

# Remake Learning: A Networked Approach to Education for the 21st Century

Monday, November 6, 2017



American Youth  
Policy Forum

 [#RemakeLearning](https://twitter.com/RemakeLearning)

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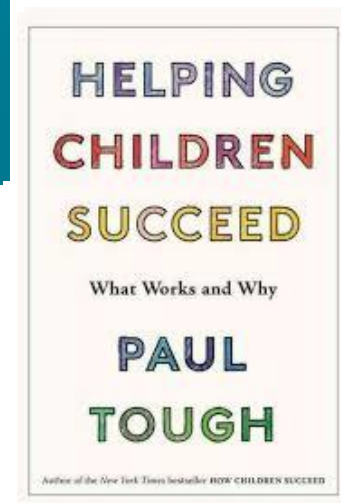
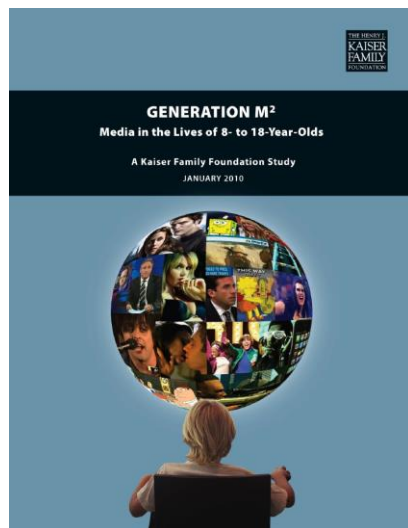
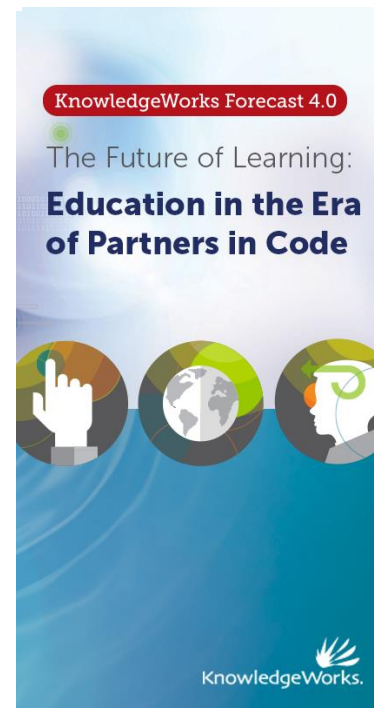
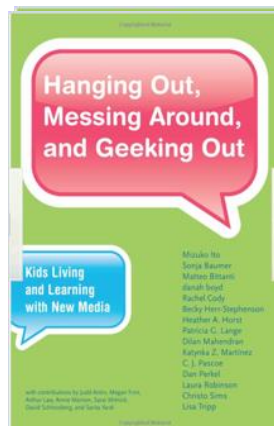
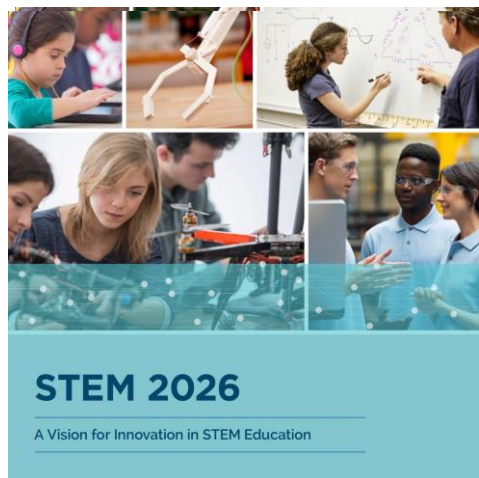
# LEARNING

THE WHAT, WHY, AND HOW OF REMAKE LEARNING

# TOGETHER







# Future Work Skills 2020

While all six drivers are important in shaping the landscape in which each skill emerges, the color-coding and placement here indicate which drivers have particular relevance to the development of each of the skills.

