

# WHERE DO WE GO FROM HERE?

ENVISIONING THE FUTURE OF SCHOOL LIBRARIES



**Leah Hamilton**

**Director of the Phelps Library  
& STEAM Lab Makerspace**

We can learn a great deal about what may happen in the future by looking systematically at what is actually happening now.

EDWARD CORNISH





# PERSPECTIVE



**STEAM Lab Makerspace – Clean Technology**



**STEAM Lab Makerspace – Dirty Technology**



Remove all  
preconceived  
notions of what  
you can  
and/or can't  
(or aren't  
supposed to)  
do as a library.

# CHANGE



# A FUTURE READY LIBRARIAN



Personalized Student Learning



USE OF SPACE & TIME

Designs Collaborative Spaces



COLLABORATIVE LEADERSHIP

Leads Beyond the Library



CURRICULUM, INSTRUCTION & ASSESSMENT

Empowers Students as Creators



PERSONALIZED PROFESSIONAL LEARNING

Facilitates Professional Learning



ROBUST INFRASTRUCTURE

Ensures Equitable Digital Access



BUDGET & RESOURCES

Invests Strategically in Digital Resources



COMMUNITY PARTNERSHIPS

Cultivates Community Partnerships



DATA & PRIVACY

Advocates for Student Privacy



The signals for the future arrive  
as ***INBOUND CHANGE***  
(change that happens to us)  
and we build our future  
through ***OUTBOUND CHANGE***  
(change that we create ourselves).

**MIGUEL FIGUEROA**

AMERICAN LIBRARY ASSOCIATION CENTER FOR THE FUTURE OF LIBRARIES



**ORGANIZATIONAL  
CHANGE**

ACCESS

CIVIC  
COMMONS

CREATION  
&  
EXPRESSION

DEMOCRACY

DISCOVERY

DIVERSITY

EDUCATION

INTELLECTUAL  
FREEDOM

LITERACY

PLACE

# VALUES

PRESERVATION

PRIVACY

PUBLIC  
DISCOURSE

SERVICE

TRUST

ACCESS

CIVIC  
COMMONS

CREATION  
&  
EXPRESSION

DEMOCRACY

DISCOVERY

DIVERSITY

EDUCATION

INTELLECTUAL  
FREEDOM

LITERACY

PLACE

[www.ala.org/tools/future/trends](http://www.ala.org/tools/future/trends)


