

ASSOCIATION FOR
**LEARNING
ENVIRONMENTS**

CHICAGO

LearningSCAPES 2023

BRIAN REGAN
APRIL 7

Career Connect Campus – Summary

- Funded - by an Anonymous Donor
- Project Budget – \$100 Million
- Square footage – 162,000 Square Feet
- Kalamazoo Regional Education Service Agency's (KRESA) Career Connect Center
 - Serves
 - 9 Public School Districts
 - 6 Public School Academies
 - 23 Other Area District Schools
 - 13 Non-Public Schools
 - Employs
 - over 800 people
 - Capacity
 - 700 Students
 - Pathways
 - 24 Course Offerings
- Securing community commitment & investment
 - CTE Operational Millage Campaign
 - Public-private partnership with SMF
- NOV. 5, 2019, Operational Millage **Passes 60% Yes** > 40%



KALAMAZOO RESA



Career & Technical Education

Career Connect Campus

The next Industrial Revolution



Presentation Team



Leanne Meyer-Smith
AIA, NCARB, LEED BD+C
DLR Group
Principal | K12 Education Leader

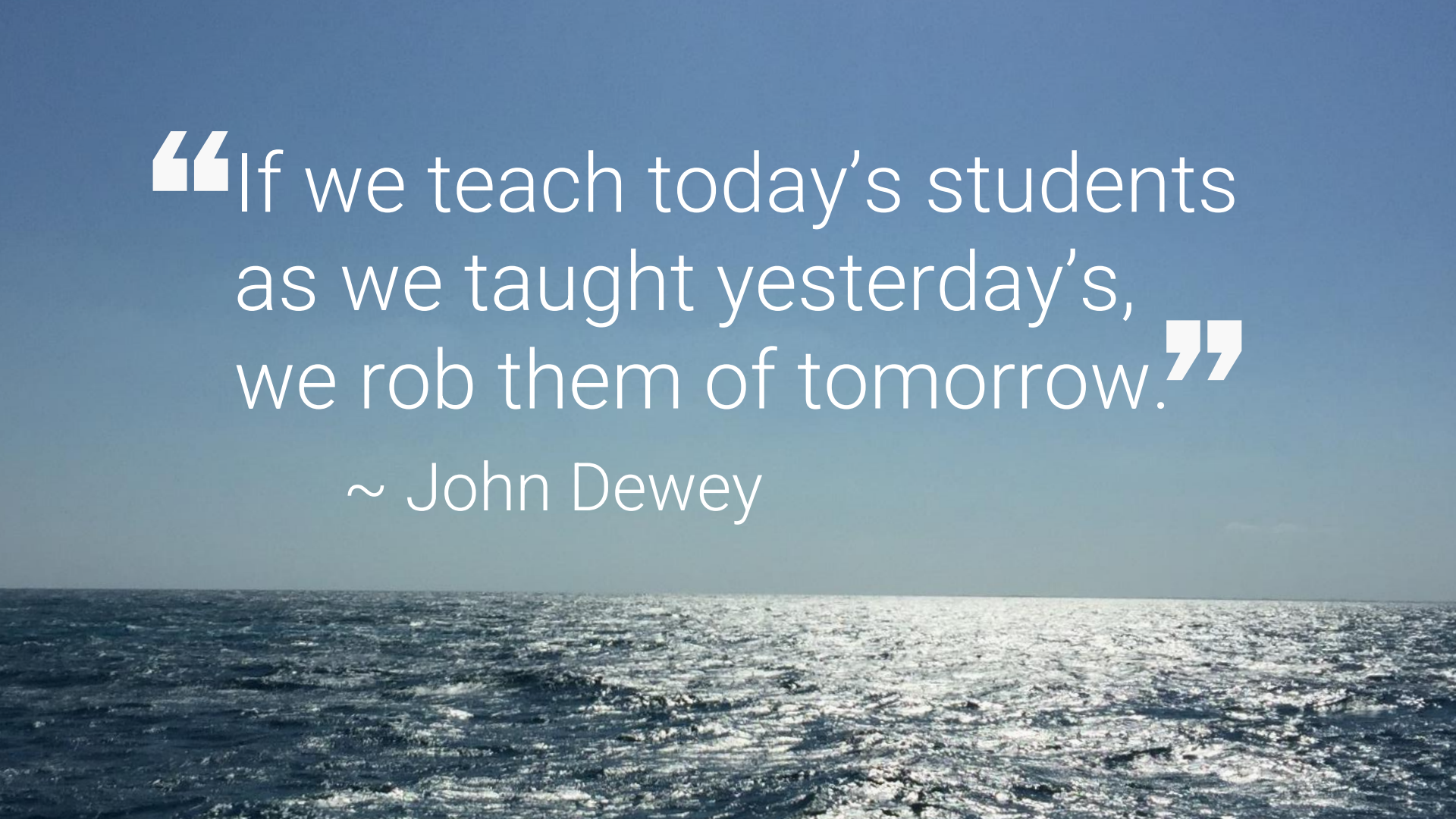


Matt Brehmer
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Principal | CTE Planner & Designer



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Wightman
Principal | Director of Architecture





“If we teach today’s students
as we taught yesterday’s,
we rob them of tomorrow.”

