

Catalyze Pittsburgh Challenge

Info Session #2

Career-connected learning and emerging industries and occupations

September 29, 2026



Our Time Today

1. **Welcome and Intro to Catalyze Pittsburgh Challenge**
2. **Career Connected Learning and Emerging Industries and Occupations Basics**
3. **Employer and Industry Engagement**
4. **Activity**
5. **EIO Alignment Self-Reflection**
6. **Close and Questions**

Write questions in the chat as they come to
you



After today, applicants will be able to...



Distinguish

Define an emerging industry and an emerging occupation (EIO).



Connect

Consider ways career connected learning can be a methodology for engagement in EIO.



Design

Describe a real learning experience and employer role in career connected learning in the context of an emerging industry or occupation.



Test

Use five questions to strengthen the EIO rationale.



What is Catalyze?

Catalyze exists to jumpstart innovations nationally in the field of career-connected learning (CCL), working to ensure learners ages 11 - 22 have access to transformative career-connected learning that integrates education and career, allowing them to discover their aptitudes and purpose and leading them to rewarding careers.

Catalyze drives innovations in career-connected learning through:



Agile Grantmaking



Next Generation Learning



**Transformative
Storytelling**



What is Catalyze Pittsburgh?

Catalyze Pittsburgh is a funding and learning initiative intended to strengthen the connection between emerging industries and career-connected learning (CCL) for youth ages 11-18 in the six-county region (Allegheny, Armstrong, Beaver, Butler, Washington, Westmoreland).

Local Collaborating Organizations:

Richard King Mellon Foundation
Partner4Work



**Emerging
Industries or
Occupations**



**Innovative and
Creative Approaches**



Catalyze Pittsburgh Challenge Phases



Career-connected learning



What is career-connected learning?

Learning that connects young people's interests to real careers through experiences, skill-building, relationships, and reflection.

What am I curious about?

What problems do I want to solve?

What skills am I building?

What should I try next?



A career connection becomes tangible through experience

Explore

Meet a professional, visit a workplace, compare roles and pathways.

Try

Work on a field-relevant problem or task with practitioner feedback.

Reflect

Name strengths, new questions, and a next learning step.

Design for the developmental range from age 11 to 18



What stronger CCL- EIO alignment looks like

Broad reference (weaker)

“A general STEM club that mentions robotics.”

Direct experience (stronger)

Youth investigate a real automation problem, test a simple prototype, and get feedback from a regional robotics practitioner.



Career connected learning is the long term access ramp to our regional job market for under-resourced youth

The Catalyze Pittsburgh Challenge prioritizes youth ages 11–18 from low-income families in six counties.



Bring opportunities closer

Reduce the barriers to entry by making learning relevant to local careers, use accessible sites, or virtual access where useful.



Build social capital

Connect youth with practitioners and trusted adults they might not otherwise meet.



Make informed career decisions

Help youth test interests and compare pathways before a high-stakes decision.



Emerging industries and occupations



Two ways work can be emerging

Emerging industry

A new or rapidly growing sector driven by technological innovation.

Examples: biotechnology, robotics, AI, aerospace

Emerging occupation

A new role, or an existing role changing substantially as tools, tasks, and required skills evolve.

Ask: What has changed in the work?



Regional industry areas offer different entry points



AI, robotics, space

Technical work plus operations, coordination, training, and customer support.



Life sciences and healthcare

Care, lab, devices, data, community health, and administrative work.



Manufacturing and energy

Automation, quality, safety, problem-solving, and sustainability.



Logistics and financial technology

Digital tools, data, compliance, customer service, and reliable execution.



An established sector can contain changing occupations



Manufacturing

A technician diagnoses and maintains automated equipment.



Healthcare

A care team uses new digital tools or devices in service delivery.



Financial services

A team manages digital payments, fraud signals, or customer support.



Does _____ count as an emerging industry or occupation?

Answer: You tell us!

Potential Credible Resources:

Lightcast: [Lightcast Fault Lines](#) : Article that describes global market disruptors that can change industries and occupations

US Bureau of Labor Statistics: [Artificial Intelligence \(AI\) exposure categories](#) : U.S. Bureau of Labor Statistics

Anthropic Institute: [Scenarios for our Economic Future \ Anthropic](#) Model for how AI may effect the job market

World Economic Forum: <https://www.weforum.org/publications/the-future-of-jobs-report-2025/>. Future of Jobs Report