PRESERVATION

PRIVACY

PUBLIC  
DISCOURSE

SERVICE

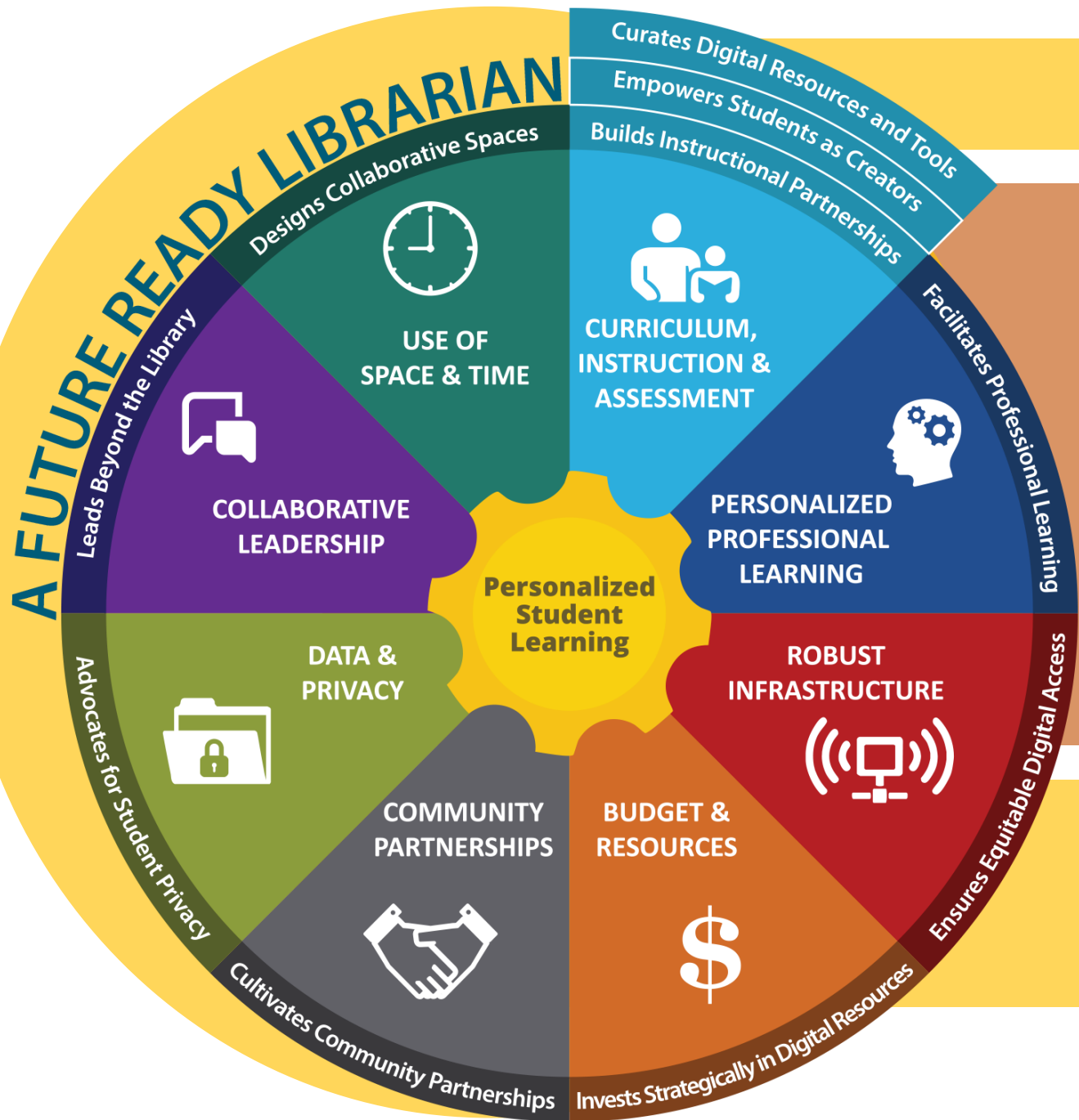
TRUST



Policies



**A D V O C A T E**  
FOR CERTIFICATION INCENTIVES



# Budget & Resources



**MAKERSPACES**





**FAILURE**



# THE AMAZING & WONDERFUL VANISHING CABINET



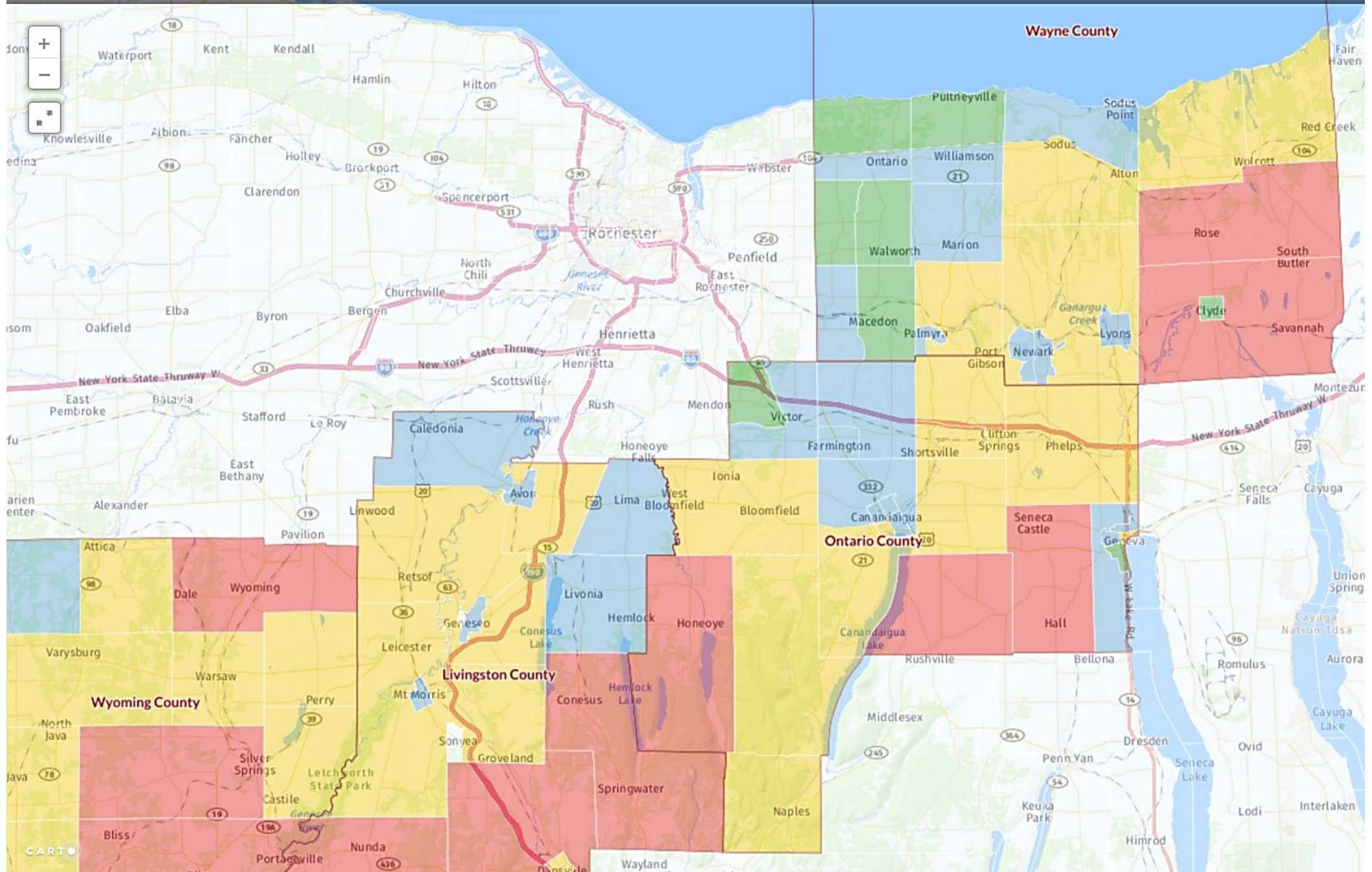
# A FUTURE READY LIBRARIAN



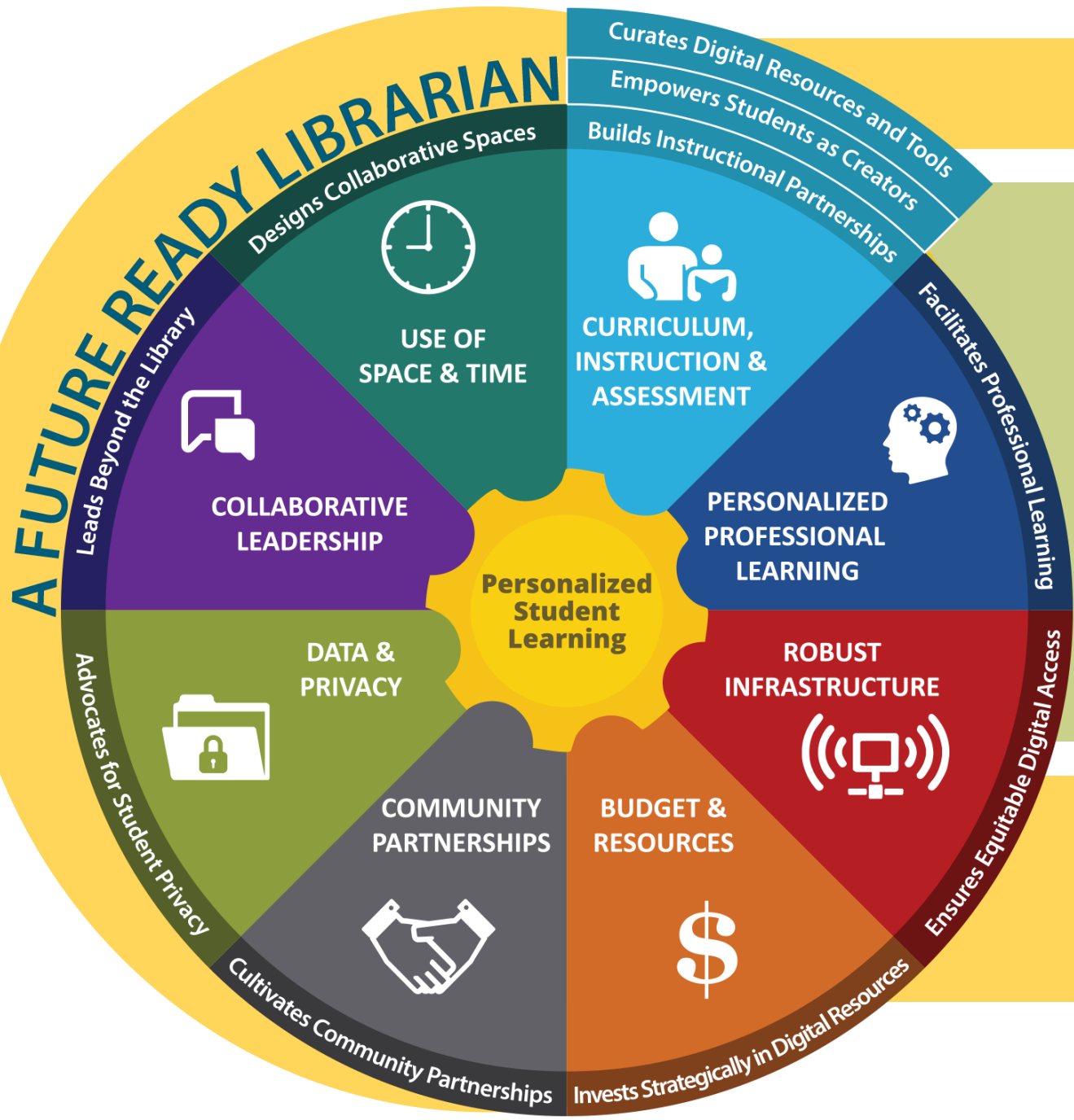
# Robust Infrastructure

# Ontario, Livingston, Wayne and Wyoming County Census tracts: Percent of households with fixed Internet connections at download speeds of 10+ Mbps, December 2016

Source: FCC Form 477 Census tract data for December 2016



<b>Zone</b>	<b>Number of districts in that zone</b>	<b>Number of W-FL Districts</b>	<b>Needs percentage</b>	<b>School Districts</b>
<b>RED</b> (20%-39.9%)	<b>9</b>	<b>25</b>	<b>36%</b>	Clyde-Savannah, Geneva, Marcus Whitman, Honeoye, Lyons, Midlakes Naples, North Rose-Wolcott, Red Creek
<b>YELLOW</b> (40%-59.9%)	<b>8</b>	<b>25</b>	<b>32%</b>	Bloomfield, Canandaigua, Red Jacket, Marion, Newark, Pal-Mac, Sodus, Victor
<b>BLUE</b> (60%-79.9%)	<b>3</b>	<b>25</b>	<b>12%</b>	Gananda, Wayne, Williamson
<b>GREEN</b> (80% or MORE)	<b>0</b>	<b>25</b>	<b>0%</b>	
<b>OTHER</b> (NOT ON MAP)	<b>5</b>	<b>25</b>	<b>20%</b>	Dundee, Penn Yan, Romulus, Seneca Falls, Waterloo



# Data & Privacy

# DATA

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A NEW PATHWAY TO SUCCESS

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1 . 2 . 7





1

.

2

.

7

Master's +

Bachelor's

Technical Skills



1 . 2 . 7

Master's +

Bachelor's

Technical Skills

27% ( HIGHER ED )