~ John Dewey

Industrial Revolution I

Age of Mechanical Production 1760-1840

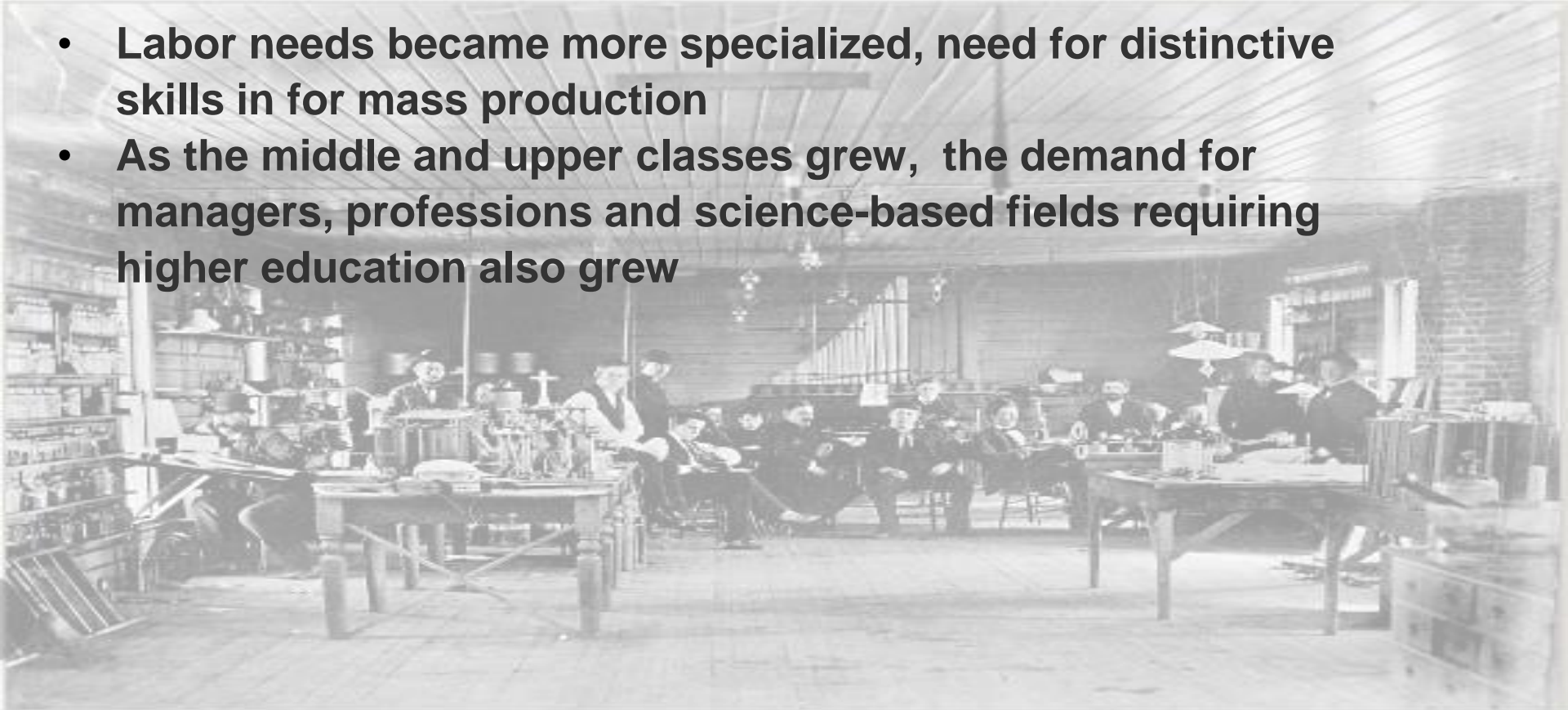
- **Change from agrarian | handicraft economy to industry and machine economy**
- **Employment opportunities grew - factories in cities.**
- **More opportunities, goods, and wealth created a growing middle class eager for steady factory work**



Industrial Revolution 2

Age of Science and Mass Production 1840-1990s

- **Labor needs became more specialized, need for distinctive skills in for mass production**
- **As the middle and upper classes grew, the demand for managers, professions and science-based fields requiring higher education also grew**



