EDC at a Glance

**Education Development Center, Inc. (EDC),** a global nonprofit that advances lasting solutions to improve education, promote health, and expand economic opportunity. Since 1958, we have been a leader in designing, implementing, and evaluating powerful and innovative programs in more than 80 countries around the world.

- **1958**
  - EDC was founded by MIT scholars and researchers.

- **200+ projects managed annually by EDC.**

- **$169.4 million FY19 operating budget**

- **EDC has 1,300 employees.**

- **Funders include USAID, NSF, NIH, MasterCard Foundation, DoEd, and SAMHSA**

---

**GLOBAL REACH**
- EDC has worked in more than 80 countries and in all 50 states in the U.S.

---

**REGIONS**
- Africa
- Asia
- Europe
- Latin America and the Caribbean
- Middle East
- United States
Career Development

Your personality type matched with a compatible work environment will lead to success and satisfaction.

Developmental in nature:
- K-6 Awareness
- 7-8 Exploration***
- 9-12+ Preparation

Begin in K-12 – especially for students with limited STEM role models
Guide development of STEM interests
Develop foundational STEM knowledge/skills,
Connect with STEM workers
Develop self efficacy as a STEM technical/professional. “I can do it!!”

Employ strategies:
- Career Education Standards
- Use technical terminology
- Provide role models/first hand experiences such as:
  - Guest Speakers
  - Field Trips
  - Shadowships
  - Internships
  - Work-based learning
  - Apprenticeships

Begin in K-12 – especially for students with limited STEM role models
Guide development of STEM interests
Develop foundational STEM knowledge/skills,
Connect with STEM workers
Develop self efficacy as a STEM technical/professional. “I can do it!!”

Employ strategies:
- Career Education Standards
- Use technical terminology
- Provide role models/first hand experiences such as:
  - Guest Speakers
  - Field Trips
  - Shadowships
  - Internships
  - Work-based learning
  - Apprenticeships

Human-Technology Frontier
Human-Technology Frontier

- Predominance of dynamic, interdisciplinary teams
- Focus on data
Human-Technology Frontier

• Predominance of dynamic, interdisciplinary teams
• Focus on data
• Artificial intelligence
• Engineering design/design thinking
Human-Technology Frontier

- Predominance of dynamic, interdisciplinary teams
- Focus on data
- Artificial intelligence
- Engineering design/design thinking
- Ubiquitous computational thinking

Lessons Learned through ITEST

**Computational Thinking**

Youth develop computational thinking as they use technologies – then modify technologies – then create technologies creating a natural skills progression from Digital Literacy/Fluency to Computer Science.

Beginning in early grades, youth engage in a skills learning progression from Digital competency/fluency -> Computer Science fluency.

USE

MODIFY

CREATE

“Not Mine”

“Mine”

Refine

Test

Analyze
Human-Technology Frontier

• Convergence and focus on life sciences

• Cybersecurity and working within insecure systems/boundaries
Human-Technology Frontier

- Convergence and focus on life sciences
- Cybersecurity and working within insecure systems/ boundaries
- Blurred boundaries between humans and machines
- Education/training emphasis on problem-based learning and solving real world problems
Human-Technology Frontier

• Convergence and focus on life sciences

• Cybersecurity and working within insecure systems/boundaries

• Blurred boundaries between humans and machines

• Education/training emphasis on problem-based learning and solving real world problems

• Increased focus on continuous, life-long learning

go.edc.org/HTF-Whitepaper
New Type of Worker – STEM Competent

• Deep knowledge of science, technology and engineering
• Technical skills
• Keep data safe, interpret and tell data stories
• Computational thinking – use, modify, create technologies

New Type of Worker – Abilities

• Willing to think outside the box, be innovative and disruptive
• Solve problems and risk failure
• Self-directed, curious, resilient
• Cooperative and interpersonally competent (humans/machines)
• Lead dynamic interdisciplinary teams to consensus
• Characterized by insight, diligence, persistence and cooperation
How do these trends impact your specific industry sectors and your dynamic workforce needs?

Human-Technology Frontier

- Predominance of dynamic, interdisciplinary teams
- Focus on data
- Artificial intelligence
- Ubiquitous computational thinking
- Engineering design/design thinking
- Convergence and focus on life sciences
- Cybersecurity and working within insecure systems/boundaries
- Blurred boundaries between humans and machines
- Education/training emphasis on problem-based learning and solving real world problems
- Increased focus on continuous, life-long learning
- Ethics at the human-technology frontier

go.edc.org/HTF-Whitepaper
THANK YOU

CTE AND THE FUTURE OF WORK

Joyce Malyn-Smith
jmsmith@edc.org