practical use cases for generative Al across faculty, students, and administrators.
- Learn how universities are integrating Al into curriculum, workflows, and institutional strategy.
- Examine pathways for responsible Al adoption, including governance, experimentation, and collaboration

### Insights

### The "Al Native University" is Built on Connected Experiences

OpenAI envisions campuses where every touchpoint—from advising and assignments to career services and research—is supported by secure, personalized AI tools. Students can interact with uploaded course materials, receive feedback on assignments, and simulate real-world tasks like job interviews or business negotiations. Faculty and administrators use AI to streamline operations and focus on high-value human engagement.

### Adoption is Accelerating Through Custom GPTs and Secure Infrastructure

ChatGPT Edu provides universities with private, enterprise-grade AI environments where admins can control access and ensure data privacy. Custom GPTs tailored to specific roles—advising bots, curriculum assistants, research tutors—are rapidly emerging. These tools can analyze course overlaps, debug student code, generate lesson plans, and more, all within defined parameters.

### Faculty, Students, and Staff Use AI Differently—But All Need Support

Use cases range from students improving emails and creating study plans, to faculty designing Alsupported assignments and rewriting outdated case studies. Administrative teams are saving time by automating manual scheduling and data analysis. OpenAl's cohort-based implementation model helps institutions develop Al strategies tailored to their scale, culture, and goals.

### Responsible Integration Requires Transparency and Iteration

American University shared its model for cross-campus faculty development, student Al orientation, and iterative curriculum redesign. Key success factors include monthly community gatherings to share wins and failures, an Al disclosure form to promote transparency, and revamping over 40 courses across disciplines. The university emphasized building a culture where Al is seen as a co-pilot, not a shortcut.

### Questions & Answers

### Q: How is OpenAI addressing hallucinations in generative models, especially in education?

A: OpenAI is mitigating hallucinations by allowing professors to limit custom GPTs to specific course materials only, enabling the model to say "I don't know," and embedding citation-based responses so users can verify sources.

#### Q: How does OpenAl address bias and moderation in educational use?

A: The platform moderates only for harm, not political content. OpenAl trains on diverse data to avoid systemic bias and is focused on equitable access and safe deployment rather than ideological filtering.

### Q: How much information can a GPT handle? Are there data size limits?

A: GPT-4 Edu supports a 32,000-token context window (approx. 50 pages of text). If a file or conversation exceeds that, the system uses context-stuffing and vector search to prioritize the most relevant data.

#### Q: How can AI be integrated while maintaining academic rigor?

A: Faculty at American University emphasized co-pilot use—Al supports, but doesn't replace, critical thinking. Assignments are designed to use Al for feedback, not for generating final answers, and oral presentations help assess original student thinking.

### Q: How are universities keeping pace with rapid AI change?

A: Through modular curriculum design, continuous feedback loops, regular faculty development, and AI orientation for incoming students. At American University, over 40 courses have been revised, and all students receive baseline AI literacy training.

### Q: How can AI be used in advising and student support?

A: Custom GPTs are being deployed for tasks like course registration support, program navigation, and career planning. These bots combine static PDFs and live data to deliver consistent, 24/7 information to students.









### **Enhancing the Value and Recognition of Short**term Credentials

This 90-minute session, co-hosted by American Student Assistance (ASA) and Jobs For the Future (JFF), brought together education leaders, funders, employers, and nonprofit organizations to explore the fragmented landscape of short-term credentials. With a learner-centered lens, the session focused on how to define quality, ensure employer trust, and make credential pathways more transparent and navigable. The workshop included two participatory group exercises and concluded with a synthesis of shared quality indicators to inform future product design and policy development.

### Objectives

- Build empathy for learners, employers and providers navigating short-term credential ecosystems
- Identify key challenges around credential value, quality and transparency
- Define 'must-have' and 'game-changer' indicators that signal value across
- Explore shared data strategies, systems, and incentives that could improve alignment and accountability

### The challenge... Credentialing & Workforce Alignment





Fragmented and Unverified Credential Landscape -

Limited Employer Trust & Workforce Alignment -

Lack of Transparency on Program Quality & Outcomes -

Most nondegree

programs either do

not have or publicly

report employment

rates, wage gains, or

career progression,

making it difficult for

learners and

employers to assess

return on

investment.

No Centralized System for Comparing Programs -

> Learners and employers lack source that with verified

Inconsistent Incentives for **Education &** Training Providers -

Without common quality standards or accountability for workforce outcomes, education and training providers face misaligned incentives, potentially prioritizing enrollment growth over demonstrated job placement success.

No standardized way to classify, compare, or validate credentials, making it difficult for learners, employers, and education providers to distinguish highvalue credentials from low-value ones.

Many credentials fail to clearly signal jobreadiness, and training programs are often developed without direct employer input, leading to a disconnect between skills taught and actual job market needs.

a single trusted combines program details (cost, duration, employer partnerships) workforce outcomes, making side-by-side evaluation nearly impossible.