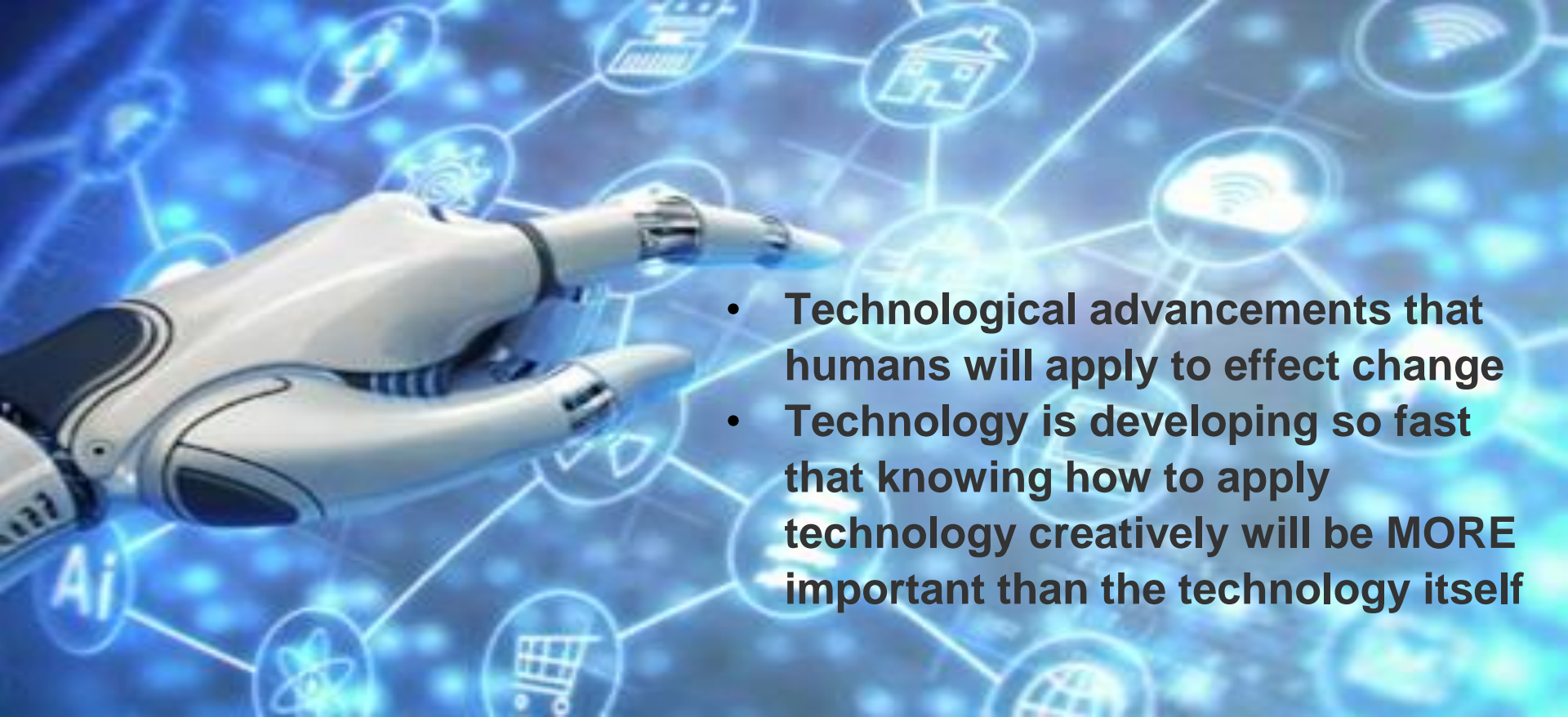
Industrial Revolution 3

Age of Digital and Global Opportunities 1990s - ongoing

- 
- Shift from mechanical and analog electronics to digital
 - Major global developments with internet and mobile communication
 - Labor force more diverse, entrepreneurial and willing to adapt quickly to new jobs

Industrial Revolution 4

What's next ? – expected to be in full force 2030s



- Technological advancements that humans will apply to effect change
- Technology is developing so fast that knowing how to apply technology creatively will be **MORE** important than the technology itself

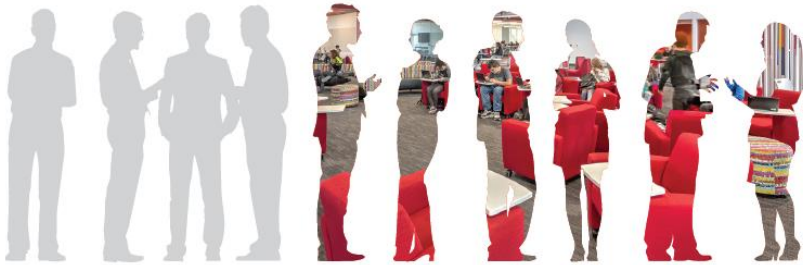
What does this mean for future labor force (students) ?