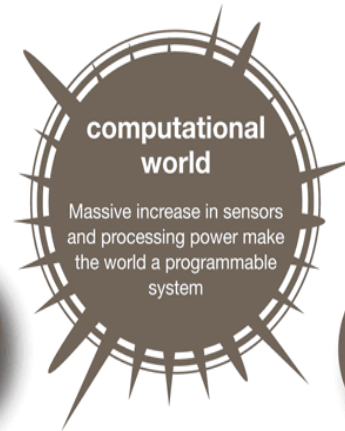
## KEY



Drivers—disruptive shifts that will reshape the workforce landscape

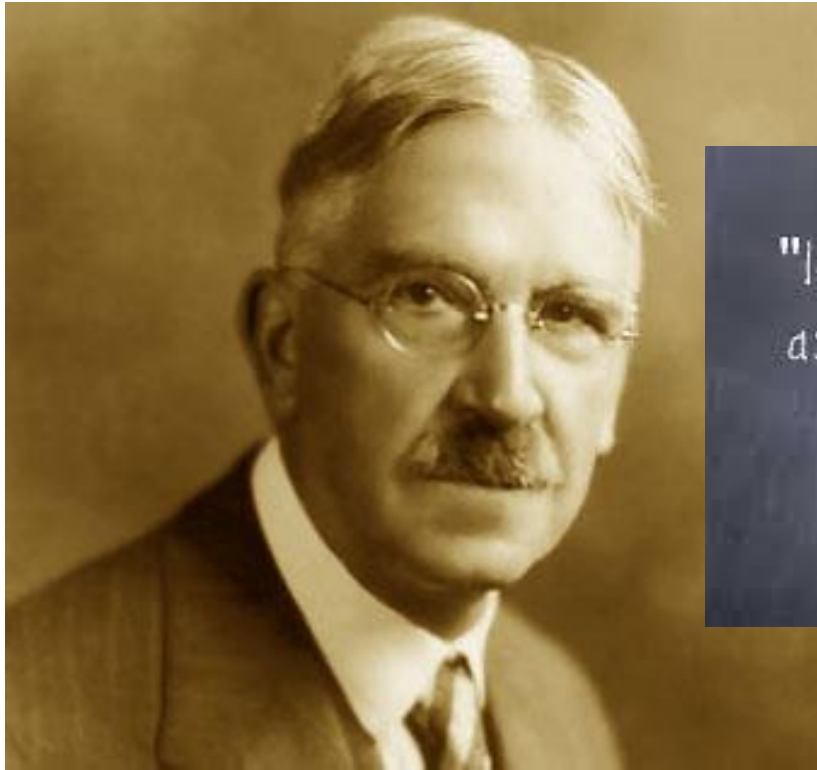


Key skill needed in the future workforce



A photograph of three students in a library or computer lab. A female student with glasses is seated at a desk, looking at a laptop. Two male students are standing behind her, looking at the screen. The background shows bookshelves and other students working at computers. The entire image has a purple tint.

