

KEYNOTE PRESENTATION



The Age of Discernment & Durable Skills

Drew Glassford

Co-Chief Executive Officer
STEMCONNECTOR



Life Milestones







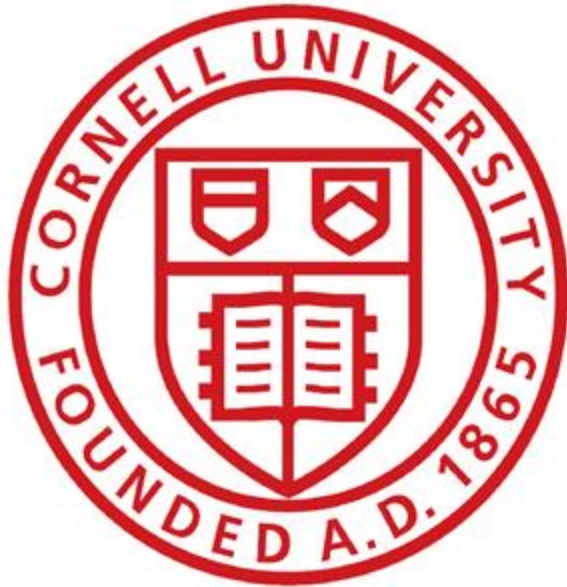








Education & Career Pathway

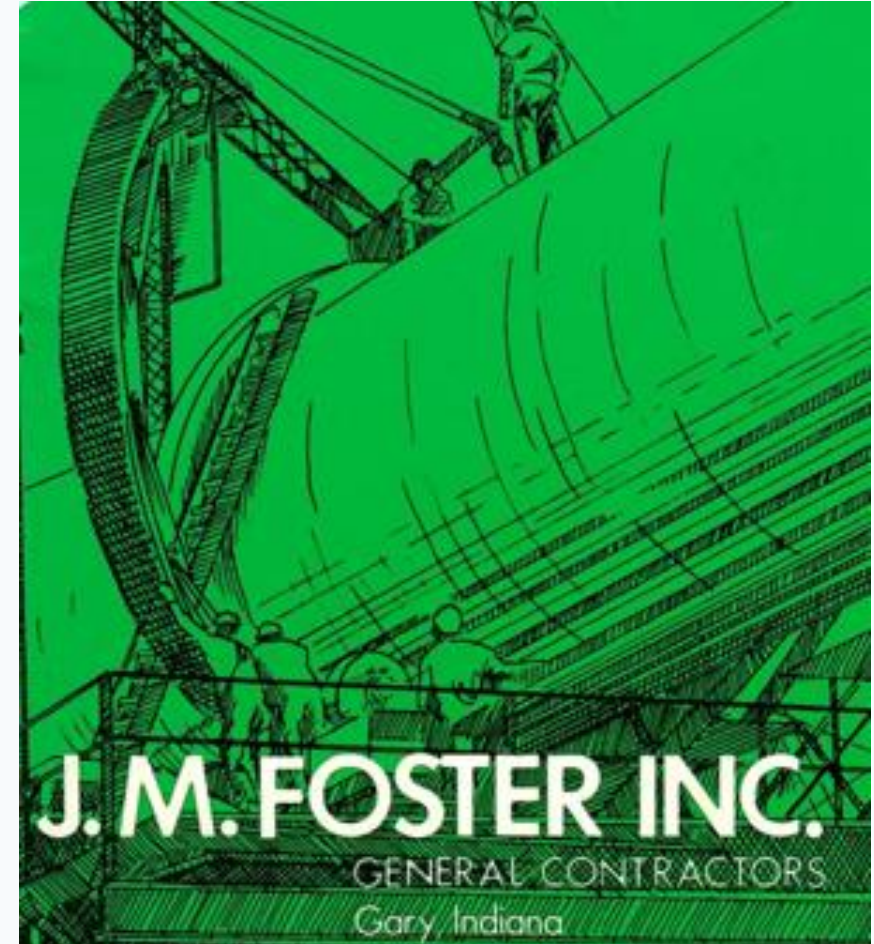


Cornell University®

Education & Career Pathway



PURDUE
UNIVERSITY
NORTH CENTRAL



GROUP REFLECTION

What do you think are the benefits Scouting provided that helped me succeed in my career?

Mentorship

Self Confidence

Problem Solving

Perseverance

Sense of Purpose

Belonging

BONUS POINTS: What is not on this list?