CTE | Applied Learning Option

- 
- A man in profile, wearing a white shirt, is looking through a telescope. The background is a clear blue sky. The image is overlaid with a semi-transparent teal color.
- **Aligned to support quick development of labor needs**
 - **Adaptable to diverse new types of jobs not yet invented**
 - **Meet student needs with multi-directional approach to gaining knowledge and skills**



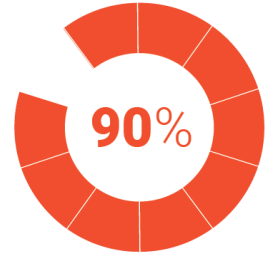
Trends in Career and Technical Education (CTE)



6 in 10 students plan to pursue a career related to the CTE area they are exploring in high school.



or more of CTE students are planning to continue with post-secondary education.



Graduates report wishing they had more real-world opportunities in high school.

80%

According to The National Science Foundation of the jobs created in the next decade will require some form of math and science skills.

STEM jobs will grow

16%

19% Computing

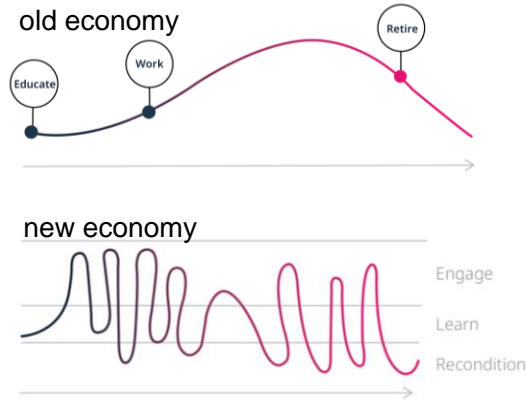
12% Engineering

16% Advanced Manufacturing

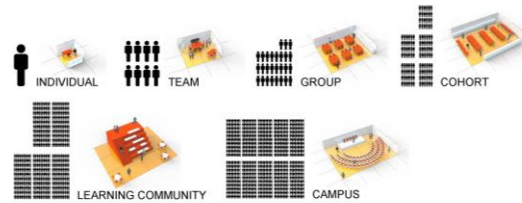
23

Number of states that require CTE curriculum for graduation requirements

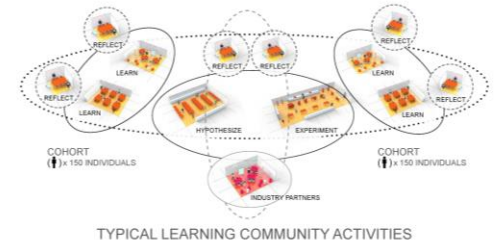
Push and Pull



"Future of Work: 8 Megatrends Shaping Change" – GetSmarter - <https://www.getsmarter.com/blog/market-trends/future-of-work-8-megatrends-shaping-change/>



150 PEOPLE IS THE SIZE OF POPULATION YOU CAN KNOW



TYPICAL LEARNING COMMUNITY ACTIVITIES

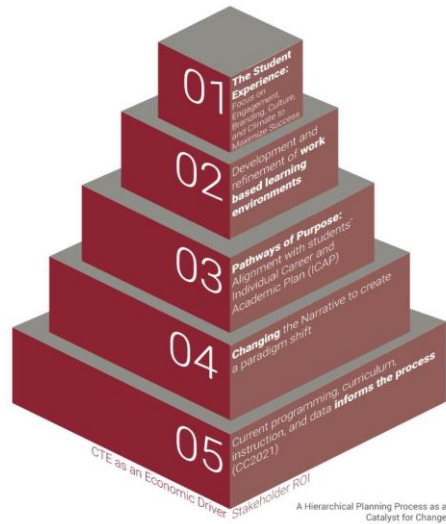
our youth are pushing and the workforce is pulling
- education and educational facilities **must change** to meet those needs

how do we make learning **authentic** and **scalable**?

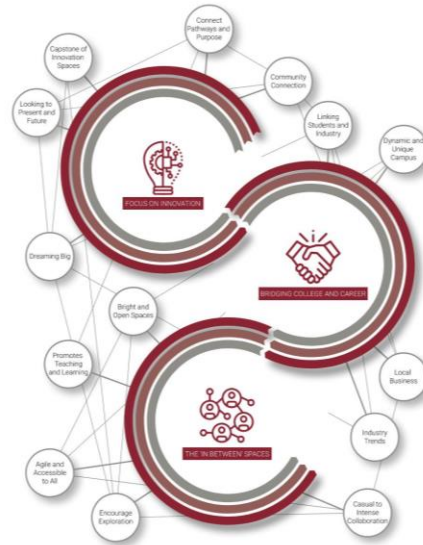
how do small learning communities enhance individual learning plans that support **pathways with a purpose**?