**TODAY'S STUDENTS WON'T BE TASKED  
WITH BUILDING CARS, THEY'LL DESIGN  
THE COMPUTERS THAT DRIVE THEM**



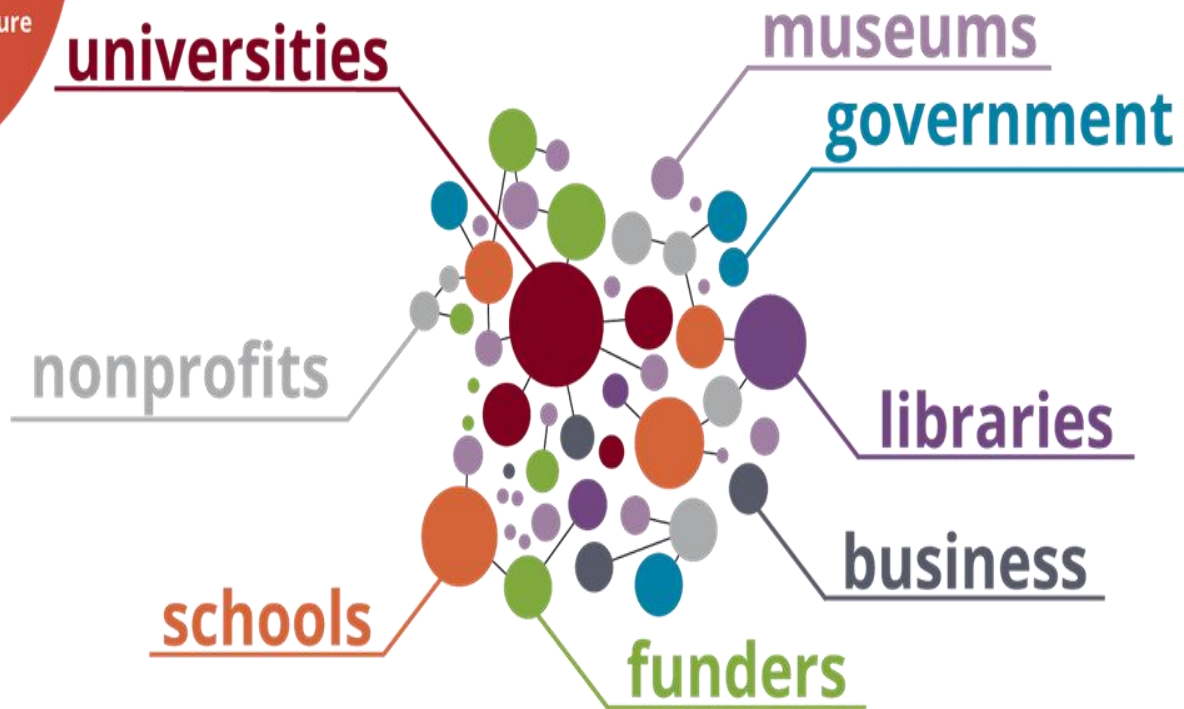
"If we teach today's students  
as we taught yesterday's, we  
rob them of tomorrow."

- John Dewey



# 2007

A small group of educators, technologists, and community leaders start meeting over breakfasts of pancakes and coffee to talk about the future of learning