82.7%





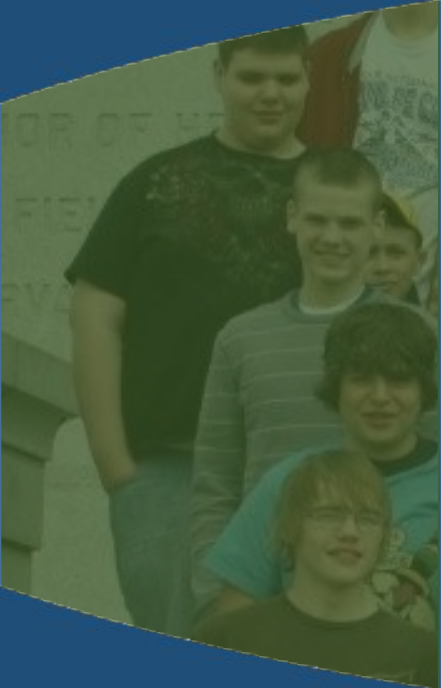
17.3%




WORKFORCE  
MILITARY  
BASEMENT MAN CAVE



55%



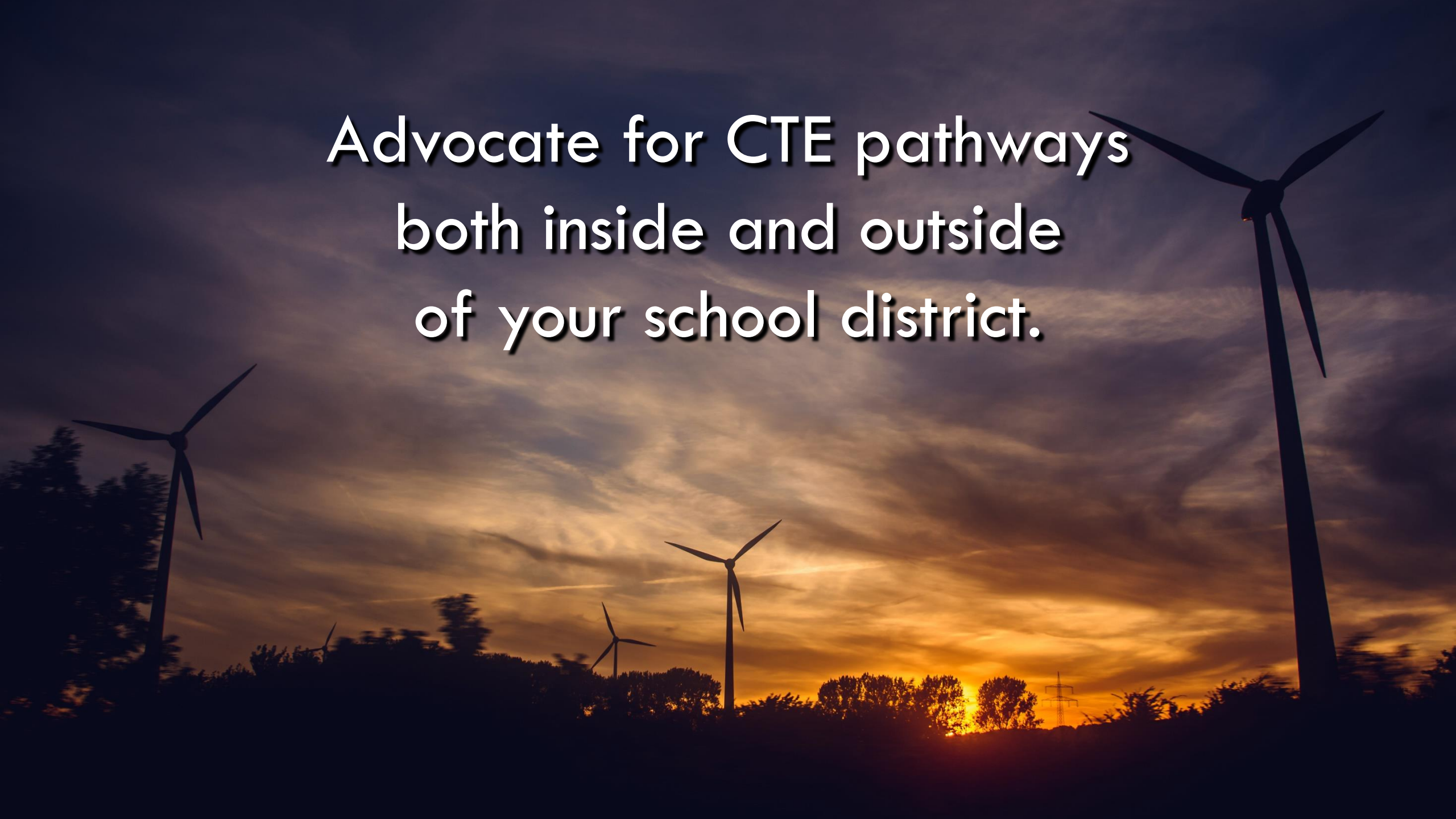


A painting of a man and a woman in a rural setting. The man, on the right, is balding with glasses, wearing a dark suit jacket over a light-colored striped shirt. The woman, on the left, has blonde hair in a braid and is wearing a dark dress with a white collar and a red brooch. They are standing in front of a white house with a brown roof and a red barn in the background. A speech bubble is positioned between them, containing the text: 

**Maybe  
it's time  
we rethink  
things.**



Advocate for CTE pathways  
both inside and outside  
of your school district.





**ENVIRONMENTAL**  
**CHANGE**





# Personalized Professional Learning





# CREATIVITY

requires the courage  
to let go of certainties.

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ERICH FROMM

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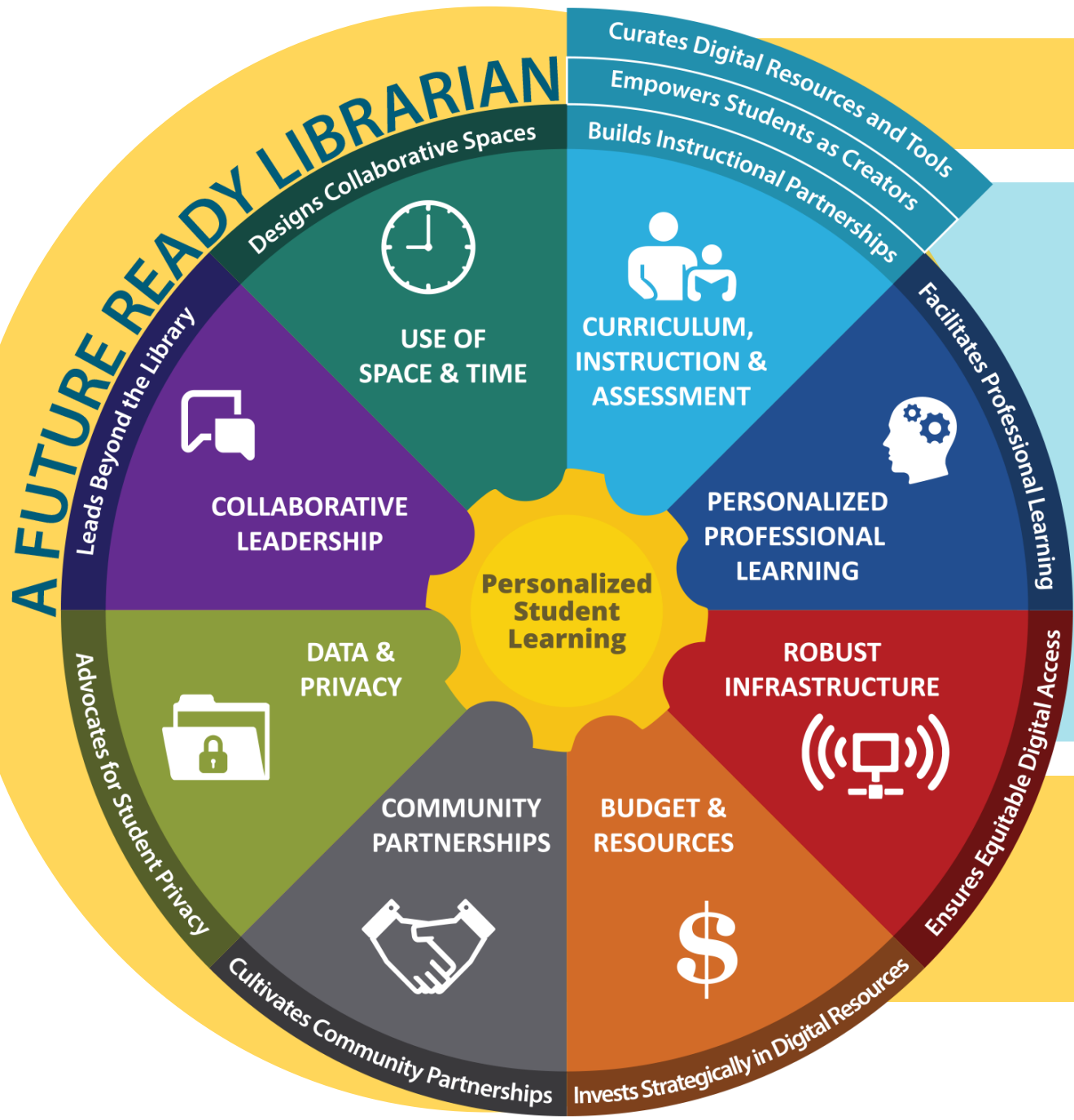




“Envisioning and making the future must be a massively public endeavor.... everyone needs to be a part of the conversation about the future and become actively engaged in making that future.”