TECHNICAL SKILLS

 **STEMCONNECTOR**

**IDAHO
ECOSYSTEM**

inventEd
Regional Summit



 **OAK RIDGE**
National Laboratory

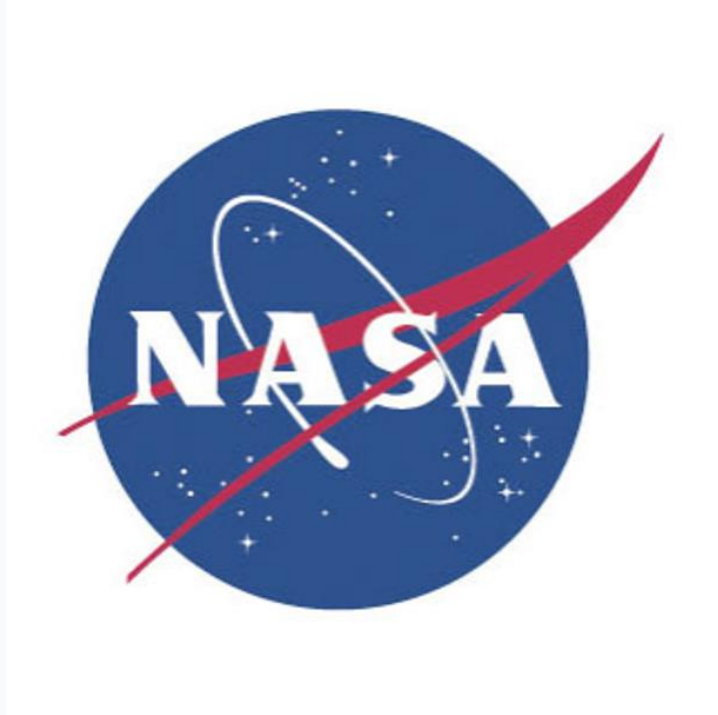
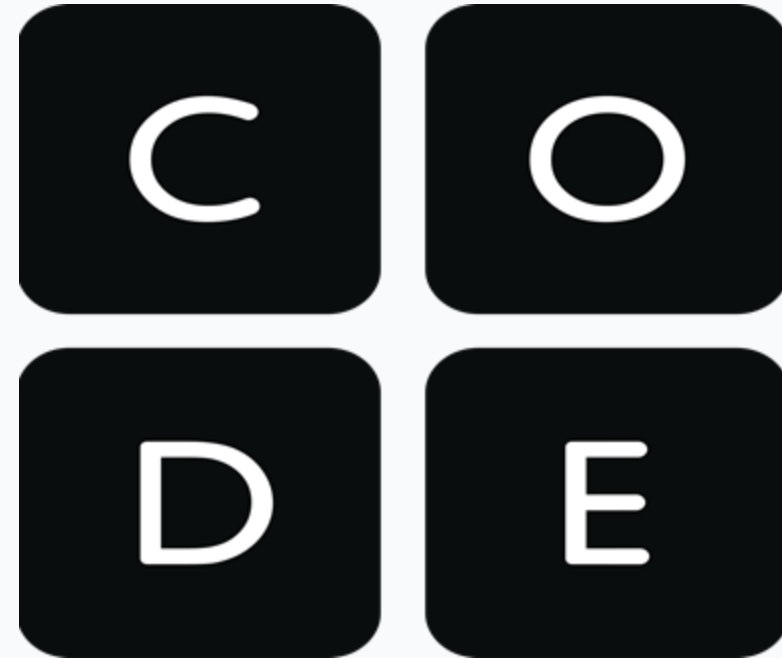


**STEM
SCOUTS™**
SCIENCE
TECHNOLOGY
ENGINEERING
MATH

 **STEMCONNECTOR**

IDAHO
ECOSYSTEM

inventEd
Regional Summit

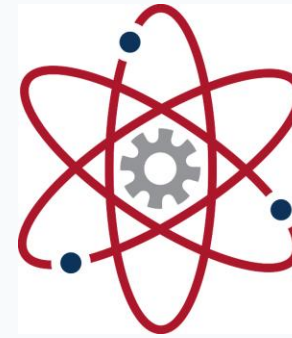


 **STEM**
CONNECTOR



TATA
CONSULTANCY
SERVICES





PROJECT LEAD THE WAY

PLTW



 STEMCONNECTOR

IDAHO
ECOSYSTEM

inventEd
Regional Summit



 cognizant

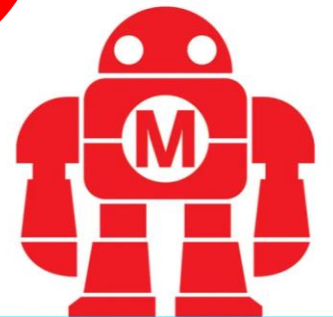
MakerEd

Every Child
a Maker

ny sci

sparkfun[™]
ELECTRONICS

dji



Maker Faire



MakerBot

micro:bit

GROUP REFLECTION



**What do you think was
Scouting's biggest challenge
in providing the STEM Scouts
program?**



1

PRIMARY GOAL

Technical Skills vs Durable Skills

2

PROGRAM EXECUTION

Volunteers Leading Program



**BOYS & GIRLS CLUBS
OF NORTHWEST SUBURBS**

**Workforce Readiness
Advance
Manufacturing
Pre-Apprenticeship
Program**





Career Connected Project Based Learning





GROUP REFLECTION

What do you think was Boys & Girl's Clubs biggest challenge in providing workforce readiness programs?