Four Big Ideas

paradigm shift, innovation, soft skills, pathways and the spaces in between



A Hierarchical Planning Process as a Catalyst for Change



CCIC is geared toward students who are:

- College Bound:** Looking for concurrent enrollment or dual enrollment opportunities to earn credit toward a college degree.
- Workforce Bound:** Wanting to learn a skill set or trade that will make them more competitive for career preparedness.
- Undecided:** Wanting to further explore their interests and skill sets to enhance their college and career preparedness.



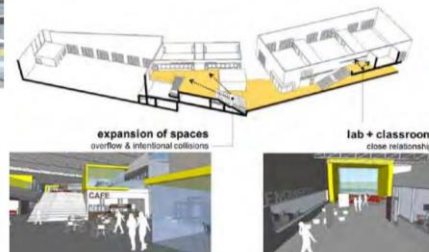
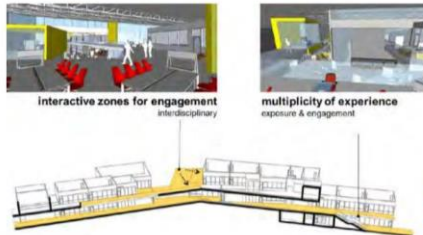
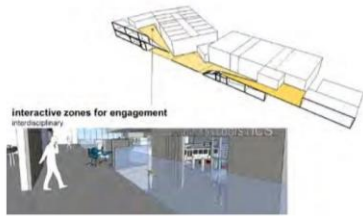
“ The goal is to inspire kids to think differently with an understanding of pathways to be career ready.

– Mark Morgan, principal
Cherry Creek Innovation Campus

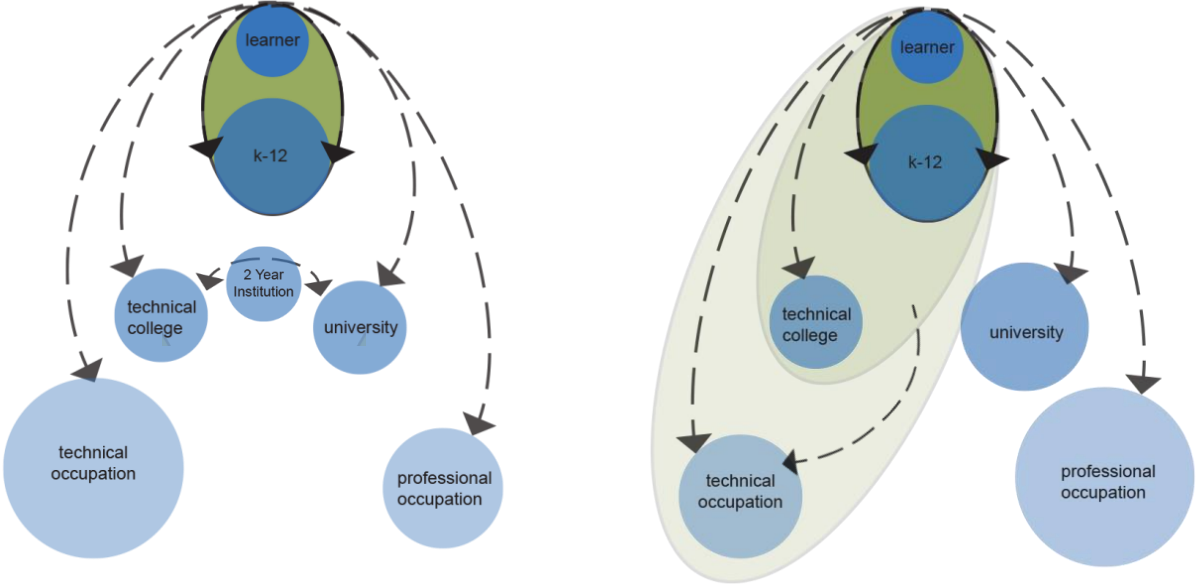
The i-Commons: The In-between Spaces

“ *This is the 21st century equivalent of a vocational center ... I can't remember the last time I've seen something like this; it's so exciting.* ”
— Jared Polis, governor, Colorado

- Key Components:**
- identifiable – i-Commons
 - scalable – collaborative zones
 - informal / formal – presentation areas
 - gathering – café / assembly space