**MARINA GORBIS**

"THE FUTURE AS A WAY OF LIFE." (2016)



# Curriculum, Instruction & Assessment

“The biggest challenge and the biggest opportunity  
for the maker movement is to

**transform education.**

My hope is that the agents of change will be the

**students themselves.”**

**DALE DOUGHERTY**

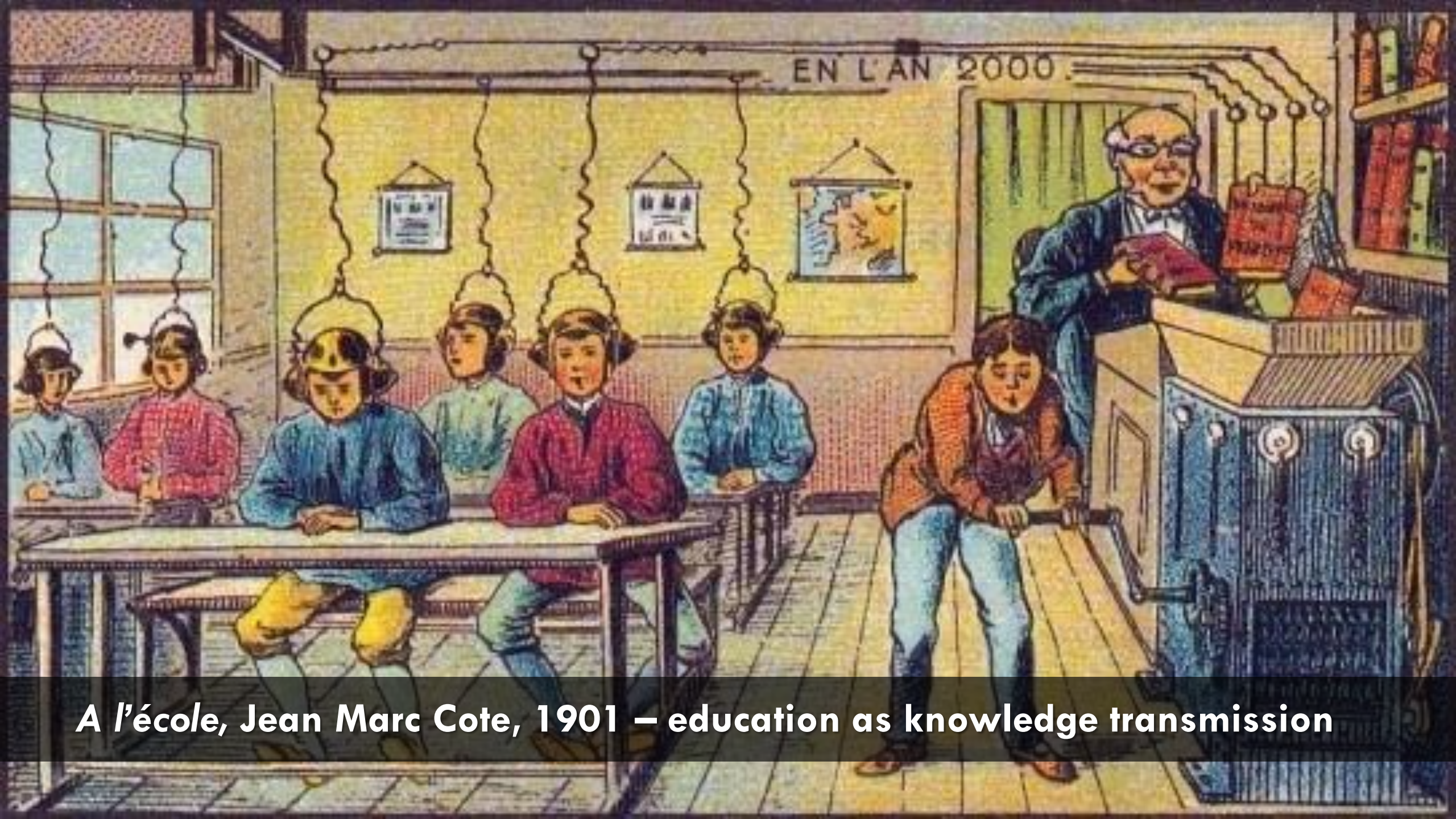
FOUNDER OF MAKE MAGAZINE

<https://llk.media.mit.edu/courses/readings/maker-mindset.pdf>

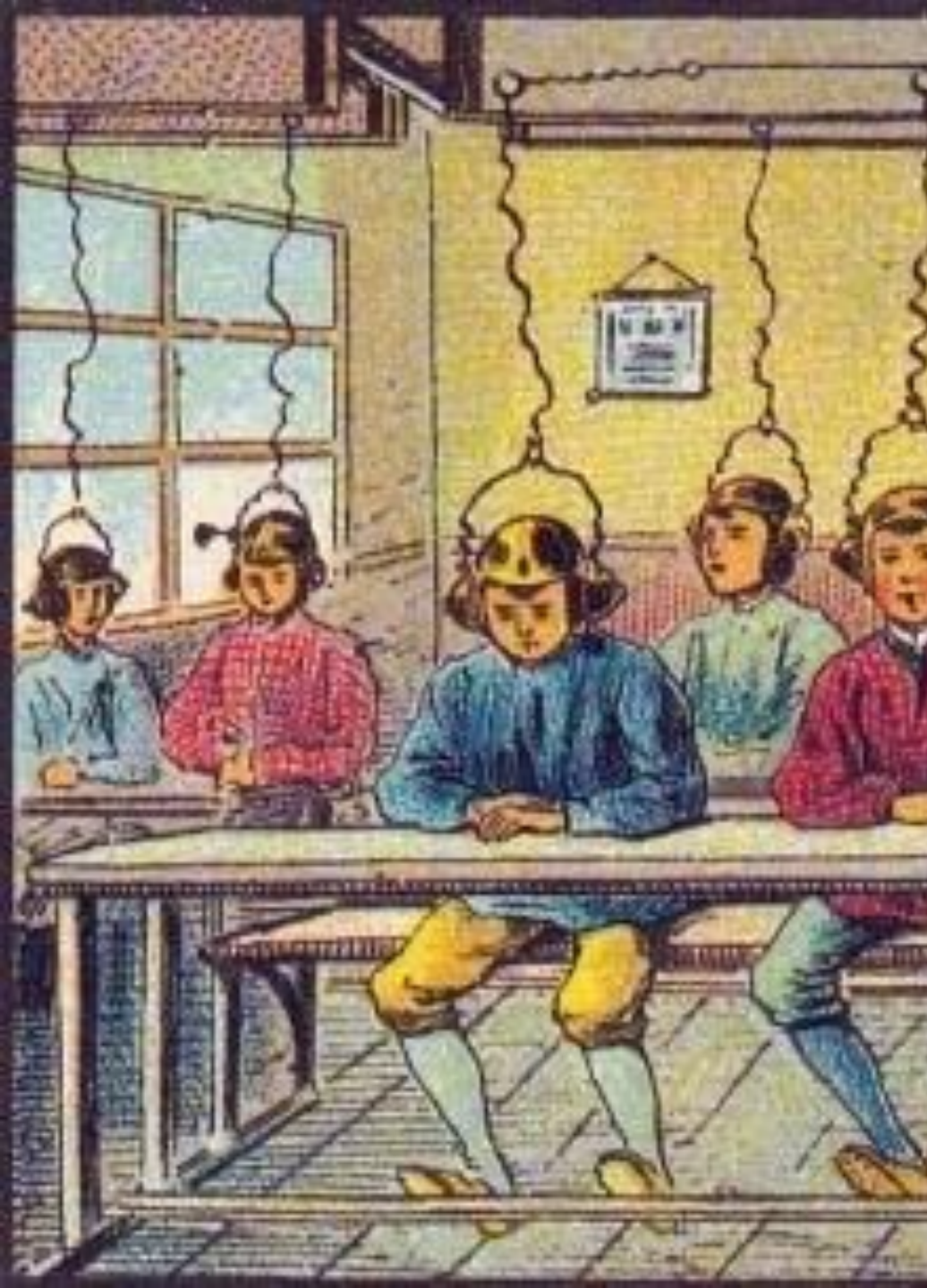
# A FUTURE READY LIBRARIAN



# Use of Space & Time



***A l'école, Jean Marc Cote, 1901 – education as knowledge transmission***



# A FUTURE READY LIBRARIAN



# Collaborative Leadership

**In the future, basic skills will no longer be taught in classrooms.**

**M. MCLUHAN**

ELECTRONICS & THE PSYCHIC DROP-OUT. (1966, APRIL) P.38.











A photograph of four female students in school uniforms sitting at a desk in a classroom. They are facing a chalkboard and have their hands raised, appearing to be in the middle of a drawing activity. On the chalkboard, there are simple line drawings of a crown, a cat's face, bunny ears, and a butterfly. The students are wearing dark brown short-sleeved blouses and light blue pleated skirts. The scene is brightly lit, and the overall atmosphere is one of active learning and creativity.

# THE SCHOOL LIBRARY OF THE FUTURE

# Cultivate Bravery



A photograph of four female students in school uniforms sitting at a desk in a classroom. They are viewed from behind, looking towards a chalkboard. The chalkboard has several simple line drawings of animals, including a cat, a rabbit, and a bear. The students are wearing white short-sleeved shirts and light blue pleated skirts. The image has a soft, slightly desaturated color palette.

Cultivate Bravery

Find Balance

A photograph of four young women in school uniforms (white short-sleeved shirts and light blue pleated skirts) standing at a chalkboard. They are seen from behind, with their arms raised as if drawing or writing on the board. The chalkboard has some faint drawings, including a crown and bunny ears. The image is overlaid with a semi-transparent dark grey band containing text.