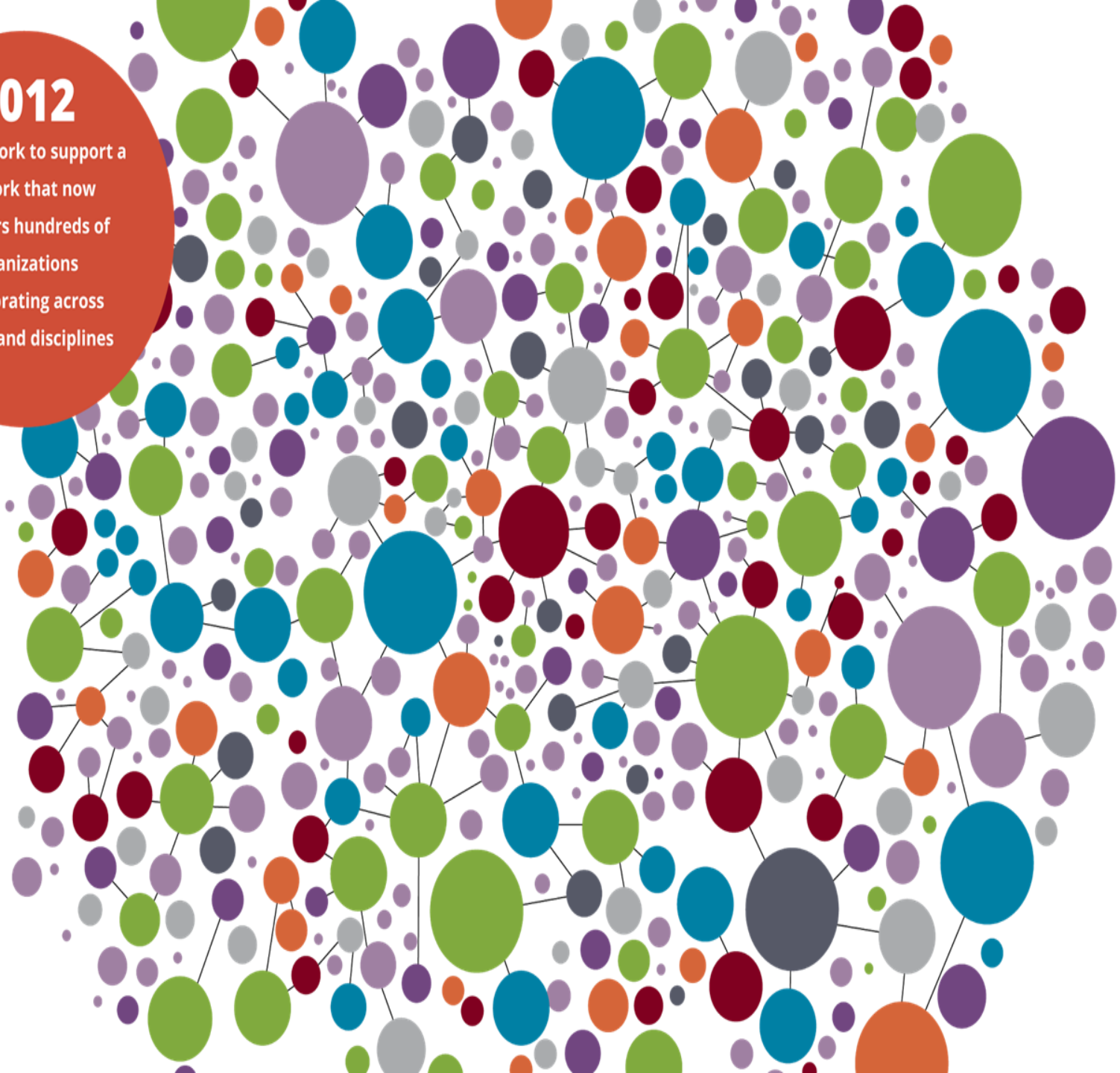
# 2010

Interest grows and the work expands to embrace maker learning, STEM, STEAM, and youth media experiences for all ages both in and out of school



# 2012

A framework to support a  
network that now  
numbers hundreds of  
organizations  
collaborating across  
sectors and disciplines