### Insights

### The Credential Landscape is Fragmented and Opaque

Participants agreed that the short-term credential ecosystem lacks consistent definitions, quality assurance, and centralized data. Program information is often promotional, difficult to compare, and dispersed across disconnected sources, creating confusion and inefficiency for learners and employers alike.

### **Employer Trust Hinges on Relevance and Proven ROI**

Employers are hesitant to trust unfamiliar credentials due to limited visibility into content, outcomes, and workforce alignment. Without third-party validation or peer feedback mechanisms, many default to degree-based hiring even when skilled candidates may exist outside those pathways.

### Learners Face Overload, Uncertainty, and Limited Guidance

Young people, especially first-generation and low-income students, lack access to clear, trustworthy, and navigable information about career paths and credential options. Many also lack mentorship and structured support to explore and evaluate pathways, leading to missed opportunities or delayed decision-making.

### Providers Need Support to Prove and Improve Value

Community colleges and workforce training organizations often lack the infrastructure, incentives, or shared standards to collect and share outcomes data. Even mission-driven providers struggle to track learner ROI, employer satisfaction, or long-term wage outcomes at scale.

### **Group Activity Overview**

Participants engaged in two structured activities.

Persona-Based Empathy Mapping: Working in small groups, participants assumed the roles of learners, employers, or education/training providers. They identified pain points from each perspective, such as trust, data gaps, comparison challenges, and lack of support, and explored how each stakeholder experiences the credentialing landscape.

Defining Quality Indicators: Each group reviewed 40+ potential indicators of credential quality and selected the most important "must-haves" and long-term "game changers" for their assigned persona. Indicators were shared on collaborative boards and analyzed across personas for common ground and divergence.



### Takeaways from Group Activity

The group's collective insights point to a future where credential value is not assumed, but demonstrated—with data, empathy, and collaboration. Sustained progress will require investment in infrastructure, incentives, and cross-sector standards. ASA and JFF's work provides a foundation for that momentum to grow.

### Learners emphasized:

- The overwhelming nature of comparing programs with little standardization.
- The need for mentorship, exposure, and wraparound supports
- Demand for affordability, fast time-to-job-readiness, and clear stackability.
- Desire for a credential comparison tool similar to college rankings or consumer scorecards.

### **Employers emphasized:**

- Uncertainty about credential quality and relevance to real-world roles.
- The need for clear "day one" readiness and alignment with company needs.
- Interest in peer-reviewed hiring outcomes and credential "value scores."
- Game-changers like employer validation, longitudinal employment data, and credential portability.

### Providers emphasized:

- The burden of proving value without shared data systems or funding.
- A desire for clearer industry signaling and stronger employer partnerships.
- Importance of long-term ROI, not just initial placement.
- Need for standardized, interoperable systems to track learner outcomes and satisfaction.





### From Degrees to Skills: How WGU Scales Skills-Based Education for Workforce-Ready Graduates

This 90-minute interactive workshop, led by Western Governors University (WGU), brought together a cross-sector group of CEOs, university leaders, education practitioners, NGOs, and foundation leaders to explore WGU's skills-based approach to higher education. The session began with a brief history of WGU's founding and mission to serve working adults through scalable, competency-based education. Participants were then introduced to WGU's skills architecture team, who shared a high-level view of how WGU defines, curates, aligns, and operationalizes skills across over 140 academic programs. The workshop included live discussion, audience Q&A, and a short group activity to help attendees begin applying skills and architecture concepts within their own institutions or organizations.

### Learners emphasized:

- Understand how Western Governors University (WGU) implements skills-based, competency-driven education at scale.
- Explore strategies for aligning academic programs with workforce demands.
- Share tools, data sources, and implementation practices for building a scalable skills architecture.
- Provide hands-on experience in applying these concepts to participants' own contexts.

### Insights

### Competency-Based Education (CBE) as a Scalable Workforce Solution

WGU was founded to meet workforce development needs across rural and underserved areas. Its fully online, nonprofit model focuses on CBE, where students advance by demonstrating skills—regardless of time spent in class. This approach enables recognition of prior learning and accelerates progress for experienced learners, making degrees more accessible, affordable, and relevant.

### Skills Architecture Built on Data and Employer Input

WGU developed a skills library of over 20,000 validated, workforce-relevant skills through structured research using sources like Lightcast, ONET, and employer interviews. Skills are aligned at the competency level, enabling direct connection between academic achievements and job market needs. This rigorous process supports both academic design and continuous program improvement.

### Implementation Requires Stakeholder Buy-In and Change Management

The skills initiative succeeded through strong executive sponsorship and a deliberate change management approach. Faculty, instructional designers, and assessment specialists were engaged through messaging that connected skills to mission, learner success, and instructional relevance. Change was supported through roadshows, consultations, and structured frameworks like the ADKAR model.

#### Skills Visibility Enhances Career Navigation and ROI

Students are provided with tools to see, articulate, and share the skills gained through their learning experiences. Verified skills are embedded in coursework, highlighted on program pages, and included in digital certificates and a learner achievement wallet. This clarity supports resume-building, interview preparation, and alignment with employer expectations—strengthening student ROI and workforce impact.