Cultivate Bravery

Find Balance

**Nurture Curiosity**



**Think beyond  
the outside of that  
proverbial box.**



A photograph of four female students in school uniforms (white short-sleeved shirts and light blue pleated skirts) standing at a chalkboard. They are all facing away from the camera, with their arms raised as if drawing or writing on the board. The scene is dimly lit, with a soft blue and green tint. The text is overlaid on the image in a dark, semi-transparent band.

Cultivate Bravery

Find Balance

Nurture Curiosity

**Earn Respect**



A photograph of four young women in school uniforms sitting at a desk, viewed from behind. They are all drawing on a chalkboard with their right hands raised. The chalkboard has some faint drawings, including a crown and bunny ears. The image has a teal color cast and horizontal semi-transparent bars.

Cultivate Bravery

Find Balance

Nurture Curiosity

Earn Respect

Discover their Why

Know your

WHY

A photograph of four young women in school uniforms sitting at a desk, viewed from behind. They are looking at a chalkboard where they have drawn simple line drawings of a crown and bunny ears. The image is overlaid with a semi-transparent dark grey filter and horizontal white stripes. The text is centered over the image.

Cultivate Bravery

Find Balance

Nurture Curiosity

Earn Respect

Discover their Why

**Develop Cultural Competency**



**GLOBAL**  
**CHANGE**

AGING  
ADVANCES

ANONYMITY

BADGING

BASIC  
INCOME

BLOCKCHAIN

CO-WORKING  
CO-LIVING

COLLECTIVE  
IMPACT

CONNECTED  
LEARNING

CONNECTED  
TOYS

CREATIVE  
PLACEMAKING

# TRENDS

DATA  
EVERYWHERE

DESIGN  
THINKING

DIGITAL  
NATIVES

DRONES

EMERGING  
ADULTHOOD





# **BRIDGING OUR REGION'S TECHNICAL SKILLS GAP**

———— The STEAM Initiative at the Phelps Library ————



HEADING TO  
SCHOOL  
60 COLLEGE/  
LOCATIONS

# GW LISK Co. Inc **NOW HIRING**

## Production Openings

- CNC Machinists
- Assembly/Operators
- Skilled Trades

Apply Online Today  
[www.gwlisk.com/lisk-careers](http://www.gwlisk.com/lisk-careers)