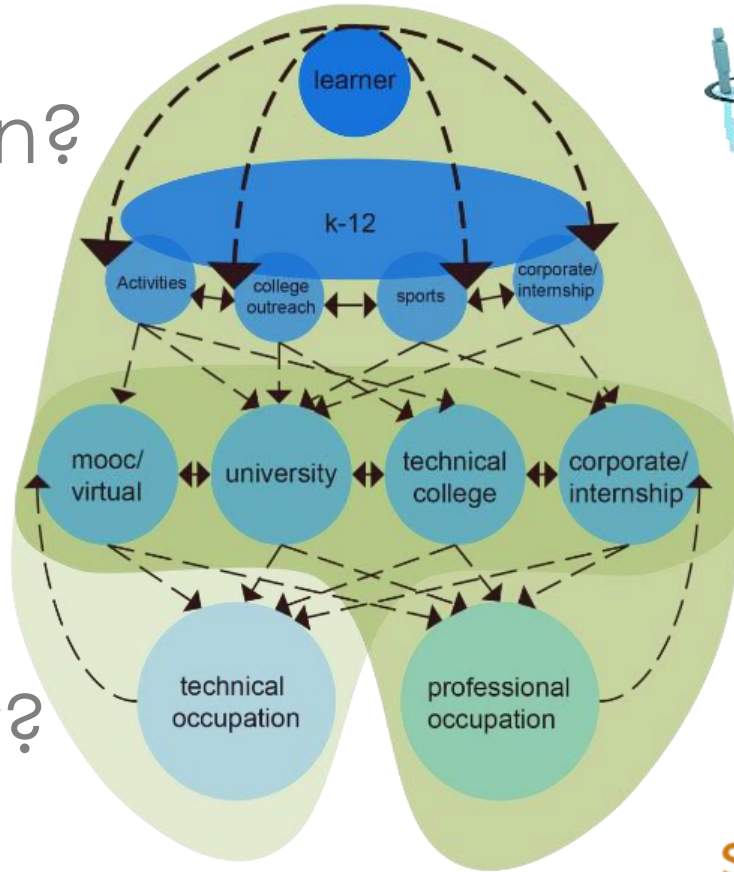


Traditional Pathways





when?



how?



where?



SCHEDULE

how often?

MULTI-DIRECTIONAL PATHWAYS

Realizing Your Vision

COURSES AT CAREER CENTER

Agriculture, Food and Natural Resources

- 01.0903 Animal Health and Veterinary Sciences
- 01.0000 Agriculture, Agricultural Operations and Related Sciences

Architecture and Construction Trades

- 46.0000 Construction Trades
- 46.0301 Electrical and Power Transmission Installation
- 46.0503 Plumbing Technology
- 47.0201 Heating, Air Conditioning, Ventilation and Refrigeration

Energy

- 46.0303 Line Worker

Health Science

- 51.0000 Health Sciences/Allied Health/Health Sciences, General
- 51.1000 Clinical/Medical Laboratory Science/Research and Allied Professions
- 51.0707 Health Information/Medical Records Technology/Technician
- 26.0102 Biomedical Sciences, General

Hospitality and Tourism

- 12.0500 Cooking and Related Culinary Arts, General

Information Technology

- 11.0801 Digital/Multimedia and Information Resources Design
- 11.0201 Computer Programming/Programmer
- 11.0901 Computer Systems Networking and Telecommunications

Law, Public Safety and Protective Services

- 43.0100 Public Safety/Protective Services

Manufacturing and STEM

- 48.0501 Machine Tool Technology/Machinist
- 48.0508 Welding, Brazing, and Soldering
- 14.4201 Mechatronics

Transportation, Distribution and Logistics

- 47.0399 Heavy/Industrial Equipment Maintenance Technologies
- 47.0603 Collision Repair Technician (ASE Certified)
- 47.0604 Automobile Technician (ASE Certified)

New

- Supply Chain
- Design



Core Visioning Goals



Core Principles

Flexibility

Collaboration

Culture / Pride

Project Based, Real-world Learning

Branding

Inclusion

Intersections / Partnering

Planning For Growth / Future-proofing

Ease Of Navigation

Anywhere/Anytime & Outdoor Learning

Tours + Benchmarking

WEST MEC

"I LIKE, I WONDER" EXERCISE

Workshop participants provided input through an "I Like - I Wonder" exercise. Looking at photographs from three CTE facilities, participants listed what factors they thought were good (I Like) and which they questioned (I Wonder).