1

Safe Haven vs Change Agent

2

Staff Competency

3

Employer Value Proposition

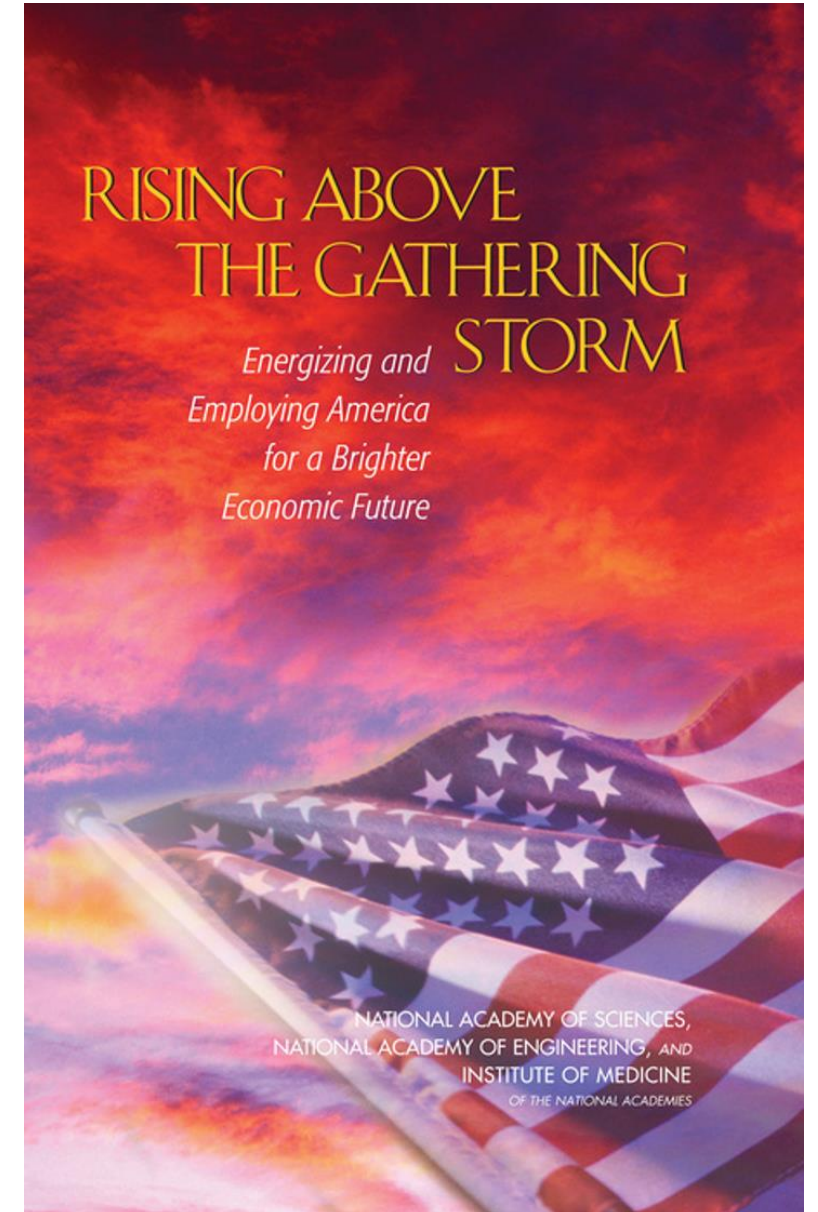
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Sense of Purpose & Belonging



STEMCONNECTOR's mission is to accelerate innovative, industry-driven, sustainable solutions for technical and professional STEM workforce development.

Founded 2011



According to a **2014** Lumina Foundation-Gallup State of Higher Education survey, **%** of employers strongly agreed that our education system is graduating students with the skills business actually needs.



Substantial time and money are being spent trying to close the “STEM talent gap” without consensus on what it is or how to have the greatest impact.

Newly released first-of-its-kind research defines nuance within the STEM talent gap to enhance understanding of the landscape and guide future investment and action.

STATE of STEM

Available for download May 18 at:
<https://www.stemconnector.com/state-stem-report/>

2018: State of STEM

“Defining the Landscape to Determine High-Impact Pathways for the Future Workforce”

- Landmark report **defining high-impact pathways for the future workforce**
- Framework addressing **five critical STEM talent gaps**
- Launched the Innovation Task Force, STEM Innovation Labs & Summit, and content series



OUR NORTH STAR

Sustainable and Impactful Industry Support

Everything we do is guided by one question: does it deepen
and sustain the connection between industry and the
workforce ecosystem that powers it?



Deep Partnership



Measurable Outcomes



Lasting Ecosystems



IMPACTFUL WORKFORCE INVESTMENTS

- 14 years at the intersection of industry, education, and innovation
- Driving meaningful investment in the nation's STEM workforce pipeline

MEANINGFUL RESEARCH & CONVENING KEY STAKEHOLDERS

- Convene corporate leaders, colleges, nonprofits, government, and K-12 educators
- Create pathways for learners to thrive in STEM talent pipelines



FUELING INNOVATIVE STRATEGIES

- Leverage research, convenings, special projects, and consulting
- Deliver actionable strategies for STEM education and workforce development