# AGGREGATE CLUSTER - MANUFACTURING

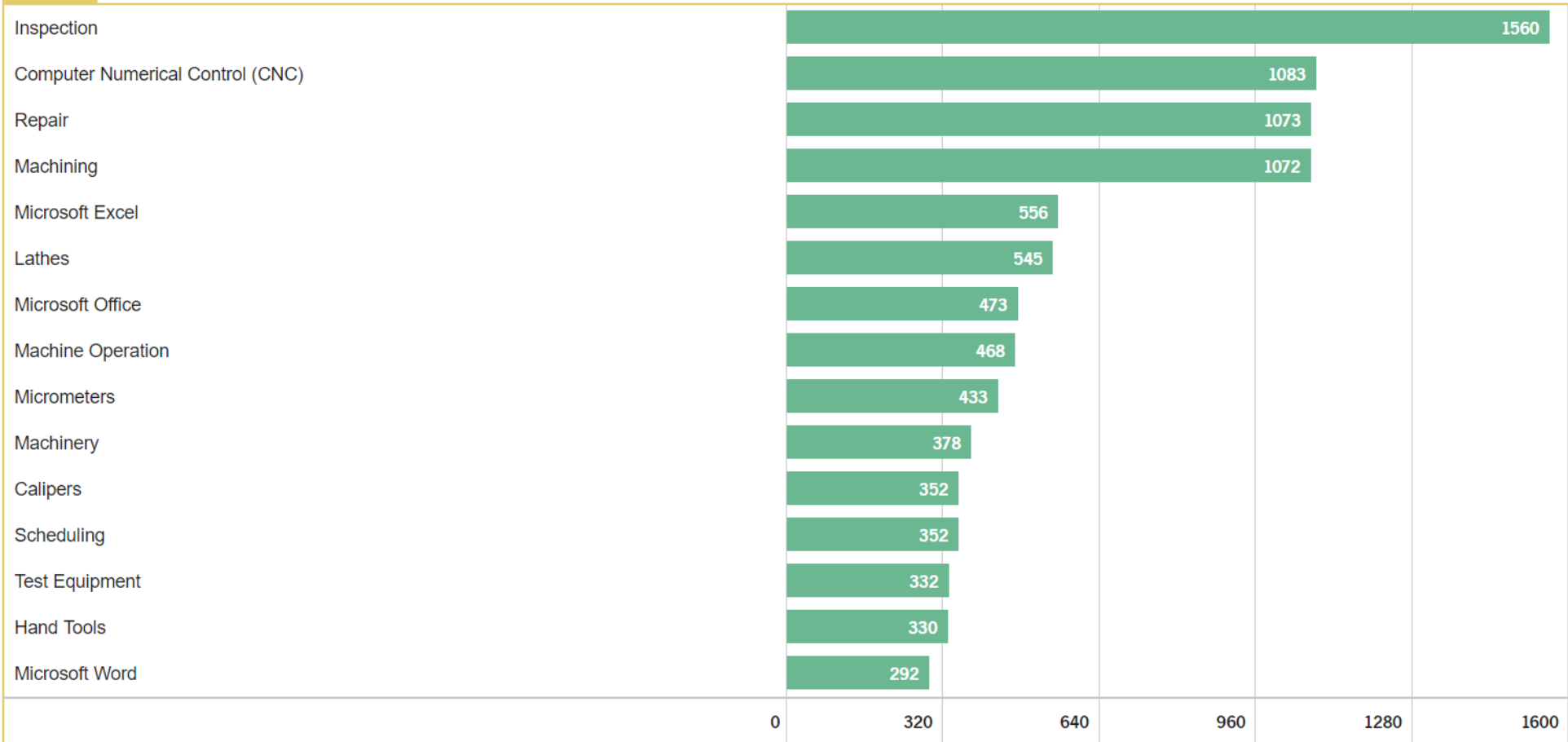
AGGREGATE CLUSTER - MANUFACTURING - FINGER LAKE

1. OCCUPATIONAL GROUP  
DEFINITION

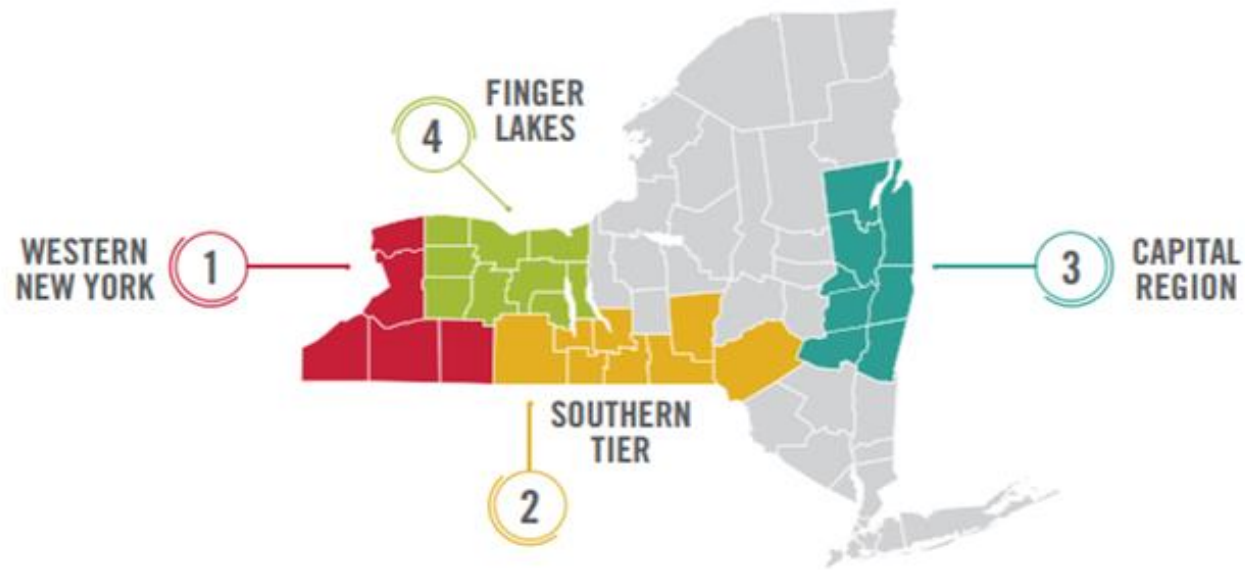
2.

6. REAL-TIME LABOR MARKET  
DATA

## ABOUT



## Regions experiencing most difficulty filling jobs



STEM jobs hardest to fill currently, and projected to have shortages over the next 5-10 years



## *Bridging the STEM Skills Gap: Employer/Educator Collaboration in New York*

Issued in 2017 by The  
Public Policy Institute of  
New York State

Figure 1: Skills gap in the U.S. manufacturing industry, 2015-2025

## The skills gap is widening

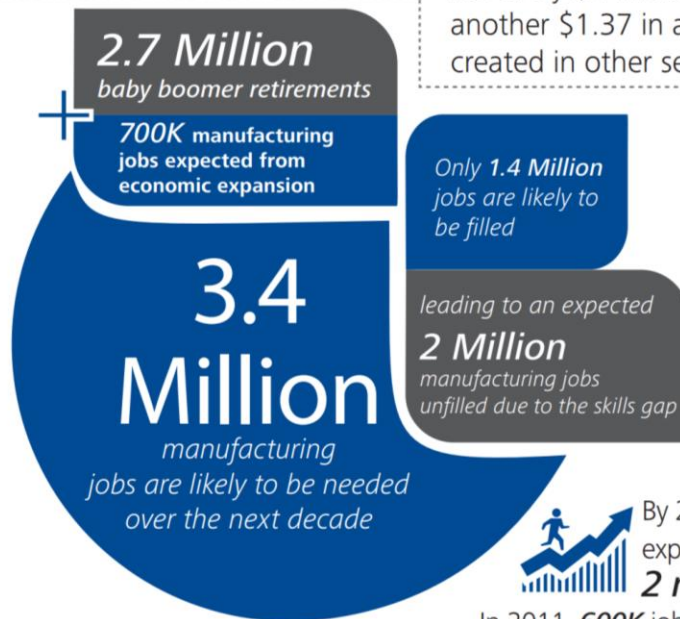
Over the next decade nearly 3 ½ million manufacturing jobs will likely be needed and



### The implications are significant

Every job in manufacturing creates another 2.5 new jobs in local goods and services.