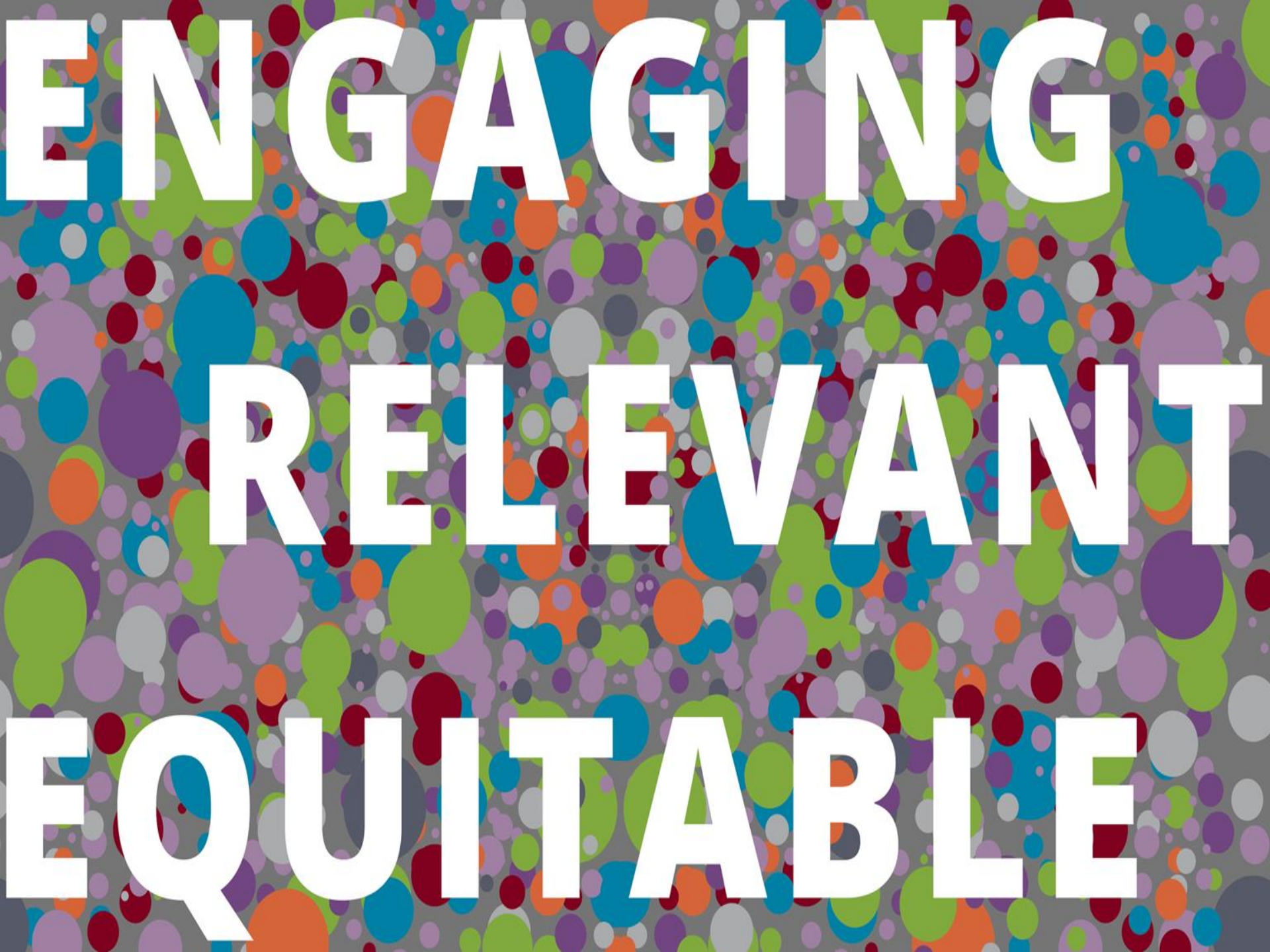




# 2017

At the 10-year mark, the network reflects on its mission, vision, and values and collectively charts its course for the next decade





**ENGAGING  
RELEVANT  
EQUITABLE**









Creating remarkable  
STEM, STEAM, Maker  
and TEL experiences



Teachers work alongside  
technologists for  
professional development





Ed tech startups work  
with students to test  
new learning products





Learning scientists are  
embedded in museums &  
out-of-school locations

# ELIZABETH FORWARD SCHOOL DISTRICT

Transforming a school district  
one classroom at a time

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Rethinking the use of space  
and the use of budgets

---

Breaking down the walls between shop class,  
art studio, and computer lab

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Reducing drop-outs to zero, climbing  
test scores, skyrocketing enrollment  
in summer enrichment



# MAKESHOP

Exploring digital & DIY  
learning at the museum

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A hands-on exhibit space where kids  
and families work with real tools and  
materials

---

Challenges and nurtures creativity,  
integrating the arts and STEM through  
exploratory learning

---

A model for makerspaces both in the  
Pittsburgh region and nationwide





# CARNEGIE MELLON UNIVERSITY

Bridging the community & higher education

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Unleashing the resources of a major research university  
for the benefit of local communities

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CREATE Lab helps educators and students make the  
most of high-tech research and development

---

Entertainment Technology Center partners with schools,  
museums, and libraries to design immersive learning  
environments