### **Group Activity Overview**

Participants explored how to "skillify" a role, program, or project from their own context. They walked through WGU's six-step skilling process—identifying needs, stakeholders, data sources, and implementation strategies—and discussed how to define and apply relevant skills using research and stakeholder engagement.

### **Discussion Thematics**

### **Translating Skills Across Sectors**

Participants examined how to translate academic competencies into resume-worthy, industry-relevant skills. Discussions highlighted the importance of bridging language gaps between higher education and employers, and how tools like job postings and lightcast data can inform alignment.

### Stakeholder Engagement and Faculty Buy-In

The group shared strategies for building internal support for skills-based approaches. Successful examples included faculty-focused messaging, accreditation alignment, and personalizing the value of skill identification for both students and staff.

#### **Emerging Skills and Program Adaptability**

Conversations addressed how to track and integrate emerging skills—such as AI and sustainability—despite limited job market visibility. Participants explored balancing market data, regulatory expectations, and the importance of future-proofing programs through employer dialogue and ongoing library updates.

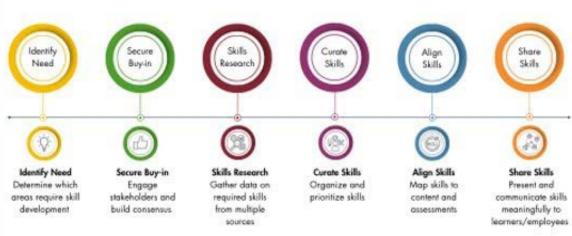


### Workshop Activities Introduction

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### Skill-at-Scale Implementation Process









# Career Readiness Reimagined: A Case Study in Leveraging Al for Student Agency

In this session, the University of Virginia and 1Mentor showcased a bold new approach to preparing learners for a changing labor market. Attendees explored how real-time data, Al-powered platforms, and a learner-centric design can close the growing disconnect between education and employment. The workshop featured a live demo of UVA's new Career Connect platform, participatory polling, and a series of candid discussions around institutional strategy, advising models, and future integrations.

### Objectives

- · Build student agency in navigating fast-changing career landscapes.
- Equip advisors with tools to deliver data-informed guidance.
- Use real-time labor market data to close skills gaps.
- Explore how institutions can align curriculum with workforce demand.

### Case Study Highlights

### The Skills Gap is Real—and Accelerating

Job roles are evolving faster than higher education can keep up. In fields like computer science, 75% of required skills change within a typical four-year degree cycle. Traditional majors often fail to translate clearly into labor market relevance, leaving students unprepared and unaware of what employers expect.

### **Al Can Power Student Agency**

The UVA Career Connect platform, built on OneMentor, helps students visualize their career path in real time. Students upload their resumes, which the system parses into a skill profile—just like an employer's applicant tracking system would. From there, students receive skill match scores against selected occupations, personalized learning recommendations (e.g., Coursera, Google, LinkedIn), and even employer-validated projects via Riipen.

### **Discovering Hidden Opportunities**

Career Connect surfaces "near neighbor" occupations students might never have considered—but for which they already have strong skill alignment. This is especially powerful for first-generation and humanities students, and those navigating career pivots (e.g., PhDs pursuing non-academic roles).

### Advisors and Leaders Get the Same Visibility

Advisors can access student profiles, see top interests, gaps, and progress. Institutional dashboards show trends across cohorts and departments, helping leaders understand which programs align (or don't) with employer demand.

### Curriculum Alignment Needs a Data Loop

Faculty and academic leaders often lack real-time feedback about how programs map to the job market. This platform closes that loop—highlighting specific skill gaps between learning outcomes and labor demand. Participants stressed the importance of integrating these tools into orientation, advising, and curriculum design to build both agility and accountability.

### **UVA Early Outcomes**

UVA launched Career Connect in Fall 2024 as a pilot across multiple programs, including the School of Continuing and Professional Studies and the PhD+ initiative, which supports doctoral students exploring non-academic careers. Initial feedback has been highly positive:

- Student engagement is strongest when tools are embedded in structured programs like orientation cohorts or professional development courses.
- PhD students have used the platform to explore consulting and policy careers—especially helpful in cases where faculty advisors were unsupportive of non-academic options.
- Humanities students reported a deeper understanding of their transferable skills, particularly when paired with employer projects that validated those capabilities.
- Advisors reported more focused, data-informed conversations with students, especially around skill development and elective choices.

### Dialogue Summary

- 1. **Early excitement was tempered by critical questions**, with participants intrigued by the resume parsing tool but concerned about its reliance on resume accuracy.
- 2. **Human-centered integration was emphasized**, as Career Connect is most effective when embedded in advising and key student decision points.
- 3. **Faculty engagement emerged as a concern**, with implementation success hinging on institutional culture despite support for data-driven insights.
- 4. **A broader accountability question was raised**, suggesting the platform could help institutions evaluate whether they are effectively delivering career-relevant skills.