Direct feedback from employers



Employer engagement grows with the project

Examples of Activities to Engage Employers or Industry Leaders

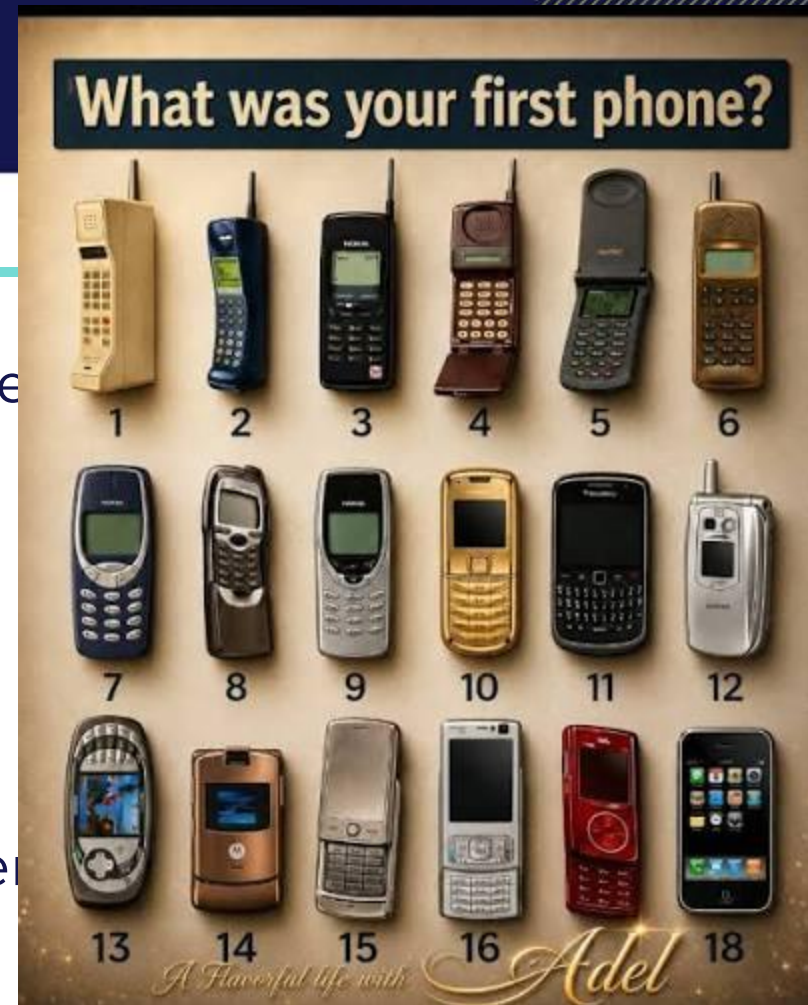
Phase 1: Preparing to Apply	Phase 2: Refining the Idea	Phase 3: Implementing
• Attend Catalyze Pittsburgh Challenge hosted workshops to learn more about emerging industries or occupations. • Obtain a letter of support for the application from a local employer or industry association, describing their intent to stay engaged in this work and why it matters to them.	• Host design sessions with employers or industry leaders to generate ideas and receive feedback. • Establish an MOU with employers or industry associations with roles, responsibilities, and success metrics to guide implementation. • Provide employer or industry-focused workshops or experiences for CCL staff.	• Ensure that employers or industry associations are meaningfully part of the delivery of CCL, including providing site visits, feedback on youth projects, mentorship. • Deliver 2-3 program sprints, with employer feedback and incorporated in each successive delivery.



Activity: Imagine we are in 1995.....

Brainstorm 1-2 ways that you could use career-connected learning to help young people access careers in industries or occupations that were emerging because of cell phone technology?

What could be at least 1 local employer that would be a potential partner?



Five questions to test direct EIO alignment

- 01 Is the industry or occupation demonstrably new, growing, or changing substantially?
- 02 Does the EIO shape the learning experience itself?
- 03 Will youth encounter real problems, tasks, tools, settings, or professionals?
- 04 Will youth build awareness, agency, and useful capabilities?
- 05 How does this EIO and design fit the young people and communities you serve?



Next steps for applicants



Review the Application Guide and Related Materials

Review full eligibility, application questions, and the FAQ before submitting.



Investigate emerging industries and occupations

Find inspiration in new and exciting ways regional employers may be leveraging disruptive technologies and innovations



Attend or view informational session #3

Register for the next information session to unpack what we mean by innovation on October 5

Applications due October 30, 2026



Application Links

- Application Guide, FAQ, and Application Materials Available on:
 - Catalyze Challenge: www.catalyzechallenge.org
 - Partner4Work: www.partner4work.org/catalyzepittsburgh
- Application is Submitted via Submittable



Need help?

- Catalyze Pittsburgh Challenge Questions?
 - CatalyzePittsburgh@partner4work.org
- Submittable questions or technical support needed?
 - [Submittable Help - For Submitters | Submittable](https://www.submittable.com/help/submitter) :
<https://www.submittable.com/help/submitter>