# MESSAGE FROM ME

CARNEGIE MELLON UNIVERSITY + PITTSBURGH ASSOCIATION FOR THE  
EDUCATION OF YOUNG CHILDREN





# LEARNING PARTIES

ASSEMBLE, NEIGHBORHOOD MAKERSPACE





# THE LABS

AT CARNEGIE LIBRARY  
OF PITTSBURGH





# REMAKE LEARNING DAYS

MORE THAN 50,000 PEOPLE PARTICIPATED IN 2016 & 2017



**Learning is being remade in Pittsburgh**



Forbes



EDUCATION WEEK



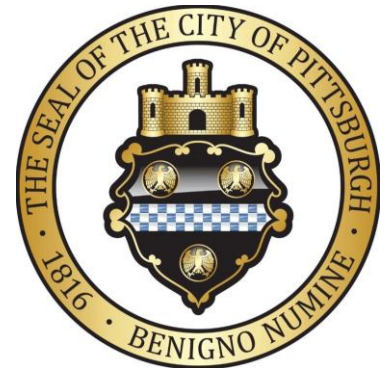
THE HECHINGER REPORT

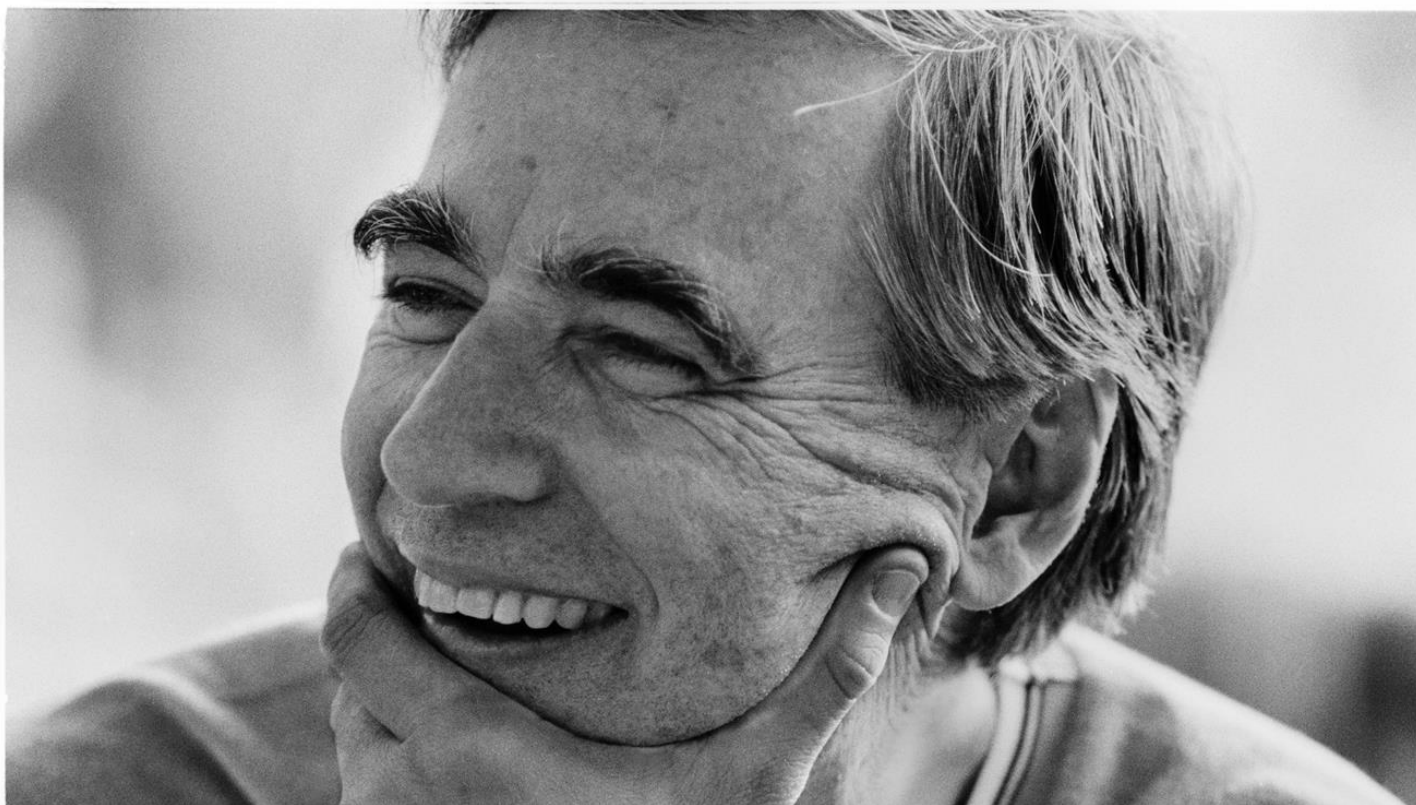
*The Atlantic*

DISRUPTOR AWARDS

dila digital innovation in  
learning awards







remake   
learning







@remakelearning



/remakelearning



@remakelearning



# Partners 2004

- Reading is Fundamental
- Saturday Light Brigade
- Toonseum
- Teacher Warehouse
- PPS Headstart (2 classrooms)
- UPCLOSE
- Allies for Children







# Remake Learning

- Action Housing
- Hosanna House
- Maker Faire
- West Virginia  
Maker Network
- Making + Learning
- Making Spaces





# Museum Lab

## Partners

- Saturday Light Brigade
- Reading is Fundamental
- Allies for Children
- UPCLOSE
- Carnegie Mellon ETC
- Remake Learning
- Manchester Academic Charter School









# Chevron Appalachia social investment



## Triple Bottom Line Theory\*

- Traditional business accounting knows the "bottom line" as "profit" or "loss"
- Environmental/social justice advocates bring a broader scope, introducing two additional "bottom lines":
  1. Financial
  2. Ecological/environmental
  3. Social
- When Chevron enters a new business region, we ask questions, learn from local thought leaders, and address the three bottom lines with a fit-for-purpose strategy

\* 1994, John Elkington, founder of a British consultancy, SustainAbility

# The tri-state economic development opportunity



## Problem

- Significant gap between energy industry and manufacturing job opportunities and skills in the region.
- ***Who in the region knows this best?***