For every \$1 invested in manufacturing, another \$1.37 in additional value is created in other sectors.



Source: Deloitte analysis based on data from U.S. Bureau of Labor Statistics and Gallup Survey.



By 2025 the skills gap is expected to grow to **2 million**

In 2011, **600K** jobs were unfilled due to the skills gap

# The Skills Gap in U.S. Manufacturing: 2015 & Beyond

Manufacturing Institute

# A FUTURE READY LIBRARIAN



# Community Partnerships



# COMMUNITY PARTNERS

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WHY YOU DON'T HAVE TO DO IT ALL YOURSELF

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Public Libraries

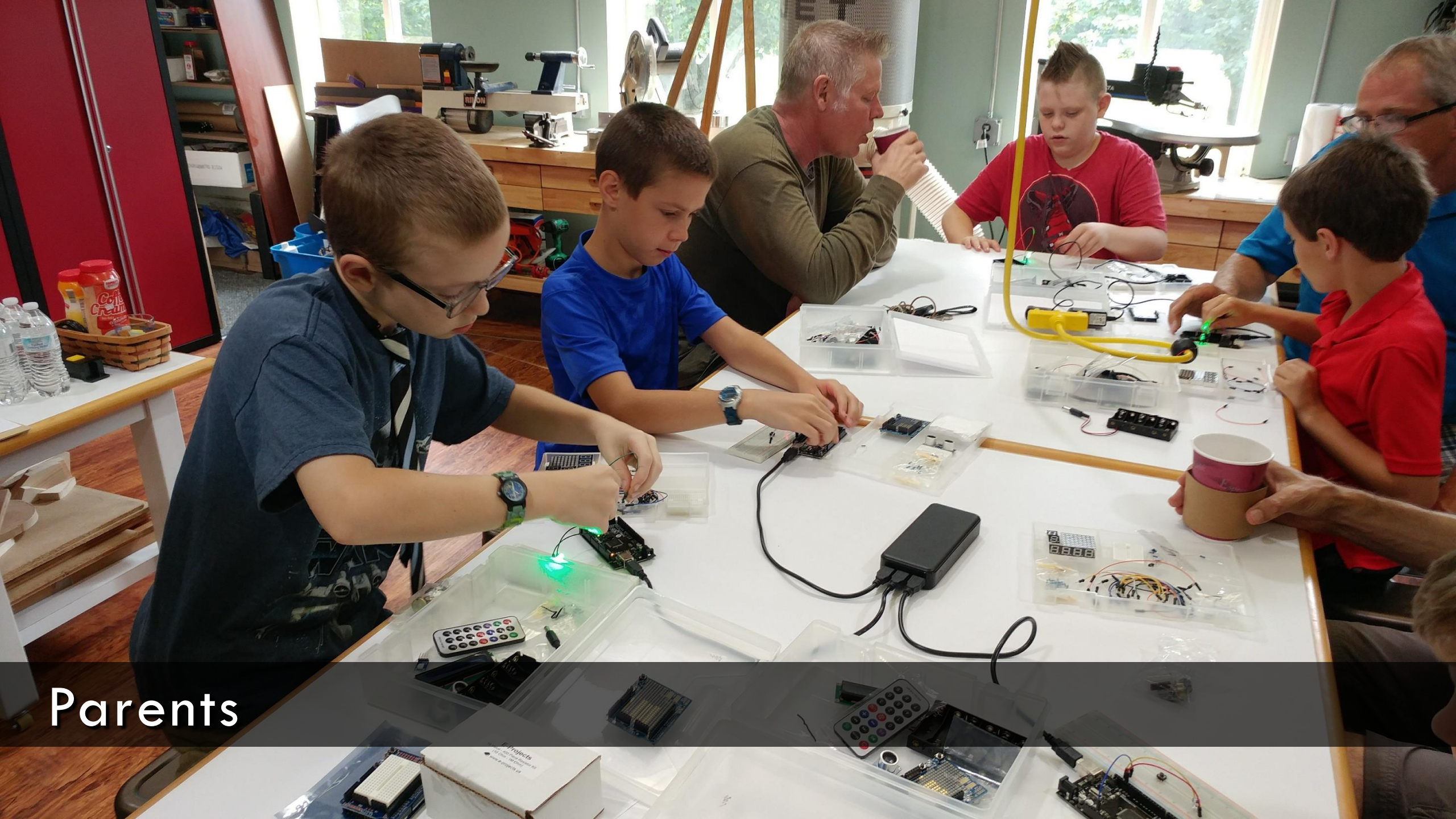
Parents

Professionals

Municipalities

Industry Leaders





Parents



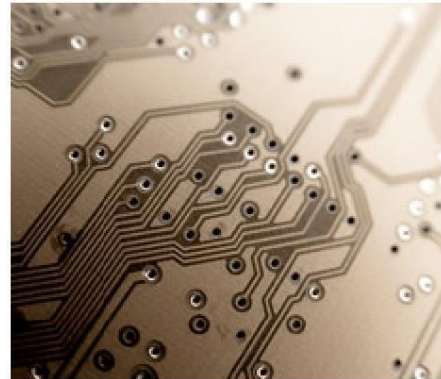
Retired / Community Professionals



Municipal Collaboration

# FAME

Finger Lakes **Advanced Manufacturers' Enterprise**  
Building Minds that Make It





# EMPIRE STATE STEM LEARNING NETWORK



Local Businesses

A hand holding a compass in a snowy forest. The background is a blurred winter scene with snow-covered trees and ground. The hand is holding a black and gold compass, with the needle pointing towards the top of the frame.

**Leah Hamilton**  
**Executive Director**

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[www.phelpslibrary.org](http://www.phelpslibrary.org)

[www.facebook.com/PhelpsLibrary/](https://www.facebook.com/PhelpsLibrary/)

**Presentation:**

<https://www.phelpslibrary.org/WFLprincipals>