WORKFORCE INNOVATION COLLABORATIVE

Workforce Pipeline Gaps

ACCESS

Geographical
Cultural

MINDSET

Lack of Awareness
Lack of Interest
Belief in Self
Identity Formation

DURABLE SKILLS

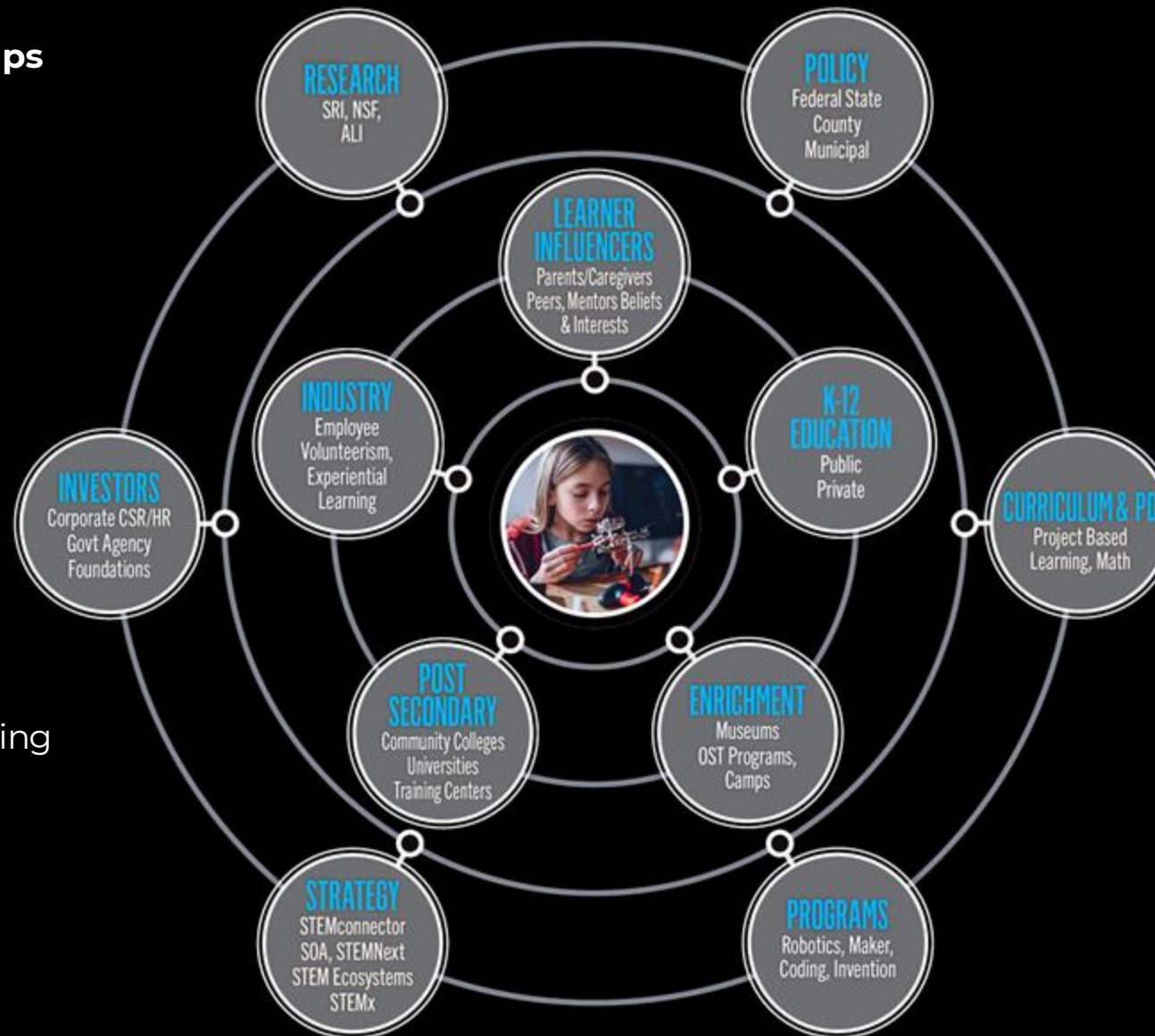
Employability
Collaboration
Teamwork

JOB SPECIFIC SKILLS

Transferable Credentialing
Certificates

UNDERINVESTED COMMUNITIES

Urban
Rural



Workforce Best Practice

COLLECTIVE IMPACT

Convenings
Research
Partnerships
Collaborations

EXPERIENTIAL LEARNING

Internships
Project Based Learning
Employee Engagement

MENTORING

Awareness
Interest
Self-Confidence

MARKETING

Inspirational Theming
Relevant to Learners

AI INTEGRATION

Skills Development
Virtual Instruction

CREDENTIALING

Micro-credentials
Soft Credentials
Hard Credentials

INFORMED BY INDUSTRY MEMBERS – PAST & PRESENT

3M

Northwestern
Mutual

FedEx

Abbott

UL Underwriters
Laboratories

intel

PEPSICO

REGENERON



ADM



BOEING

tcs TATA
CONSULTANCY
SERVICES



CISCO



CME GROUP
FOUNDATION

Cargill



KPMG



verizon

DUPONT

EATON
Powering Business Worldwide

LOCKHEED MARTIN

cigna
healthcare



cognizant

Nationwide



aetna



J&J

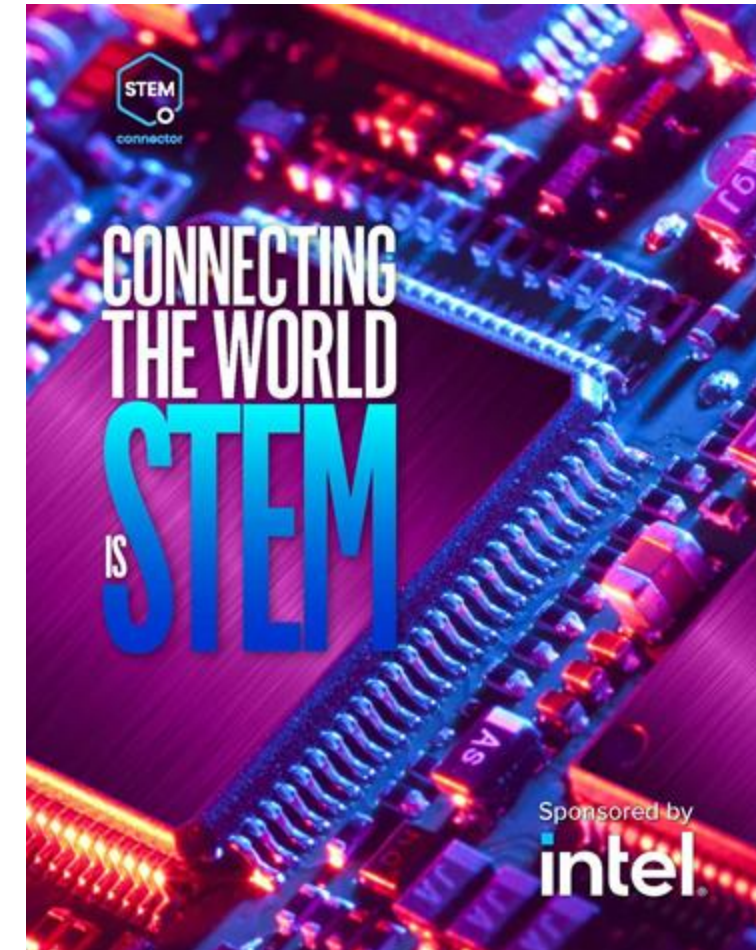


Honeywell

EDUCATION, AGENCIES AND PROGRAM PARTNERS



CLIENT RESEARCH & SPECIAL PROJECTS



CONVENINGS, WEBINARS, VODCASTS AND THOUGHT LEADERSHIP



STEM connector

SCALING IMPACT:

Advancing Experiential Learning to Improve Our STEM Talent Pipeline

Wednesday **2-3 PM**
JULY 30 EST

STEM connector **STEMx**
Presented by BAYTILLER

STEM Innovation Forum

Finding Common Ground
Embracing a Shared Vision to Ensure Continued Global STEM Leadership

17-18 NOV 2025

Stacy Claessens
Global Manager, 3M

Lynn Schroetter
High School STEM Intern Program Manager, Abbott

Potoula Stavropoulos
Senior Director, Social Impact Corporate Affairs, Regeneron

Kathy Sutton
Workforce Development Human Resources Specialist, Electric Boat Corporation

EXPLORING THE ROLE OF AI IN EDUCATION & THE WORKPLACE

BACKGROUND