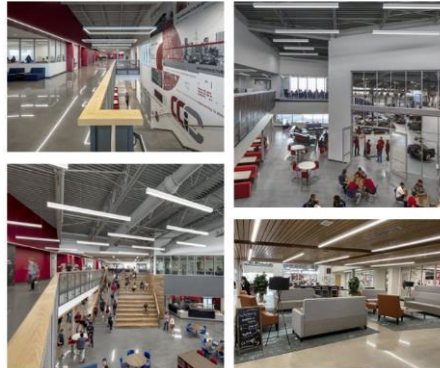


West MEC	
I Like...	I Wonder...
Flexible Space	Could the flooring be resilient and soft?
Highly Viable Programs	Could there be more effective outdoor learning?
Bringing In Natural Light	Is landscaping easily maintained - low maintenance?
WOW! Factor of Exterior	Sustainability with water collection in our client
Be a Place People Want to Show Up To	
Outdoor Learning Space	
Ecology & Environmental Sustainability	
Clean Teaching Space because of Appropriate Storage Space	

CHERRY CREEK

"I LIKE, I WONDER" EXERCISE

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Cherry Creek	
I Like...	I Wonder...
Elevating Environment for Students and Teachers	Not too many "off-limits" spaces for staff
Teacher Collaboration Space is accessible, open, and works along with private space for staff	How are the spaces really being used?
Big Flexible Conference Space that has outdoor access and multiple uses	
Branding and Graphics Create the Feeling of Ownership and Belonging that is Student Driven	
Central Common Space that is intentionally designed, larger than a learning studio, programmed functions, collaboration between programs, and that is a destination not an avenue	
Restrooms are centered on the student space and intentional	

PIMA

"I LIKE, I WONDER" EXERCISE

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PIMA	
I Like...	I Wonder...
Working together with industry leaders	What are the Utility Impacts with High Ceilings? Sustainability Control the Temperature
Auto Shop - not as much wasted space and uses a central aisle for better functionality	
Lab and Learning Studio Connection with Flexible Spaces	
Shared Space with Business Partners	

Visioning Workshop #1

The Purpose of visioning workshop #1 was to review the tours of facilities, present CTE trends and develop a challenge statement for the project vision, and to synthesize core visioning goals from the group.

Review Tours

Cherry Creek Innovation Academy



West-MEC SW Campus



Canyon View High School



One on One Interviews


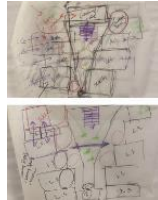





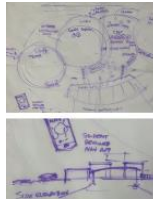

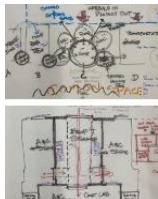




- Empathy
- What a successful project looks like.
- What do we need to achieve and why?
- Challenge Statement

Visioning Workshop #2: Charrette!

The purpose of visioning workshop #2 was to review the core ideas from workshop #1, to introduce current CTE facility planning trends, to present design concepts, and to develop designs for specific building areas through the sandbox exercise.

Sketches from 6 Tables

Table 1	<p>“Learning Stair”</p> 		Table 2	<p>“Direct Adjacency”</p> 	
Table 3	<p>“Supply Chain – Tool Crib”</p> 		Table 4	<p>“The Hub”</p> 	
Table 5	<p>“Learning Park / Practice Field”</p> 		Table 6	<p>“Pathways to Prosperity”</p> 	

Visioning Workshop #4: Program, Adjacencies & Site

The purpose of visioning workshop #4 was to take a deeper dive into The program and its layout on the intended site. Develop a consensus on a preferred design option and synthesis the findings.

Incorporate Additional Challenges

1. HOW IS NATURE INCORPORATED INTO THE DESIGN? GREEN SPACE, WATER, BRIDGES?
2. HOW IS NATURAL DAY-LIGHT INCORPORATED INTO THE DESIGN? VIEWS TO THE OUTSIDE, SKYLIGHTS, CLEAR-STORIES?
3. WHAT IS THE STUDENT EXPERIENCE VS. PARTNER / VISITOR EXPERIENCE? ENTRY, ACCESS, SECURITY?
4. HAVE YOU USED ALL THE PARKING PIECES? SNOW / WATER RUN-OFF, PEDESTRIAN ACCESS, GREEN BREAKS?
5. HAVE YOU USED ALL THE FUTURE PHASE PIECES? HOW CAN WE FUTURE-PROOF OUR SITE PLANNING AND LAYOUT?

Vote on Concepts



Synthesize Ideas
into One Concept

Proposed Concepts

Table 1



Table 2



Table 3



Table 4

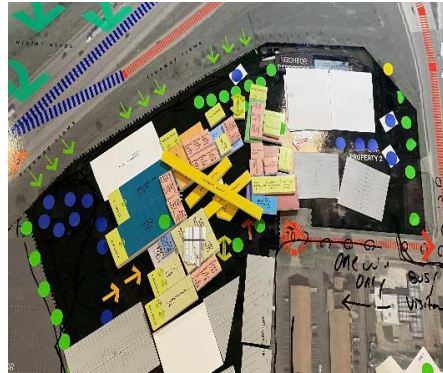
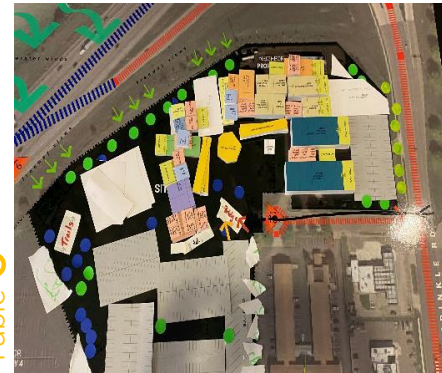