## Mission

- TBL approach: support STEM education and job training pathways that lead to higher-income jobs that 1) enhance regional workforce capability aligned with our environmental and workforce safety standards; 2) improved long-term economic growth of the area; 3) ability to achieve our business objectives.
- ***Do we know how our residents perceive STEM and the pathways to a variety of jobs and careers?***

## Strategy

- Prepare K12 students and adult learners with the skills and mindset to support the needs of the energy and manufacturing industries, advancing the economy in the communities where we operate.
- ***What do parents, students, educators and business leaders know about the kinds of industry jobs available?***

## Focus

- Programs aligned with API's objectives
- Initiatives localized to meet the unique needs of urban, suburban, and rural communities
- Link training programs with the energy industry and manufacturing supply chain
- ***How do we encourage manufacturing development in the region so that the jobs remain for the long-term?***



# Evolving a public-private partnership



- Appalachia Partnership Initiative ([www.appalachiapartnership.org](http://www.appalachiapartnership.org)) launched in 2014
- Chevron committed \$20MM in seed funding
- Founding partners:
  - The Grable Foundation
  - Benedum Foundation
  - Allegheny Conference on Community Development
  - RAND Corporation
  - Catalyst Connection
- Partners commit funding, leadership, project advocacy, and monitoring & evaluation

# Perceptions of STEM + a connection to jobs



2014 survey of 978 teachers, parents, and business leaders in 17 counties:

- Parents awareness of STEM education is low and at its lowest in rural communities
- Educators and business leaders understand the value of hands-on engaging STEM curricula
- College is important to parents in rural communities where manufacturing jobs have disappeared

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## Work to Do

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The Role of STEM Education  
in Improving the Tri-State  
Region's Workforce