Artificial Intelligence has the potential to transform nearly every aspect of the human experience. This is particularly true in education where AI is changing how students learn and teachers teach. By harnessing the power of supercomputing, AI can perform tasks that humans cannot, can scale innovations that would otherwise be impossible, and countries other than those that previously were out of reach to humans. While AI holds tremendous potential, there are significant concerns about how artificial intelligence will impact learning and working environments and if they will obviate the need for certain types of professional skills. It is too early to answer many of these questions but there are reasonable ways to examine the opportunities and risks associated with artificial intelligence. This vodcast series will explore this landscape through discussions with curated experts in the field bringing a range of perspectives and experiences.

TARGET AUDIENCE
K-12 and postsecondary educators and leaders, workforce development professionals, and education policymakers.

EPISODE 1.4
INTEGRATING AI INTO THE CLASSROOM: HELPING STUDENTS LEVERAGE AI TO ADVANCE STEM LEARNING

INVITED INDUSTRY SPEAKERS

- Dr. Leigh Ann Delyser, SR Education
- Charlotte Dungen, Mark Cuban Foundation
- Jessica Garner, ASCD-ISTE
- Veronica Ellis, TeachMI
- Georgina Terlepe, Educator, Speaker, Consultant (Moderator)
- Jessica Peck, Author, Teacher, Consultant (Moderator)

RECORDING DETAILS:
Format: A 90-minute moderated virtual panel (the final episode will be edited to roughly 60 minutes).

RECORDING PLATFORM

According to a **2025** Lumina Foundation-Gallup State of Higher Education survey, **%** of employers strongly agreed that our education system is graduating students with the skills business actually needs.

The Age of Discernment & Durable Skills

Evolving Priorities & Investments





Corporate STEM Education & Workforce Development

Evolving Priorities & Investments



National Policy Change

Executive Order 14173

Signed January 21, 2025

Terminated DEI/DEIA policies within the federal government and **encouraged private-sector companies to eliminate similar programs.**



FEDERAL AGENCY

\$224M**National Science
Foundation Initiative****AI-Ready
America**

Multi-Agency Funding

Announced **March 2026** to build
comprehensive AI readiness in **every
US state and territory.**

Primary Goal

Give communities across the nation access to **AI knowledge, tools, and training** so everyone can actively participate in an AI-driven economy.