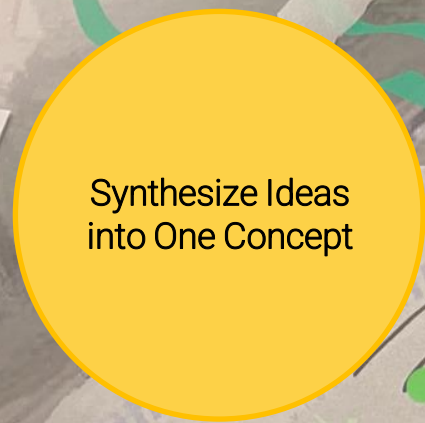
Table 5



Table 6



Synthesize Ideas
into One Concept



DISCOVERY T R A I L

Level 01 Pathways

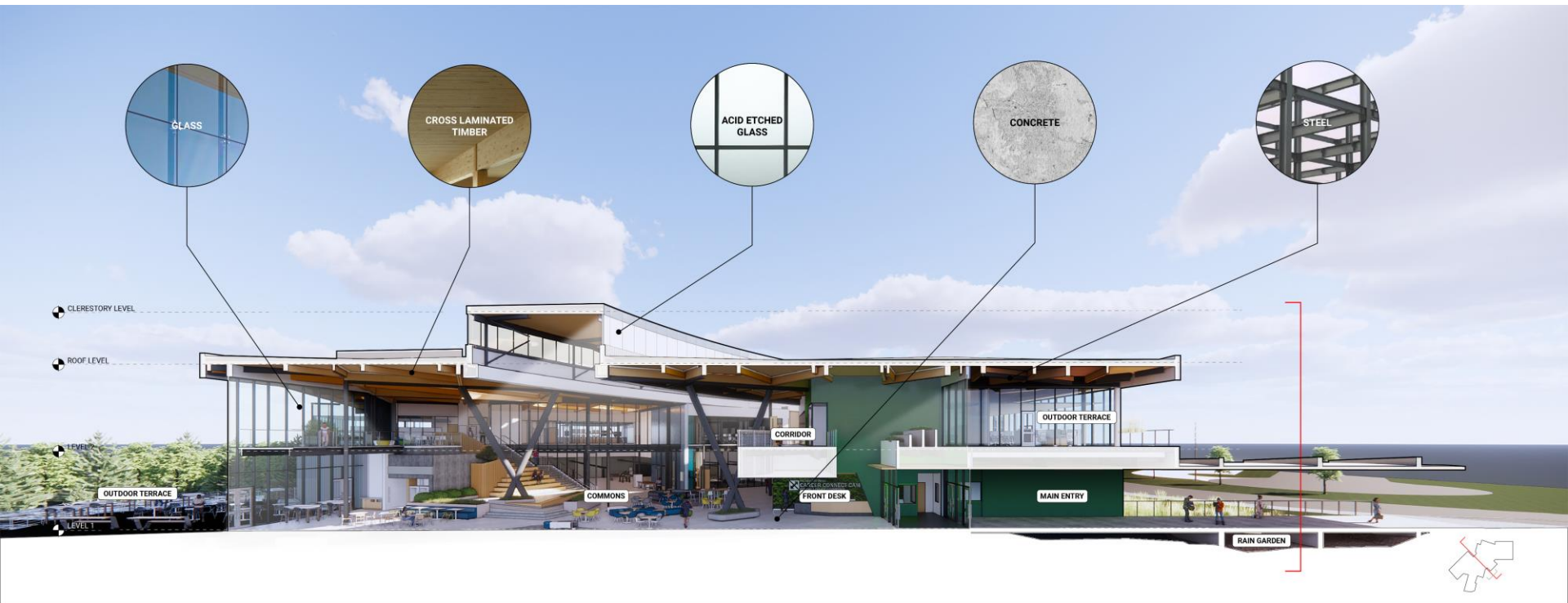




LEVEL 1 CIRCULATION / SLICE OF NATURE



LEVEL 2 CIRCULATION / DISCOVERY TRAIL



Central Commons



Central Commons



Cafe



South Commons



Central Commons



Commons



Learning Terrace

3500 VANRICK DRIVE

 CAREER CONNECT CAMPUS

Groundbreaking Celebration | September 30, 2022





Opening 2025





LearningSCAPES 2023

THANK YOU!