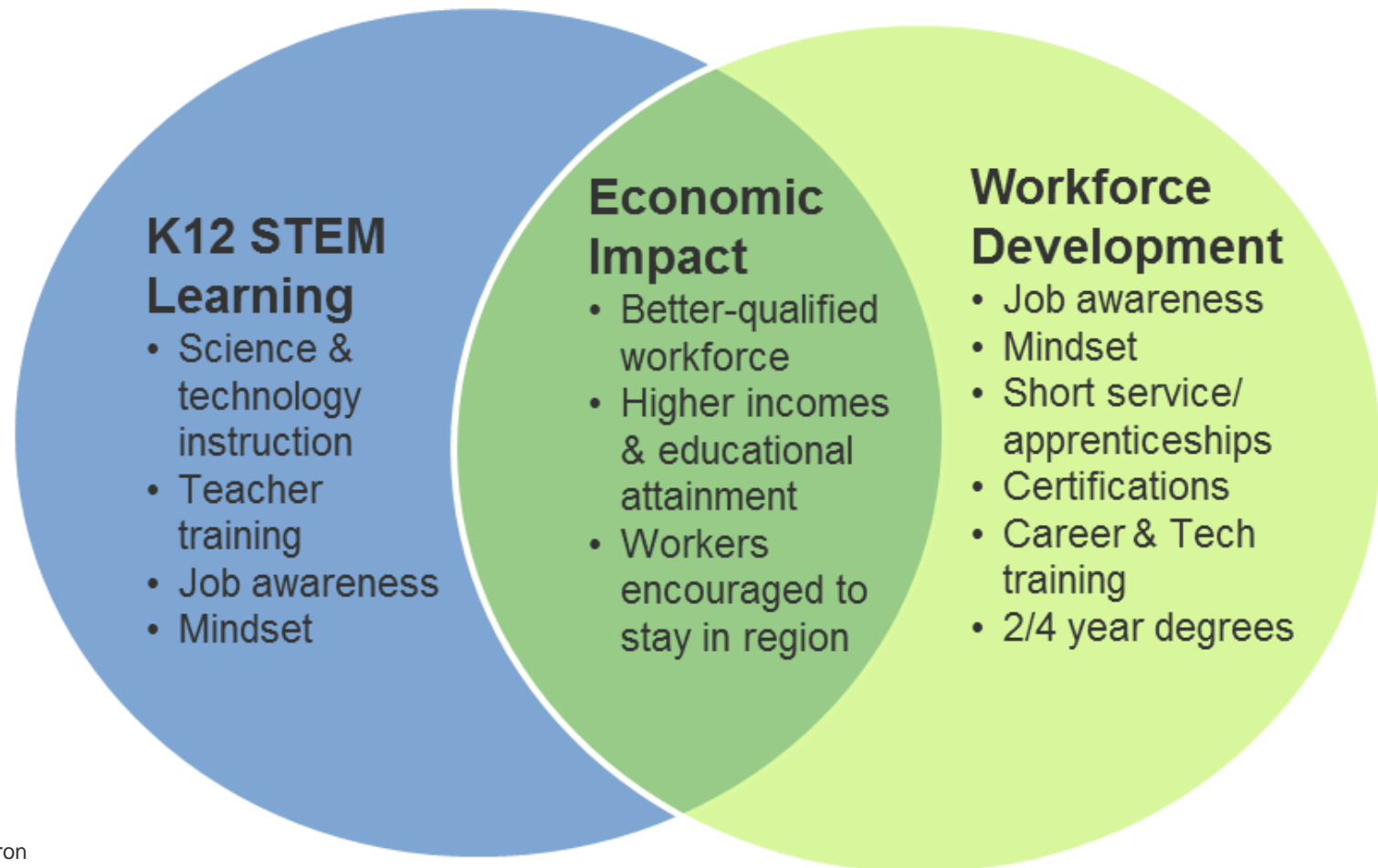
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# *Remake Learning* advances our vision



Converge STEM learning with workforce training credentials to build multiple pathways to jobs with ongoing advancement.





# The value of Remake Learning's public-private focus



Leverages member resources to:

- Build advocacy to scale and sustain programs that work
- Reduce project redundancy
- Reach a broader, more diverse population
- Engage multiple organizations to amplify an important regional story

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