AI Ready America has three components

1

State and Territory Coordination Hubs:

Up to 56 Hubs • ~\$1M/yr

up to 56 hubs connecting education, workforce, industry and government partners. Each gets about \$1 million a year for three years, with a possible fourth. The first round funds 10 states, with later rounds covering the rest.

2

National Coordination Lead:

1 Organization • Up to \$3M/yr

One organization that links the hubs to each other, to priority economic sectors and to national AI strategy, funded at up to \$3 million a year for up to five years.

3

AI-Ready Catalyst Award Competitions:

\$5M to \$10M / Competition

\$5 million to \$10 million per competition to pilot or scale approaches that close specific readiness gaps.



NONPARTISAN NONPROFIT

\$500M+

Raised Toward \$1B Goal

RAISE US was launched on **June 25, 2026** to help American workers adapt to job disruption caused by AI.

Leadership

Gina Raimondo (former US Commerce Secretary & Rhode Island Governor) serves as Chief Executive. She launched the organization alongside former Indiana Governor **Eric Holcomb**.

Board members include AFL-CIO President **Liz Shuler**.

Funding & Backers

Secured over \$500M in multi-year commitments toward a \$1B total goal.

Anchor Backers: OpenAI, Anthropic, Microsoft, and Amazon.

Additional Donors: Bank of America, IBM, Mastercard, AMD, Eli Lilly, and the Rockefeller Foundation.

Approach & State Pilots

Partners with governors and employers to fund and test state-level pilot programs.

Initial Pilot States: Utah, Arkansas, Maryland, and Connecticut.



From Alignment to Impact

A Mathematics Blueprint for a Future-Ready Workforce August 2026

Skill Type	Core Definition
Technical Skills	Specific, teachable abilities needed to complete a well-defined task or operate a particular tool
Functional Skills	Application of technical and/or durable skills to achieve a specific outcome within a particular professional context
Durable Skills	Broad, transferable human competencies that remain valuable across all roles, industries, and time

Data Center Workforce Challenge

Five ways the layers combine

Each business model draws the line between landlord and occupier in a different place.

 Landlord side: developer, operator, or investor
 Occupier side: the company using the computing

BUSINESS MODEL	LAYER 1 Land and power	LAYER 2 Building and infrastructure	LAYER 3 Facility operations	LAYER 4 IT equipment	LAYER 5 Cloud and platform services
Enterprise-owned One company owns and runs every layer for its own use, like a bank's private data center.	The enterprise	The enterprise	The enterprise	The enterprise	Internal use only
Hyperscale self-build A tech giant owns the land, building, and hardware, and operates it all.	The tech giant	The tech giant	The tech giant	The tech giant	The tech giant
Wholesale or build-to-suit lease A developer owns and operates the building. One large tenant leases it and installs its own hardware.	Developer	Developer	Developer	Single large tenant	Single large tenant
Retail colocation One operator rents space, power, and connectivity to many tenants in the same facility.	Colocation operator	Colocation operator	Colocation operator	Many tenants	Many tenants
Powered shell The landlord provides only the building and power connection. The tenant fits out and operates the rest.	Landlord	Shell: landlord Fit-out: tenant	Tenant	Tenant	Tenant



Scaling Maker & Invention Programs

Key Takeaways



Innovation Lab Brief

Insights and strategic direction from the June 2026 **STEMCONNECTOR** Scaling Maker Learning Lab in Salt Lake City.

1

Authentic Partnerships

Strengthen partnerships between education, industry, and community organizations to create more authentic, project-based career-connected learning.

2

Access & Skill Development

Expand access to maker learning and invention education opportunities that develop both technical and durable skills.

3

Educator Empowerment

Equip educators with professional learning, resources, and support needed to confidently integrate emerging technologies, including AI, into meaningful student experiences.

4

Learner-Centered

Champion learner-centered approaches that foster curiosity, creativity, critical thinking, and problem solving from earliest grades through workforce entry.



The Age of Discernment & Durable Skills



Jobs for the Future 2026

KEYNOTE QUOTE

“We have a once-in-a-generation opportunity to remake our Education and Workforce systems to respond to the AI era challenge.”

Eric Holcomb
Former IN Governor

What is the difference between
Workforce Readiness

and

Workforce Development?

Core Foundation

Workforce Readiness

Broad, transferable human competencies that remain valuable across all roles, industries and time.

Application of **durable skills** to achieve a specific outcome within a particular workforce context.

Applied Expertise

Workforce Development

Specific, teachable abilities needed to complete a well-defined task or operate a particular tool.

Application of **technical skills** to achieve a specific outcome within a particular workforce context.

**In the Age of AI:
Are technical skills
going to be as relevant?**

Goals of Education

Era of Cloud Computing

PRIMARY FOCUS



Technical Skills

SECONDARY FOCUS



Human Skills



STEM EDUCATION & WORKFORCE DEVELOPMENT

 STEMCONNECTOR

IDAHO
ECOSYSTEM

inventEd
Regional Summit

Goals of Education

Era of AI Integration

PRIMARY FOCUS



Human Skills

SECONDARY FOCUS



Technical Skills



STEM EDUCATION & WORKFORCE DEVELOPMENT

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Era of AI Integration

PRIMARY FOCUS



Human Skills

SECONDARY FOCUS



Technical Skills

NEEDED FOCUS

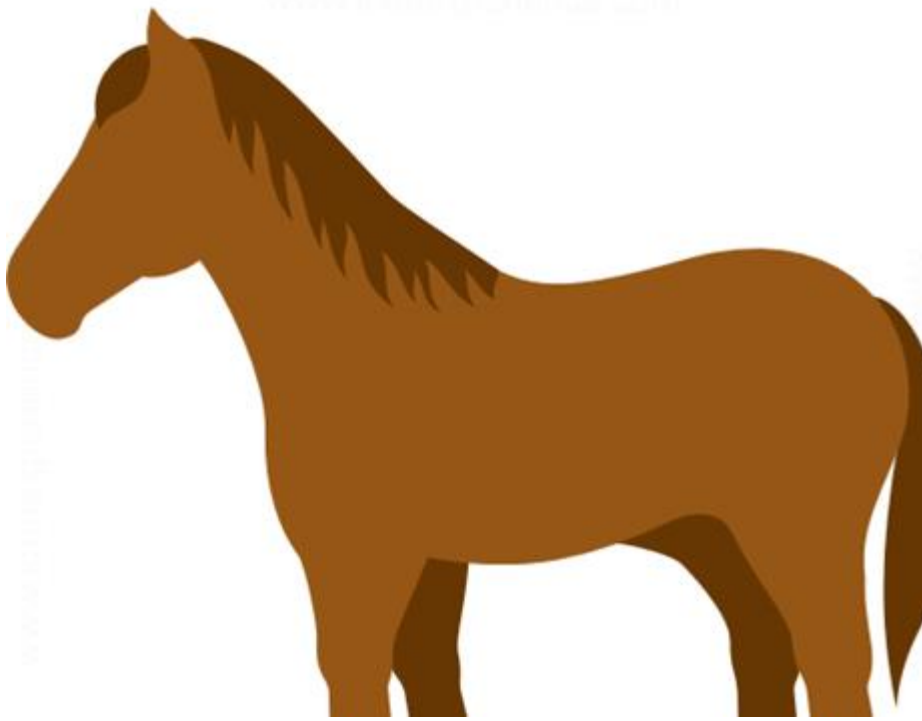
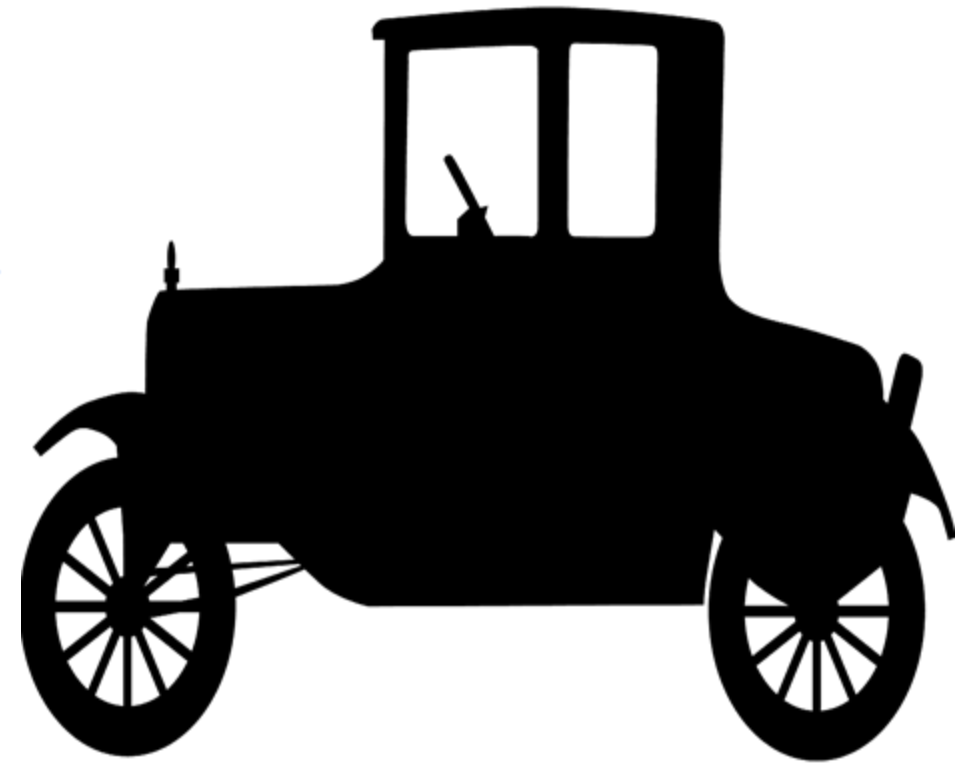


Purpose & Meaning

Extinction Events & Threats



Infrastructure & Technology Transition



Methodology & Tool Evolution





Technology Disruption: The Age of AI

Evolving Priorities & Investments

EDUCATORS

Educators are being asked to navigate new tools and expectations.

STUDENTS

Students are entering a workforce in which AI adoption and literacy matters.

EMPLOYERS

Employers are rethinking the skills their workers will need.

LEADERS

Leaders across sectors are looking for clearer guidance on how to move forward responsibly and effectively.



The Age of AI & Durable/Human Skills

Evolving Priorities & Investments

GMAC 2026 CORPORATE RECRUITERS SURVEY

621 corporate recruiters and hiring managers

Highest ranked employee skills in demand:

Communication

Cross-functional collaboration
& storytelling

Problem-Solving

Critical thinking & inventive
solutions

Adaptability

Agility in AI-disrupted
environments

Data Analysis

Synthesizing & discerning
analytical insights



“In the age of AI, there is a compelling need for humans to move from doing to discerning”

2026 Jobs for the Future Conference



The Employer Problem

Talent Shortages & Skill Gaps

Critical mismatch between evolving industry needs and available workforce skills

Workforce Disruption by Industry

Rapid technological shifts and AI adoption transforming job requirements

Lack of Career Awareness & Interest

Students lack early exposure to technical pathways and high-demand STEM careers

Lack of Project-Based Learning in K-12

Traditional education prioritizes rote knowledge over hands-on problem solving

Lack of Meaningful Employee Engagement Opportunities

Inadequate channels for corporate staff to mentor and connect with future talent

Current Investments Start Too Late (College)

Focusing intervention post-secondary misses foundational engagement during K-12 years

Invention Education Case for Partnership and Investment

Building Durable Skills for U.S. Competitiveness



WHY IT MATTERS

- U.S. industry competitiveness depends directly on scalable problem-solvers.
- Automation provides efficiency but cannot replace human problem-solving and innovation skills.
- Employers repeatedly state an urgent demand for **creative, adaptable thinkers and problem-solvers.**



Invention Education Case for Partnership and Investment

Building Durable Skills for U.S. Competitiveness

KEY POSITIONING

Invention Education Develops Skills Essential for the Future

- **Critical for Success:** Defined as core competencies required by top employers.
- **Project-Based Approach:** Developed through practical, hands-on learning experiences.
- **Fills K-12 Gaps:** Addresses systemic lack of focus on applied problem solving vs. rote knowledge.
- **AI-Resistant:** Cultivates durable human capabilities resistant to disruption.
- **Evidence-Based:** Backed by extensive research from Lemelson Foundation.



The Invention Education Solution



K–12 program levels

Comprehensive, scalable framework spanning primary through secondary education

Durable and human skills development

Cultivating adaptability, complex problem solving, and collaborative capabilities

Experiential, project-based learning

Hands-on application through real-world invention and design challenges



The Invention Education Solution



Career connected

Directly linking classroom innovation to high-demand industry opportunities

Meaningful employee engagement experiences

Creates impactful corporate mentorship and volunteering channels

Purpose-driven student engagement

Empowering youth to solve authentic problems in their communities

INVENTION CONVENTION WORLDWIDE

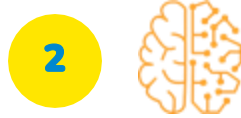
Durable Skills align with the Invention Process



1

Identifying

Becoming aware of problems in one's life or community, brainstorming ideas and researching whom these problems impact



2

Understanding

Researching search engines and patent sites to discover the causes of problems and determine if a solution is unique



3

Ideating

Continuing to brainstorm solutions and devising a project management plan for the invention



4

Designing

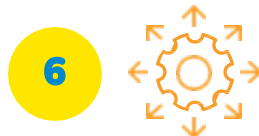
Drawing a model and deciding what the invention will be made out of and how it will work



5

Building

Constructing a prototype by assembling materials, paying careful attention to design issues



6

Testing

Discovering if the invention is working as the student intended, which may lead to revisiting the original design



7

Communicating

Explaining an invention through writing in a logbook and presenting ideas to others

Durable Skills:

- ✓ Problem Identification
- ✓ Research & Critical Thinking
- ✓ Creativity & Innovation
- ✓ *Prototyping* & Making
- ✓ Communication
- ✓ Entrepreneurial Thinking
- ✓ Leadership & Collaboration

Invention Education is:

Maker with

PURPOSE!



**Building Competencies in the Age of
and Discernment and Durable Skills**

Invention Education is: Maker with

PURPOSE!

Building Skills in the Age of Human Skills and Discernment



Staying Relevant & Impactful

KEY QUESTION

What can we do to **stay relevant** and **impactful** in the Age of Discernment and Durable Skills?





What can we do to **stay relevant** and **impactful** in the Age of Discernment and Durable Skills?

1. Navigating Discernment

Adapt educational and workforce approaches to **evolving demands for problem solving skills.**

2. Cultivating Durable Skills

Embed **human-centered skills** to drive long-term learner success.

3. Cultivate a Sense of Purpose

Develop a compelling “why” that is **meaningful to learners.**



Strategic Priorities for STEM Education & Workforce Professionals

1. Stay informed on Best Practice

Continuously benchmark and integrate leading research and frameworks.

2. Form collaborative program partnerships

Build cross-sector alliances to expand regional educational reach.



Strategic Priorities for STEM Education & Workforce Professionals

3. Form collaborative employer partnerships

Connect classroom learning directly with industry workforce needs.

4. Incorporate (vs develop) project-based/invention education

Leverage proven scalable models to maximize speed and effectiveness.

OPEN DISCUSSION

Questions?



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GET IN TOUCH

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PRESENTER

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THANK YOU!

**For all you do to create better
futures for our kids, our
families, our communities and
our nation!**

